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. 0770010-001-AC
PSD-FL-282
G-P Hosford OSB Plant
Liberty County

Enclosed is Final Permit Number 0770010-001-AC, PSD-FL-282. This permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 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.

AA L—, P.E.
for C. H. Fancy, P.E., 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 10/13/00 to the person(s) listed:

Mr. Ronald L. Paul, G-P Corporation*
Mr. Mark Aguilar, P.E., G-P Corporation
Mr. Ed Middleswart, P.E., 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.

Charlotte J. Hayes 10/13/00
(Clerk) (Date)

U.S. Postal Service
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Mr. Ronald L. Paul, Exec. VP

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Name (Please Print Clearly) (to be completed by mailer)
Ronald L. Paul, Exec. VP

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133 Peachtree St.

City, State, ZIP+4
Atlanta, GA 30303

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

COMPLETE THIS SECTION ON DELIVERY

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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 475 million square feet per year, on a 3/8-inch basis. The project description, emissions and rule applicability are described in detail in Section II of the permit.

3 SOURCE IMPACT ANALYSIS

As discussed in Section II of the permit, the annual potential emissions associated with this project are: PM/PM_{10}, 293/222; NOx, 336; CO, 203; and VOC, 323 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, NO_2, and VOC. PM_{10}, and NO_2 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/m³)	Background Conc. (ug/m³)	Total Predicted Impact (ug/m³)	AAQS (ug/m³)	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/m³)	Allowable Increment (ug/m³)	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/m³)	Allowable Increment (ug/m³)	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 BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant, in the application of January 21, 2000 and response to request for additional information, proposed BACT for the PSD pollutants PM/PM_{10}, NOx, CO and VOC. BACT was proposed to be regenerative thermal oxidizers (RTOs) for the dryers, an RTO 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 selected controls were the "top" control technologies. The applicant proposed a limit of 20% opacity for visible emissions from the point sources. 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 assumed furnish material qualities and control efficiencies.

5 BACT DETERMINATION PROCEDURE

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; 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 which would not meet any applicable emission limitation under 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (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.

6 BACT ANALYSIS AND DEPARTMENT'S DETERMINATION

For this project the PSD pollutants of concern are PM/PM_{10}, NOx, CO, and VOC. Visible emissions is included in the evaluation because of its relationship to PM/PM_{10}. The applicant proposed control technologies for these pollutants for the emission sources at this facility, and based proposed mass emissions based on estimates of the control efficiency for the control technologies, given assumed inlet conditions based on assumptions made about the quality of furnish material (raw logs). The Department initially accepted the applicant's proposed control technologies, but did not agree with the applicant's proposed emission limits. In response to comments by US FWS, EPA and the Department, the applicant revised its proposed emissions limits for PM/PM_{10}, NOx and VOC for the dryers, for VOC for the press, PM/PM_{10} for the enclosed material handling sources, and fugitive emissions of PM/PM_{10} and VOC. The applicant's revised proposal is summarized below. The Department accepted most of the applicant's revised proposed emission limits as BACT, with the exception of VE limits. The Department also made a BACT determination for the thermal oil system that requires the use of natural gas whenever the system is vented to the atmosphere instead of being exhausted through the dryers. The Department's BACT determination for each emissions unit and pollutant is discussed in the following narrative.

APPLICANT'S REVISED PROPOSED BACT, EMISSIONS IN POUNDS PER HOUR, EXCEPT VE IN PERCENT OPACITY AND FUGITIVE SOURCES IN TONS PER YEAR

Source	PM/PM_{10}	NOx	CO	VOC	VE	Technology
Dryers	33.8	60.0	33.6	63.1	20%	Multiclones, RTOs
Press	2.83	10.73	7.25	10.0	20%	RTO
Thermal Oil System [1]	--	--	--	--	--	ESP, normally exhaust to dryers
Enclosed Material Handling [2]	12.0					Baghouses
Fugitive Sources [2]	80/9 (TPY)			1 (TPY)		Reasonable precautions

[1] The applicant did not propose BACT for the thermal oil system because its emissions are exhausted to the dryers during normal operation. These emissions are included in the dryer emissions .

[2] Emissions are total for all sources.

6.1 DRYERS

Each dryer is 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 RTOs. 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.

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. 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 current uncertainty and future variability in the quality of the furnish 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 5% consistent with the level of emissions expected from the RTOs during normal operation.

6.2 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. The RTO 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 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 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 RTOs in many cases.

The Department agreed with the applicant's proposed control technology. The Department required the use of an RTO 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 5% consistent with the level of emissions expected from the RTO during normal operation.

6.3 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. Emissions unit 010, which is a spray booth for edge sealing and stenciling, is controlled with a dry particulate filter system.

These emissions units emit PM/PM_{10} and visible emissions. The applicant proposed to use integrated cyclones and baghouses (dry filter for the spray booth) 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.

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.

6.4 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 through its ESP. Operation of the ESP is required at all times because of the possibility that the emissions unit may need to be operated as a result of malfunction 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.

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.

6.5 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.

6.6 BACT EXCESS EMISSIONS APPROVAL

Pursuant to the 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.

7 MACT DETERMINATION PROCEDURE

As discussed in Section II of the permit, this facility is subject to a case-by-case MACT determination for control of emissions of HAPs. 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.

7.1 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 proposed MACT standards for Plywood and Composite Wood Products, which if effective now, would require control of emissions from the dryers and press at this plant. Not regulated would be saws, sanders, chippers, storage tanks and miscellaneous coating operations. The proposed standards essentially require 90% reduction across the control device of VOC, methanol and formaldehyde emissions, would set a maximum concentration for these compounds, would provide for an emissions averaging program with a program for controlling sources not subject to the regulation to generate credits to offset lesser controls on regulated sources. EPA's tentative schedule provides for promulgation early in 2002, with a compliance date three years after the final rule is published in the Federal Register. The Department's BACT determination, control technology requirements and emission limits for the dryers and press are consistent with the level of control of the proposed MACT and the control of similar sources. The Department hereby establishes that its BACT determination is also its case-by-case MACT determination for this facility.

8 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.

9 PRELIMINARY DETERMINATION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department's preliminary determination is to issue the draft permit to allow construction of the new oriented strandboard facility.

10 FINAL DETERMINATION

The Department distributed an intent to issue for this project on August 31, 2000. The Public Notice of Intent to Issue was published in the Tallahassee Democrat on September 3, 2000 and in the Calhoun-Liberty Journal on September 6, 2000.

No comments were received by the Department from the public. A letter dated October 4, 2000 was received from EPA Region 4 stating that EPA has no comments on the draft permit.

The Department determined that minor corrections or changes must be made to the draft permit text to clarify the original requirements. The Department included the complete text of the draft of this evaluation and control technology determinations as Appendix B of the draft permit. To shorten the length of the final permit, the Department will issue the final version of this document as a separate document and will include only a summary of the control technology determinations as Appendix B of the final permit. That summary has been deleted from this document, the MACT section was re-titled and renumbered, and the remaining sections have been renumbered. To correct an omission, the Department will add the rule citation for case-by-case MACT to the description in Section III of the final permit for the dryers and press emissions units. To correct an omission, the Department will clarify in Sections I and III of the final permit that the requirements of Rule 62-296.410(2), F.A.C., for carbonaceous fuel burning equipment are applicable to the thermal oil system while firing wood fuel. The final permit will also note that the emission limits for the dryer system (which receives the flue gas from the thermal oil system when wood fuel is fired) are more stringent than the requirements of that rule, so compliance with the permit limits will ensure compliance with the rule requirements. To correct an omission, the processing schedule in Section I will be amended to note that additional information was received from the applicant on August 3, 2000 regarding proposed emission limits. The Department also revised the heading and information of the table in Section 6 of this document to clarify that emissions from fugitive sources are shown in tons per year.

The above changes are minor and do not change or vary any enforceable requirement of the permit, or change the Department's determination in this matter. The final action of the Department is to issue the permit with the changes described above.

DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

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

10/13/00

Recommended By:

PE 10/11

for C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Date: 10/11/2000

Approved By:

for Howard L. Rhodes, Director
Division of Air Resources Management

Date: 10/13/2000

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE

Georgia-Pacific Corporation
133 Peachtree Street
Atlanta, GA 30303

Permit No.	0770010-001-AC, PSD-FL-282
Project	G-P Hosford OSB Plant
SIC No.	2493
Expires:	October 11, 2002

Authorized Representative:

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

PROJECT AND LOCATION

This permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 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

Howard L. Rhodes, Director
Division of Air Resources Management

FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

This facility will be a new oriented strandboard manufacturing facility with a capacity of 475 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
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	Edge sealing/stenciling booth exhaust with dry filter
011	Thermal oil system electrostatic precipitator (bypass stack)

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, and 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	Material Handling	Thermal Oil System	Fugitive	Total Increase [1]	PSD Sign. [1]	Subject to PSD?
PM/PM_{10}	148.0	12.4	52.6	0.5	80/9	293/222	25/15	Yes
NOx	262.8	47.0		26.3		336	40	Yes
CO	147.2	32.0		23.6		203	100	Yes
VOC	276.4	43.8		1.3	1	323	40	Yes
SO_2	29.6 [2]	0.04		0.16 [3]		22	40	No
VE	5%	5%	5%	5%		N/A	N/A	N/A

[1] PSD significance levels are from Florida Administrative Code Table 212.400-2.
[2] SO_2 emissions from wood firing are 29.4 TPY, including emissions from the thermal oil system; emissions from natural gas firing in the RTOs are 0.16 TPY.
[3] SO_2 emissions from wood firing are included in the estimate for the dryers.

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, 62-214, 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 exceeds 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). Emissions of VOC exceed 250 TPY; emissions of PM/PM_{10}, NOx and CO exceed 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 011, and because fuel is limited to natural gas under these conditions, 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 particulate emission limit for the dryer system, based on potential heat input from wood fuel to the dryers and thermal oil system, is equivalent to 0.12 pounds 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 by this permit for the thermal oil system to demonstrate compliance with the limits of Rule 62-296.410(2), F.A.C.

The applicant stated that 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 subject to a case-by-case determination of Maximum Achievable Control Technology (MACT) for HAP emissions because the US Environmental Protection Agency (EPA) has not yet promulgated a MACT standard applicable to this facility. Therefore, the proposed project is subject to Rule 62-204.800(10)(d)2, F.A.C., which requires a MACT determination for all major sources of HAPs to be constructed or reconstructed. The requirements of this determination are included in the emission limits of this permit, so that 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. This facility may become subject to a MACT standard for plywood and composite wood products when promulgated by EPA. At that time the facility shall become subject to the more stringent of the limits of this permit and of that standard.

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

January 21, 2000	Received permit application and fee
February 18, 2000	Department's requests for additional information regarding project and MACT
March 21, 2000	Department's request for additional information regarding impacts analysis
July 19, 2000	Received complete response to request for additional information
July 19, 2000	Application complete
August 3, 2000	Received additional submittal from applicant regarding emission limits
August 31, 2000	Distributed Notice of Intent to Issue and supporting documents
September 3, 2000	Notice of Intent published in the Tallahassee Democrat
September 6, 2000	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 requests for additional information
- Applicant's additional information
- EPA comments dated March 31, 2000
- NPS comments dated February 2, 2000
- Department's Technical Evaluation and BACT/MACT Determination
- 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, Part 60, 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 October 11, 2002. 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]

   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)]

   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)]

7. Modifications: No emissions unit or facility subject to this permit shall be constructed 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.]

8. 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

9. 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.]

10. Unconfined Emissions of Particulate Matter: [Rules 62-296.320(4)(c) and 62-212.400, F.A.C., and BACT]

    (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:

    - Paving and maintenance of roads, parking areas and yards.
    - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
    - Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.

- 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.
- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- 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.]

Additional reasonable precautions applicable to this facility are:

- The drum debarkers and bark hog shall be enclosed to the extent practicable.
- Bark by-product transfer points and chutes shall be enclosed to the extent necessary to minimize the emissions of unconfined particulate matter.
- Bark storage piles shall be enclosed on three sides and shaped and oriented to minimize wind erosion.
- 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.

[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 to 80 TPY and PM_{10} to 9 TPY.]

11. 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.

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

- 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.
- 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

12. 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.]

13. 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.]

14. 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 010.

    (b) Excess emissions resulting from start-up and shutdown are permitted for emissions units 001, 002 and 011 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.

    The excess emissions provisions of state rule specified in the above paragraphs can not be used to vary any NSPS requirements applicable to emissions unit 011.

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

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

15. 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.]

16. 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.]

17. 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.]

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

19. 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.

20. 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.]

21. 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. and 40 CFR 60.8]

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

22. 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

23. 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.]

24. 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.]

25. 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.]

26. 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.]

27. 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.]

28. 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 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 011) 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 550,216 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. 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 a minimum retention chamber temperature to be set during the last successful compliance test for PM/PM_{10}, VOC and CO emissions.

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

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}	33.8 lb/hour	3 hours [1]	BACT
NOx	60.0 lb/hour [2]	3 hours [1]	BACT
CO	33.6 lb/hour	3 hours [1]	BACT
VOC	63.1 lb/hour [3]	3 hours [1]	BACT
VE	5% opacity	6 minutes [4]	BACT

[1] The averaging time 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.

[Note: These emission limits effectively limit annual emissions to: PM/PM_{10}, 148.0; NOx, 262.8; CO, 147.2; and VOC, 276.4 TPY. Emission limits for this emissions unit include the emissions from the thermal oil system (emissions unit 011) during normal operating conditions. Total potential emissions of SO_2 for this emissions unit and emissions unit 011 from firing wood are estimated to be 29.4 TPY. Emissions of SO_2 from natural gas firing in the RTOs for this emissions unit are estimated to be an additional 0.16 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]

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 and outlet volumetric air flow for each RTO expressed as SCFM, 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 static pressure at the inlet of the ID fans for each RTO, and the isolation damper position for each RTO and each dryer. The static pressure shall be recorded at intervals of no less than hourly and reduced to a 24-hour block average at the end of each day. The isolation damper position shall be recorded when changes occur. The static pressure shall be used as an indicator of potential plugging of the RTO media and assist with determining the frequency for bakeouts and washouts of the RTOs. 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 catalytic oxidizer (TCO), 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. The press is indirectly heated by the thermal oil system (see emissions unit 011). 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 475 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. 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 a minimum retention chamber temperature to be set during the last successful compliance test for PM/PM_{10}, VOC and CO emissions.

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

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}	2.8 lb/hour	3 hours [1]	BACT
NOx	10.7 lb/hour [2]	3 hours [1]	BACT
CO	7.3 lb/hour	3 hours [1]	BACT
VOC	10.0 lb/hour [3]	3 hours [1]	BACT
VE	5% opacity	6 minutes [4]	BACT

1 The averaging time 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.

[Note: These emission limits effectively limit annual emissions to: PM/PM_{10}, 12.4; NOx, 47.0; CO, 32.0; and VOC, 43.8 TPY. Potential emissions of SO_2 from the RTO for this emissions unit are estimated to be 0.04 TPY 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]

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 temperature and outlet volumetric air flow for the RTO expressed as SCFM, 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 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 static pressure at the inlet of the ID fan and the isolation damper position for the RTO. The static pressure shall be recorded at intervals of no less than hourly and reduced to a 24-hour block average at the end of each day. The isolation damper position shall be recorded when changes occur. The static pressure shall be used as an indicator of potential plugging of the RTO media and assist with determining the frequency for bakeouts and washouts of the RTO. 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.

   [Note: This emissions unit is not subject to the requirements of 40 CFR 64 and is not required to prepare a CAM plan in accordance with that rule.]

   [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 10^{th} 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
010	Edge sealing/stenciling booth exhaust with dry filter

[Note: These emissions units consists 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. Emissions unit 010 is controlled with a dry particulate filter system. 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 52.6 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) 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	2.1
004	1.3
005	2.0
006	2.2
007	0.3

Condition 2, table continued:

EMISSIONS UNIT	EMISSION LIMIT (LB/HOUR)
008	1.9
009	2.1
010	0.1

[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. For emissions unit 010, initial and annual compliance testing for PM emissions from this emissions unit 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
011	Thermal oil system electrostatic precipitator (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 exclusively natural gas must be fired whenever exhaust is emitted directly to the atmosphere from this emissions unit.

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 through its ESP. Operation of the ESP is required at all times because of the possibility that the emissions unit may need to be operated as a result of malfunction 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 exhaust directed through 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, and assuming negligible control for PM/PM_{10} from the ESP 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 and 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. 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 fired exclusively with natural gas. If, because of malfunction, exhaust is emitted directly to the atmosphere 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.

   [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]

[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.

   Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam ch a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

   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 011 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.

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 – 010, Enclosed Material Handling	PM/PM_{10}, VE	Cyclone/baghouse, dry filter system (010), 5% opacity
011, 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.

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.

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

October 8, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: Extension Request/DEP File No. 0770010-001-AC (PSD-FL-282)

Dear Mr. Paul:

The Department reviewed your facsimile request of October 7, 2004, for an extension of the expiration date of the referenced air construction permit. The extension is necessary to continue construction while the Department works on issuing the new air construction final permit. The new air construction permit (0770010-002-AC; PSD-FL-282A) increases the throughput capacity of the facility, and a Draft permit was issued to the applicant on September 29, 2004. In accordance with your request, the expiration date of the referenced permit is hereby extended through **April 1, 2005**.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

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

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

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

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

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

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

Any party to this permitting decision (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, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT EXTENSION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10/8/04 to the person(s) listed:

Ronald L. Paul, Georgia Pacific Corp.*
Mark J. Aguilar, Georgia Pacific Corp.
Sandra Veazey, DEP NWD

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.

(Clerk) (Date) 10/08/04

Memorandum

Florida Department of Environmental Protection

BAR

TO: Howard L. Rhodes

THRU: ~~Clair Fancy~~ ok for CHF
Al Linero

FROM: Joe Kahn

DATE: October 11, 2000

SUBJECT: Georgia-Pacific Hosford OSB Plant
0770010-001-AC, PSD-FL-282

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 475 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} (293/222 TPY), NOx (336 TPY), CO (203 TPY) and VOC (323 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.

PSD

To reduce the length of the documents, the technical evaluation, preliminary determination, and BACT and MACT determinations have been combined with the final determination. 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 have been met on by publishing in the Tallahassee Democrat on September 3rd, and in the Calhoun-Liberty Journal on September 6th.

I recommend your approval and signature.

Day 90 is December 1, 2000.

Attachments

/jk

Howard, F.Y.I.
This is a good project. Applicant did not include MACT proposal initially. They took 5 months to provide it. From the time we deemed it complete to time of issuance of draft was only 28 days. I'm sure ~~they~~ needed time to assess effects of a case-by-case MACT on their nationwide operations.
Al

facsimile TRANSMITTAL

EPA Region 4

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

To: Joe Kahn
Florida DEP

Fax #: 850-922-6979

Subject: Comments Re: GP (Hosford) Preliminary Determination

From: A. Hofmeister **Phone #:** 404-562-9115

Date: 10-05-00

# of Pages: 3 (including this sheet)

Comments:

Joe:

The following is a copy of our comments. The original has already been put in the mail. Thanks.

Art

Air & Radiation Technology Branch
U.S. Environmental Protection Agency
61 Forsyth Street SW, 12th Floor
Atlanta, Georgia 30303

Phone: 404-562-9105
Fax: 404-562-9095

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

OCT 0 4 2000

4 APT-ARB

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Prevention of Significant Deterioration (PSD) Preliminary Determination for Georgia-Pacific Corporation Oriented Strandboard (OSB) Plant located near Hosford (Liberty County), Florida
PSD-FL-282

Dear Mr. Linero:

Thank you for submitting the PSD preliminary determination for the above referenced facility (dated August 31, 2000) to the U.S. Environmental Protection Agency (EPA) for comments. The proposed project involves the construction and operation of an OSB facility near Hosford in northeastern Liberty County. The new facility will consist primarily of five dryers, a press, a thermal oil heating system, and associated materials handling equipment. It will have the capacity to produce 475 million square feet per year of OSB (on a 3/8-inch basis). Total emissions of particulate matter, both total and that less than 10 microns in diameter (PM_{10}), volatile organic compounds (VOC), carbon monoxide, and oxides of nitrogen (NO_X) from the proposed project are above the respective significance thresholds requiring PSD review.

Based on a review of the preliminary determination, it appears that the Florida Department of Environmental Protection has adequately addressed the concerns detailed in our letter to you dated March 31, 2000; therefore, EPA has no further comments at this time.

Thank you again for the opportunity to comment on the GP preliminary determination. If you have any questions regarding these comments, please direct them to either Art Hofmeister at (404) 562-9115 or Jim Little at (404) 562-9118.

Sincerely,

Gregg M. Worley

for R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

OCT 0 4 2000

RECEIVED
OCT 0 6 2000
BUREAU OF AIR REGULATION

4 APT-ARB

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Prevention of Significant Deterioration (PSD) Preliminary Determination for Georgia-Pacific Corporation Oriented Strandboard (OSB) Plant located near Hosford (Liberty County), Florida
PSD-FL-282

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Thank you again for the opportunity to comment on the GP preliminary determination. If you have any questions regarding these comments, please direct them to either Art Hofmeister at (404) 562-9115 or Jim Little at (404) 562-9118.

Sincerely,

Gregg M. Worley

for R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

Georgia-Pacific

133 Peachtree Street N.E. (30303)
P. O. Box 105605
Atlanta, Georgia 30348-5605

...ope to
...ght of the return address

CERTIFIED

Z 452 232 791

MAIL

REASON CHECKED
Unclaimed ___
Refused ___
Attempted Not Known ___
Insufficient Address ___
No Such Street ___
No Such Number ___
No Such Office In State ___
Do not remail in this envelope

ATLANTA GA
SEP 27 '00
2000
METER 7073831
3.20
U.S. POSTAGE

FIRST CLASS MAIL

NMR 10/2 0101

Please Fed Ex to: Mr. Joe Kahn

~~Mr. C. H. Fancy, Chief~~
Florida Department of Environmental Protection
Bureau of Air Regulation
Suite 4, 111 S. Magnolia Drive
Tallahassee, FL 32301

FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS FIRST.CLASS

FIRST·CLASS

Internal ID Number

72832131 89569

Location: GA030-17

Georgia-Pacific Corp.
Mail Services

To: Vasquez, Paul J.

Date Received: 10/09/00

Employee Ext: (404)652-7327

Georgia-Pacific Corporation
133 Peachtree Street NE (30303)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

Mr. C. H. Fancy, Chief
Florida Department of Environmental Protection
Bureau of Air Regulation
Suite 4, 111 S. Magnolia Drive
Tallahassee, FL 32301

September 27, 2000

Certified Mail - Return Receipt Requested
Z 452 232 791

Dear Mr. Fancy:

Consistent with your letter dated August 31, 2000, addressed to Mr. Ronnie L. Paul with Georgia-Pacific Corporation, we hereby submit proof of publication of the Public Notice of Intent to Issue Air Construction/PSD Permit for the proposed Hosford, Florida OSB facility. Also attached are copies of invoices and payment to the newspapers for the publications. The public notice was published in the Tallahassee Democrat and the Calhoun/Liberty Journal during the week of September 4t, 2000.

Should you have any questions regarding this matter, please call me at (404) 652-7327.

Sincerely,

Paul J. Vasquez
Manager Environmental Engineering
Wood Products

Enclosures

Cc: Ronnie L. Paul
Mark Aguilar
J. Kahn, Florida DEP

RECEIVED
OCT 12 2000
BUREAU OF AIR REGULATION

Thank You For Doing Business With The Tallahassee Democrat!

Date	: 1sep2000
Schedule	:TLD: 3sep0
Ad Number	:1080138V5
Publication	:TLD
Account	:
Name	:GEORGIA, PACIFIC
Contact	:
Street	:133 PEACHTREE ST NE
City	:ATLANTA
State	:GA Zipcode:30348-5605
Phone No.	:404 -5627327
Class	:LEGALNOTIC
Type	:S
Total	: $343.82
Ad Rep.	: 45
Lines	: 562

Credit Card Type: VI
Credit Card No. : [redacted]
Expire Date : 30jun
Approval Number: 067351

Paid in full
9/1/00
MKR

TALLAHASSEE DEMOCRAT
PUBLISHED DAILY
TALLAHASSEE - LEON - FLORIDA

STATE OF FLORIDA COUNTY OF LEON:
Before the undersigned authority personally appeared Harrison Arencibian who on oath says that he is Legal Advertising Representative of the Tallahassee Democrat, a daily newspaper published at Tallahassee in Leon County, Florida; that the attached copy of advertising being a Legal Ad in the matter of

PUBLIC NOTICE OF INTENT
TO ISSUE
AIR CONSTRUCTION / PSD PERMIT

was published in said newspaper in the issues of:

SEPTEMBER 3, 2000

Affiant further says that the said Tallahassee Democrat is a newspaper published at Tallahassee, in the said Leon County, Florida, and that the said newspaper has heretofore been continuously published in said Leon County, Florida, each day and has been entered as second class mail matter at the post office in Tallahassee, in said Leon County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this publication in the said newspaper.

HARRISON ARENCIBIAN
LEGAL ADVERTISING REPRESENTATIVE

Sworn To And Subscribed Before Me This
5th Day of September A.D. 2000

(SEAL) Notary Public

CHRISTOPHER L. JOHNSON
MY COMMISSION # CC 946947
EXPIRES: July 18, 2004
Bonded Thru Notary Public Underwriters

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION/PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0770010-001-AC, PSD-FL-282

Georgia-Pacific Corporation
Hosford OSB Plant
Liberty County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction/PSD permit to Georgia-Pacific Corporation, for its proposed Hosford OSB Plant located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 million square feet per year, on a 3/8-inch basis. The applicant's mailing address is: 133 Peachtree Street, Atlanta, GA 30303. A Best Available Control Technology (BACT) determination was required for particulate matter, nitrogen oxides, carbon monoxide and volatile organic compounds pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). A case-by-case Maximum Achievable Control Technology (MACT) determination was required for hazardous air pollutants pursuant to Rule 62-204.800(10)(d)2, F.A.C.

Emissions will be controlled primarily with regenerative thermal oxidizers and particulate matter control devices.

Total emissions of pollutants shall not exceed the annual emission rates in tons per year: PM/PM_{10}, 293/222; NOx, 336; CO, 203; VOC, 323; SO_2, 22.

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards or PSD increment levels.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetingsconcerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

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

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

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

Dept. of Environmental Protection Bureau of Air Regulation Suite 4, 111 S. Magnolia Drive Tallahassee, Florida, 32301 Telephone: 850/488-0114 Fax: 850/922-6979	Dept. of Environmental Protection Northwest District 160 Government Center Pensacola, Florida 32501-5794 Telephone: 904/444-8300

The complete project file includes the application, technical evaluations, draft permit (which includes the technical evaluation, preliminary determination, and BACT and MACT determinations), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, or the Department's reviewing engineer for this project, Joseph Kahn, P.E., at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

SEPTEMBER 3, 2000

TALLAHASSEE DEMOCRAT
PUBLISHED DAILY
TALLAHASSEE - LEON - FLORIDA

STATE OF FLORIDA COUNTY OF LEON: Before the undersigned authority personally appeared Harrison Arencibian who on oath says that he is Legal Advertising Representative of the Tallahassee Democrat, a daily newspaper published at Tallahassee in Leon County, Florida; that the attached copy of advertising being a Legal Ad in the matter of

PUBLIC NOTICE OF INTENT
TO ISSUE
AIR CONSTRUCTION / PSD PERMIT

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SEPTEMBER 3, 2000

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HARRISON ARENCIBIAN
LEGAL ADVERTISING REPRESENTATIVE

Sworn To And Subscribed Before Me This 5th Day of September A.D. 2000

(SEAL) Notary Public

CHRISTOPHER L. JOHNSON
MY COMMISSION # CC 946947
EXPIRES: July 18, 2004
Bonded Thru Notary Public Underwriters

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION/PSD PERMIT

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0770010-001-AC, PSD-FL-282

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Hosford OSB Plant
Liberty County

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Emissions will be controlled primarily with regenerative thermal oxidizers and particulate matter control devices.

Total emissions of pollutants shall not exceed the annual emission rates in tons per year: PM/PM_{10}, 293/222; NOx, 336; CO, 203; VOC, 323; SO_2, 22.

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards or PSD increment levels.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetingsconcerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

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Dept. of Environmental Protection Bureau of Air Regulation Suite 4, 111 S. Magnolia Drive Tallahassee, Florida, 32301 Telephone: 850/488-0114 Fax: 850/922-6979	Dept. of Environmental Protection Northwest District 160 Government Center Pensacola, Florida 32501-5794 Telephone: 904/444-8300

The complete project file includes the application, technical evaluations, draft permit (which includes the technical evaluation, preliminary determination, and BACT and MACT determinations), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, or the Department's reviewing engineer for

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION/PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0770010-001-AC, PSD-FL-282
Georgia-Pacific Corporation
Hosford OSB Plant
Liberty County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction/PSD permit to Georgia-Pacific Corporation, for its proposed Hosford OSB Plant located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 million square feet per year, on a 3/8-inch basis. The applicant's mailing address is: 133 Peachtree Street, Atlanta, GA 30303. A Best Available Control Technology (BACT) determination was required for particulate matter, nitrogen oxides, carbon monoxide and volatile organic compounds pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). A case-by-case Maximum Achievable Control Technology (MACT) determination was required for hazardous air pollutants pursuant to Rule 62-204.800(10)(d)2., F.A.C.

Emissions will be controlled primarily with regenerative thermal oxidizers and particulate matter control devices.

Total emissions of pollutants shall not exceed the annual emission rates in tons per year: PM/PM_{10}, 293/222; NOx, 336; CO, 203; VOC, 323; SO_2, 22.

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards or PSD increment levels.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

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

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

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

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LEGAL NOTICES

INVITATION FOR PROPOSALS

NOTICE IS HEREBY GIVEN that the City of Bristol, Fla., will be accepting sealed proposals until 5 p.m. (ET) Monday, Sept. 18, 2000 for the following insurance coverages to be purchased by the Bristol City Council for and on behalf of the City of Bristol, Fla. Proposals will be publicly opened and read at 7 p.m. (ET) during a special meeting of the Bristol City Council, or as soon thereafter as practical on that date.

- Workers Compensation
- Property
- Inland Marine
- General Liability
- Public Officials Errors and Omissions
- Automobile Liability

ANY COMPANY INTERESTED in submitting a proposal for the City of Bristol's insurance needs can obtain additional information by contacting Robin M. Hill, City Clerk, at P.O. Box 207, 113 N. Church St., Bristol, FL 32321, or by fax (850) 643-4525 or by calling (850) 643-2261.

PROPOSALS SHOULD be mailed to the City of Bristol, P.O. Box 207, Bristol, FL 32321 or delivered to the Clerk's office at City Hall, 113 N. Church St., Bristol, FL 32321.

PROPOSALS SHALL be in triplicate, sealed in an envelope and clearly marked "INSURANCE PROPOSAL, CITY OF BRISTOL, 0918-00."

The City of Bristol is not responsible for lost, stolen or delayed mail. The Bristol City Council reserves the right to waive informalities in any bid, to accept and/or reject any or all proposals, in whole or in part with cause, and to accept the proposal that in their judgment will be in the best interest of the City of Bristol.

By: Newton V. Walden, Chairman
Attest: Robin M. Hill, City Clerk

R&R WAREHOUSES
NOTICE OF SALE

On Sept. 15, 2000 at 6:30 p.m. (CT) R&R Warehouses will sell or dispose of the contents of seven storage units located at R&R Warehouses on Hwy. 20 West in Blountstown, Fla.

The units are believed to contain household and/or personal property of the following tenants:

Brenda Gatlin
Deidre Smith
Lori Sansom
Angela Hill
David Strickland
Sandra Martinez
Tony Milligan

R&R Warehouses reserves the right to reject any and/or all bids.

R&R WAREHOUSES
NOTICE OF SALE

On Sept. 15, 2000 at 6 p.m. (ET) R&R Warehouses will sell or dispose of the contents of two storage units located at Liberty Storage on North Street in Bristol, Fla.

The units ara believed to contain household and/or personal property of tha following tenants:

Tracy Bellamy

R&R Warehouses reserves the right to reject any and/or all bids.

IN THE CIRCUIT COURT OF THE 2ND JUDICIAL CIRCUIT IN AND FOR LIBERTY COUNTY, FLORIDA CIVIL DIVISION

CASE NO. 00-29-CA

ASSOCIATES HOUSING FINANCES SERVICE, INC. D/B/A ASSOCIATES HOUSING FINANCE LLC., a Delaware corporation doing business in Florida,

Plaintiff,

vs.

JEFFREY ERNEST MILLETTE and JANE A. MILLETTE, as well as their unknown heirs, devisees, grantees, assignees, creditors, lienors, and/or trustees and all other persons claiming by, through, under or against the above Defendants, and all parties having eny right, claim, title or interest in the real property herein described,

Defendants.

NOTICE OF SALE

Notice is hereby given that, pursuant to the Final Summary Judgment of Foreclosure and Replevin entered in this cause in the Circuit Court of Liberty County, Fla., I will sell the property situated in Liberty County, Fla., described as:

REAL PROPERTY:
Tract "L" — 1.00 Acre more or less

A parcel of land lying in Section 26, township-1-South, Range-6-West, Liberty County, Florida said parcel of land being more particularly described by metes and bounds as follows:

Commence at A 4" by 4" blank concrate monument (found) known as marking the southwest comer of said Section 26, and run; thence East 3896.31 feet; thence North 2173.35 feet to a State Road Dept. Right-of-way concrete monument on the Northeasterly right-of-way boundary of County Road No. S-67-A (100.00 foot right-of-way); thence South 52 degrees 23 minutes 54 seconds West 50.00 feet to a centerline station 90+25.01 feet of said County Road as per State Road right-of-way map Section No. 56509.2601; dated Nov. 12, 1964; thence continue South 52 degrees 23 minutes 54 seconds West 50.00 feet to the Southwesterly right-of-way boundary of said County Road; thence along said Southwesterly right-of-way boundary as follows: thence North 37 degrees 36 minutes 06 seconds West (bearing base) along said Southwesterly right-of-way boundary a distance of 865.74 feet to a 5/8 inch rebar with cap (R.L.S. #3031) for a point of curve to the right; thence along said curve with a radius of 2915.93 feet through a central angle of 14 degrees 24 minutes 45 seconds for an arc distance of 733.49 feet (the chord of said arc being north 30 degrees 23 minutes 44 seconds West 731.56 feet) to a point on the Southerly right-of-way boundary of a 60.00 foot roadway; thence leaving said Southwesterly right-of-way boundary run South 57 degrees 48 minutes 40 seconds West along said Southerly right-of-way boundary a distance of 214.86 feet for the point of beginning; from said point of beginning continue South 57 degrees 48 minutes 40 seconds West along said Southerly right-of-way boundary a distance of 147.99 feet; thence South 32 degrees 11 minutes 20 seconds East 294.34 feet; thence North 57 degrees 48 minutes 40 seconds East 147.99 feet; thence North 32 degrees 11 minutes 20 seconds West 294.34 feet to the point of beginning. Containing 1.00 acre more or less.

and

PERSONAL PROPERTY:
ONE 1997 Fleetwood Weston Mobile Home
(ID #GAFL75A29443-WT11)
including:
Air conditioner, skirting and steps

at public sale, to the highest bidder, for cash, at the front door of the Liberty County Courthouse, Hwy. 20, Bristol, FL 32321, at 11 a.m. on Sept. 29, 2000.

Vernon Ross
CLERK OF CIRCUIT COURT

By: Kathleen E. Brown, Deputy Clerk

EDWARD B. PRITCHARD
PRITCHARD & REISSMAN, P.A.
P.O. Box 25158
Tampa, FL 33622
(813) 287-8988
FLORIDA BAR NO.: 712876
Attorney for Plaintiff
EBP/aw/60880/082300

BEST AVAILABLE COPY

FAX TRANSMISSION

To: Paul Vasquez
Georgia-Pacific Corp.
Atlanta, GA 30346

From: Rowena S. Eubanks
Calhoun-Liberty Journal
Bristol, FL 32321

Payment has been received for the Public Notice of Intent to Issue Air Construction/PSD Permit that ran in the Calhoun-Liberty Journal on September 6, 2000.

Paid by check # 1028 by Paul Vasquez, received on 9/19/2000.

Rowena S Eubanks

Rowena S. Eubanks
Bookkeeper
Calhoun-Liberty Journal
Bristol, FL 32321-0536

The Calhoun-Liberty Journal
Summers Road
P.O. Box 536
Bristol, FL 32321-0536

INVOICE # 23832

DATE 09/06/2000

ACCOUNT NUMBER 1050/0725

Sold to:

Georgia-Pacific Corporation
Paul Vasquez
P O Box 105605
Atlanta, GA 30348

PHONE 850 643-3333
FAX 850 643-3334

1 1/2% MONTHLY FINANCE CHARGE ON ALL UNPAID INVOICES AFTER 30 DAYS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
48 col.in..	Ad, Public Notice of Intent to Issue Air Construction /PSD Permit	$5.00	$240.00
		TOTAL	$240.00

The Calhoun-Liberty Journal

Teresa Eubanks
Editor

Johnny Eubanks
Publisher

AFFIDAVIT OF PUBLICATION

The Calhoun-Liberty Journal
A weekly newspaper published in
Bristol, Liberty County, Florida.

P.O. Box 536
Bristol, FL 32321
Phone (904) 643-2660
or (904) 643-3333
FAX (904) 643-3334

RE: Public Notice of Intent to Issue Air Construction/PSD Permit

BEFORE ME, the undersigned authority, personally appeared, JOHNNY EUBANKS, Publisher, or TERESA EUBANKS, Editor of the Calhoun-Liberty Journal, a weekly newspaper published in Bristol, Liberty County, Florida, and having published once a week since February 4, 1981, and that the attached notice was published for one ~~consecutive~~ week~~s~~ in The Calhoun-Liberty Journal, published aforesaid beginning with the issue of September 6, 2000

Other issues of said advertisement were:

NONE

Johnny B Eubanks
JOHNNY EUBANKS, Publisher

TERESA EUBANKS, Editor

Sworn to before me this 7th day of September 2000

Rowena S Eubanks
NOTARY PUBLIC

NOTARY PUBLIC STATE OF FLORIDA
Rowena S. Eubanks
Notary Public, State of Florida
Commission No. CC 638076
My Commission Exp. 06/04/2001
1-800-3-NOTARY - Fla. Notary Service & Bonding Co.

Georgia-Pacific Corporation
133 Peachtree Street NE (30303)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

Mr. C. H. Fancy, Chief
Florida Department of Environmental Protection
Bureau of Air Regulation
Suite 4, 111 S. Magnolia Drive
Tallahassee, FL 32301

September 27, 2000

Certified Mail - Return Receipt Requested
Z 452 232 791

Dear Mr. Fancy:

Consistent with your letter dated August 31, 2000, addressed to Mr. Ronnie L. Paul with Georgia-Pacific Corporation, we hereby submit proof of publication of the Public Notice of Intent to Issue Air Construction/PSD Permit for the proposed Hosford, Florida OSB facility. Also attached are copies of invoices and payment to the newspapers for the publications. The public notice was published in the Tallahassee Democrat and the Calhoun/Liberty Journal during the week of September 4th 2000.

Should you have any questions regarding this matter, please call me at (404) 652-7327.

Sincerely,

Paul J. Vasquez
Manager Environmental Engineering
Wood Products

Enclosures

Cc: Ronnie L. Paul
Mark Aguilar
J. Kahn, Florida DEP

RECEIVED
OCT 03 2000
BUREAU OF AIR REGULATION

Post-it® Fax Note 7671	Date 10/3	# of pages ▸ 8
To Joe Kahn	From Paul Vasquez	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 850/922-6979	Fax #	

Thank You For Doing Business With The Tallahassee Democrat!

Date	: 1sep2000
Schedule	:TLD: 3sep0
Ad Number	:1080138V5
Publication	:TLD
Account	:
Name	:GEORGIA, PACIFIC
Contact	:
Street	:133 PEACHTREE ST NE
City	:ATLANTA
State	:GA Zipcode:30348-5605
Phone No.	:404 -5627327
Class	:LEGALNOTIC
Type	:S
Total	: $343.82
Ad Rep.	: 45
Lines	: 562

Paid in full
9/1/00
MKR

Credit Card Type: VI
Credit Card No. : [redacted]
Expire Date : 30jun
Approval Number: 067351

TALLAHASSEE DEMOCRAT
PUBLISHED DAILY
TALLAHASSEE - LEON - FLORIDA

STATE OF FLORIDA COUNTY OF LEON:
Before the undersigned authority personally appeared Harrison Arencibian who on oath says that he is Legal Advertising Representative of the Tallahassee Democrat, a daily newspaper published at Tallahassee in Leon County, Florida; that the attached copy of advertising being a Legal Ad in the matter of

PUBLIC NOTICE OF INTENT
TO ISSUE
AIR CONSTRUCTION / PSD PERMIT

was published in said newspaper in the issues of:

SEPTEMBER 3, 2000

Affiant further says that the said Tallahassee Democrat is a newspaper published at Tallahassee, in the said Leon County, Florida, and that the said newspaper has heretofore been continuously published in said Leon County, Florida, each day and has been entered as second class mail matter at the post office in Tallahassee, in said Leon County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this publication in the said newspaper.

HARRISON ARENCIBIAN
LEGAL ADVERTISING REPRESENTATIVE

Sworn To And Subscribed Before Me This
5th Day of September A.D. 2000

(SEAL) Notary Public

CHRISTOPHER L. JOHNSON
MY COMMISSION # CC 546947
EXPIRES: July 18, 2004
Bonded Thru Notary Public Underwriters

BEST AVAILABLE COPY

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION/PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0770010-001-AC, PSD-FL-282

Georgia-Pacific Corporation
Hosford OSB Plant
Liberty County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction/PSD permit to Georgia-Pacific Corporation, for its proposed Hosford OSB Plant located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 million square feet per year, on a 3/8-inch basis. The applicant's mailing address is: 133 Peachtree Street, Atlanta, GA 30303. A Best Available Control Technology (BACT) determination was required for particulate matter, nitrogen oxides, carbon monoxide and volatile organic compounds pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). A case-by-case Maximum Achievable Control Technology (MACT) determination was required for hazardous air pollutants pursuant to Rule 62-204.800(10)(d)2, F.A.C.

Emissions will be controlled primarily with regenerative thermal oxidizers and particulate matter control devices.

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The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

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

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Bureau of Air Regulation	Northwest District
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Tallahassee, Florida 32301	Pensacola, Florida 32501-5794
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SEPTEMBER 3, 2000

Legal Notices | Legal Notices | Legal Notices | Legal Notices

TALLAHASSEE DEMOCRAT
PUBLISHED DAILY
TALLAHASSEE - LEON - FLORIDA

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TO ISSUE
AIR CONSTRUCTION / PSD PERMIT

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LEGAL ADVERTISING REPRESENTATIVE

Sworn To And Subscribed Before Me This 5th Day of September A.D. 2000

(SEAL) Notary Public

CHRISTOPHER L. JOHNSON
MY COMMISSION # CC 946947
EXPIRES: July 18, 2004
Bonded Thru Notary Public Underwriters

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Hosford OSB Plant
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The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

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

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

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

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

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

Dept. of Environmental Protection	Dept. of Environmental Protection
Bureau of Air Regulation	Northwest District
Suite 4, 111 S. Magnolia Drive	160 Government Center
Tallahassee, Florida, 32301	Pensacola, Florida 32501-5794
Telephone: 850/488-0114	Telephone: 904/444-8300
Fax: 850/922-6979	

The complete project file includes the application, technical evaluations, draft permit (which includes the technical evaluation, preliminary determination, and BACT and MACT determinations), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, of the Department's reviewing engineer for

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION/PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0770010-001-AC, PSD-FL-282
Georgia-Pacific Corporation
Hosford OSB Plant
Liberty County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction/PSD permit to Georgia-Pacific Corporation, for its proposed Hosford OSB Plant located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 million square feet per year, on a 3/8-inch basis. The applicant's mailing address is: 133 Peachtree Street, Atlanta, GA 30303. A Best Available Control Technology (BACT) determination was required for particulate matter, nitrogen oxides, carbon monoxide and volatile organic compounds pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). A case-by-case Maximum Achievable Control Technology (MACT) determination was required for hazardous air pollutants pursuant to Rule 62-204.800(10)(d)2., F.A.C.

Emissions will be controlled primarily with regenerative thermal oxidizers and particulate matter control devices.

Total emissions of pollutants shall not exceed the annual emission rates in tons per year: PM/PM_{10}, 293/222; NOx, 336; CO, 203; VOC, 323; SO_2, 22.

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards or PSD increment levels.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

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

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

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

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

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

Dept. of Environmental Protection, Bureau of Air Regulation, Suite 4, 111 S. Magnolia Drive, Tallahassee, FL 32301. Telephone (850) 488-0114, fax (850) 922-6979.

Dept. of Environmental Protection, Northwest District, 160 Government Center, Pensacola, FL 32501-5794; telephone (904) 444-8300.

The complete project file includes the application, technical evaluations, draft permit (which includes the technical evaluation, preliminary determination, and BACT and MACT determinations), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, or the Department's reviewing engineer for this project, Joseph Kahn, P.E., at 111 South Magnolia Drive, Suite 4, Tallahassee, FL 32301, or call (850) 488-0114, for additional information.

LEGAL NOTICES

INVITATION FOR PROPOSALS

NOTICE IS HEREBY GIVEN that the City of Bristol, Fla., will be accepting sealed proposals until 5 p.m. (ET) Monday, Sept. 18, 2000 for the following insurance coverages to be purchased by the Bristol City Council for and on behalf of the City of Bristol, Fla. Proposals will be publicly opened and read at 7 p.m. (ET) during a special meeting of the Bristol City Council, or as soon thereafter as practical on that date.

- Workers Compensation
- Property
- Inland Marine
- General Liability
- Public Officials Errors and Omissions
- Automobile Liability

ANY COMPANY INTERESTED in submitting a proposal for the City of Bristol's insurance needs can obtain additional information by contacting Robin M. Hill, City Clerk, at P.O. Box 207, 113 N. Church St., Bristol, FL 32321, or by fax (850) 643-4525 or by calling (850) 643-2261.

PROPOSALS SHOULD be mailed to the City of Bristol, P.O. Box 207, Bristol, FL 32321 or delivered to the Clerk's office at City Hall, 113 N. Church St., Bristol, FL 32321.

PROPOSALS SHALL be in triplicate, sealed in an envelope and clearly marked "INSURANCE PROPOSAL, CITY OF BRISTOL, 0916-00."

The City of Bristol is not responsible for lost, stolen or delayed mail. The Bristol City Council reserves the right to waive informalities in any bid, to accept and/or reject any or all proposals, in whole or in part with cause, and to accept the proposal that in their judgment will be in the best interest of the City of Bristol.

By: Newton V. Walden, Chairman
Attest: Robin M. Hill, City Clerk

R&R WAREHOUSES NOTICE OF SALE

On Sept. 15, 2000 at 5:30 p.m. (CT) R&R Warehouses will sell or dispose of the contents of seven storage units located at R&R Warehouses on Hwy. 20 West in Blountstown, Fla.

The units are believed to contain household and/or personal property of the following tenants:

Brenda Collin
Delore Smith
Lori Sargent
Angela Hill
David Strickland
Sandra Martinez
Tony Milligan

R&R Warehouses reserves the right to reject any and/or all bids.

R&R WAREHOUSES NOTICE OF SALE

On Sept. 15, 2000 at 6 p.m. (ET) R&R Warehouses will sell or dispose of the contents of two storage units located at Liberty Storage on North Street in Bristol, Fla.

The units are believed to contain household and/or personal property of the following tenants:

Tracy Bellamy

R&R Warehouses reserves the right to reject any and/or all bids.

IN THE CIRCUIT COURT OF THE 2ND JUDICIAL CIRCUIT IN AND FOR LIBERTY COUNTY, FLORIDA CIVIL DIVISION

CASE NO. 00-29-CA

ASSOCIATES HOUSING FINANCE SERVICE, INC. D/B/A ASSOCIATES HOUSING FINANCE LLC., a Delaware corporation doing business in Florida,

Plaintiff,

vs.

JEFFREY ERNEST MILLETTE and JANE A. MILLETTE, as well as their unknown heirs, devisees, grantees, assignees, creditors, lienors, and/or trustees and all other persons claiming by, through, under or against the above Defendants, and all parties having any right, claim, title or interest in the real property herein described.

Defendants.

NOTICE OF SALE

Notice is hereby given that, pursuant to the Final Summary Judgment of Foreclosure and Replevin entered in the cause in the Circuit Court of Liberty County, Fla., I will sell the property situated in Liberty County, Fla., described as:

REAL PROPERTY.
Tract "L" — 1.00 Acre more or less

A parcel of land lying in Section 26, township-1-South, Range-6-West, Liberty County, Florida said parcel of land being more particularly described by metes and bounds as follows.

Commence at a 4" by 4" blank concrete monument (found) known as marking the southeast corner of said Section 26, and run, thence East 3096.31 feet, thence North 2173.35 feet to a State Road Dept. Right-of-way concrete monument on the Northeasterly right-of-way boundary of County Road No. S-67-A (100.00 foot right-of-way); thence South 52 degrees 23 minutes 54 seconds West 50.00 feet to a centerline station 90+35.01 feet of said County Road as per State Road right-of-way map Section No. 56509-2601; dated Nov. 12, 1964; thence continue South 52 degrees 23 minutes 54 seconds West 50.00 feet to the Southwesterly right-of-way boundary of said County Road, thence along said Southwesterly right-of-way boundary as follows: thence North 37 degrees 36 minutes 06 seconds West (bearing base) along said Southwesterly right-of-way boundary a distance of 803.74 feet to a 5/8 inch rebar with cap (R.L.S. #3031) for a point of curve to the right; thence along said curve with a radius of 2915.93 feet through a central angle of 14 degrees 24 minutes 45 seconds for an arc distance of 733.49 feet (the chord of said arc being north 30 degrees 23 minutes 44 seconds West 731.58 feet) to a point on the Southerly right-of-way boundary of a 60.00 foot roadway; thence leaving said Southwesterly right-of-way boundary run South 57 degrees 48 minutes 40 seconds West along said Southerly right-of-way boundary a distance of 214.88 feet for the point of beginning; from said point of beginning continue South 57 degrees 48 minutes 40 seconds West along said Southerly right-of-way boundary a distance of 147.00 feet; thence South 32 degrees 11 minutes 20 seconds East 294.34 feet; thence North 57 degrees 48 minutes 40 seconds East 147.00 feet; thence North 32 degrees 11 minutes 20 seconds West 294.34 feet to the point of beginning. Containing 1.00 acre more or less.

and

PERSONAL PROPERTY
ONE 1997 Fleetwood Weston Mobile Home
(ID #GAFL75A20440-WT11);
including:
Air conditioner, skirting and steps

at public sale, to the highest bidder, for cash, at the front door of the Liberty County Courthouse, Hwy. 20, Bristol, FL 32321 at 11 a.m. on Sept. 29, 2000.

Vernon Ross
CLERK OF CIRCUIT COURT

By: Kathleen E. Brown, Deputy Clerk

EDWARD B. PRITCHARD
PRITCHARD & REISSMAN, P.A.
P.O. Box 25159
Tampa, FL 33622
(813) 287-0700
FLORIDA BAR NO. 712876
Attorney for Plaintiff
RSP 94-00880 (???)

BEST AVAILABLE COPY

FAX TRANSMISSION

To: Paul Vasquez
Georgia-Pacific Corp.
Atlanta, GA 30346

From: Rowena S. Eubanks
Calhoun-Liberty Journal
Bristol, FL 32321

Payment has been received for the Public Notice of Intent to Issue Air Construction/PSD Permit that ran in the Calhoun-Liberty Journal on September 6, 2000.

Paid by check # 1028 by Paul Vasquez, received on 9/19/2000.

Rowena S Eubanks

Rowena S. Eubanks
Bookkeeper
Calhoun-Liberty Journal
Bristol, FL 32321-0536

OCT.-03'00 (TUE) 14:22 STRUCTURAL PANELS TEL:404 230 7861 P.007

The Calhoun-Liberty Journal
Summers Road
P.O. Box 536
Bristol, FL 32321-0536

INVOICE # 23832

DATE 09/06/2000

ACCOUNT NUMBER 1050/0725

Sold to:

Georgia-Pacific Corporation
Paul Vasquez
P O Box 105605
Atlanta, GA 30348

PHONE 850 643-3333
FAX 850 643-3334
1 1/2% MONTHLY FINANCE CHARGE ON ALL UNPAID INVOICES AFTER 30 DAYS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
48 col.in..	Ad, PUBLIC Notice of Intent to Issue Air Construction /PSD Permit	$5.00	$240.00
		TOTAL	$240.00

The Calhoun-Liberty Journal

Teresa Eubanks
Editor

Johnny Eubanks
Publisher

AFFIDAVIT OF PUBLICATION

The Calhoun-Liberty Journal
A weekly newspaper published in
Bristol, Liberty County, Florida.

P.O. Box 536
Bristol, FL 32321
Phone (904) 643-2660
or (904) 643-3333
FAX (904) 643-3334

RE: Public Notice of Intent to Issue Air Construction/PSD Permit

BEFORE ME, the undersigned authority, personally appeared, JOHNNY EUBANKS, Publisher, or TERESA EUBANKS, Editor of the Calhoun-Liberty Journal, a weekly newspaper published in Bristol, Liberty County, Florida, and having published once a week since February 4, 1981, and that the attached notice was published for one ~~consecutive~~ week~~s~~ in The Calhoun-Liberty Journal, published aforesaid beginning with the issue of September 6, 2000

Other issues of said advertisement were:

NONE

JOHNNY EUBANKS, Publisher

TERESA EUBANKS, Editor

Sworn to before me this 7th day of September 2000

NOTARY PUBLIC

Rowena S. Eubanks
Notary Public, State of Florida
Commission No. CC 638076
My Commission Exp. 06/04/2001
1-800-3-NOTARY - Fla. Notary Service & Bonding Co.

Memorandum

Florida Department of Environmental Protection

TO: for Clair Fancy SMS 8/31

THRU: Al Linero

FROM: Joe Kahn JK

DATE: August 31, 2000

SUBJECT: Georgia-Pacific Hosford OSB Plant
0770010-001-AC, PSD-FL-282

Attached for approval and signature is the intent to issue 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 475 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} (293/222 TPY), NOx (336 TPY), CO (203 TPY) and VOC (323 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.

To reduce the length of the intent package, the technical evaluation, preliminary determination, and BACT and MACT determinations have been combined into appendix B of the permit.

I recommend your approval and signature.

August 31 is day 44 of the 90 day timeclock.

Attachments

/jk

P.E. Certification Statement

Georgia-Pacific Corporation
G-P Hosford OSB Plant

DEP File No.: 0770010-001-AC, PSD-FL-282
Facility ID No.: 0770010

Project: Air Construction/PSD Permit

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

This review was conducted by me.

(Seal)

Joseph Kahn, P.E.
Registration # 45268

8/31/00
Date

Permitting Authority:
Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

August 31, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: DEP File No. 0770010-001-AC, PSD-FL-282
G-P Hosford OSB Plant

Dear Mr. Paul:

Enclosed is one copy of the draft air construction/PSD permit for the Hosford OSB Plant located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The Department's Intent to Issue Air Construction/PSD Permit and the Public Notice of Intent to Issue Air Construction/PSD Permit are also included. The technical evaluation, preliminary determination, and BACT and MACT determinations are included as appendix B of the draft permit.

The Public Notice of Intent to Issue Air Construction/PSD Permit must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Joseph Kahn, P.E., at 850/921-9519 or Mr. Linero at 850/488-0114.

Sincerely,

C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/jk

Enclosures

7099 3400 0000 1453 2481

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:
Mr. Ronald L. Paul, Georgia-Pacific

Postage	$	8/31/00
Certified Fee		Postmark Here
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	$	

Name (Please Print Clearly) (to be completed by mailer)
Mr. Ronald L. Paul
Street, Apt. No.; or PO Box No.
133 Peachtree St.
City, State, ZIP+4
Atlanta, GA 30303

PS Form 3800, July 1999 — See Reverse for Instructions

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

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

2. Article Number *(Copy from service label)*
7099 3400 0000 1453 2481

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*
B. Date of Delivery 9/6/00

C. Signature
X C AN688
☐ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

SEP 06 2000

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

PS Form 3811, July 1999 — Domestic Return Receipt — 102595-99-M-1789

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. 0770010-001-AC, PSD-FL-282
G-P Hosford OSB Plant
Liberty County

INTENT TO ISSUE AIR CONSTRUCTION/PSD PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction/PSD permit (copy of draft permit attached) for the proposed project, detailed in the application specified above and the technical evaluation, preliminary determination, and BACT and MACT determinations included as appendix B of the draft permit, for the reasons stated below.

The applicant, Georgia-Pacific Corporation, applied on January 21, 2000, to the Department for an air construction/PSD permit for its proposed Hosford OSB Plant located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 million square feet per year, on a 3/8-inch basis.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction/PSD permit is required to construct the facility.

The Department intends to issue this air construction/PSD permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction/PSD Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetingsconcerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of Public Notice of Intent to Issue Air Construction/PSD Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

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

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

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

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

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

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

Executed in Tallahassee, Florida.

Scott M. Sheplak
for C. H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction/PSD Permit (including the Public Notice of Intent to Issue Air Construction/PSD Permit, and the draft permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 8/31/00 to the person(s) listed:

Mr. Ronald L. Paul, G-P Corporation
Mr. Mark Aguilar, P.E., G-P Corporation
Mr. Ed Middleswart, P.E., 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.

Charlotte Hayes 8/31/00
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION/PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0770010-001-AC, PSD-FL-282

Georgia-Pacific Corporation
Hosford OSB Plant
Liberty County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction/PSD permit to Georgia-Pacific Corporation, for its proposed Hosford OSB Plant located on State Road 65, approximately 4.4 miles northeast of Hosford, Liberty County. The permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 million square feet per year, on a 3/8-inch basis. The applicant's mailing address is: 133 Peachtree Street, Atlanta, GA 30303. A Best Available Control Technology (BACT) determination was required for particulate matter, nitrogen oxides, carbon monoxide and volatile organic compounds pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). A case-by-case Maximum Achievable Control Technology (MACT) determination was required for hazardous air pollutants pursuant to Rule 62-204.800(10)(d)2, F.A.C.

Emissions will be controlled primarily with regenerative thermal oxidizers and particulate matter control devices.

Total emissions of pollutants shall not exceed the annual emission rates in tons per year: PM/PM_{10}, 293/222; NOx, 336; CO, 203; VOC, 323; SO_2, 22.

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards or PSD increment levels.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetingsconcerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

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

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

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

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

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

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

Dept. of Environmental Protection
Northwest District
160 Government Center
Pensacola, Florida 32501-5794
Telephone: 904/444-8300

The complete project file includes the application, technical evaluations, draft permit (which includes the technical evaluation, preliminary determination, and BACT and MACT determinations), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, or the Department's reviewing engineer for this project, Joseph Kahn, P.E., at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

PERMITTEE

Georgia-Pacific Corporation
133 Peachtree Street
Atlanta, GA 30303

Permit No.	0770010-001-AC, PSD-FL-282
Project	G-P Hosford OSB Plant
SIC No.	2493
Expires:	^DRAFT

Authorized Representative:

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

PROJECT AND LOCATION

This permit authorizes Georgia-Pacific Corporation to construct an oriented strandboard manufacturing facility with a capacity of 475 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 — Technical Evaluation and BACT/MACT Determination
Appendix GC — General Permit Conditions

DRAFT

Howard L. Rhodes, Director
Division of Air Resources
Management

FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

This facility will be a new oriented strandboard manufacturing facility with a capacity of 475 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
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	Edge sealing/stenciling booth exhaust with dry filter
011	Thermal oil system electrostatic precipitator (bypass stack)

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, and 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	Material Handling	Thermal Oil System	Fugitive	Total Increase [1]	PSD Signif. [1]	Subject to PSD?
PM/PM_{10}	148.0	12.4	52.6	0.5	80/9	293/222	25/15	Yes
NOx	262.8	47.0		26.3		336	40	Yes
CO	147.2	32.0		23.6		203	100	Yes
VOC	276.4	43.8		1.3	1	323	40	Yes
SO_2	29.6 [2]	0.04		0.16 [3]		22	40	No
VE	5%	5%	5%	5%		N/A	N/A	N/A

[1] PSD significance levels are from Florida Administrative Code Table 212.400-2.
[2] SO_2 emissions from wood firing are 29.4 TPY, including emissions from the thermal oil system; emissions from natural gas firing in the RTOs are 0.16 TPY.
[3] SO_2 emissions from wood firing are included in the estimate for the dryers.

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, 62-214, 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 exceeds 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). Emissions of VOC exceed 250 TPY; emissions of PM/PM_{10}, NOx and CO exceed 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 011, and because fuel is limited to natural gas under these conditions, 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.

The applicant stated that 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 subject to a case-by-case determination of Maximum Achievable Control Technology (MACT) for HAP emissions because the US Environmental Protection Agency (EPA) has not yet promulgated a MACT standard applicable to this facility. Therefore, the proposed project is subject to Rule 62-204.800(10)(d)2, F.A.C., which requires a MACT determination for all major sources of HAPs to be constructed or reconstructed. The requirements of this determination are included in the emission limits of this permit, so that 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. This facility may become subject to a MACT standard for plywood and composite wood products when promulgated by EPA. At that time the facility shall become subject to the more stringent of the limits of this permit and of that standard.

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

January 21, 2000	Received permit application and fee
February 18, 2000	Department's requests for additional information regarding project and MACT
March 21, 2000	Department's request for additional information regarding impacts analysis
July 19, 2000	Received complete response to request for additional information
July 19, 2000	Application complete
^DRAFT	Distributed Notice of Intent to Issue and supporting documents
^DRAFT	Notice of Intent published in ^

RELEVANT DOCUMENTS

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 requests for additional information
- Applicant's additional information
- EPA comments dated March 31, 2000
- NPS comments dated February 2, 2000
- Department's Technical Evaluation BACT/MACT Determination (included as appendix B)
- 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, Part 60, 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 ^DRAFT. 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]

   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)]

   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)]

7. Modifications: No emissions unit or facility subject to this permit shall be constructed 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.]

8. 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

9. 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.]

10. Unconfined Emissions of Particulate Matter: [Rules 62-296.320(4)(c) and 62-212.400, F.A.C., and BACT]

    (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:

    - Paving and maintenance of roads, parking areas and yards.
    - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
    - Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.

- 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.
- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- 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.]

Additional reasonable precautions applicable to this facility are:

- The drum debarkers and bark hog shall be enclosed to the extent practicable.
- Bark by-product transfer points and chutes shall be enclosed to the extent necessary to minimize the emissions of unconfined particulate matter.
- Bark storage piles shall be enclosed on three sides and shaped and oriented to minimize wind erosion.
- 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.

[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 to 80 TPY and PM_{10} to 9 TPY.]

11. 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.

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

- 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.
- 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

12. 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.]

13. 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.]

14. 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 010.

    (b) Excess emissions resulting from start-up and shutdown are permitted for emissions units 001, 002 and 011 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.

    The excess emissions provisions of state rule specified in the above paragraphs can not be used to vary any NSPS requirements applicable to emissions unit 011.

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

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

15. 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.]

16. 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.]

17. 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.]

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

19. 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.

20. 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.]

21. 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. and 40 CFR 60.8]

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

22. 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

23. 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.]

24. 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.]

25. 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.]

26. 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.]

27. 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.]

28. 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 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 011) 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 550,216 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. 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 a minimum retention chamber temperature to be set during the last successful compliance test for PM/PM_{10}, VOC and CO emissions.

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

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}	33.8 lb/hour	3 hours [1]	BACT
NOx	60.0 lb/hour [2]	3 hours [1]	BACT
CO	33.6 lb/hour	3 hours [1]	BACT
VOC	63.1 lb/hour [3]	3 hours [1]	BACT
VE	5% opacity	6 minutes [4]	BACT

[1] The averaging time 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.

[Note: These emission limits effectively limit annual emissions to: PM/PM_{10}, 148.0; NOx, 262.8; CO, 147.2; and VOC, 276.4 TPY. Emission limits for this emissions unit include the emissions from the thermal oil system (emissions unit 011) during normal operating conditions. Total potential emissions of SO_2 for this emissions unit and emissions unit 011 from firing wood are estimated to be 29.4 TPY. Emissions of SO_2 from natural gas firing in the RTOs for this emissions unit are estimated to be an additional 0.16 TPY. Emissions of SO_2 are not limited by this permit.]

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

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 and outlet volumetric air flow for each RTO expressed as SCFM, 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 static pressure at the inlet of the ID fans for each RTO, and the isolation damper position for each RTO and each dryer. The static pressure shall be recorded at intervals of no less than hourly and reduced to a 24-hour block average at the end of each day. The isolation damper position shall be recorded when changes occur. The static pressure shall be used as an indicator of potential plugging of the RTO media and assist with determining the frequency for bakeouts and washouts of the RTOs. 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) and 62-212.400, F.A.C., BACT 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 catalytic oxidizer (TCO), 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. The press is indirectly heated by the thermal oil system (see emissions unit 011). 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 475 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. 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 a minimum retention chamber temperature to be set during the last successful compliance test for PM/PM_{10}, VOC and CO emissions.

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

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}	2.8 lb/hour	3 hours [1]	BACT
NOx	10.7 lb/hour [2]	3 hours [1]	BACT
CO	7.3 lb/hour	3 hours [1]	BACT
VOC	10.0 lb/hour [3]	3 hours [1]	BACT
VE	5% opacity	6 minutes [4]	BACT

[1] The averaging time 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.

[Note: These emission limits effectively limit annual emissions to: PM/PM_{10}, 12.4; NOx, 47.0; CO, 32.0; and VOC, 43.8 TPY. Potential emissions of SO_2 from the RTO for this emissions unit are estimated to be 0.04 TPY and are not limited by this permit.]

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

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 temperature and outlet volumetric air flow for the RTO expressed as SCFM, 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 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 static pressure at the inlet of the ID fan and the isolation damper position for the RTO. The static pressure shall be recorded at intervals of no less than hourly and reduced to a 24-hour block average at the end of each day. The isolation damper position shall be recorded when changes occur. The static pressure shall be used as an indicator of potential plugging of the RTO media and assist with determining the frequency for bakeouts and washouts of the RTO. 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.

   [Note: This emissions unit is not subject to the requirements of 40 CFR 64 and is not required to prepare a CAM plan in accordance with that rule.]

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

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 10^{th} 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
010	Edge sealing/stenciling booth exhaust with dry filter

[Note: These emissions units consists 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. Emissions unit 010 is controlled with a dry particulate filter system. 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 52.6 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) 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	2.1
004	1.3
005	2.0
006	2.2
007	0.3

Condition 2, table continued:

EMISSIONS UNIT	EMISSION LIMIT (LB/HOUR)
008	1.9
009	2.1
010	0.1

[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. For emissions unit 010, initial and annual compliance testing for PM emissions from this emissions unit 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
011	Thermal oil system electrostatic precipitator (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 exclusively natural gas must be fired whenever exhaust is emitted directly to the atmosphere from this emissions unit.

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.

BACT for this emissions unit is the exclusive firing of natural gas when exhaust is emitted directly to the atmosphere from this emissions unit through its ESP. Operation of the ESP is required at all times because of the possibility that the emissions unit may need to be operated as a result of malfunction 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 exhaust directed through 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, and assuming negligible control for PM/PM_{10} from the ESP 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.]

<u>STATE REQUIREMENTS</u>

OPERATIONAL REQUIREMENTS

1. <u>Hours of Operation</u>: 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. <u>Fuel & Heat Input</u>: Each heater shall be fired with wood waste and 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. 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 fired exclusively with natural gas. If, because of malfunction, exhaust is emitted directly to the atmosphere 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.

   [Rules 62-4.070(3) and 62-212.400, 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]

   [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.

   Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam ch a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

   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 011 is subject to the NSPS requirements is natural gas. Records must be maintained for five years pursuant to the requirements for Title V facilities.]

APPENDIX A. NSPS GENERAL PROVISIONS

[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.

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 475 million square feet per year, on a 3/8-inch basis. The project description, emissions and rule applicability are described in detail in Section II of the permit.

3 SOURCE IMPACT ANALYSIS

As discussed in Section II of the permit, the annual potential emissions associated with this project are: PM/PM_{10}, 293/222; NOx, 336; CO, 203; and VOC, 323 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, NO_2, and VOC. PM_{10}, and NO_2 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 BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant, in the application of January 21, 2000 and response to request for additional information, proposed BACT for the PSD pollutants PM/PM_{10}, NOx, CO and VOC. BACT was proposed to be regenerative thermal oxidizers (RTOs) for the dryers, an RTO 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 selected controls were the "top" control technologies. The applicant proposed a limit of 20% opacity for visible emissions from the point sources. 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 assumed furnish material qualities and control efficiencies.

5 BACT DETERMINATION PROCEDURE

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; 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 which would not meet any applicable emission limitation under 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (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.

6 BACT ANALYSIS AND DEPARTMENT'S DETERMINATION

For this project the PSD pollutants of concern are PM/PM_{10}, NOx, CO, and VOC. Visible emissions is included in the evaluation because of its relationship to PM/PM_{10}. The applicant proposed control technologies for these pollutants for the emission sources at this facility, and based proposed mass emissions based on estimates of the control efficiency for the control technologies, given assumed inlet conditions based on assumptions made about the quality of furnish material (raw logs). The Department initially accepted the applicant's proposed control technologies, but did not agree with the applicant's proposed emission limits. In response to comments by US FWS, EPA and the Department, the applicant revised its proposed emissions limits for PM/PM_{10}, NOx and VOC for the dryers, for VOC for the press, PM/PM_{10} for the enclosed material handling sources, and fugitive emissions of PM/PM_{10} and VOC. The applicant's revised proposal is summarized below. The Department accepted most of the applicant's revised proposed emission limits as BACT, with the exception of VE limits. The Department also made a BACT determination for the thermal oil system that requires the use of natural gas whenever the system is vented to the atmosphere instead of being exhausted through the dryers. The Department's BACT determination for each emissions unit and pollutant is discussed in the following narrative.

APPLICANT'S REVISED PROPOSED BACT, EMISSIONS IN POUNDS PER HOUR, EXCEPT VE

Source	PM/PM_{10}	NOx	CO	VOC	VE	Technology
Dryers	33.8	60.0	33.6	63.1	20%	Multiclones, RTOs
Press	2.83	10.73	7.25	10.0	20%	RTO
Thermal Oil System [1]	--	--	--	--	--	ESP, normally exhaust to dryers
Enclosed Material Handling [2]	12.0					Baghouses
Fugitive Sources [2]	80/9			1		Reasonable precautions

1 The applicant did not propose BACT for the thermal oil system because its emissions are exhausted to the dryers during normal operation. These emissions are included in the dryer emissions.

2 Emissions are total for all sources.

6.1 DRYERS

Each dryer is 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 RTOs. 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.

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. 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 current uncertainty and future variability in the quality of the furnish 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 5% consistent with the level of emissions expected from the RTOs during normal operation.

6.2 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. The RTO 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 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 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 RTOs in many cases.

The Department agreed with the applicant's proposed control technology. The Department required the use of an RTO 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 5% consistent with the level of emissions expected from the RTO during normal operation.

6.3 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. Emissions unit 010, which is a spray booth for edge sealing and stenciling, is controlled with a dry particulate filter system.

These emissions units emit PM/PM_{10} and visible emissions. The applicant proposed to use integrated cyclones and baghouses (dry filter for the spray booth) 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.

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.

6.4 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 through its ESP. Operation of the ESP is required at all times because of the possibility that the emissions unit may need to be operated as a result of malfunction 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.

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.

6.5 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.

6.6 BACT EXCESS EMISSIONS APPROVAL

Pursuant to the 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.

7 MACT DETERMINATION

As discussed in Section II of the permit, this facility is subject to a case-by-case MACT determination for control of emissions of HAPs. 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.

MACT Determination Procedure

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.

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 proposed MACT standards for Plywood and Composite Wood Products, which if effective now, would require control of emissions from the dryers and press at this plant. Not regulated would be saws, sanders, chippers, storage tanks and miscellaneous coating operations. The proposed standards essentially require 90% reduction across the control device of VOC, methanol and formaldehyde emissions, would set a maximum concentration for these compounds, would provide for an emissions averaging program with a program for controlling sources not subject to the regulation to generate credits to offset lesser controls on regulated sources. EPA's tentative schedule provides for promulgation early in 2002, with a compliance date three years after the final rule is published in the Federal Register. The Department's BACT determination, control technology requirements and emission limits for the dryers and press are consistent with the level of control of the proposed MACT and the control of similar sources. The Department hereby establishes that its BACT determination is also its case-by-case MACT determination for this facility.

8 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 – 010, Enclosed Material Handling	PM/PM_{10}, VE	Cyclone/baghouse, dry filter system (010), 5% opacity
011, 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

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

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. PRELIMINARY DETERMINATION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department's preliminary determination is to issue the draft permit to allow construction of the new oriented strandboard facility.

11. DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

Joseph Kahn, P.E.
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:	Approved By:
DRAFT	
C. H. Fancy, P.E., Chief Bureau of Air Regulation	Howard L. Rhodes, Director Division of Air Resources Management
Date:	Date:

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.

Georgia-Pacific Corporation
133 Peachtree Street NE (30303)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

July 28, 2000

RECEIVED
AUG 03 2000
BUREAU OF AIR REGULATION

Mr. Joseph Kahn, P.E.
Florida Department of Environmental Protection
New Source Review Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Proposed Georgia-Pacific Hosford Facility - Additional Information per July 28, 2000 Conference Call

Dear Mr. Kahn:

The purpose of this letter is to summarize our discussions from earlier today.

You first asked for information regarding the elapsed times needed for both bake-outs and wash-outs in the regenerative thermal oxidizers (RTOs). For the dryer RTOs, the times needed to complete the activities are 12 and 72 hours for bake-outs and wash-outs, respectively. Wash-outs will not be required for the RTO serving the press, but bake-outs may be needed on occasion, although the frequency would be less than what will be needed for the dryer RTOs.

As we discussed, Georgia-Pacific is willing to lower the emission estimates for volatile organic compounds (VOCs), nitrogen oxides (NOx), and particulate matter from the dryer RTOs. We are also willing to commit to a lower level of VOC emissions for the press RTO. During our last telephone conversation, yourself, and others on the call (e.g., USEPA Region IV, Fish and Wildlife Service, and the National Park Service) requested that we accept control efficiencies of 95% for VOCs exiting both the dryer and press RTOs. Although our dryer vendor has not changed their guarantee of 90%, we are willing to accept the efficiency of 95%. As was the case with Louisiana-Pacific, Hanceville, we still think it is more appropriate to have our limit expressed in terms of mass (lbs/hour) as opposed to 95%, primarily due to the uncertainties surrounding the moisture content of the furnish.

With regard to NOx from the dryer RTOs, we are now proposing a final emission rate of 60 pounds per hour (lbs/hour). This represents a decrease of approximately 20% over our original proposal. We recognize the fact that the memorandum from Ellen Porter to Kirsten King, dated February 2, 2000, states that the BACT limit should be 40 lbs/hour. However, as we discussed today and in our recent correspondence, while this level of emissions may represent BACT for

NOx from the dryers at Brookneal, we do not feel that it represents BACT for Hosford. Due to the unique design of Brookneal (Wellons Energy System), we were able to install urea injection for NOx controls. The Wellons System operates at temperatures that are conducive to the use of urea injection. This technology is infeasible for Hosford, given the design of that facility and the different operating temperatures.

It should also be noted that our proposed emission rate is well within the range that has been established for other, similar facilities in the RACT/BACT/LAER Clearinghouse. While some of the hourly mass emission rates listed in the Clearinghouse are lower than what is proposed for Hosford, those rates have been established for smaller facilities. G-P believes that the most appropriate, common terms to compare dryer emissions among facilities is per a dried furnish rate or finished production rate, not a heat input rate. Viewing NOx emissions in terms of both dried furnish (oven dried tons (ODT)), the limits in the Clearinghouse range from 0.66 to 1.75 lbs NOx per ODT (dried furnish) – our proposed rate of 60 lbs/hour corresponds to an emission factor of approximately 0.96 lbs NOx per ODT. On a finished product basis, the factors range from 0.32 to 1.70 (at two Louisiana-Pacific facilities) lbs per thousand square feet (msf). For Hosford, we are now proposing a value of 1.1 lbs per msf of finished production. It is also worth mentioning that, due to the higher moisture content expected for our furnish, the dryer vendor has estimated that our emissions will be approximately 32 percent higher than a comparably sized facility with a lower furnish moisture content. For all of these reasons, we feel that this represents a very realistic estimate of our NOx emissions from the dryer RTOs.

For particulate matter, we are proposing to lower our original estimate by more than 50% to 33.8 lbs/hour. We derived this value based on testing conducted for a similar facility that we operate in Skippers, Virginia. The highest test run for the RTO at this facility yielded an emission value of 0.37 lb/ODT. Given the fact that particulate matter emissions are strongly impacted by the moisture content of the furnish, we have adjusted this value accordingly. Our dryer vendor has estimated that particulate matter emissions will increase by approximately 46% for the higher moisture content furnished. As such, we calculate an emission factor for Hosford of 0.54 lb/ODT. This compared to a Clearinghouse range of 0.43 to 1.19 lb/ODT. This is also equivalent to 0.62 lb/msf, with the values in the Clearinghouse ranging from 0.15 to 1.37 lb/msf. Again, given the higher moisture content of furnish anticipated for this facility, we feel that this represents BACT for the Hosford dryers.

The following table summarizes the revisions:

Summary of Proposed Emission Rate Revisions for G-P Hosford Facility		
Pollutant/Source	**January 2000 Application**	**Proposed Values**
PM10 – Dryers after controls	74.5 lbs/hour total for 5 dryers	33.8 lbs/hour total for 5 dryers
NOx – Dryers after controls	73.3 lbs/hour for 5 dryers	60.0 lbs/hr total for 5 dryers
VOC – Press after controls	90% control	95% control
VOC – Dryers after controls	90% control	95% control

We appreciate your assistance in helping us move forward with this very important project.

Sincerely,

Mr. Ronnie L. Paul
Executive Vice President, Wood Products
and Distribution

Mr. Mark J. Aguilar, P.E.
Senior Environmental Engineer

Seal

cc:	P.J. Vasquez	GA030-17
	M.M. Vest	FL165 (Palatka)
	T.R. Wyles	GA030
	John Bunyak, National Park Service	
	Ed Middleswart, FDEP Pensacola	
	Gregg Worley, USEPA Region IV	

Georgia-Pacific

133 Peachtree St., N.E. 9th Floor
P.O. Box 105605
Atlanta, GA 30348-5605
(404) 652-4293
(404) 654-4706 - Fax Number

FAX COVER SHEET

DATE	TOTAL PAGES
July 21, 2000	3

TO	FAX NUMBER
Mr. Joe Kahn	**850** 922-6979

LOCATION/DEPARTMENT	FLOOR

FROM
Mark Aguilar (404) 652-4293

LOCATION/DEPARTMENT	FLOOR
G-P Atlanta	9

COMMENTS:
Regarding Proposed Hosford OSB: Test report information from Dryer Vendor for Hanceville test.

IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL (404) 652-4293

M-E-C COMPANY

TELEFAX TRANSMITTAL

DATE: July 18, 2000 **PAGE:** 1 **OF** 2

TO: MARK AGUILAR **FAX NO:** 404-654-4706

COMPANY: Georgia-Pacific Corp. **TELEFAX CC TO:**

STREET/P.O.BOX: 133 Peachtree St NE **FAX:** PAUL VASQUEZ G-P, ATLANTA 404-588-3975

CITY,STATE,ZIP: Altanta, GA 30348-5605

COUNTRY: USA ALLEN DEES G-P, ATLANTA #11

SUBJECT: G-P OSB Plant, Hosford, FL D-0014-9-0

Attached is a page from the Hanceville June 17, 1994 Emission Test Report. It has been faxed and copied several times; so I added some notes if you are not able to read the shaded areas.

Not only does it say four dryers were operated, but based on the dscfm in and out, it's obvious that only 4 dryers were operating during the test. I trust this is sufficient proof for the State of Florida.

M-E-C does not have the complete emission test report, only summaries and our own internal report. However, if we can be of further help, please let me know.

Regards,

Mike Hudson

Mike Hudson

copy: DMP/BCB/EAD

M-E-C COMPANY
P.O. BOX 330
NEODESHA, KANSAS
66767 U.S.A.

TELEPHONE
316-325-2673
TELEFAX
316-325-2678

Email
mec@m-e-c.com
WEBSITE
http://www.m-e-c.com

BEST AVAILABLE COPY

AVERAGE OF TWO DRYERS TESTED

PROJECTED TOTAL OF FOUR DRYERS

1.3 Totals, Averages and Efficiency Summaries:

1.3.1 Dryer Multiclone Inlets

PARAMETERS	UNITS	Average of two dryers tested	Projected total of four dryers *
PARTICULATE LOADING	#/hr	25.92	103.67
VOC LOADING (as C)	#/hr	65.91	263.64
NOx LOADING	#/hr	4.14	16.54
CO LOADING	#/hr	6.03	24.12
FORMALDEHYDE LOADING	#/hr	1.38	5.52
VOLUMETRIC FLOWRATE	dscfm	27508	110030

* Four dryer total is presented here. Attempts to operate all five dryers at maximum load were not successful. Therefore four of the dryers were operated at maximum furnish rates.

AVERAGE OF BOTH RTO'S

TOTAL OF BOTH RTO'S

REMOVAL EFFICIENCY

1.3.2 Dryer East and West RTO Outlets

PARAMETER	UNITS	Average of both RTO's	Total of both RTO's	[illegible]
PARTICULATE LOADING	#/hr	5.24	10.48	90.4
VOC LOADING (as C)	#/hr	0.94	1.87	99.3
NOx LOADING	#/hr	13.87	27.73	-67.7
CO LOADING	#/hr	5.02	10.04	58.4
FORMALDEHYDE LOADING	#/hr	0.126	0.251	95.4
VOLUMETRIC FLOWRATE	dscfm	66456	132912	—

JOE

INTEROFFICE MEMORANDUM

Date: 21-Jul-2000 05:56pm
From: Kissell.Mary
Kissell.Mary@epamail.epa.gov
Dept:
Tel No:

To: cindy.phillips (cindy.phillips@dep.state.fl.us)
To: greg.landis (greg.landis@deq.state.or.us)

Subject: Plywood and Composite Wood Products MACT

Attached are table 2 from the draft proposal preamble and the definitions from the draft rule. Also attached is a set of slides I prepared in April for the Composite Panel Association. A couple of the slide pages need caveats if you plan to depend on them for decision-making -- concentration options and restriction on emissions averaging. Also, when we say THC, we mean THC, as carbon, minus methane.

The rule is undergoing review now within EPA. I hope to get it to OMB in August. If you have any questions, please call me at (919) 541-4516.

(See attached file: P&CWP_preambletable2_ruledefns.wpd)(See attached file: cpa_april00.PRZ)

TABLE 2. PROCESS UNITS SUBJECT TO THE PROPOSED EMISSION LIMITS

For the following process units...	Does today's proposed rule include emission limits for...	
	Existing affected sources?	New affected sources?
Softwood veneer dryers; primary tube dryers; secondary tube dryers; strand dryers; green rotary dryers; hardboard ovens; reconstituted wood product presses; and pressurized refiners	Yes	Yes
Press predryers; fiberboard mat dryers; board coolers; and stand alone digesters	No	Yes
Dry rotary dryers; veneer redryers; plywood presses; engineered wood products presses; hardwood veneer dryers; humidifiers; atmospheric refiners; formers; blenders; rotary agricultural fiber dryers; agricultural fiber board presses; sanders; saws; fiber washers; chippers; log vats; lumber kilns; storage tanks; wastewater operations; and miscellaneous coating operations	No	No

Terms used in this subpart are defined in the Act, in 40 CFR 63.2, the General Provisions, and in this section as follows:

Affected source means the collection of dryers, blenders, formers, presses, board coolers, and other process units associated with the manufacturing of plywood and composite wood products at a plant site. The affected source includes, but is not limited to, green end operations, drying operations, blending and forming operations, pressing and board cooling operations, and miscellaneous finishing operations (such as sanding, sawing, patching, edge sealing, and other finishing operations not subject to other NESHAP). The affected source also includes onsite storage of raw materials used in the manufacture of plywood and/or composite wood products, such as resins; onsite wastewater treatment operations specifically associated with plywood and composite wood products manufacturing; and miscellaneous coating operations (defined elsewhere in this section).

Biofilter means an enclosed control system such as a tank or series of tanks with a fixed roof that are filled with media (such as bark) and use microbiological activity to transform organic pollutants in a process exhaust stream to innocuous compounds such as carbon dioxide, water, and inorganic salts. Wastewater treatment systems such as aeration lagoons or activated sludge systems are not considered to be biofilters.

Capture device means a hood, enclosure, or other means of collecting emissions into a duct so that the emissions can be directed to a pollution control device.

Capture efficiency means the fraction (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on air pollution control device.

Catalytic oxidizer means a control system that combusts or oxidizes, in the presence of a catalyst, exhaust gas from a process unit. Catalytic oxidizers include regenerative catalytic oxidizers and thermal catalytic oxidizers.

Control device means any equipment that reduces the quantity of a hazardous air pollutant that is emitted to the air. The device may destroy the hazardous air pollutant or secure the hazardous air pollutant for subsequent recovery. Control devices include, but are not limited to, thermal or catalytic oxidizers, combustion units that incinerate process exhausts, biofilters, and condensers.

Control system means the combination of capture and control devices used to reduce hazardous air pollutant emissions to the atmosphere.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including any operating limit), or work practice

standard;

(2) fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

Digester means a piece of equipment operated at elevated temperature and pressure and used for preheating (usually by steaming) wood material prior to refining.

Dryer heated zones means the zones of a softwood veneer dryer or fiberboard mat dryer that are equipped with heating and hot air circulation units. The cooling zone(s) of the dryer through which ambient air is blown are not part of the dryer heated zones.

Dry rotary dryer means a rotary dryer that dries wood particles or fibers with a maximum inlet moisture content of less than or equal to 30 percent (by weight, dry basis) AND operates with a maximum inlet temperature of less than or equal to 600 degrees Fahrenheit. A dry rotary dryer is a process unit.

Dry forming means the process of making a mat of resinated fiber to be compressed into a reconstituted wood product such as particleboard, OSB, MDF, or hardboard.

Emission limitation means any emission limit, opacity limit, operating limit, or visible emission limit.

Fiber means the slender threadlike elements of wood or similar cellulosic material, which are separated by chemical and/or mechanical means, as in pulping, that can be formed into boards.

Fiberboard means a composite panel composed of cellulosic fibers (usually wood or agricultural material) made by wet forming and compacting a mat of fibers. Fiberboard density is less than 0.50 grams per cubic centimeter (31.5 pounds per cubic foot).

Fiberboard mat dryer means a dryer used to reduce the moisture of wet-formed wood fiber mats by operation at elevated temperature. A fiberboard mat dryer is a process unit.

Furnish means the fibers, particles, or strands used for making boards.

Glue-laminated beam means a structural wood beam made by bonding lumber together along its faces with resin.

Green rotary dryer means a rotary dryer that dries wood particles or fibers with an inlet moisture content of greater than 30 percent (by weight, dry basis) at any dryer inlet temperature OR operates with an inlet temperature of greater than 600 degrees Fahrenheit with any inlet moisture content. A green rotary dryer is a process unit.

Hardboard means a composite panel composed of cellulosic fibers made by dry or wet forming and pressing of a resinated fiber mat. Hardboard has a density of 0.50 to 1.20 grams per cubic centimeter (31.5 to 75 pounds per cubic foot).

Hardboard oven means an oven used to heat treat or temper hardboard after hot pressing. Humidification chambers are not considered as part of hardboard ovens. A hardboard oven is a process unit.

Hardwood means the wood of a broad-leafed tree, either deciduous or evergreen. Examples of hardwoods include (but are not limited to) aspen, birch, and oak.

Hardwood veneer dryer means a dryer that removes excess moisture from veneer by conveying the veneer through a heated medium on rollers, belts, cables, or wire mesh. Hardwood veneer dryers are used to dry veneer with less than 50 percent softwood species on an annual volume basis. Veneer kilns that operate as batch units; veneer dryers heated by radio frequency or microwaves that are used to redry veneer; and veneer redryers (defined elsewhere) that are heated by conventional means are not considered to be hardwood veneer dryers. A hardwood veneer dryer is a process unit.

Laminated strand lumber (LSL) means a composite product formed into a billet made of thin wood strands cut from whole logs, resinated, and pressed together with the grain of each strand oriented parallel to the length of the finished product.

Laminated veneer lumber (LVL) means a composite product formed into a billet made from layers of resinated wood veneer sheets or pieces pressed together with the grain of each veneer aligned primarily along the length of the finished product. Laminated veneer lumber includes parallel strand lumber (PSL).

Medium density fiberboard (MDF) means a composite panel composed of cellulosic fibers (usually wood) made by dry forming and pressing of a resinated fiber mat.

Method detection limit means the minimum concentration of an analyte that can be determined with 99 percent confidence that the true value is greater than zero.

Miscellaneous coating operations means application of any of the following to plywood or composite wood products: edge seals, moisture sealants, anti-skid coatings, company logos, trademark or grade stamps, nail lines, synthetic patches, wood patches, wood putty, concrete forming oils, glues for veneer composing, and shelving edge fillers. Miscellaneous coating operations also include the application of primer to OSB siding that occurs at the same site as OSB manufacture.

MSF means thousand square feet (92.9 square meters). Square footage of panels is usually measured on a thickness basis, such as 3/8-inch, to define the total volume of panels. Equation 3 in §63.2262(j) shows how to convert from one thickness basis to another.

Nondetect data means, for the purposes of this subpart, any value that is below the method detection limit.

Oriented strandboard (OSB) means a composite panel produced from thin wood strands cut from whole logs, formed into resinated layers (with the grain of strands in one layer oriented perpendicular to the strands in adjacent layers), and pressed.

Oven dried ton(s) (ODT) means tons of wood dried until all of the moisture in the wood is removed. One oven-dried ton equals 907 oven-dried kilograms.

Particle means a distinct fraction of wood or other cellulosic material produced mechanically and used as the aggregate for a particleboard. Particles are larger in size than fibers.

Particleboard means a composite panel composed of cellulosic materials (usually wood or agricultural fiber) in the form of discrete pieces or particles, as distinguished from fibers, which are pressed together with resin.

Permanent total enclosure (PTE) means a permanently installed containment that meets the criteria of Method 204 (40 CFR part 51, Appendix M).

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Plywood and composite wood products (PCWP) manufacturing facility means a plant site that manufactures plywood and/or composite wood products by bonding wood material (fibers, particles, strands, veneers, etc.) or agricultural fiber with resin, generally under heat and pressure, to form a structural panel or engineered wood product. Plywood and composite wood products include (but are not limited to) plywood, veneer, particleboard, oriented strand board, hardboard, fiberboard, medium density fiberboard, laminated strand lumber, laminated veneer lumber, wood I-joists, and glue-laminated beams.

Plywood means a panel product consisting of layers of wood veneers hot pressed together with resin. Plywood includes panel products made by hot pressing (with resin) veneers to a substrate such as particleboard, MDF, or lumber.

Press predryer means a dryer used to reduce the moisture and elevate the temperature of a wet-formed fiber mat before the mat enters a hot press. A press predryer is a process unit.

Pressurized refiner means a piece of equipment operated under pressure for preheating (usually by steaming) wood material and refining (rubbing or grinding) the wood material into fibers. Pressurized refiners are operated with continuous infeed and outfeed of wood material and maintain elevated internal pressures (i.e., there is no pressure release) throughout the preheating and refining process. A pressurized refiner is a process unit.

Primary tube dryer means a single-stage tube dryer or the first stage of a multi-stage tube dryer. Tube dryer stages are separated by vents for removal of moist gases between stages (for example, a product cyclone at the end of a single-stage dryer or between the first and second stages of a multi-stage tube dryer). The first stage of a multi-stage tube dryer is used to remove the majority of the moisture from the wood furnish (compared to the moisture reduction in subsequent stages of the tube dryer). A primary tube dryer is a process unit.

Process unit means equipment classified according to its function such as a blender, dryer, press, former, or board cooler.

Reconstituted wood product board cooler means a piece of equipment designed to reduce the temperature of a board by means of forced air or convection within a controlled time period after the board exits the reconstituted wood product press unloader. Board coolers include wicket and star type coolers commonly found at MDF and particleboard plants. Board coolers do not include cooling sections of dryers (e.g., veneer dryers or fiberboard mat dryers) or coolers integrated into or following hardboard bake ovens or humidifiers. A reconstituted wood product board cooler is a process unit.

Reconstituted wood product press means a press that presses a resinated mat of wood fibers, particles, or strands between hot platens or hot rollers to compact and set the mat into a panel by simultaneous application of heat and pressure. Reconstituted wood product presses are used in the manufacture of hardboard, medium density fiberboard, particleboard, and oriented strandboard. Extruders are not considered to be reconstituted wood product presses. A reconstituted wood product press is a process unit.

Representative operating conditions means operation of a process unit during performance testing under the conditions that the process unit will typically be operating in the future, including use of a representative range of materials (e.g., wood material of a typical species mix and moisture content or typical resin formulation) and representative operating temperature.

Resin means the synthetic adhesive (including glue) or natural binder, including additives, used to bond wood or other cellulosic materials together to produce plywood and composite wood products.

Responsible official means responsible official as defined in 40 CFR 70.2 and 40 CFR 71.2.

Secondary tube dryer means the second stage and subsequent stages following the primary stage of a multi-stage tube dryer. Secondary tube dryers, also referred to as relay dryers, operate at lower temperatures than the primary tube dryer they follow. Secondary tube dryers are used to remove only a small amount of the furnish moisture compared to the furnish moisture reduction across the primary tube dryer. A secondary tube dryer is a process unit.

Softwood means the wood of a coniferous tree. Examples of softwoods include (but are not limited to) Southern yellow pine, Douglas fir, and White spruce.

Softwood veneer dryer means a dryer that removes excess moisture from veneer by conveying the veneer through a heated medium on rollers, belts, cables, or wire mesh. Softwood veneer dryers are used to dry veneer with greater than or equal to 50 percent softwood species on an annual volume basis. Veneer kilns that operate as batch units; veneer dryers heated by radio frequency or microwaves that are used to redry veneer; and veneer redryers (defined elsewhere) that are heated by conventional means are not considered to be softwood veneer dryers. A softwood veneer dryer is a process unit.

Startup means bringing equipment online and starting the production process.

Startup, initial means the first time equipment is put into operation. Initial startup does not include operation solely for testing equipment. Initial startup does not include subsequent startups (as defined in this section) following malfunction or shutdowns or following changes in product or between batch operations. Initial startup does not include startup of equipment that occurred when the source was an area source.

Startup, shutdown, and malfunction plan (SSMP) means a plan developed according to the provisions of §63.6(e)(3).

Strand means a long (with respect to thickness and width), flat wood piece specially cut from a log for use in oriented strandboard, laminated strand lumber, or other wood strand-based product.

<u>Strand dryer</u> means a dryer operated at elevated temperature and used to reduce the moisture of wood strands used in the manufacture of OSB, LSL, or other wood strand-based products. A strand dryer is a process unit.

<u>Thermal oxidizer</u> means a control system that combusts or oxidizes exhaust gas from a process unit. Thermal oxidizers include regenerative thermal oxidizers and burners or combustion units through which process exhausts are routed.

<u>Total hazardous air pollutant (HAP) emissions</u> means, for purposes of this rulemaking, the sum of the emissions of the following six compounds: acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde.

<u>Tube dryer</u> means a single- or multi-stage dryer operated at elevated temperature and used to reduce the moisture of wood fibers or particles as they are conveyed (usually pneumatically) through the dryer. Resin may or may not be applied to the wood material before it enters the tube dryer. A tube dryer is a process unit.

<u>Veneer</u> means thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated veneer lumber, or other products.

<u>Veneer redryer</u> means a dryer heated by conventional means, such as direct wood-fired, direct-gas-fired, or steam heated,

that is used to redry veneer that has been previously dried. Because the veneer dried in a veneer redryer has been previously dried, the inlet moisture content of the veneer entering the redryer is less than 25 percent (by weight, dry basis). A veneer redryer is a process unit.

Wet forming means the process of making a slurry of water, fiber, and additives into a mat of fibers to be compressed into a fiberboard or hardboard product.

Wood I-joists means a structural wood beam with an I-shaped cross section formed by bonding (with resin) wood or laminated veneer lumber flanges onto a web cut from a panel such as plywood or oriented strandboard.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

§§63.2293-63.2299 [Reserved]

PRESENTATION to CPA

APRIL 16, 2000

PLYWOOD AND COMPOSITE WOOD PRODUCTS MACT

Click here to add clip art

Purpose of Presentation

- introduce EPA lead on MACT
- familiarize attendees with EPA regulatory approach
- share some basics of P&CWP MACT proposal
- share anticipated schedule

EPA Project Lead

Mary Tom Kissell
(919) 541-4516
kissell.mary@epa.gov
U. S. EPA (MD-13)
Research Triangle Park, NC 27711

Terms

- NESHAP
- MACT
- source category
- existing source & new source
- affected source
- emission point
- MACT floor

Regulatory Approach - MACT Floor Requirements

- section 112(d) of the Clean Air Act
- technology based
  - existing sources
    - average emission limitation achieved by best performing 12% (>30 sources)
    - average achieved by best performing five sources (
  - new sources - best controlled similar source

Regulatory Approach - Gathering Information

- Literature
- Site visits
- Regional, State, and local agencies
- Other rules, such as NSPS and SIP
- Vendors
- Trade associations

Regulatory Approach - Costs and Emission Reductions

- engineering costs
- emission reductions
- economic impacts
- small business
- environmental and energy impacts

Draft MACT Proposal - Processes

- particleboard
- oriented strandboard
- plywood and veneer
- hardboard
- fiberboard
- medium density fiberboard
- engineered wood products such as laminated veneer lumber and I-joists

Draft MACT Proposal - HAP Emitted

- Acetaldehyde
- Methanol
- Formaldehyde
- Phenol
- Also: acrolein, propionaldehyde, toluene, benzene, xylenes, etc.

Draft MACT Proposal - Emission Points Requiring Control (existing)

- wood dryers - includes tube, rotary, and conveyer dryers; excludes dry dryers
- softwood veneer dryers
- reconstituted wood presses
- bake/tempering ovens
- continuous digesters/refiners

Draft MACT Proposal - Emission Points Requiring Control (new)

- all emission points requiring control for existing, plus:
  - board coolers
  - press predryers

Draft MACT Proposal-Compliance

- 90% reduction across control device of:
  - VOC, measured as total hydrocarbon
  - methanol
  - formaldehyde
- outlet concentration of 1 ppmv methanol or formaldehyde, or 20 ppmv THC
- emissions averaging
- lb/unit of production emission rate for inherently low-emitting emission points

Draft MACT Proposal - Emission Averaging Overview

- system of debits and credits
  - emission points not required to be controlled by MACT or other rule can be controlled, generating credits
  - emission points requiring control by MACT may be uncontrolled or under controlled, generating debits
- only emission points within the source category can average emissions

Draft MACT Proposal - Emission Averaging Overview *(continued)*

- 10% discount factor
- mass basis
- States can opt out
- more MRR
- new sources excluded
- no banking across compliance periods
- compliance period - probably a year

Draft MACT Proposal - Emission Averaging Overview *(continued)*

- interpollutant trading allowed if no increased risk
  - demonstrate no increased risk if trading among different pollutants
  - assume same pollutant trading results in no increased risk
- HAP for emissions averaging: acetaldehyde, acrolein, formaldehyde, methanol, phenol, propionaldehyde

Draft MACT Proposal - Engineering Costs

- total capital investment > $450 million
- total annual cost > $100 million
- cost effectiveness between $10,000/ton and $20,000/ton HAP
- note: these are nationwide costs to the industry

Schedule

- OMB package -- end of August
- proposal package signed -- December
- public comment period -- 60 days
- promulgation package signed -- February 2002
- compliance date - three years after final rule published in Federal Register

Resources - Air Docket

Air and Radiation Docket and
Information Center (6102)
(Docket Number A-98-44)
Room M-1500
U.S. EPA
401 M Street SW
Washington, DC 20460

Resources - World Wide Web

- webpage
  - **http://www.epa.gov/ttn/uatw/plypart/plypart.html**
- signed rule
  - http://www.epa.gov/ttn/oarpg/new.html
  - TTN HELP line at (919) 541-5384
- AP-42
  - http://www.epa.gov/ttn/chief/ap42c10.html
  - have plans to add emission factors

Georgia-Pacific Corporation
133 Peachtree Street NE (30303)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

July 14, 2000

RECEIVED
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BUREAU OF AIR REGULATION

Mr. Joseph Kahn, P.E.
Florida Department of Environmental Protection
New Source Review Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: March 21, 2000 Modeling Comment Letter for the Proposed Georgia-Pacific Oriented Strandboard (OSB) Facility in Hosford, FL

Dear Mr. Kahn:

Georgia-Pacific Corporation (G-P) is pleased to provide the following additional modeling information to complete the January PSD air permit application. Each one of your comments is addressed in the following pages with individual responses and attachments (as noted). Please contact me (404/652-4293) or Paul Vasquez (application contact at 404/652-7327) with any additional questions. Thank you for your help on this important project.

Sincerely,

Mark J. Aguilar, P.E.
Senior Environmental Engineer
Georgia-Pacific Corporation
P.E. Number 52248

MARK AGUILAR
CERTIFICATE No. 52248
STATE OF FLORIDA
SEAL
PROFESSIONAL ENGINEER

Enclosures: Responses to Modeling Comments

cc:	P.J. Vasquez	GA030-17
	M.M. Vest	FL165 (Palatka)
	T.R. Wyles	GA030
	Gregg Worley	EPA Region IV
	John Bunyak	National Park Service
	Ed Middleswart	Florida DEP

From your letter of February 18,2000
Comment 1:

The application information states that fugitive sources are not required for evaluating PSD applicability. Rule 62-212.400(2)(b), F.A.C., provides for exemption of fugitive emissions from the determination of whether this facility is major for PSD, but Rule 62-212.400(2)(f), F.A.C., requires emissions be included in determining which pollutants equal or exceed the significant emission rate. The facility is major because of VOC potential emissions, and is significant for PM and PM10, CO and NOx. Please address the PSD requirements of Rule 62-212.400, F.A.C., for PM10 and VOC. Include an analysis of BACT for PM and PM10 visible emissions, and VOC and an air quality analysis, that take into account all quantifiable fugitive emissions from the proposed facility.

Response:
Georgia-Pacific (G-P) has revised the modeling analysis to include fugitives. Attachment 2 presents tables for inputs and results of the revised modeling analysis.

Also note, that to include the predicted impacts of fugitive emissions, G-P made the following changes to the point source modeling data:

1. Repositioned the fence. Attachment 1 shows the position of the new fence.
2. Increased the stack heights for several stacks
3. Reduced the maximum 24-hour emission rate for EP_10 as follows:

   2.25 hours/day on sanderdust firing @ 8 lbs./hr
   21.75 hours/day on natural gas firing @ 0.61 lbs./hr
   24-hour emissions = 31.2 lbs./day
   31.2 / 24 = 1.3 lbs./hr

Enclosed in the package is a pair of diskettes with the computer files for the revised analysis

From your letter of March 21, 2000
Comment 1:

"Please provide information that shows that the site boundary used in the impact modeling will be land owned or controlled by Georgia-Pacific with a physical barrier to public access."

Response:
Attachment 1 presents a map of the Georgia-Pacific (G-P) property with proposed sources, buildings and fenceline. A physical fence will be installed along the fenceline path on this drawing. If the fenceline path enters a submerged area (*i.e.,* wetland, or slough), then G-P will instead restrict access in these areas by using monitored security cameras and/or posted signs.

On February 18, 2000, FDEP requested G-P revise its modeling analysis to include fugitive emission sources. As a result, the position of the fence presented in the original application (shown in Figure 3-2) has been changed. Attachment 1 presents the fenceline position that corresponds the modeling analysis with fugitive sources.

Comment 2:

Please reevaluate the emission inventory for competing NO_x and PM_{10} sources to examine the possibility of including sources that are located more than 50 km from the Significant Impact Area (SIA). The current emission inventory disregards sources beyond this distance without examining the magnitude of their emissions. The 20D Rule may be used to prove the insignificance of these sources if they are not located in a close proximity to one another.

Response:

G-P included all sources within 100 km of the facility in consideration of competing sources. G-P analyzed competing sources for the NAAQS analysis with the 20D method. Attachment 2 presents revised table for competing sources.

Comment 3:

Please combine the Englehard emission sources into 5 to 10 representative sources, instead of combining them into one single source. This should be done by considering the similarity of source parameters such as location, stack height, exit temperature, and diameter.

Response:

G-P merged the Englehard sources into 20 discrete modeling sources. Attachment 2 presents the merge calculations.

Comment 4:

Please update and provide the emission inventory used for the Class I PSD cumulative assessment. Because emission sources around the Class I areas are of concern in this assessment, the class I emission inventory may include additional sources not contained in the Class II PSD assessment.

Response:

G-P has reviewed the Class I PSD cumulative assessment for PM10. During the week of July 10, 2000, FDEP and G-P discussed the data and determined that the inventory is complete.

Comment 5:

Please reevaluate 24-hour PM_{10} impacts by using the current compliance standard. The current 24-hour PM_{10} compliance standard is the highest 6^{th} highest 24-hour value at any receptor when a 5-year data record is used.

Response:

G-P assessed the National Ambient Air Quality Analysis (NAAQS) using the highest of the individual high-second-high results for each of 5 years. While this approach is more conservative than using the highest 6^{th} highest, G-P has completed the revised NAAQS (to include fugitives) with this methodology. G-P continues to use the highest of the individual high-second-high results for each of 5 years for assessment of PSD Class II increments. Attachment 2 presents these result tables.

Comment 6:

Please evaluate visibility impairment in the SIA. The assessment of visibility impairment (coherent plume) is not limited to Class 1 areas. This assessment should be performed in the impact area with particular emphasis at locations of sensitive receptors e.g., scenic vistas, nearby airports, etc.

Response:
G-P's revised analysis predicted the significant impact distances are 0, 7, and 13 km for CO, NOx, and PM10, respectively. G-P has reviewed maps of these areas and found no occurrences of state parks, public areas along waterways, or airports. Because there are not sensitive receptors within the significant impact distances, G-P did not perform a plume blight analysis.

Comment 7:

The assessment of visibility at St. Marks NWA used the high second-highest modeled concentration. The proper value to use for this assessment is the highest modeled concentration. Please use the highest modeled concentration when you conduct the refined regional haze analysis for the St. marks NWA. The second-highest modeled concentration may be used in PSD and NAAQS analyses only.

Response:
G-P has prepared a revised Class I Area visibility analysis. The demonstration of compliance is based on the maximum concentrations. The refined visibility analysis and results was sent to FDEP on July 12, 2000.

Comment 8:

Although the PSD Class II increment consuming sources (Table 9) are a subset of the complete NAAQS emission inventory (Tables 5 and 8), differences are noted in some of the emission rates and stack parameters for the PSD emission sources. Please provide the reason for these differences.

Response:

Tables 9, 5, and 8 of the January 2000 application contain modeling data using FDEP information verbatim. In 1999, Mr. Cleave Holladay sent G-P ISCST3 input files for NOx and PM10 including both short-term and long-term average emission rates and modeling parameters. G-P has no additional information beyond this dataset provided by FDEP. G-P does recognize that the competing sources, while there are differences in emission rates and stack parameters for long and short-term averaging times, are verbatim to analyses accepted by FDEP recently.

Comment 9:

Please utilize a grid that has a 100-meter resolution around the maximum predicted concentration for all SIA, PSD increment, and NAAQS modeling.

Response:
The revised analysis applied a 100-meter resolution grid for the maximum impact, PSD Class II Increment, and NAAQS modeling analyses. The PSD Class I Area receptors are spaced at 100 meters for the analysis.

Attachment 1
G-P Hosford OSB Plant Fence Location Map

Attachment 2
Revised Report Tables

Table 1a. Point Source Stack Parameters for Emission Sources at Proposed G-P Plant, Hosford								
		Stack Parameters						
		Source Location (m) [a]		Stack Height	Stack Exit Temp	Stack Exit Velocity	Stack Diameter
Model ID	Description	X	y	(ft)	F	(m/s)	(in)
EP-1A	Dryer RTO Stack A	-98.3	-84.3	130	259.0	15.31	102
EP-1B	Dryer RTO Stack B	0	0	130	259.0	15.31	102
EP-2	Press Vent RTO Stack	-167	0.4	100	154.0	18.46	86
EP-3	Screen Fines/Saw Trim Baghouse CP-003	-36.1	8.8	132	70.0	15.97	28
EP-4	Saw Trim/Finishing Line Baghouse CP-001	-272.7	-109.1	100	70.0	15.09	44
EP-5	Mat Reject/Flying Saw Baghouse CP-005	-90.8	-39.7	120	70.0	18.48	48
EP-6	Specialty Saw/Sander Baghouse 1 CP-006-1	-269.7	-106.5	90	70.0	15.05	40
EP-7	Fuel Handling System Baghouse CP-006-2	-43.9	5.7	75	70.0	0.01 [b]	10
EP-8	Forming Bins Baghouse CP-002	-93.9	-55.3	105	70.0	22.91	30
EP-9	Hammermill/Dry Fuel System Baghouse	-34	10.3	132	70.0	15.22	30
EP-10	Thermal Oil Heating System ESP	-129.5	16.5	138	700.0	6.35	66
PDBARK1	Debarker #1 [c]	34.3	36.9	28	-459.67 [c]	0.001 [c]	3.97e-2 [c]
PDBARK2	Debarker #2 [c]	40.3	43.3	28	-459.67 [c]	0.001 [c]	3.97e-2 [c]
PDBARK3	Debarker #3 [c]	46.4	48.9	28	-459.67 [c]	0.001 [c]	3.97e-2 [c]
PSB1	Paint Spray Booth Stack 1	-268	-145.6	35	70	0.01 [b]	8.5
PSB2	Paint Spray Booth Stack 2	-266	-144.3	35	70	0.01 [b]	8.5
PSB3	Paint Spray Booth Stack 3	-264.3	-142.5	35	70	0.01 [b]	8.5

Notes:

[a] Source Locations are with respect to the Dryer RTO Stack B in a true north coordinate system.

[b] Source has a raincap, exit velocity set equal to 0.01 m/s.

[c] Source is a "virtual" point source. Temperature is set to 0 K so that the model will not perform thermal plume calculations. Velocity is set to 0.001 m/s so that the model will calculate momentum bouyancy to the plume. Stack diameter is set to 0.001m.

Table 1b. Volume Source Parameters for Emission Sources at Proposed G-P Plant, Hosford						
		Stack Parameters				
		Source Location (m) [a]		Release Height	Initial Lateral Dimension	Initial Vertical Dimension
Model ID	Description	X	y	(m)	(m)	(m)
BARKPILE	Bark Pile	30.5	121.9	2.286	7.0884	1.0633
BARKHOG	Bark Hog	24.4	100.6	3.9116	0.2835	0.4726
TP1	Transfer Point 1	25.6	46	4.8768	0.2127	0.2127
TP2	Transfer Point 2	30.5	51.8	4.8768	0.2127	0.2127
TP3	Transfer Point 3	37	57	4.8768	0.2127	0.2127
TP4	Transfer Point 4	54.9	73.2	7.62	0.2127	0.2127
TP5	Transfer Point 5	24.4	100.6	7.62	0.2127	0.2127
TP6	Transfer Point 6	12.2	118.9	7.62	0.2127	0.2127
TP7	Transfer Point 7	30.5	121.9	7.62	0.2127	0.2127
ROAD2	Road Segment	-275.7	-442	3.66	18.34	1.7
ROAD4	Road Segment	-292.2	-406.1	3.66	18.34	1.7
ROAD5	Road Segment	-307.7	-370.6	3.66	18.34	1.7
ROAD7	Road Segment	-318.8	-336.4	3.66	18.34	1.7
ROAD9	Road Segment	-289.7	-329.4	3.66	18.34	1.7
ROAD10	Road Segment	-279.1	-286.2	3.66	18.34	1.7
ROAD12	Road Segment	-269.2	-250.4	3.66	18.34	1.7
ROAD13	Road Segment	-239.1	-223.5	3.66	18.34	1.7
ROAD14	Road Segment	-210.6	-197	3.66	18.34	1.7
ROAD16	Road Segment	-179.4	-171.9	3.66	18.34	1.7
ROAD17	Road Segment	-150.2	-144.5	3.66	18.34	1.7
ROAD18	Road Segment	-120.4	-117.8	3.66	18.34	1.7
ROAD21	Road Segment	-83.8	-103.3	3.66	18.34	1.7
ROAD23	Road Segment	-46.2	-91	3.66	18.34	1.7
ROAD24	Road Segment	-11.8	-71.2	3.66	18.34	1.7
ROAD25	Road Segment	20.24	-48.21	3.66	18.34	1.7
ROAD26	Road Segment	54.9	-64.7	3.66	18.34	1.7
ROAD28	Road Segment	93.4	-60.5	3.66	18.34	1.7
ROAD29	Road Segment	122.5	-33	3.66	18.34	1.7
ROAD32	Road Segment	126.3	6.5	3.66	18.34	1.7
ROAD34	Road Segment	112.4	45	3.66	18.34	1.7
ROAD35	Road Segment	91.5	78	3.66	18.34	1.7
ROAD36	Road Segment	76	115.1	3.66	18.34	1.7
ROAD38	Road Segment	50.1	146.1	3.66	18.34	1.7
ROAD39	Road Segment	15.2	146.3	3.66	18.34	1.7

ROAD41	Road Segment	-15.3	124	3.66	18.34	1.7
ROAD42	Road Segment	-47.5	98.3	3.66	18.34	1.7
ROAD43	Road Segment	-76.1	72.3	3.66	18.34	1.7
ROAD45	Road Segment	-115.6	57	3.66	18.34	1.7
ROAD47	Road Segment	-153.1	44.3	3.66	18.34	1.7
ROAD49	Road Segment	-182.6	16.3	3.66	18.34	1.7
ROAD50	Road Segment	-205.53	-14.03	3.66	18.34	1.7
ROAD52	Road Segment	-233.6	-41.5	3.66	18.34	1.7
ROAD54	Road Segment	-263	-71.3	3.66	18.34	1.7
ROAD56	Road Segment	-286.6	-100.7	3.66	18.34	1.7
ROAD57	Road Segment	-312.7	-128.7	3.66	18.34	1.7
ROAD53	Road Segment	-344.9	-155.9	3.66	18.34	1.7
ROAD62	Road Segment	-371.9	-230.1	3.66	18.34	1.7
ROAD64	Road Segment	-371.3	-190.9	3.66	18.34	1.7
ROAD69	Road Segment	-354.6	-265.9	3.66	18.34	1.7
ROAD70	Road Segment	-336.5	-301	3.66	18.34	1.7
ROAD72	Road Segment	-258.5	-479	3.66	18.34	1.7

Notes:

[a] Source Locations are with respect to the Dryer RTO Stack B in a true north coordinate system.

[b] Source has a raincap, exit velocity set equal to 0.01 m/s.

[c] Source is a "virtual" point source. Temperature is set to 0 K so that the model will not perform thermal plume calculations. Velocity is set to 0.001 m/s so that the model will calculate momentum bouyancy to the plume. Stack diameter is set to 0.001m.

Table 2. Emission Rates for Sources at Proposed G-P Plant, Hosford				
		Proposed Facility-Wide Emissions		
Model ID	Description	PM_{10} (g/s)	CO (g/s)	NO_x (g/s)
EP-1A	Dryer RTO Stack A	4.69	2.12	4.62
EP-1B	Dryer RTO Stack B	4.69	2.12	4.62
EP-2	Press Vent RTO Stack	0.36	0.91	1.35
EP-3	Screen Fines/Saw Trim Baghouse CP-003	0.26	---	---
EP-4	Saw Trim/Finishing Line Baghouse CP-001	0.166	---	---
EP-5	Mat Reject/Flying Saw Baghouse CP-005	0.246	---	---
EP-6	Specialty Saw/Sander Baghouse 1 CP-006-1	0.27	---	---
EP-7	Fuel System Baghouse 2 CP-006-2	0.043	---	---
EP-8	Forming Bins Baghouse CP-002	0.239	---	---
EP-9	Hammermill/Dry Fuel System Baghouse	0.26	---	---
EP-10	Thermal Oil Heating System ESP	0.163	1.57	2.02
PDBARK1	Debarker #1	0.047		
PDBARK2	Debarker #2	0		
PDBARK3	Debarker #3	0.047		
PSB1	Paint Spray Booth Stack 1	0.00176		
PSB2	Paint Spray Booth Stack 2	0.00176		
PSB3	Paint Spray Booth Stack 3	0.00176		
BARKPILE	Bark Pile	0.0189		
BARKHOG	Bark Hog	0.00189		
TP1	Transfer Point 1	2.268E-6		
TP2	Transfer Point 2	2.268E-6		
TP3	Transfer Point 3	2.268E-6		
TP4	Transfer Point 4	6.93E-6		
TP5	Transfer Point 5	6.93E-6		
TP6	Transfer Point 6	6.93E-6		
TP7	Transfer Point 7	6.93E-6		
ROADS	Total Plant Road Emissions	0.2199		

Table 4. PM_{10} Competing Sources Considered in the NAAQS Analysis, G-P Hosford

Facility	Facility Name	UTM Coordinates		Location Relative to G-P Hosford			Facility Wide Data		Include in Modeling Analysis
ID Number		East (km)	North (km)	X m)	Y (m)	Dist. (km)*	Emission Rate (tpy)	Threshold "Q"	
390029	Station 14	719.9	3377.4	6400	7900	10.2	1.9	-57	Yes
770009	Timber Energy Resources	709.4	3358.1	-4100	-11400	12.1	48.4	-18	Yes
390032	C. W. Roberts Contracting Inc.	726.5	3371.4	13000	1900	13.1	2.1	3	No
390025	Florida Rock Industries, Inc.	728.4	3385.4	14900	15900	21.8	28.4	176	No
390026	Florida Rock Industries, Inc.	728.4	3385.4	14900	15900	21.8	28.4	176	No
390030	Harborlite Corporation	729.8	3385.2	16300	15700	22.6	27.9	193	No
390006	Higdon Furniture Co	729.7	3386.5	16200	17000	23.5	11	210	No
390007	Pat Higdon Industries	729.9	3386.5	16400	17000	23.6	5	212	No
390020	Mactavish Furniture Industries	730.6	3385.8	17100	16300	23.6	13.3	212	No
390033	Sasser Morgan-Mcclellan Funeral Home	732.6	3386.1	19100	16600	25.3	2.6	246	No
770007	North Florida Lumber	689.54	3358.88	-23960	-10620	26.2	83.3	264	No
390005	Engelhard Corporation	732.6	3387.5	19100	18000	26.2	301	265	Yes
630014	Scholz Plant	702.4	3395.8	-11100	26300	28.5	707	311	Yes
390022	Byrd Landfill	737.6	3385.6	24100	16100	29.0	47.5	320	No
130007	Blountstown Concrete Plant	684.43	3370.28	-29070	780	29.1	0.9	322	No
390004	Florida State Hospital – Chattahoochee	707.6	3399.2	-5900	29700	30.3	5.7	346	No
390034	Chattahoochee Sand And Gravel	703.08	3398.09	-10420	28590	30.4	15	349	No
630044	Apalachee Correctional Institution	703.04	3399.32	-10460	29820	31.6	1.4	372	No
730003	Arvah B.Hopkins Generating Station	749.53	3371.7	36030	2200	36.1	1767.3	462	Yes
730040	Mitchell Brothers, Inc.	752	3370.9	38500	1400	38.5	55.8	511	No
7770014	Peavy And Son Construction Company	742.4	3395.2	28900	25700	38.7	22.2	513	No
730056	General Dynamics	754	3374.4	40500	4900	40.8	10	556	No
730068	Fairchild Cremation Services, Inc.	754.2	3373.5	40700	4000	40.9	0.3	558	No
730012	Sonas Systems	754.5	3370.4	41000	900	41.0	79.8	560	No
390009	Havana Mills	747.1	3394.3	33600	24800	41.8	260	575	No
730052	Terminal Service Company	755.2	3373.1	41700	3600	41.9	0.2	577	No
730072	U.S. Marine	754.98	3379.1	41480	9600	42.6	14.4	592	No
630028	Marianna Sawmill	683.3	3400.1	-30200	30600	43.0	115.2	600	No
730057	Talla - Comm Industries Inc.	756.6	3367.3	43100	-2200	43.2	10	603	No
730065	National Linen Service	759	3368.3	45500	-1200	45.5	1.9	650	No
730046	Florida Rock Industry	759.1	3367.9	45600	-1600	45.6	0.8	653	No
630046	Dolomite Inc.	673.92	3392.93	-39580	23430	46.0	0.3	660	No
730069	Fl. Mining & Materials Concrete	759.6	3369.9	46100	400	46.1	0.4	662	No
7770255	Southern Concrete And Construction	759.68	3363.26	46180	-6240	46.6	0.7	672	No
730009	Physical Plant	760.5	3368.9	47000	-600	47.0	49.5	680	No
730062	Department Of Management Services	760.9	3370.2	47400	700	47.4	0.2	688	No
730066	Fl. Mining & Materials Concrete	760.8	3366.1	47300	-3400	47.4	10	688	No
730060	Mcneill Company Inc.	761.7	3364.6	48200	-4900	48.4	39.3	709	No
730030	Sikes Industries, Inc.	762.4	3369.6	48900	100	48.9	4.4	718	No
7770064	Woodville Plant	762.8	3361.6	49300	-7900	49.9	30.9	739	No
630035	Plant #2	677	3404.5	-36500	35000	50.6	40.1	751	No
10TLH390007	North Florida Lumber	693.9	3322.4	-19600	-47100	51.0	59	760	No
730042	Culley & Sons Funeral Home	765.2	3372.5	51700	3000	51.8	0.4	776	No
630052	Concrete Plant #2	672.31	3401.25	-41190	31750	52.0	49	780	No
7775064	Anderson Columbia	672.12	3401.19	-41380	31690	52.1	8	782	No
7770059	Anderson Columbia Co., Inc.	672.1	3401.2	-41400	31700	52.1	8.6	783	No
730034	Mitchell Brothers, Inc.	766.2	3372.1	52700	2600	52.8	14.8	795	No
730059	Fl. Mining & Materials Concrete	766.6	3372.2	53100	2700	53.2	10	803	No
13-087-0002	Imc Agribusiness Inc.	729.1	3421	15600	51500	53.8	219	816	No
13-087-0006	Floyd Bros. Asphalt Co.	726.3	3424.2	12800	54700	56.2	30	864	No
630024	Marianna Concrete Plant	670	3406	-43500	36500	56.8	1.1	876	No
450008	Eagle Recycling, Inc.	669.14	3333.88	-44360	-35620	56.9	16.8	878	No
630012	Lehigh Furniture	670.5	3406.9	-43000	37400	57.0	183.8	880	No
630038	Alliance Laundry Systems Llc	674.4	3412.8	-39100	43300	58.3	11	907	No

1290007	L. B. Brooks	749.5	3322.6	36000	-46900	59.1	10	922	No
630002	Baxter Asphalt & Concrete	666.7	3406.9	-46800	37400	59.9	43	938	No
1290003	Primex Technologies	767.6	3342.2	54100	-27300	60.6	62.1	952	No
630041	Golden Peanut Company	675.2	3416.9	-38300	47400	60.9	40.2	959	No
1290002	St.Marks Refinery,Inc.	769	3340.1	55500	-29400	62.8	56.7	996	No
1290001	Tallahassee City Purdom Station	769.5	3339.97	56000	-29530	63.3	689	1006	No
630039	Clover Leaf Gin, Incorporated	670.3	3416.3	-43200	46800	63.7	49.3	1014	No
1290005	St. Marks Terminal	769.3	3338.4	55800	-31100	63.9	5.6	1018	No
0630031	WHITE CONSTRUCTION COMPANY	654.2	3403.5	-59300	34000	68.4	100	1107	No
630010	Register Meat Co	656.1	3407.9	-57400	38400	69.1	0	1121	No
0630040	GOLDEN PEANUT COMPANY	655.1	3407.7	-58400	38200	69.8	100	1136	No
13-087-0014	Georgia Dept. Of Trans.	717.4	3441.1	3900	71600	71.7	3	1174	No
0650004	FLORIDA ROCK INDUSTRIES, INC.	785.5	3376	72000	6500	72.3	100	1186	No
0050031	Bay Energy	644.0	3348.9	-69500	-20600	72.5	59	1190	No
7770049	WHITE CONSTRUCTION COMPANY, INC.	657.8	3417.2	-55700	47700	73.3	100	1207	No
7775029	ANDERSON COLUMBIA CO., INC.	656.12	3418.74	-57380	49240	75.6	100	1252	No
0050038	Triangle Construction	638.8	3347.0	-74700	-22500	78.0	12	1300	No
0450001	Premier Services Corporation	664.7	3302.8	-48800	-66700	82.6	345	1393	No
630045	Waste Management Inc. Of Florida	650.5	3423.1	-63000	53600	82.7	98.6	1394	No
0050008	Gulf Asphalt	634.9	3343.7	-78600	-25800	82.7	44	1395	No
630023	Gold Kist	653.2	3426.6	-60300	57100	83.0	18.1	1401	No
10PCY030046	Argus Service	634.8	3341.2	-78700	-28300	83.6	2	1413	No
0450002	Sylvachem	663.4	3299.6	-50100	-69900	86.0	71	1460	No
0450005	Florida Coast Paper, Port St. joe	662.8	3299.0	-50700	-70500	86.8	1,879	1477	Yes
	GP Cedar Springs	681.2	3450.2	-32300	80700	86.9	2,000	1478	Yes
0050001	Arizona chemical	633.1	3335.4	-80400	-34100	87.3	153	1487	No
13-099-0008	Peridot Chemical	681.4	3451	-32100	81500	87.6	1.9	1492	No
	Stone Container Panama City	632.8	3335.1	-80695	-34408.97	87.7	1,924	1494	Yes
0050005	Florida Asphalt Paving	631.4	3338.3	-82100	-31200	87.8	23	1497	No
10PCY030051	Humane Society of Bay County	630.7	3338.8	-82800	-30700	88.3	3	1506	No
10PCY030040	Allied-Signal	627.5	3346.4	-86000	-23100	89.0	132	1521	No
0050014	Gulf Power	625.2	3349.1	-88300	-20400	90.6	1,814	1553	Yes
630011	U.S. Forest Industries, Inc.	641	3425.9	-72500	56400	91.9	0	1577	No
10PCY230003	Florida Power Corporation	664.4	3291.1	-49100	-78400	92.5	6	1590	No
1330002	Florida Asphalt Paving Company	624.4	3399.8	-89100	30300	94.1	44	1622	No

Notes:
Sources within GP's Significant Impact Area are automatically included in the modeling analysis.
[a] Facilities greater than 100 km from GP were removed from the analysis

Table 5. Summary of Modeling Parameters for PM_{10} Competing Sources

Facility ID	Facility Name/ Stack Description	Model ID	PM_{10} Emission Rate g/s	Stack Height (m)	Exit Temperature (F)	Exit Velocity (m/s)	Stack Diameter (inches)
0390005	Englehard	0390005A	5.00E-03	27.13	80.01	6.21	5.91
0390005	Englehard	0390005B	0.03	21.34	80.01	0.01	9.45
0390005	Englehard	0390005C	0.03	26.82	80.01	7.07	9.45
0390005	Englehard	0390005D	2.10E-02	27.13	80.01	6.14	11.81
0390005	Englehard	0390005E	4.50E-02	10.36	80.01	1.62	24.02
0390005	Englehard	0390005F	0.126	21.64	80.01	11.82	9.45
0390005	Englehard	0390005G	5.00E-02	18.29	80.01	11.32	11.81
0390005	Englehard	0390005H	0.048	20.73	80.01	0.01	9.45
0390005	Englehard	0390005I	0.113	16.15	80.01	13.48	14.57
0390005	Englehard	0390005J	0.078	17.68	80.01	0.01	15.75
0390005	Englehard	0390005K	0.476	16.15	80.01	15.72	14.57
0390005	Englehard	0390005L	0.412	15.24	80.01	33.24	14.57
0390005	Englehard	0390005M	1.318	12.19	80.01	15.01	29.92
0390005	Englehard	0390005N	0.794	24.99	80.01	32.27	25.20
0390005	Englehard	0390005O	0.882	18.59	70.00	10.20	61.02
0390005	Englehard	0390005P	0.504	25.60	80.01	19.16	53.94
0390005	Englehard	0390005Q	0.554	30.48	132.01	17.16	45.67
0390005	Englehard	0390005R	0.529	30.48	132.01	20.18	29.92
0390005	Englehard	0390005S	1.763999	18.59	199.99	10.20	61.02
0390005	Englehard	0390005T	1.184	28.96	225.00	18.06	77.95
0390029	Station 14	0390029A	1.01E-02	15.24	550.00	52.39	16.80
0390029	Station 14	0390029B	4.41E-02	8.60	600.53	36.60	17.32
0390032	CW Roberts	0390032A	3.78E-02	12.50	250.00	17.37	50.39
0390032	CW Roberts	0390032B	1.94E-02	4.30	500.09	4.60	7.87
0930014	Scholz	0630014A	7.396076	45.72	330.01	12.19	162.00
0930014	Scholz	0630014B	7.396076	45.72	330.01	12.19	162.00
0730003	Hopkins	0730003A	11.37761	67.06	260.01	11.95	132.00
0730003	Hopkins	0730003B	0.3502741	8.84	802.00	34.87	110.40
0730003	Hopkins	0730003C	0.5720304	9.14	874.00	21.15	176.40
0730003	Hopkins	0730003D	31.49947	76.20	219.99	21.00	168.00
0770009	Timber Energy Resources	0770009A	1.448976	24.69	370.00	12.19	86.04
129001	Purdom	UNIT7	0.25	54.90	299.93	14.44	107.87
129001	Purdom	GT2	0.01	11.60	879.53	25.56	120.08
129001	Purdom	UNIT8	1.14	60.97	200.93	24.24	196.85
129001	Purdom	COOLT	0.3	13.40	89.33	7.09	396.85
129001	Purdom	AUXBOIL	6.75E-03	9.20	350.33	6.47	24.02
	G-P Cedar Springs, GA - Lime Kiln W -Survey	L601	2.519944	24.99	178.61	9.67	72.05
	G-P Cedar Springs, GA - Lime Kiln East -Survey	L600	2.519944	24.99	178.61	9.67	72.05
	G-P Cedar Springs, GA - Lime Silo Stack	L6367	1.474167	14.57	68.00	4.57	31.89
	G-P Cedar Springs, GA - NSSC Blow Tank	S200	7.56E-03	28.50	68.00	6.28	53.94
	G-P Cedar Springs, GA - Recovery Boiler 1,2 Stack	RB12	8.895403	61.00	374.00	27.60	144.09
	G-P Cedar Springs, GA - REJECTS CHIPPER #1 CYCLONE	W136	2.77E-03	10.67	68.00	0.01	35.83
	G-P Cedar Springs, GA - REJECTS CHIPPER #2 CYCLONE	W137	2.77E-03	9.14	68.00	0.01	35.83
	G-P Cedar Springs, GA - #1 CTS SYSTEM ADS CYCLONE	W007	1.26E-03	2.44	68.00	0.01	29.53
	G-P Cedar Springs, GA - #2 CTS SYSTEM ADS CYCLONE	W008	1.26E-03	2.44	68.00	0.01	29.53
	G-P Cedar Springs, GA - HW RECHIPPER CYCLONE	W009	1.26E-03	4.57	68.00	0.01	53.94
	G-P Cedar Springs, GA - NSSC CHIP SILO CYCLONE	W003	5.54E-03	27.89	68.00	0.01	53.94

	G-P Cedar Springs, GA - CTS CONVEYING CYCLONE	W002	7.31E-03	16.50	68.00	0.01	98.43
	G-P Cedar Springs, GA - RAIL CAR CHIP LOADOUT CYCLONE	WG19	1.54E-02	19.81	68.00	0.01	24.02
	G-P Cedar Springs, GA - SMELT DISSOLVING TANK	R404	0.7937824	58.22	153.41	7.79	59.84
	G-P Cedar Springs, GA - SMELT DISSOLVING TANK	R406	4.573698	75.60	145.31	7.03	72.05
	G-P Cedar Springs, GA - SMELT DISSOLVING TANK	R405	0.7937824	58.22	158.63	7.86	59.84
	G-P Cedar Springs, GA - RECOVERY BOILER 3 N	R402N	2.960935	75.30	410.00	13.64	107.87
	G-P Cedar Springs, GA - RECOVERY BOILER #3 S	R402S	2.960935	75.30	421.00	13.64	107.87
	G-P Cedar Springs, GA - Power Boiler 2 Future	U500F	28.65177	106.68	146.39	9.56	168.11
	G-P Cedar Springs, GA - Power Boiler 2 Future	U501F	28.65177	106.68	155.39	8.72	168.11
	Stone, Panama City	LKILN	3.690001	18.60	166.73	11.84	96.06
	Stone, Panama City	RB1	11	71.00	285.71	28.60	77.95
	Stone, Panama City	SDT1	3.35	71.00	165.65	5.25	72.05
	Stone, Panama City	RB2	11	71.00	309.65	28.50	77.95
	Stone, Panama City	SDT2	3.21	71.00	165.65	4.56	72.05
	Stone, Panama City	BB3	12.32	64.90	149.09	23.50	93.70
	Stone, Panama City	BB4	10.27	64.90	143.33	27.32	93.70
	Stone, Panama City	LSKR	0.4999999	17.10	199.67	13.08	34.65
0050014	Gulf Power	GULFPW12	48.00999	60.70	334.13	31.30	216.14
0050014	Gulf Power	GULFPWPK	4.16	10.10	1199.93	36.90	164.57
0450005	Smurfit, Port St. Joe	FCPLKSDT	14.29	30.50	202.01	2.25	93.70
0450005	Smurfit, Port St. Joe	FCPRB567	28.64	38.10	250.07	9.10	100.79
0450005	Smurfit, Port St. Joe	FCPPB9	11.11	51.80	157.91	10.33	168.11

Table 6 – Summary of Merge Stack Calculations for PM10 NNAQS Competing Sources

Facility ID	Facility Name		Stack ID	PM_{10} Emission Rate (g/s)	Stack Height (m)	Stack Diameter (m)	Exit Temp (K)	Exit Velocity (m/s)	Computed M Factor
	ENGELHARD CORPORATION	A	41b	0.005	27.13	0.15	299.82	6.21	10020341
390005	ENGELHARD CORPORATION		48	0.014	19.81	0.24	299.82	0.00	1306
390005	ENGELHARD CORPORATION		53	0.016	21.34	0.24	299.82	0.00	1190
		B	53	0.030	21.34	0.24	299.82	0.00	
390005	ENGELHARD CORPORATION		41c	0.015	26.82	0.24	299.82	7.07	3762710
390005	ENGELHARD CORPORATION		41e	0.015	27.43	0.24	299.82	7.07	3848226
		C	41c	0.030	26.82	0.24	299.82	7.07	
390005	ENGELHARD CORPORATION	D	41a	0.021	27.13	0.30	299.82	6.14	2333168
390005	ENGELHARD CORPORATION		42	0.023	10.36	0.61	299.82	1.62	221528
390005	ENGELHARD CORPORATION		43	0.023	14.33	0.24	299.82	10.11	1913933
		E	42	0.045	10.36	0.61	299.82	1.62	
390005	ENGELHARD CORPORATION		44	0.025	21.64	0.24	299.82	11.82	3044497
390005	ENGELHARD CORPORATION		40	0.025	28.04	0.24	299.82	11.82	3944982
390005	ENGELHARD CORPORATION		22	0.025	30.48	0.24	299.82	14.15	5130968
390005	ENGELHARD CORPORATION		23	0.025	30.48	0.24	299.82	14.15	5130968
390005	ENGELHARD CORPORATION		24	0.025	30.48	0.24	302.59	14.15	5178506
		F	44	0.126	21.64	0.24	299.82	11.82	
390005	ENGELHARD CORPORATION	G	27	0.050	18.29	0.30	299.82	11.32	1231432
390005	ENGELHARD CORPORATION	H	38	0.048	20.73	0.24	299.82	0.00	396
390005	ENGELHARD CORPORATION		41d	0.050	27.43	0.30	299.82	15.20	2480457
390005	ENGELHARD CORPORATION		21	0.063	16.15	0.37	299.82	13.48	1035967
		I	21	0.113	16.15	0.37	299.82	13.48	
390005	ENGELHARD CORPORATION	J	37	0.078	17.68	0.40	299.82	0.00	207
390005	ENGELHARD CORPORATION		26	0.063	14.63	0.37	299.82	15.72	1094607
390005	ENGELHARD CORPORATION		17	0.063	27.43	0.37	299.82	15.72	2052387
390005	ENGELHARD CORPORATION		20	0.088	16.15	0.37	299.82	15.72	863306
390005	ENGELHARD CORPORATION		49	0.087	31.09	0.30	299.82	25.87	2773910
390005	ENGELHARD CORPORATION		50	0.087	31.09	0.30	299.82	25.87	2773910

390005	ENGELHARD CORPORATION		16	0.088	19.81	0.40	299.82	15.31	1031027
		K	20	0.476	16.15	0.37	299.82	15.72	
390005	ENGELHARD CORPORATION		32	0.126	28.96	0.46	299.82	17.25	1188430
390005	ENGELHARD CORPORATION		46	0.147	28.04	0.21	299.82	92.40	5269691
390005	ENGELHARD CORPORATION		13	0.139	15.24	0.37	299.82	33.24	1095791
		L	13	0.412	15.24	0.37	299.82	33.24	
390005	ENGELHARD CORPORATION		31	0.088	27.43	0.55	299.82	19.96	1861576
390005	ENGELHARD CORPORATION		25	0.214	14.63	0.67	299.82	16.04	328405
390005	ENGELHARD CORPORATION		39	0.260	34.44	0.46	299.82	34.50	1372433
390005	ENGELHARD CORPORATION		28	0.302	19.81	0.76	299.82	12.94	254105
390005	ENGELHARD CORPORATION		11	0.328	12.19	0.76	299.82	15.01	167439
390005	ENGELHARD CORPORATION		36	0.126	21.34	0.67	299.82	20.05	1017713
		M	11	1.318	12.19	0.76	299.82	15.01	
390005	ENGELHARD CORPORATION		18	0.491	24.99	0.64	299.82	32.27	492056
390005	ENGELHARD CORPORATION		35	0.302	30.48	0.91	299.82	21.56	651552
		N	18	0.794	24.99	0.64	299.82	32.27	
390005	ENGELHARD CORPORATION	O	19	0.882	18.59	1.55	294.26	10.20	63246
390005	ENGELHARD CORPORATION	P	33	0.504	25.60	1.37	299.82	19.16	291895
390005	ENGELHARD CORPORATION	Q	15	0.554	30.48	1.16	328.71	17.16	310036
390005	ENGELHARD CORPORATION	R	14	0.529	30.48	0.76	328.71	20.18	382066
390005	ENGELHARD CORPORATION		2	0.882	18.59	1.55	366.48	10.20	78769
390005	ENGELHARD CORPORATION		8	0.882	18.59	1.55	366.48	10.20	78769
		S	2	1.764	18.59	1.55	366.48	10.20	
390005	ENGELHARD CORPORATION		29	0.592	28.96	1.98	380.37	18.06	335981
390005	ENGELHARD CORPORATION		30	0.592	28.96	1.98	380.37	18.06	335981
		T	29	1.184	28.96	1.98	380.37	18.06	

Table 7. NO_2 Competing Sources Considered in the NAAQS Analysis, G-P Hosford									
		UTM Coordinates		Location Relative to G-P Hosford				Total	
Facility ID Number	Facility Name	East (km)	North (km)	X (m)	Y (m)	Dist. (km)[a]	Emissions Threshold "Q"	Emission Rate (tpy)	Include In Modeling Analysis
390029	Florida Gas Transmission Co	719.9	3377.4	6400	7900	10.2	1185.2	63	Yes
770009	Timber Energy Resources	709.4	3358.1	-4100	-11400	12.1	140	102	Yes
390032	C. W. Roberts Contracting Inc.	726.5	3371.4	13000	1900	13.1	11.9	122	No
390030	Harborlite Corporation	729.8	3385.2	16300	15700	22.6	9.1	312	No
390006	Higdon Furniture Co	729.7	3386.5	16200	17000	23.5	1.8	330	No
390007	Pat Higdon Industries	729.9	3386.5	16400	17000	23.6	0.3	332	No
390020	Mactavish Furniture Ind.	730.6	3385.8	17100	16300	23.6	4.7	332	No
390033	Sasser Morgan-Mcclellan	732.6	3386.1	19100	16600	25.3	1	366	No
390005	Engelhard Corporation	732.6	3387.5	19100	18000	26.2	124	384	No
770007	North Florida Lumber	689.54	3358.88	-23960	-10620	26.2	73.9	384	No
630014	Gulf Power Co	702.4	3395.8	-11100	26300	28.5	1264.9	430	Yes
390022	City Of Quincy	737.6	3385.6	24100	16100	29	97.4	440	No
390004	Dept. Of Children + Families	707.6	3399.2	-5900	29700	30.3	62.1	466	No
630044	Apalachee Correctional	703.04	3399.32	-10460	29820	31.6	14	492	No
730003	City Of Tallahassee Hopkins	749.53	3371.7	36030	2200	36.1	3055.1	582	Yes
730040	Mitchell Brothers, Inc.	752	3370.9	38500	1400	38.5	99	630	No
7770014	Peavy And Son Construction	742.4	3395.2	28900	25700	38.7	53.1	634	No
730068	Fairchild Cremation Services,	754.2	3373.5	40700	4000	40.9	0.2	678	No
730012	Sonas Systems Of Florida	754.5	3370.4	41000	900	41	57.5	680	No
390009	Coastal Lumber Co	747.1	3394.3	33600	24800	41.8	62	696	No
630028	Louisiana Pacific Corp	683.3	3400.1	-30200	30600	43	10.3	720	No
730065	National Linen Service	759	3368.3	45500	-1200	45.5	5.4	770	No
730009	Florida A&M University	760.5	3368.9	47000	-600	47	98.1	800	No
730062	Department Of Mgmt Services	760.9	3370.2	47400	700	47.4	2.9	808	No
7770064	Peavy & Son Construction Co.	762.8	3361.6	49300	-7900	49.9	83.4	858	No
630035	Anderson Columbia Company,	677	3404.5	-36500	35000	50.6	5.6	872	No
7770059	Anderson Columbia Co., Inc.	672.1	3401.2	-41400	31700	52.1	9.16	903	No
730034	Mitchell Brothers, Inc.	766.2	3372.1	52700	2600	52.8	26	916	No
13-087-0002	Imc Agribusiness Inc.	729.1	3421	15600	51500	53.8	657	936	No
13-087-0006	Floyd Bros. Asphalt Co.	726.3	3424.2	12800	54700	56.2	100	984	No
450008	Eagle Recycling, Inc.	669.14	3333.88	-44360	-35620	56.9	2.5	998	No
630012	Lehigh Furniture	670.5	3406.9	-43000	37400	57.0	0	1000	No
630002	Baxter Asphalt & Concrete	666.7	3406.9	-46800	37400	59.9	0	1058	No
630041	Golden Peanut Company	675.2	3416.9	-38300	47400	60.9	0.14	1079	No
1290001	Tallahassee City Purdom	769.5	3339.97	56000	-29530	63.3	2719.3	1126	Yes
0630031	WHITE CONSTRUCTION COMPANY	654.2	3403.5	-59300	34000	68.4	83	1227	No
630010	Register Meat Co	656.1	3407.9	-57400	38400	69.1	34.78	1241	No
630040	Golden Peanut Company	655.1	3407.7	-58400	38200	69.8	0	1256	No
0630040	GOLDEN PEANUT COMPANY	655.1	3407.7	-58400	38200	69.8	0.14	1256	No
13-087-0014	Georgia Dept. Of Trans.	717.4	3441.1	3900	71600	71.7	100	1294	No
0650004	FLORIDA ROCK INDUSTRIES, INC.	785.5	3376	72000	6500	72.3	10	1306	No
0050031	Bay County Energy Systems	644.0	3348.9	-69500	-20600	72.5	236	1310	No
7770049	WHITE CONSTRUCTION COMPANY, INC.	657.8	3417.2	-55700	47700	73.3	83	1327	No
7775029	ANDERSON COLUMBIA CO., INC.	656.12	3418.74	-57380	49240	75.6	10	1372	No
630045	Waste Management Inc. Of Florida	650.5	3423.1	-63000	53600	82.7	16.3	1514	No
0050008	G.A.C. Contractors	634.9	3343.7	-78600	-25800	82.7	13	1515	No
630023	Gold Kist	653.2	3426.6	-60300	57100	83.0	0	1521	No
NA	Georgia Tubing	684.9	3447.5	-28600	78000	83.1	0.03	1522	No
10PCY030046	Argus Service	634.8	3341.2	-78700	-28300	83.6	1	1533	No
0450002	Sylvachem	663.4	3299.6	-50100	-69900	86.0	201	1580	No
0450005	Smurfit, Port St. joe	662.8	3299.0	-50700	-70500	86.8	3,888	1597	Yes
	GP Cedar Springs	681.2	3450.2	-32300	80700	86.9	2,000	1598	Yes
0050001	Arizona chemical	633.1	3335.4	-80400	-34100	87.3	460	1607	No
	Stone Container Panama City	632.8	3335.1	-80695	-34408.97	87.7	2,361	1614	Yes
0050024	US Air Force - Tyndall	635.6	3326.8	-77900	-42700	88.8	19	1637	No
0050014	Gulf Power	625.2	3349.1	-88300	-20400	90.6	10,626	1673	Yes
630011	U.S. Forest Industries, Inc.	641	3425.9	-72500	56400	91.9	0	1697	No
10PCY230003	Florida Power Corporation	664.4	3291.1	-49100	-78400	92.5	85	1710	No

Notes:

Sources within GP's Significant Impact Area are automatically included in the modeling analysis.

[a] Facilities greater than 100 km from GP were removed from the analysis.

Table 8. Summary of Modeling Parameters for NO_2 Competing Sources							
Facility ID	Facility Name/ Stack Description	Model ID	NO_2 Emission Rate g/s	Stack Height (m)	Exit Temperature (F)	Exit Velocity (m/s)	Stack Diameter (inches)
0390029	Florida Gas	0390029A	1.34	15.24	550.00	52.39	16.8
0390029	Florida Gas	0390029B	32.75999	8.60	600.53	36.60	17.3
0630014	Gulf Power	0630014A	58.95	45.72	330.00	12.19	162.0
0630014	Gulf Power	0630014B	58.95	45.72	330.00	12.19	162.0
0730003	Hopkins	0730003A	50.01	67.06	260.00	11.95	132.0
0730003	Hopkins	0730003B	6.46	8.84	802.00	34.87	110.4
0730003	Hopkins	0730003C	10.53	9.14	874.00	21.15	176.4
0730003	Hopkins	0730003D	94.5	76.20	220.00	21.00	168.0
0770009	Timber Energy	0770009A	4.2	24.69	370.00	12.19	86.0
1290001	PURDOM BLR 7	UNIT7	13.18	54.90	299.93	14.44	107.9
1290001	PURDOM GAS TURBINES	GT2	0.2100001	11.60	879.53	25.56	120.1
1290001	PURDOM AUX BOILER	AUXBOIL	0.00299	9.20	350.33	6.47	24.0
	G-P Cedar Springs, GA - Lime Kiln W -Survey	L601	8.101665	24.99	178.61	9.67	72.0
	G-P Cedar Springs, GA - Lime Kiln East -Survey	L600	8.101665	24.99	178.61	9.67	72.0
	G-P Cedar Springs, GA - Recovery Boiler 1,2 Stack	RB12	31.52467	61.00	374.00	27.60	144.1
	G-P Cedar Springs, GA - SMELT DISSOLVING TANK 1	R404	0.2141964	58.22	153.41	7.79	59.8
	G-P Cedar Springs, GA - SMELT DISSOLVING TANK 3	R406	0.2141964	75.60	145.31	7.03	72.0
	G-P Cedar Springs, GA - SMELT DISSOLVING TANK 2	R405	0.2645956	58.22	158.63	7.86	59.8
	G-P Cedar Springs, GA - RECOVERY BOILER 3N	R402N	24.39949	75.30	410.00	13.64	107.9
	G-P Cedar Springs, GA - RECOVERY BOILER #3 S	R402S	24.39949	75.30	421.00	13.64	107.9
	G-P Cedar Springs, GA - Power Boiler 2 Future	U500F	87.16534	106.68	146.39	9.56	168.1
	G-P Cedar Springs, GA - Power Boiler 2 Future	U501F	87.16534	106.68	155.39	8.72	168.1
	Stone Container, Panama City	LKILN	5.63	18.60	166.73	11.84	96.1
	Stone Container, Panama City	RB1	9.08	71.00	285.71	28.60	78.0
	Stone Container, Panama City	SDT1	0.2600001	71.00	165.65	5.25	72.0
	Stone Container, Panama City	RB2	9.08	71.00	309.65	28.50	78.0
	Stone Container, Panama City	SDT2	0.2600001	71.00	165.65	4.56	72.0
	Stone Container, Panama City	BB3	19.79	64.90	149.09	23.50	93.7
	Stone Container, Panama City	BB4	23.83001	64.90	143.33	27.32	93.7
0050014	Gulf Power	GULFPW12	257.9999	60.70	334.13	31.30	216.1
0050015	Gulf Power	GULFPWPK	47.67	10.10	1199.93	36.90	164.6
0450005	Smurfit, Port St. Joe	FCPLKSDT	23.28	30.50	202.01	2.25	93.7
0450005	Smurfit, Port St. Joe	FCPRB567	55.23	38.10	250.07	9.10	100.8
0450005	Smurfit, Port St. Joe	FCPPB9	33.34	51.80	157.91	10.33	168.1

Table 10. Significant Impact Analysis Results, PM_{10}

Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location [a] Distance X (m)	Receptor Location [a] Distance Y (m)	Period Ending (YYMMDDHH)	Modeling Significance Level ($\mu g/m^3$)	Monitoring Significance Level ($\mu g/m^3$)	Maximum Distance to Significant Impact (km)
Screening Analysis								
24-hour	1986	24.18	0.00	-592.00	86120324	5	10	12
	1987	27.43	-222.00	-542.60	87011224	5	10	8
	1988	25.31	-177.37	-552.50	88010824	5	10	13
	1989	31.65	536.80	309.70	89060924	5	10	8
	1990	23.21	-227.40	-567.20	90122424	5	10	7
Annual	1986	6.62	-222.00	-542.60	---	1	---	5
	1987	10.24	-222.00	-542.60	---	1	---	7
	1988	8.76	-222.00	-542.60	---	1	---	6
	1989	6.54	-222.00	-542.60	---	1	---	4
	1990	5.26	-222.00	-542.60	---	1	---	3.5
Refined Analysis								
24-hour	1989	31.65	536.80	309.70	89060924	5	10	--- ---
Annual	1987	10.24	-222.00	-542.60	---	1	---	--- ---

Note: YY= year, MM = Month, DD = Day, HH = Hour.
[a] Relative to Dryer RTO Stack B

Table 11. Significant Impact Analysis Results, NO_2							
Averaging Period	Year	Modeled Concentration [b] ($\mu g/m^3$)	Receptor Location [a]		Modeling Significance Level ($\mu g/m^3$)	Monitoring Significance Level ($\mu g/m^3$)	Maximum Distance to Significant Impact (km)
			Distance X (m)	Distance Y (m)			
Screening Analysis							
Annual	1986	1.61	-297.57	-1143.10	1	14	4
	1987	2.85	-297.57	-1143.10	1	14	7
	1988	2.48	-297.57	-1143.10	1	14	6
	1989	1.44	-138.92	787.85	1	14	3
	1990	1.43	-143.20	757.30	1	14	3
Refined Analysis							
Annual	1987	2.85	-297.57	-1143.10	1	14	---

[a] Relative to Dryer RTO Stack B
[b] Assumes full conversion of NO_x to NO_2.

Table 12 Significant Impact Analysis Results, CO							
Averaging Period	Year	Modeled Concentration (μg/m³)	Receptor Location [a]		Period Ending (YYMMDDHH)	Modeling Significance Level (μg/m³)	Monitoring Significance Level (μg/m³)
			Distance X (m)	Distance Y (m)			
Screening Analysis							
1-hour	1986	36.55	-487.00	0.00	86091023	2000	---
	1987	38.50	-477.70	16.51	87032301	2000	---
	1988	37.55	-477.70	16.51	88060923	2000	---
	1989	44.56	-368.93	213.00	89053124	2000	---
	1990	39.73	-477.70	16.51	90052522	2000	---
8-hour	1986	18.13	-385.67	459.63	86120916	500	575
	1987	17.38	-779.42	450.00	87111708	500	575
	1988	18.29	-779.42	450.00	88050916	500	575
	1989	16.95	677.21	430.91	89061416	500	575
	1990	15.93	-206.31	506.81	90102216	500	575

Note: YY= year, MM = Month, DD = Day, HH = Hour.

[a] Relative to Dryer RTO Stack B

Table 13. NAAQS Modeling Results, PM_{10}						
Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location [a]		Period Ending (YYMMDDHH)	NAAQS ($\mu g/m^3$)
			Distance X (m)	Distance Y (m)		
Screening Analysis						
24-hour H6H	---	22.64	-222.00	-542.60	90122524	150
Annual	1986	6.94	-222.00	-542.60	---	50
	1987	10.55	-222.00	-542.60	---	50
	1988	9.11	-222.00	-542.60	---	50
	1989	6.93	-222.00	-542.60	---	50
	1990	5.62	-222.00	-542.60	---	50
Refined Analysis						
24-hour H6H	---	22.64	-222.00	-542.60	90122524	150
Annual	1987	10.55	-222.00	-542.60	---	50

Note: YY= year, MM = Month, DD = Day, HH = Hour, H6H= High, Sixth Highest
[a] Relative to Dryer RTO Stack B

Table 14. Total NAAQS Results (Modeled + Background), PM_{10}				
Averaging Period	Modeled Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
24-hour H6H	22.64	54	76.64	150
Annual	10.55	27	37.55	50

Note: H6H= High, Sixth Highest

Table 15. NAAQS Modeling Results, NO_2					
Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location [a] Distance X (m)	Receptor Location [a] Distance Y (m)	NAAQS ($\mu g/m^3$)
Screening Analysis					
Annual	1986	9.52	5362.31	4499.51	100
	1987	14.62	6062.18	3500	100
	1988	13.96	6062.18	3500	100
	1989	8.53	6062.18	3500	100
	1990	6.59	6062.18	3500	100
Refined Analysis					
Annual	1987	21.58	5862	5000	100
	1988	15.81	6062.18	4000	100

Note: YY= year, MM = Month, DD = Day, HH = Hour.
[a] Relative to Dryer RTO Stack B

Table 16. Total NAAQS Results (Modeled & Background), NO_2				
Averaging Period	Modeled Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
Annual	21.58	16	37.58	100

Table 17. PSD Class II Increment Analysis, PM_{10}						
Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location [a] Distance X (m)	Receptor Location [a] Distance Y (m)	Period Ending (YYMMDDHH)	PSD Increment ($\mu g/m^3$)
Screening Analysis						
24-hour HSH	1986	20.62	-177.37	-552.50	86111324	30
	1987	24.33	-222.00	-542.60	87103024	30
	1988	23.00	-177.37	-552.50	88011024	30
	1989	29.41	468.49	236.66	89060924	30
	1990	20.33	-222.00	-542.60	90102424	30
Annual	1986	6.63	-222.00	-542.60	---	17
	1987	10.24	-222.00	-542.60	---	17
	1988	8.76	-222.00	-542.60	---	17
	1989	6.55	-222.00	-542.60	---	17
	1990	5.26	-222.00	-542.60	---	17
Refined Analysis						
24-hour HSH	1987	24.33	-222.00	-542.60	87103024	30
	1989	29.41	468.49	236.66	89060924	30
Annual	1987	10.24	-222.00	-542.60	---	17
	1989	6.55	-222.00	-542.60	---	17

Note: YY= year, MM = Month, DD = Day, HH = Hour, HSH = High, Second Highest
[a] Relative to RTO Stack B

Table 18. PSD Class II Increment Analysis, NO_2					
Averaging Period	Year	Modeled Concentration [b] ($\mu g/m^3$)	Receptor Location [a] Distance X (m)	Receptor Location [a] Distance Y (m)	PSD Increment ($\mu g/m^3$)
Screening Analysis					
Annual	1986	1.71	-297.57	-1143.10	25
	1987	2.94	-297.57	-1143.10	25
	1988	2.56	-297.57	-1143.10	25
	1989	1.51	-138.92	787.85	25
	1990	1.53	-143.20	757.30	25
Refined Analysis					
Annual	1987	2.94	-297.57	-1143.10	25

[a] Relative to RTO Stack B

[b] Assumes full conversion of NO_x to NO_2.

Table 19. Class I Increment Significant Impact Analysis, PM_{10} and NO_2					
Pollutant	Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Period Ending (YYMMDDHH)	Screening Level [a] ($\mu g/m^3$)
NO_2	Annual	1986	0.045	---	0.1
		1987	0.032	---	0.1
		1988	0.035	---	0.1
		1989	0.063	---	0.1
		1990	0.053	---	0.1

Note: YY= year, MM = Month, DD = Day, HH = Hour.

[a] US EPA proposed screening levels for Class I areas.

Table 20. Class I Increment Analysis, PM_{10}					
Pollutant	Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Period Ending (YYMMDDHH)	PSD Class I Increment ($\mu g/m^3$)
PM_{10}	24-hour HSH	1986	1.12	86113024	8
		1987	1.33	87090424	8
		1988	1.07	88010224	8
		1989	0.97	89011124	8
		1990	0.86	90041624	8
	Annual	1986	0.090	---	4
		1987	0.140	---	4
		1988	0.104	---	4
		1989	0.103	---	4
		1990	0.072	---	4

Note: YY= year, MM = Month, DD = Day, HH = Hour.

[a] US EPA proposed screening levels for Class I areas.

Georgia-Pacific Corporation *133 Peachtree Street NE (30303-1847)*
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

July 12, 2000

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JUL 13 2000
BUREAU OF AIR REGULATION

Mr. Joseph Kahn, P.E.
Florida Department of Environmental Protection
New Source Review Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Revised Regional Haze Analysis for the Proposed Georgia-Pacific Oriented Strandboard (OSB) Facility in Hosford, FL

Dear Mr. Kahn:

Georgia-Pacific Corporation (G-P) is pleased to provide the following additional information to complete the January PSD air permit application. The enclosure presents a revised regional haze analysis performed by Golder Associates. Please contact me (404/652-4293) or Steve Marks (regional haze modeling contact at 352/336-5600) with any additional modeling questions. Thank you for your help on this important project.

Sincerely,

Mark J. Aguilar, P.E.
Senior Environmental Engineer
Georgia-Pacific Corporation
P.E. Number 52248

SEAL — PROFESSIONAL ENGINEER — STATE OF FLORIDA — MARK J. AGUILAR — CERTIFICATE NO. 52248

Enclosures: Regional Haze Modeling Report by Golder Associates

cc: P.J. Vasquez	GA030-17
M.M. Vest	FL165 (Palatka)
T.R. Wyles	GA030 (without attachment)
Gregg Worley	EPA Region IV
John Bunyak	National Park Service
Ed Middleswart	Florida DEP

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

TRANSMITTAL LETTER

To:
Mr. Joseph Kahn, P.E.
FDEP - New Source Review Section
Tallahassee, FL

Date: 7/12/2000
Project No.: 0037506-0100

Sent by:

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- ☐ Air Freight
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Per:

Quantity	Item	Description
1	Report	Georgia-Pacific Hosford Facility Revised Regional Haze Analysis

cc:
P.J. Vasquez, G-P Atlanta, GA
T.R. Wyles, G-P Atlanta, GA
G. Worley, EPA Atlanta, GA
M. Aguilar, G-P Atlanta, GA
M.M. Vest, G-P Palatka, FL
J. Bunyak, NPS Lakewood, CO
E. Middleswart, FDEP Pensacola, FL
S. Marks, Golder

REFINED REGIONAL HAZE ANALYSES
FOR THE PROPOSED
GEORGIA-PACIFIC ORIENTED
STRANDBOARD FACILITY
IN HOSFORD, FLORIDA

Prepared For:

Georgia-Pacific Corporation
133 Peachtree Street NE
Atlanta, Georgia 30303-1847

Prepared By:

Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

July 2000
0037506B/R1

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1.0 INTRODUCTION

The Georgia-Pacific Corporation (G-P) is proposing to construct an oriented strandboard facility near Hosford in the Florida panhandle. As part of the air impact evaluation for the proposed facility, the Florida Department of Environmental Projection (FDEP) has requested that an analysis of the proposed plant's affect on visibility be performed for the St. Marks National Wildlife Refuge (SMNWR). The SMNWR is a Prevention of Significant Deterioration (PSD) Class I area located in the eastern Florida panhandle located approximately 57 km southwest of the proposed facility site. Class I areas are afforded special environmental protection through the use of Air Quality Related Values (AQRVs). The AQRV of interest in this report is regional haze.

The regional haze analysis calculated a percent change in light extinction in accordance with the Interagency Workgroup on Air Quality Models (IWAQM) guidelines. The guidelines apply air dispersion model results for predicted maximum 24-hour sulfate (SO_4), nitrate (NO_3), and fine particulate matter (PM_{10}) concentrations and the use of conservative chemical equations for estimating ammonium sulfate ($(NH_4)_2SO_4$) and ammonium nitrate (NH_4NO_3) concentrations. The analysis then applies existing data from the FLM to calculate the visibility change.

This report is divided into three sections, including this introduction. Section 2.0 of this report discusses the analysis methodology and model inputs. Section 3.0 of this report presents the analysis results.

2.0 METHODOLOGY AND MODEL INPUTS

2.1 VISIBILITY NOMENCLATURE

Visibility is an AQRV for the SMNWR. Visibility can take the form of plume blight for nearby areas, or regional haze for long distances (e.g., distances beyond 50 km). Because all of the SMNWR lies beyond 50 km from the proposed G-P facility, the change in visibility is analyzed as regional haze at the SMNWR. Current regional haze guidelines characterize a change in visibility by either of the following methods:

1. Change in the visual range, defined as the greatest distance that a large dark object can be seen, or
2. Change in the light-extinction coefficient (b_{ext}).

The b_{ext} is the attenuation of light per unit distance due to the scattering and absorption by gases and particles in the atmosphere. A change in the extinction coefficient produces a perceived visual change that is measured by a visibility index called the deciview. The deciview (dv) is defined as:

$$dv = 10 \ln (1 + b_{exts} / b_{extb})$$

where: b_{exts} is the extinction coefficient calculated for the source, and
b_{extb} is the background extinction coefficient

A more common index that simple quantifies the percent change in visibility due to the operation of a source is calculated as:

$$\Delta\% = (bexts / b_{extsb}) \times 100$$

2.2 INTERAGENCY WORKGROUP ON AIR QUALITY MODELING (IWAQM) GUIDELINES

The CALPUFF air modeling analysis followed the recommendations contained in the *IWAQM Phase II Summary Report and Recommendations for Modeling Long Range Transport Impacts*, (EPA, 12/98). Table 2-1 summarizes the IWAQM Phase II recommendations.

Phase I

Refined impacts are calculated as follows:

Should use Phase 2

1. Obtain maximum 24-hour SO_4, NO_3, and PM_{10} impacts, in units of micrograms per cubic meter ($\mu g/m^3$).

2. Convert the SO_4 impact to $(NH_4)_2SO_4$ by the following formula:

   $(NH_4)_2SO_4$ (μg/m3) = SO_4 ($\mu g/m^3$) x molecular weight $(NH_4)_2SO_4$ / molecular weight SO_4

   $(NH_4)_2SO_4$ ($\mu g/m^3$) = SO_4 ($\mu g/m^3$) x 132/96 = SO_4 ($\mu g/m^3$) x 1.375

3. Convert the NO_3 impact to NH4NO3 by the following formula:

   NH_4NO_3 ($\mu g/m^3$) = NO_3 ($\mu g/m^3$) x molecular weight NH_4NO_3 / molecular weight NO_3

   NH_4NO_3 ($\mu g/m^3$) = NO_3 ($\mu g/m^3$) x 80/62 = NO_3 ($\mu g/m^3$) x 1.29

4. Compute bexts (extinction coefficient calculated for the source) with the following formula:

   $b_{exts} = 3 \times NH_4NO_3 \times f(RH) + 3 \times (NH_4)2SO_4 \times f(RH) + 3 \times PM_{10}$

5. Compute bextb (background extinction coefficient) using the background visual range (km) from the FLM with the following formula:

   $b_{extb} = 3.912$ / Visual range (km)

6. Compute the percent change in extinction coefficient in terms of a percent change of visibility:

   $\Delta\% = (b_{exts} / b_{extsb}) \times 100$

Based on the predicted SO_4, NO_3, and PM_{10} concentrations, the proposed plant's emissions are compared to a 5 percent change in light extinction of the background levels.

2.3 MODEL SELECTION

The California Puff (CALPUFF, Version 5.2) air model was used to model the proposed facility and assess visibility at the SMNWR. CALPUFF is a non-steady state Lagrangian Gaussian puff long-range transport (LRT) model that includes algorithms for building downwash effects as well as chemical transformations (important for visibility controlling pollutants), and wet/dry deposition. The CALMET model, a preprocessor to CALPUFF, is a diagnostic meteorological model that produces a three-dimensional field of wind and temperature and a two-dimensional field of other meteorological parameters. Simply, CALMET was designed to process raw meteorological, terrain, and land-use databases to be used in the air modeling analysis. The CALPUFF modeling system uses a number of preprocessor programs that extract data from large databases and converts the data into formats suitable for input to CALMET. The processed data produced from CALMET was input to CALPUFF to assess the pollutant specific impact. Both CALMET and CALPUFF were used in a manner that is recommended by the IWAQM Phase 2 Report.

2.4 CALPUFF MODEL SETTINGS

The CALPUFF settings contained in Table 2-2 were used for the Level II refined modeling analysis. A detailed listing of parameter values used are presented in Table A-1, Appendix A.

2.5 BUILDING WAKE EFFECTS

The CALPUFF analysis included the direction-specific building heights and projected widths to account for the effects of building-induced downwash on the proposed plant's 17 emission point sources. The building dimensions used in the CALPUFF model are identical to those processed for the Industrial Source Complex Short-Term (ISCST) model using the Building Profile Input Program (BPIP), Version 95086. The building data from the ISCST model were converted to CALPUFF model input format using the utility program ISC2PUF.

2.6 RECEPTOR LOCATIONS

The CALPUFF analysis used an array of receptors of sufficient density and extent to adequately predict the pattern of pollutant impacts at the SMNWR. Specifically, the array consisted of 125 receptors located along the boundary and within the Wilderness Area portion of SMNWR. Receptors were generally located within the area with a spacing of 1 km. The Wilderness Area at the SMNWR is located at two separate areas. To predict pollutant impacts at the larger eastern portion, 108 receptors were used along the boundary for the modeling analysis. The western portion of the Wilderness Area, which consists entirely of Thoms Island, was represented by 17 receptors. Table 2-3 includes the receptors used for the analysis. Because the SMNWR is flat and at sea level, all receptors were assigned an elevation of zero.

The St. Marks Wilderness Area receptor locations are shown in Figure 2-1 relative to the proposed G-P plant site location.

2.7 BACKGROUND VISUAL RANGES AND RELATIVE HUMIDITY FACTORS

The background visual range is based on data representative of the top 20-percentile air quality days. The background visual range for the SMNWR is 65 km and was provided by the FLM.

An average daily relative humidity factor was determined for each day that CALPUFF predicted a maximum 24-hour impact for each species: SO_4, NO_3, and PM_{10}. The daily average factor was computed by summing each hour's relative humidity factor for the 24-hour period, and dividing by 24. The hourly relative humidity factors used to determine each daily average were obtained from the document entitled Federal Land Managers' Air Quality Related Values Workgroup (FLAG), Draft Phase 1 Report (October, 1999).

2.8 METEOROLOGICAL DATA PROCESSING

The California Puff meteorological and geophysical data preprocessor (CALMET, Version 5) was used to develop the gridded parameter fields required for the refined regional haze modeling analysis. The follow sections discuss the specific data used and processed in the CALMET model.

2.8.1 CALMET SETTINGS

The CALMET settings contained in Table 2-4 were used for the refined modeling analysis. A summary of parameter values used is presented in Table A-2, Appendix A.

2.8.2 Modeling Domain

The modeling domain defines the boundary of plume simulation area. The modeling domain used for the analysis is in the shape of a rectangle extending approximately 475 km in the east-west (x) direction and 300 km in the north-south (y) direction. The southwest corner of the rectangle is the origin of the modeling domain and is located at 29.25 N degrees latitude and 81.5 W degrees longitude.

For the processing of meteorological and geophysical data, 95 grid cells were used in the x-direction and 60 grid cells were used in the y-direction. A grid resolution of 5 km was used. The air modeling analysis was performed with the UTM coordinate system. The modeling domain is outlined by the dashed orange rectangle in Figure 2-2.

2.8.3 Mesoscale Model – Generation 4 (MM4) Data

Pennsylvania State University in conjunction with the NCAR Assessment Laboratory developed the MM4 data, a prognostic wind field or "guess" field, for the United States (U.S.). The hourly meteorological variables used to create this data set (wind, temperature, dew point depression, and geopotential height for eight standard levels and up to 15 significant levels) are extensive and only allow for one data base set for the year 1990. The analysis used the MM4 data to initialize the CALMET wind field. The MM4 data have a horizontal spacing of 80 km and are used to simulate atmospheric variables within the modeling domain.

To apply the MM4 dataset to a regional modeling domain, such as the area that will incorporate G-P's proposed facility and the SMNWA, a sub-set domain was developed based on the MM4 data local coordinate system. In this coordinate system, the subset domain consisted of a 8 x 6- cell rectangle, spaced at 80 km, extending from MM4 coordinates (45,13) to (52,18). These data were processed to create a MM4.Dat file, which was input to the CALMET model. The location of the MM4 data grid is presented relative to the location of modeling domain area in Figure 2-2. The MM4 grid nodes are represented as green dots.

The MM4 data set used in the CALMET, although advanced, lacks the fine detail of specific temporal and spatial meteorological variables and geophysical data. These variables were processed into the appropriate format and introduced into the CALMET model through the additional data files obtained from the following sources.

2.8.4 Surface Data Stations and processing

The processed surface data includes the following eight primary weather stations that are located either within or just beyond the modeling domain. The seven surface stations include Jacksonville, Gainesville, Tallahassee, and Tampa in Florida, Columbus and Macon in Georgia, and Mobile and Montgomery in Alabama. The parameters included for these stations are wind speed, wind direction, cloud ceiling height, opaque cloud cover, dry bulb temperature, relative humidity, station pressure and a precipitation code that is based on current weather conditions. The weather station data for all stations but Gainesville was extracted for the year 1990 from the National Climatic Data Center's (NCDC) Solar and Meteorological Surface Observational Network (SAMSON) CD. The surface data from Gainesville was processed from NCDC CD-144 format. All data was processed with the CALMET preprocessor utility program, SMERGE, to create the SURF.DAT file for input to CALMET. Because the air modeling domain extends into the Gulf of Mexico, surface observations from the Cape San Blas C-MAN station were included in the analysis. The data from Cape San Blas were converted into an overwater surface station format (i.e., SEA) for input to CALMET.

2.8.5 Upper Air Data Stations and Processing

Upper air data was processed from three weather stations including Apalachicola and Tampa Bay/Ruskin, in Florida and Waycross in Georgia. The upper air data were extracted from the NCDC Radiosonde Data CD and processed into the NCDC Tape Deck (TD) 6201 format by the CALMET preprocessor utility program, READ62, to create an upper air file for each station.

A summary of the surface, over-water, and upper air stations used in the air modeling analysis is presented in Table 2-5. The locations of the these weather stations are shown in Figure 2-2.

2.8.6 Precipitation Data stations and Processing

Hourly precipitation data were developed for 57 primary and secondary NWS precipitation stations located in southern Alabama, southern Georgia and northern Florida. The stations were selected so as to provide detailed coverage in all areas within and around the CALMET modeling domain. The hourly precipitation data were extracted from data obtained by the NCDC and organized by EarthInfo on CD. These CD data were extracted into Tape Deck (TD) 3240 format. Once in TD3240 format, the hourly precipitation data for each of the 57 stations were extracted and then re-merged into CALMET input format (PRECIP.DAT) using the utility programs PXTRACT and PMERGE, respectively.

A listing of the precipitation stations used for air modeling analysis is presented in Table 2-6. Precipitation station locations are shown relative to the modeling domain in Figure 2-3.

2.8.7 Geophysical Data Processing

Terrain elevations for each grid cell of the modeling domain were obtained from 1-degree Digital Elevation Model (DEM) files obtained from US Geographical Survey (USGS) internet website. The DEM data for the modeling domain grid was processed using the utility program TERREL. One-degree land-use data was also obtained from the USGS website. The land-use parameters for the air modeling domain were developed using the CALMET preprocessor utility programs CTGCOMP and GTGPROC. Other processed parameters extracted with the land use data are surface roughness, surface albedo, Bowen ratio, soil heat flux, and leaf index field. The processed land-use parameters were combined with the processed terrain elevation data to create the GEO.DAT file that was input to CALMET.

2.9 FACILITY EMISSIONS

Maximum emission rates and stack parameter data for the proposed G-P plant are summarized in Tables 2-7 and 2-8. The data for point sources are summarized in Table 2-7, while the volume source data are presented in Table 2-8. The emission rates are the same as those used for the ISCST modeling analysis. For the CALPUFF analysis, volume sources that have identical stack parameter were combined into one source with the emissions totaled for each group. Hourly emission factors were used for the road traffic source.

3.0 RESULTS

Table 3-1 summarizes the species' maximum impacts and predicted worst days for the refined visibility analysis. The predicted worst days (24-hour periods) for NO_3, PM_{10}, and SO_4 are 1/9 (Julian 9), 10/14 (Julian 287), and 10/15 (Julian 288), respectively. For each worst day, the hourly relative humidity and hourly relative humidity factors [f(RH)] and are presented in Table 3-2. The daily average f(RH)s for 1/9, 10/14, and 10/15 are 7.00, 5.58, and 5.18, respectively. The maximum predicted change due to the proposed facility operation for each worst day is summarized in Table 3-3. The maximum predicted change is 2.71 percent and occurs on 1/9. Because the maximum visibility change is below the criteria of 5 percent change, the operation of the proposed plant is not expected to adversely impact existing regional haze levels at the SMNWR.

Table 2-1. Outline of IWAQM Level II Refined Modeling Analyses Recommendations*

Meteorology	Use CALMET (minimum 6 to 10 layers in the vertical; top layer must extend above the maximum mixing depth expected); horizontal domain extends 50 to 80 km beyond outer receptors and sources being modeled; terrain elevation and land-use data is resolved for the situation.
Receptors	Within Class I area(s) of concern; obtain regulatory concurrence on coverage.
Dispersion	CALPUFF with default dispersion settings. Use MESOPUFF II chemistry with wet and dry deposition 3. Define background values for ozone and ammonia for area
Processing	Use highest predicted 24-hr SO_4, PM10 and NO_3 values; compute a day-average relative humidity factor (f(RH)) for the worst day for each predicted species, calculate extinction coefficients and compute percent change in extinction using the FLM supplied background extinction.

**IWAQM Phase II Summary Report and Recommendations for Modeling Long Range Transport Impacts* (EPA, 12/98)

Table 2-2. CALPUFF Model Settings

Parameter	Setting
Pollutant Species	SO_2, SO_4, NO_x, HNO_3, and NO_3, and PM10
Chemical Transformation	MESOPUFF II scheme
Deposition	Include both dry and wet deposition, plume depletion
Meteorological/Land Use Input	CALMET
Plume Rise	Transitional, Stack-tip downwash, Partial plume penetration
Dispersion	Puff plume element, PG /MP coefficients, rural mode, ISC building downwash scheme
Terrain Effects	Partial plume path adjustment
Output	Create binary concentration file including output species for SO_4, NO_3 and PM10
Model Processing	Highest predicted 24-hour SO_4, NO_3 and PM10 concentrations for year
Background Values	Ozone: 80 ppb; Ammonia: 10 ppb

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Table 2-3. Summary of Receptors Used for the Regional Haze Modeling Analysis

Receptor Number	UTM Coordinate (m) Easting	UTM Coordinate (m) Northing	Receptor Number	UTM Coordinate (m) Easting	UTM Coordinate (m) Northing
St. Marks Wilderness Area (eastern portion)			64	794368	3328454.5
1	769660	3334380	65	778372	3332268.5
2	770000	3333480	66	778882.5	3332190.7
3	770420	3332920	67	779661.2	3332675.2
4	771060	3332350	68	780388.1	3332580.1
5	771850	3332110	69	780742.8	3332363.7
6	772100	3332710	70	781219.2	3332424.5
7	772380	3332160	71	781868.1	3332952.4
8	772230	3331440	72	782335.4	3332987
9	771570	3331050	73	782984.3	3333471.6
10	771450	3330530	74	783192	3333359.1
11	771700	3330220	75	783936.1	3333488.9
12	772420	3329810	76	784585	3333627.3
13	773350	3329870	77	785173.4	3333203.3
14	774000	3330230	78	785597	3333748.3
15	774270	3331020	79	786159.4	3333644.4
16	774100	3330040	80	787000	3333750
17	774740	3330480	81	788000	3333218.75
18	775370	3330910	82	782000	3335390.24
19	776140	3331240	83	781000	3335268.29
20	776220	3331880	84	780000	3333939
21	776490	3332400	85	789500	3331512
22	776440	3333010	86	791098	3330375
23	777370	3332250	87	790098	3330847
24	770000	3338000	88	794098	3329274
25	770000	3336000	89	793098	3329183
26	772000	3336000	90	792098	3329606
27	772000	3333000	91	791244	3330549
28	772000	3331000	92	791305	3333366
29	775000	3333000	93	790915	3335000
30	775000	3331000	94	791342	3337159
31	777000	3333000	95	789000	3337914
32	770200	3339000	96	788000	3337182
33	770200	3338000	97	787000	3336476
34	770200	3337200	98	786000	3336415
35	774400	3336100	99	785000	3336244
36	770400	3333000	100	784000	3336183
37	768900	3337600	101	783000	3336171
38	769100	3336800	102	791646	3336585
39	768800	3338400	103	791439	3338244
40	769300	3338800	104	789431	3338305
41	769800	3339100	105	791300	3332259.3
42	768755	3338411	106	791300	3331468.6
43	769098	3338713	107	790443	3338299.2
44	769399	3338902	108	791257.6	3335786.3
45	769717	3339105	St. Marks WA (Thoms Island)		
46	770257	3339219	109	744700	3322400
47	769200	3336000	110	745400	3321399.9
48	769700	3335000	111	746500	3321399.9
49	770000	3334000	112	747100	3320500
50	771000	3332000	113	746400	3319899.9
51	773000	3330500	114	746200	3318800
52	774000	3330500	115	745600	3318000
53	771000	3336000	116	745200	3319200
54	773000	3336000	117	745200	3320399.9
55	774000	3336000	118	744100	3321500
56	775000	3335000	119	744700	3321000
57	775000	3334000	120	744700	3321700
58	775000	3333000	121	745400	3321000
59	776000	3333000	122	745400	3322000
60	776000	3331000	123	746000	3319500
61	778000	3333500	124	746000	3320500
62	779000	3334000	125	746000	3321200
63	789000	3333000			

Table 2-4. CALMET Settings

Parameter	Setting
Horizontal Grid Dimensions	475 by 300 km, 5 km grid resolution
Vertical Grid	8 layers
Weather Station Data Inputs	9 surface, 3 upper air, 57 precipitation stations
Wind model options	Diagnostic wind model, no kinematic effects
Prognostic wind field model	MM4 data, 80 km resolution, 8 x 6 grid, used for wind field initialization
Output	Binary hourly gridded meteorological data file for CALPUFF input

Tab2-5.xls
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Table 2-5 Surface, Overwater, and Upper Air Stations Used in the Refined Modeling Analysis

Station Name	Station Symbol	WBAN Number	UTM Coordinate Easting (km)	UTM Coordinate Northing (km)	UTM Coordinate Zone	Anemometer Height (m)	Time Zone[b]
Surface Stations							
Jacksonville, FL	JAX	13889	1012.82[a]	3374.19	17	6.1	5
Tallahassee, FL	TLH	93805	753.04[a]	3363.99	16	7.6	5
Tampa, FL	TPA	12842	929.17[a]	3094.25	17	6.7	5
Columbus, GA	CSG	93842	692.57[a]	3599.35	16	9.1	5
Macon, GA	MCN	3813	831.58[a]	3620.93	17	7.0	5
Mobile, AL	MOB	13894	380.26	3394.97	16	10.1	6
Montgomery, AL	MGM	13895	556.50	3573.65	16	7.0	6
Gainesville, FL	GNV	12816	957.43[a]	3284.16	17	6.7	5
Overwater Stations							
Cape San Blas, FL	CSBF1	-	659.04	3283.32	16	9.8	6
Upper Air Stations							
Ruskin, FL	TBW	12842	941.95[a]	3064.55	17	NA	5
Waycross, GA	AYS	13861	946.68[a]	3457.95	17	NA	5
Apalachicola, FL	AQQ	12832	690.22[a]	3290.65	17	NA	5

a. Equivalent UTM Coordinate for Zone 16
b. Eastern = 5, Central = 6

Tab2-6.xls
7/12/00

Table 2-6. Hourly Precipitation Stations Used in the Refined Modeling Analysis

Station Name	Station Number	UTM Coordinate Easting (km)	Northing (km)	Zone
Florida				
Apalachicola WSO Arpt	80211	691.061	3289.921	16
Blackman	80765	533.424	3427.601	16
Branford	80975	895.606[a]	3315.955	17
Bristol	81020	693.715	3366.473	16
Cross City 2 WNW	82008	870.268[a]	3281.754	17
Dowling Park 1 W	82391	863.505[a]	3348.418	17
Gainesville 11 WNW	83322	935.411[a]	3284.205	17
Graceville 1 SW	83538	641.703	3424.797	16
Inglis 3 E	84273	922.631[a]	3211.652	17
Jacksonville WSO AP	84358	1013.427[a]	3373.634	17
Lynne	85237	989.255[a]	3230.295	17
Monticello 3 W	85879	800.168[a]	3381.291	17
Niceville	86240	548.745	3377.572	16
Panacea 3 S	86828	752.453	3319.607	16
Panama City 5 NE	86842	634.754	3343.414	16
Raiford State Prison	87440	965.02[a]	3326.686	17
Tallahassee WSO AP	88758	754.292	3365.100	16
Wausau	89415	635.756	3391.462	16
Woodruff Dam	89795	704.292	3399.935	16
Georgia				
Abbeville 4 S	90010	861.839[a]	3535.687	17
Americus Exp Stn Nurser	90258	757.935	3554.581	16
Bainbridge Intl Paper Co	90586	724.846	3409.588	16
Brunswick	91340	1032.132[a]	3448.130	17
Claxton	91973	995.054[a]	3559.185	17
Columbus Metro Ap	92166	693.300	3599.307	16
Coolidge	92238	806.336	3434.765	17
Doles	92728	806.73[a]	3510.587	17
Dublin 2	92844	901.605[a]	3603.714	17
Edison	93028	715.132	3494.426	16
Fargo	93312	930.278[a]	3396.112	17
Folkston 3 SW	93460	982.591[a]	3407.519	17
Hamilton 4 W	94033	693.630	3625.258	16
Hazlehurst	94204	930.478[a]	3528.882	17
Jesup	94671	996.541[a]	3497.124	17
Lizella	95249	815.936[a]	3633.385	17
Lumpkin 2 SE	95394	710.020	3545.778	16
Macon Middle GA Regional	95443	831.127[a]	3619.583	17
Pearson	96879	904.643[a]	3463.307	17
Sylvania 2 SSE	98517	1022.108[a]	3621.570	17
The Rock	98657	757.814	3650.455	16
Valdosta 4 NW	98974	856.902[a]	3416.946	17
West Point	99291	669.434	3638.065	16
Alabama				
Abbeville 1 NNW	10008	662.902	3495.325	16
Alberta	10140	459.798	3566.793	16
Andalusia 3 W	10252	545.472	3463.482	16
Atmore State Nursery	10402	458.171	3448.658	16
Auburn Agronomy Farm	10430	640.773	3607.735	16
Dadeville 2	12124	617.060	3633.087	16
Dothan	12377	652.449	3452.663	16
Enterprise 5 NNW	12675	604.606	3472.403	16
Greenville	13519	533.119	3523.197	16
Marion 7 NE	15112	474.872	3618.169	16
Midway	15397	639.828	3549.782	16
Montgomery Dannelly Field	15550	555.790	3573.610	16
Peterman	16370	474.564	3494.634	16
Thorsby Exp Station	18209	530.782	3642.236	16
Troy	18323	597.296	3519.354	16

a. Equivalent UTM Easting Coordinate for Zone 16

Table 2-7. G-P Hosford Source Point Source Inventory Used for the Regional Haze Analysis

Source	Maximum Emission Rates (g/s)			Height	Temperature	Velocity	Diameter
ID Number	SO_2	NO_x	PM_{10}	(m)	(K)	(m/s)	(m)
EP_1A	0.105	4.62	4.69	39.6	399.3	15.31	2.59
EP_1B	0.105	4.62	4.69	39.6	399.3	15.31	2.59
EP_2	—	1.35	0.36	30.48	340.9	18.46	2.18
EP_3	—	—	0.260	33.53	294.3	15.97	0.71
EP_4	—	—	0.166	30.48	294.3	15.09	1.12
EP_5	—	—	0.246	36.58	294.3	18.48	1.22
EP_6	—	—	0.270	27.43	294.3	15.05	1.02
EP_7	—	—	0.043	22.86	294.3	0.01	0.25
EP_8	—	—	0.239	32	294.3	22.91	0.76
EP_9	—	—	0.260	33.53	294.3	15.22	0.76
EP_10	0.239	2.02	0.163	42	644.3	6.35	1.68
PDBARK1	—	—	0.047	8.53	273.0	0.001	0.001
PDBARK2	—	—	0	8.53	273.0	0.001	0.001
PDBARK3	—	—	0.047	8.53	273.0	0.001	0.001
PSB2	—	—	1.76E-03	10.67	294.3	0.01	0.22
PSB1	—	—	1.76E-03	10.67	294.3	0.01	0.22
PSB3	—	—	1.76E-03	10.67	294.3	0.01	0.22

Table 2-8. G-P Hosford Volume Source Inventory Used for the Regional Haze Analysis

Source ID Number	Maximum PM_{10} Emission Rate (g/s)	Release Height (m)	Initial Sy (m)	Initial Sz (m)	Emission Rate Scalar
BARKPIL	0.0189	2.29	7.09	1.06	
BARKHOG	0.00189	3.91	0.28	0.47	
TP1_3	6.80E-06	4.88	0.21	0.21	
TP4_7	9.01E-05	7.62	0.21	0.21	
ROADS	0.22	3.66	18.34	1.7	HROFDY

Sy = Horizontal Dispersion
Sz = Vertical Dispersion

Table 3-1. Highest Predicted Species Concentrations and Julian Days, 1990

Species Predicted	Concentration[a] (ug/m^3)	Julian Day
SO_4	0.00060	288
NO_3	0.04052	9
PM_{10}	0.19398	287

Species Concentrations on Worst Days

Species	9 (1/9)	287 (10/14)	288 (10/15)
SO_4	0.00024	0.00027	0.00060
NO_3	0.04052	0.03095	0.01007
PM_{10}	0.18427	0.19398	0.09713

a. Predicted with CALPUFF model and CALMET 1990 wind field for St. Marks NWR domain

Table 3-2. Computed Daily Average RH Factors for Predicted Worst Days

Hour Ending	9 (1/9) RH(%)	9 (1/9) f(RH)	287 (10/14) RH(%)	287 (10/14) f(RH)	288 (10/15) RH(%)	288 (10/15) f(RH)
0	90	4.7	90	4.7	90	4.7
1	90	4.7	90	4.7	90	4.7
2	96	12.4	93	7.0	90	4.7
3	100	21.4	97	15.1	97	15.1
4	96	12.4	97	15.1	97	15.1
5	96	12.4	97	15.1	97	15.1
6	96	12.4	97	15.1	96	12.4
7	96	12.4	97	15.1	96	12.4
8	89	4.4	97	15.1	90	4.7
9	83	3.1	71	2.0	73	2.1
10	77	2.4	56	1.3	52	1.3
11	72	2	49	1.2	43	1.1
12	64	1.6	43	1.1	39	1.1
13	60	1.4	35	1.0	36	1.0
14	52	1.3	36	1.0	34	1.0
15	50	1.2	40	1.1	29	1.0
16	50	1.2	40	1.1	29	1.0
17	54	1.3	40	1.1	29	1.0
18	65	1.7	60	1.4	53	1.3
19	86	3.6	76	2.3	69	1.9
20	86	3.6	79	2.6	81	2.8
21	96	12.4	81	2.8	90	4.7
22	96	12.4	84	3.2	93	7.0
23	100	21.4	87	3.8	93	7.0
Average		6.992		5.583		5.175

Note: Hourly relative humidity data from Tallahassee, Florida; 1990.

Do Not Use Flag at all
No Phase I

Took RH Values from Flag.

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Table 3-3. Refined Regional Haze Analyses Results, G-P Hosford Facility

Item	Units	Predicted Worst Days		
		9 (1/9)	287 (10/14)	288 (10/15)
Maximum Predicted Concentration	ug/m^3			
SO_4		0.000240	0.000269	0.000599
NO_3		0.040521	0.030950	0.010070
PM10		0.184270	0.193980	0.097133
Computed Concentrations	ug/m^3			
$(NH_4)_2SO_4$		0.000329	0.000370	0.000824
NH_4NO_3		0.0523	0.0399	0.0130
Average Relative Humidity Factor(a)		6.9917	5.5833	5.1750
Background Visual Range(b), Vr		65	65	65
Background Extinction Coeff.(bext)	km^{-1}	0.0602	0.0602	0.0602
Source Extinction Coeff (bexts)	km^{-1}			
$(NH_4)_2SO_4$		0.000007	0.000006	0.000013
NH_4NO_3		0.001096	0.000669	0.000202
PM10		0.000553	0.000582	0.000291
Total bexts	km^{-1}	0.001656	0.001257	0.000506
Deciview Change		0.271	0.207	0.084
Percent Change (%)		2.71	2.07	0.84
Allowable Criteria (%)		5.0	5.0	5.0

Note: Computed from Tallahassee RH data, 1990. Provided by U.S. Fish and Wildlife Service.

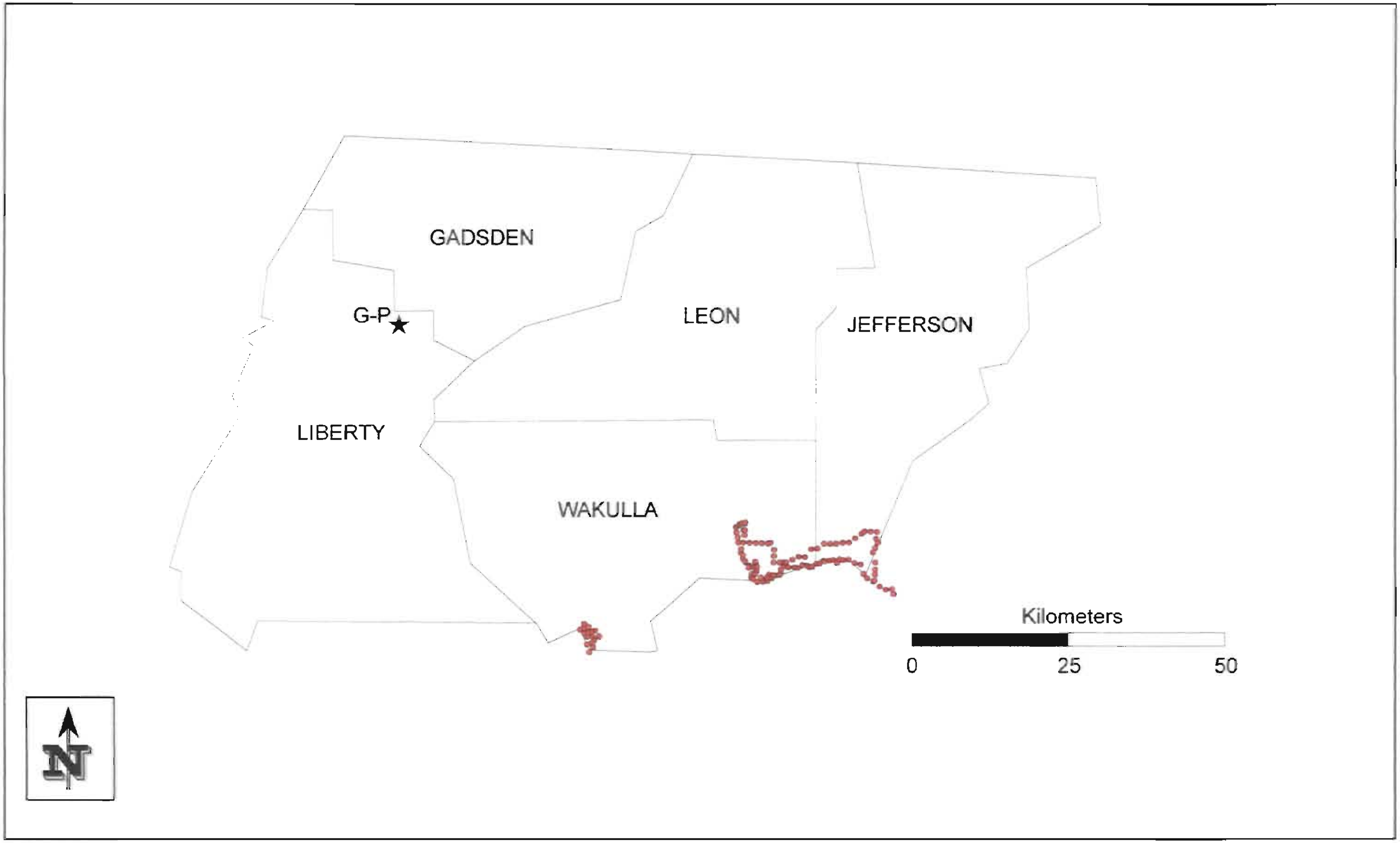

Figure 2-1. Location of St. Marks Wilderness Area Air Modeling Receptors

Source: Golder Associates Inc., 2000

Golder Associates

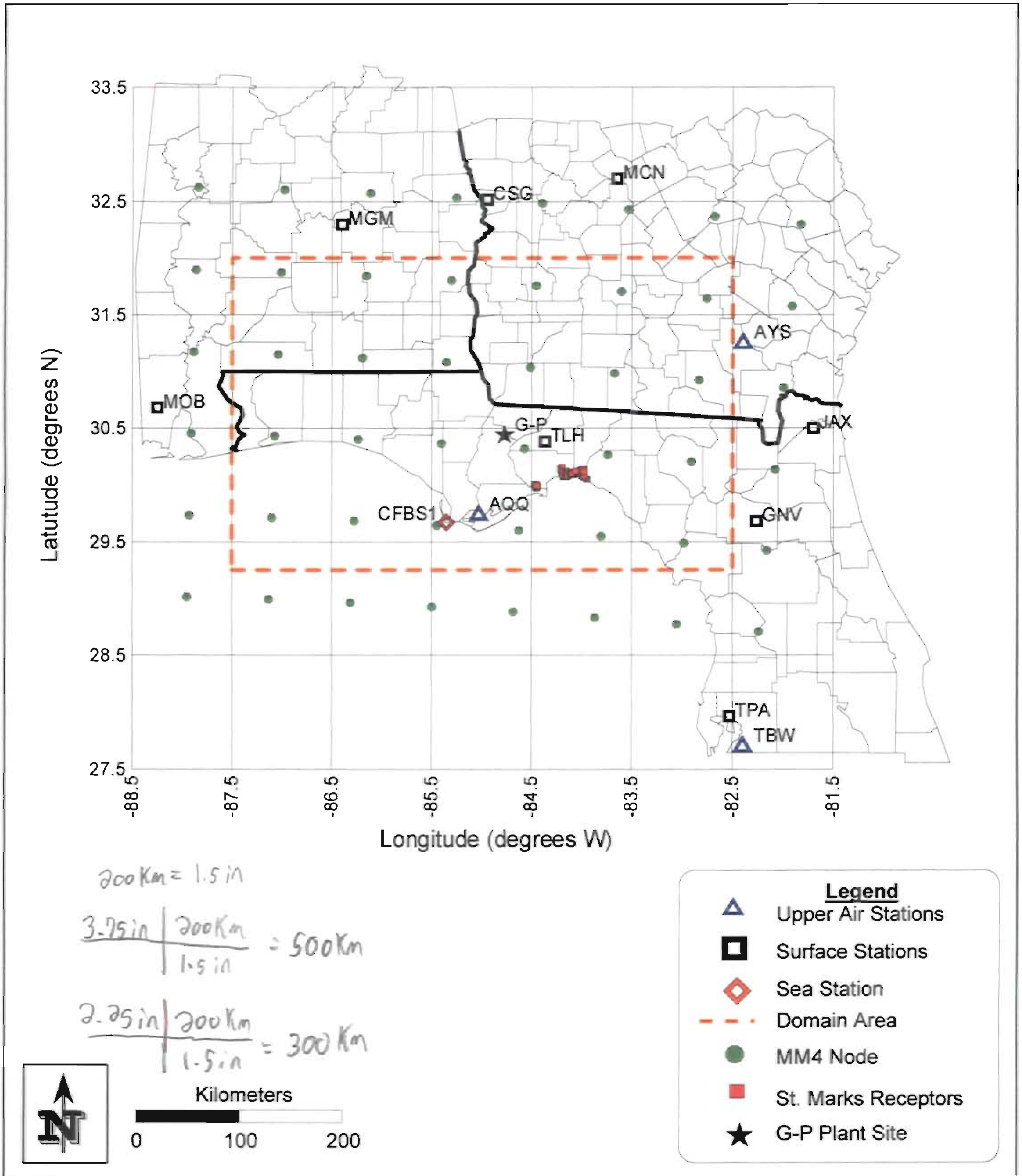

Figure 2-2. Location of G-P Site, Meterological Stations, Receptors and MM4 Grid Points within CALMET Modeling Domain

Source: Golder Associates Inc., 2000

Golder Associates

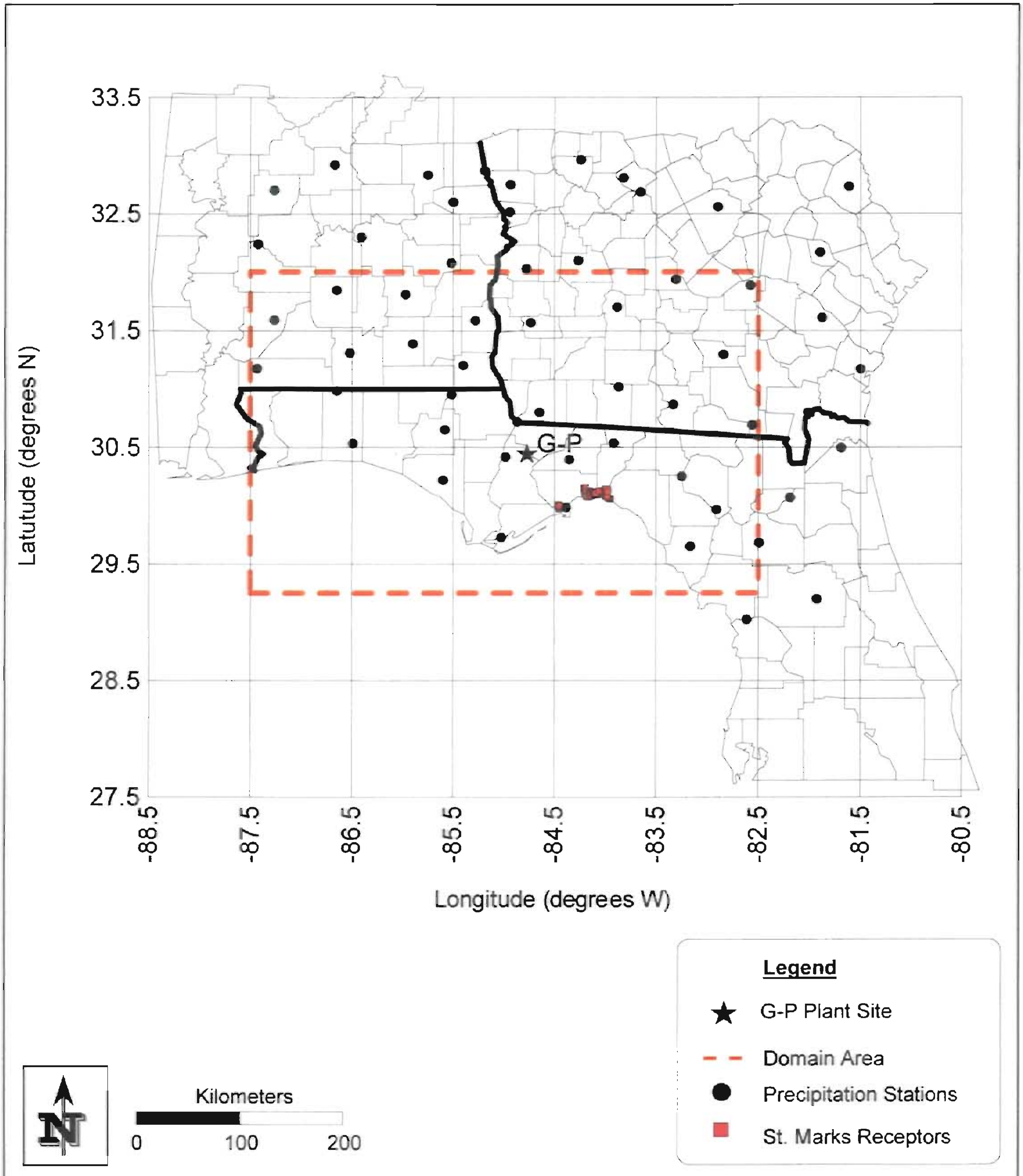

Figure 2-3. Location of Precipitation Stations within CALMET Modeling Domain

Source: Golder Associates Inc., 2000

Golder Associates

APPENDIX A

PARAMETER SETTINGS FOR CALPUFF AND CALMET

Table A-1. IWAQM Phase II Calpuff Parameter Settings Used in the Refined Regional Haze Analysis						
	Input Group					Modeled
Number	Description	Variable	Seq	Description	Default Value	Value
1	Run Control	NMETDAT	1	Number of CALMET data files for run	1	4
1		METRUN	2	Do we run all periods (1) or a subset (0)?	0	0
1		IBYR	3	Beginning year	User Defined	90
1		IBMO	4	Beginning month	User Defined	1
1		IBDY	5	Beginning day	User Defined	6
1		IBHR	6	Beginning hour	User Defined	0
1		IRLG	6	Length of run (hours)	User Defined	Quarterly
1		NSPEC	7	Number of species modeled (for MESOPUFF II chemistry)	5	6
1		NSE	8	Number of species emitted	3	3
1		ITEST	9		2	2
1		MRESTART	10	Restart options (0 = no restart) allows splitting runs into smaller segments	0	0
1		NRESPD	11		0	0
1		METFM	12	Format of input meteorology (1 = CALMET, 2 = ISC)	1	1
1		AVET	13	Averaging time lateral dispersion parameters (minutes)	60	60
1		PGTIME	14	PG Averaging Time (minutes)	60	60
2	Tech Options	MGAUSS	1	Near-field vertical distribution (1 = Gaussian)	1	1
2		MCTADJ	2	Terrain adjustments to plume path (3 = Plume path)	3	3
2		MCTSG	3	Do we have subgrid hills? (0 = No) allows CTDM-like treatment for subgrid scale hills	0	0
2		MSLUG	4	Near-field puff treatment (0 = No slugs)	0	0
2		MTRANS	5	Model transitional plume rise? (1 = Yes)	1	1
2		MTIP	6	Treat stack tip downwash? (1 = Yes)	1	1
2		MSHEAR	7	Treat vertical wind shear? (0 = No)	0	0
2		MSPLIT	8	Allow puffs to split? (0 = No)	0	0
2		MCHEM	9	MESOPUFF-II Chemistry? (1 = Yes)	1	1
2		MWET	10	Model wet deposition? (1 = Yes)	1	1
2		MDRY	11	Model dry deposition? (1 = Yes)	1	1
2		MDISP	12	Method for dispersion coefficients (3 = PG & MP)	3	4
2		MTURBVW	13	Turbulence characterization? (Only if MDISP = 1 or 5)	3	0
2		MDISP2	14	Backup coefficients (Only if MDISP = 1 or 5)	3	4
2		MROUGH	15	Adjust PG for surface roughness? (0 = No)	0	0
2		MPARTL	16	Model partial plume penetration? (0 = No)	1	1
2		MTINV	17	Elevated inversion strength (0 = compute from data)	0	0
2		MPDF	18	Use PDF for convective dispersion? (0 = No)	0	0
2		MSGTIBL	19	Use TIBL module? (0 = No) allows treatment of subgrid scale coastal areas	0	0
2		MREG	20	Regulatory default checks? (1 = Yes)	1	0
3	Species List	CSPECn		Names of species modeled (for MESOPUFF II must be SO2-SO4-NOX-HNO3-NO3, PM10	User Defined	ALL 6
3		Specie Groups		Grouping of species if any	User Defined	NA
3		Specie Names		Manner species will be modeled	User Defined	
4	Grid Control	NX	1	Number of east-west grids of input meteorology	User Defined	95

Table A-1. IWAQM Phase II Calpuff Parameter Settings Used in the Refined Regional Haze Analysis

Number	Input Group Description	Variable	Seq	Description	Default Value	Modeled Value
4		NY	2	Number of north-south grids of input meteorology	User Defined	60
4		NZ	3	Number of vertical layers of input meteorology	User Defined	9
4		DGRIDKM	4	Meteorology grid spacing (km)	User Defined	5
4		ZFACE	5	Vertical cell face heights of input meteorology	User Defined	9 values
4		XORIGKM	6	Southwest corner (east-west) of input User	efined meteorolog	452
4		YORIGIM	7	Southwest corner (north-south) of input User	efined meteorolog	3236
4		IUTMZN	8	UTM zone	User Defined	17
4		XLAT	9	Latitude of center of meteorology domain	User Defined	30.5
4		XLONG	10	Longitude of center of meteorology domain	User Defined	85
4		XTZ	11	Base time zone of input meteorology	User Defined	5
4		IBCOMP	12	Southwest X-index of computational domain	User Defined	1
4		JBCOMP	13	Southwest Y-index of computational domain	User Defined	1
4		IECOMP	14	Northeast X-index of computational domain	User Defined	95
4		JECOMP	15	Northeast Y-index of computational domain	User Defined	60
4		LSAMP	16	Use gridded receptors? (T = Yes)	F	F
4		IBSAMP	17	Southwest X-index of receptor grid	User Defined	0
4		JBSAMP	18	Southwest Y-index of receptor grid	User Defined	0
4		IESAMP	19	Northeast X-index of receptor grid	User Defined	95
4		JESAMP	20	Northeast Y-index of receptor grid	User Defined	60
4		MESHDN	21	Gridded recpetor spacing = DGRIDKM/MESHDN	1	1
5	Output Options	ICON	1	Output concentrations? (1 = Yes)	1	1
5		IDRY	2	Output dry deposition flux? (1 = Yes)	1	0
5		IWET	3	Output west deposition flux? (1 = Yes)	1	0
5		IVIS	4	Output RH for visibility calculations (1 = Yes)	1	0
5		LCOMPRS	5	Use compression option in output? (T = Yes)	T	T
5		ICPRT	6	Print concentrations? (0 = No)	0	0
5		IDPRT	7	Print dry deposition fluxes (0 = No)	0	0
5		IWPRT	8	Print wet deposition fluxes (0 = No)	0	0
5		ICFRQ	9	Concentration print interval (1 = hourly)	1	24
5		IDFRQ	10	Dry deposition flux print interval (1 = hourly)	1	1
5		IWFRQ	11	West deposition flux print interval (1 = hourly)	1	1
5		IPRTU	12	Print output units (1 = g/m**3; g/m**2/s; 3 = ug/m3, ug/m2/s)	1	3
5		IMESG	13	Status messages to screen? (1 = Yes)	1	1
5		LDEBUG	14	Turn on debug tracking? (F = No)	F	F
5		NPFDEB	15	(Number of puffs to track)	(1)	1
5		NN1	16	(Met. Period to start output)	(1)	1
5		NN2	17	(Met. Period to end output)	(10)	10
7	Dry Dep Chem	Dry Gas Dep		Chemical parameters of gaseous deposition species	User Defined	NOX,HNO3
						SO2
8	Dry Dep Size	Dry Part. Dep		Chemical parameters of particulate deposition species	User Defined	SO4,NO3

Table A-1. IWAQM Phase II Calpuff Parameter Settings Used in the Refined Regional Haze Analysis						
Number	Input Group Description	Variable	Seq	Description	Default Value	Modeled Value
						PM10
9	Dry Dep Misc	RCUTR	1	Reference cuticle resistance (s/cm)	30	30
9		RGR	2	Reference ground resistance (s/cm)	10	10
9		REACTR	3	Reference reactivity	8	8
9		NINT	4	Number of particle-size intervals	9	9
9		IVEG	5	Vegetative state (1 = active and unstressed)	1	1
10	Wet Dep	Wet Dep		Wet deposition parameters	User Defined	Var
11	Chemistry	MOZ	1	Ozone background? (0 = constant background value; 1 = read from ozone.dat)	1	0
11		BCKO3	2	Ozone default (ppb) (Use only for missing data)	80	80
11		BCKNH3	3	Ammonia background (ppb)	10	10
11		RNITE1	4	Nighttime SO2 loss rate (%/hr)	0.2	0.2
11		RNITE2	5	Nighttime NOx loss rate (%/hr)	2	2
11		RNITE3	6	Nighttime HNO3 loss rate (%/hr)	2	2
12	Dispersion	SYTDEP	1	Horizontal size (m) to switch to time dependence	550	550
12		MHFTSZ	2	Use Heffter for vertical dispersion? (0 = No)	0	0
12		JSUP	3	PG Stability class above mixed layer	5	5
12		CONK1	4	Stable dispersion constant (Eq 2.7-3)	0.01	0.01
12		CONK2	5	Neutral dispersion constant (Eq 2.7-4)	0.1	0.1
12		TBD	6	Transition for downwash algorithms (0.5 = ISC)	0.5	0.5
12		IURB1	7	Beginning urban landuse type	10	10
12		IURB2	8	Ending urban landuse type	19	19
12		ILANDUIN	9	Land use type (20 = Unirrigated agricultural land)	(20)	20
12		ZOIN	10	Roughness length (m)	(0.25)	0.25
12		XLAIIN	11	Leaf area index	(3)	3
12		ELEVIN	12	Met. Station elevation (m above MSL)	(0)	0
12		XLATIN	13	Met. Station North latitude (degrees)	(-999)	-999
12		XLONIN	14	Met. Station West longitude (degrees)	(-999)	-999
12		ANEMHT	15	Anemometer height of ISC meteorological data (m)	(10)	NA
12		ISIGMAV	16	Lateral turbulence (Not used with ISC meteorology)	(1)	NA
12		IMIXCTDM	17	Mixing heights (Not used with ISC meteorology)	(1)	NA
12		XMXLEN	18	Maximum slug length in units of DGRIDKM	1	1
12		XSAMLEN	19	Maximum puff travel distance per sampling step (units of DGRIDKM)	1	1
12		MXNEW	20	Maximum number of puffs per hour	99	99
12		MXSAM	21	Maximum sampling steps per hour	99	99
12		NCOUNT	22	Iterations when computing Transport Wind (Calmet & Profile Winds)	(2)	2
12		SYMIN	23	Minimum lateral dispersion of new puff (m)	1	1
12		SZMIN	24	Minimum vertical dispersion of new puff (m)	1	1
12		SVMIN	25	Array of minimum lateral turbulence (m/s)	6 * 0.50	6*0.50
12		SWMIN	26	Array of minimum vertical turbulence (m/s)	.12,0.08,0.06,0.03	SAME

Table A-1. IWAQM Phase II Calpuff Parameter Settings Used in the Refined Regional Haze Analysis						
	Input Group					Modeled
Number	Description	Variable	Seq	Description	Default Value	Value
12		CDIV (1), (2)	27	Divergence criterion for dw/dz (1/s)	0.01 (0.0,0.0)	0.0,0.0
12		WSCALM	28	Minimum non-calm wind speed (m/s)	0.5	0.5
12		XMAXZI	29	Maximum mixing height (m)	3000	3000
12		XMINZI	30	Minimum mixing height (m)	50	50
12		WSCAT	31	Upper bounds 1st 5 wind speed classes (m/s)	4,3.09,5.14,8. 23,1	SAME
12		PLX0	32	Wind speed power-law exponents	0.07,0.10,0.15,0.3	SAME
12		PTGO	33	Potential temperature gradients PG E and F (deg/km)	0.020,0.035	SAME
12		PPC	34	Plume path coefficients (only if MCTADJ = 3)	,0.5,0.5,0.5,0.35,0	SAME
12		SL2PF	35	Maximum Sy/puff length	10	10
12		NSPLIT	36	Number of puffs when puffs split	3	3
12		IRESPLIT	37	Hours when puff are eligible to split	User Defined	HR 17=1
12		ZISPLIT	38	Previous hour's mixing height(minimum)(m)	100	100
12		ROLDMAX	39	Previous Max mix ht/current mix ht ratio must be less then this value for puff to split	0.25	0.25
12		EPSSLUG	40	Convergence criterion for slug sampling integration	1.00E-04	1.0E-04
12		EPSAREA	41	Convergence criterion for area source integration	1.00E-06	1.0E-06
13	Point Source	NPT1	1	Number of point sources	User Defined	17
13		IPTU	2	Units of emission rates (1 = g/s)	1	1
13		NSPT1	3	Number of point source-species combinations	0	0
13		NPT2	4	Number of point sources with fully variable emission rates	0	0
13		Point Sources		Point sources characteristics	User Defined	VAR
14	Area Source	Area Sources		Area sources characteristics	User Defined	NA
15	Line Source	Line Sources		Buoyant lines source characteristics	User Defined	NA
16	Volume Source	NVL1		Number of volume sources	User Defined	5
		IVLU		Units for volume source (1= g/s)	User Defined	1
		NSVL1		Number of volume sources with emission scaling factors	0	1
17	Receptors	NREC		Number of user defined receptors	User Defined	125
17		Receptor Data		Location and elevation (MSL) of receptors	User Defined	VAR
Legend						
	DEPOS.	With Deposition				
	DEFAULT	Uses defaults				
	VAR	Variable Input				
	NA	Not Applicable				
	SAME	Same as recommended				

Table A-2. IWAQM Phase II CALMET Option Settings Used for Refined Regional Haze Analysis

Variable	Description	Default Value	Modeled Value
GEO.DAT	Name of Geophysical data file	GEO.DAT	GEO.DAT
SURF.DAT	Name of Surface data file	SURF.DAT	SURF.DAT
PRECIP.DAT	Name of Precipitation data file	PRECIP.DAT	PRECIP.DAT
NUSTA	Number of upper air data sites	User Defined	3
Upn.DAT	Names of NUSTA upper air data files	Upn.DAT	UP1..UP5.DAT
NOWSTA	Number of Overwater met stations	User Defines	0
IBYR	Beginning year	User Defines	90
IBMO	Beginning month	User Defines	1
IBDY	Beginning day	User Defines	6
IBHR	Beginning hour	User Defines	0
IBTZ	Base time zone	User Defines	5
IRLG	Number of hours to simulate	User Defines	quarterly
IRTYPE	Output file type to create (must be 1 for CALPUFF)	1	1
LCALGRD	Are w-components and temperature needed?	T	T
NX	Number of east-west grid cells	User Defines	95
NY	Number of north-south grid cells	User Defines	60
DGRIDKM	Grid spacing	User Defines	5
XORIGKM	Southwest grid cell X coordinate	User Defines	452
YORIGKM	Southwest grid cell Y coordinate	User Defines	3236
XLAT0	Southwest grid cell latitude	User Defines	29.25
YLON0	Southwest grid cell longitude	User Defines	87.50
IUTMZN	UTM Zone	User Defines	16
LLCONF	When using Lambert Conformal map coordinates, roate winds from true north to map north?	F	F
XLAT1	Latitude of 1st standard parallel	30	30
XLAT2	Latitude of 2nd standard parallel	60	60
RLON0	Longitude used if LLCONF = T	90	NA
RLAT0	Latitude used in LLCONF = T	40	NA
NZ	Number of vertical layers	User Defines	8
ZFACE	Vertical cell face heights (NZ+1 values)	User Defines	9
LSAVE	Save met.data fields in an unformatted file?	T	T
INFORMO	Format of unformatted file (1 for CALPUFF)	1	1
NSSTA	Number of stations in SURF.DAT file	User Defines	8
NPSTA	Number of stations in PRECIP.DAT	User Defines	57
ICLOUD	Is cloud data to be input as gridded fields? (0 = No)	0	0
IFORMS	Format of surface data (2 = formatted)	2	2
IFORMP	Format of precipitation data (2 = formatted)	2	2
IFORMC	Format of cloud data (2 = formatted)	2	0
IWFCOD	Generate winds by diagnostic wind module? (1 = Yes)	1	1
IFRADJ	Adjust winds using Froude number effects? (1 = Yes)	1	1
IKINE	Adjust winds using kinematic effects? (1 = Yes)	0	0

Table A-2. IWAQM Phase II CALMET Option Settings Used for Refined Regional Haze Analysis

Variable	Description	Default Value	Modeled Value
IOBR	Use O'Brien procedure for vertical winds? (0 = No)	0	0
ISLOPE	Compute slope flows? (1 = Yes)	1	1
IEXTRP	Extrapolate surface winds to upper layers? (-4 = use similarity theory and ignore layer 1 of upper air station data)	-4	-4
ICALM	Extrapolate surface calms to upper layers? (0 = No)	0	0
BIAS	Surface/upper-air weighting factors (NZ values)	NZ*0	8*0
IPROG	Using prognostic or MM-FDDA data? (0 = No)	4	4
LVARY	Use varying radius to develop surface winds?	F	F
RMAX1	Max surface over-land extrapoolation radius (km)	User Defines	40
RMAX2	Max aloft over-land extrapolation radius (km)	User Defines	100
RMAX3	Maximum over-water extrapolation radius (km)	User Defines	100
RMIN	Minimum extrapolation radius (km)	0.1	0.1
RMIN2	Distance (km) around an upper air site where veritcal extrapolation is excluded (Set to -1 if IEXTRP = +/-4)	4	4
TERRAD	Radius of influence of terrain features (km)	User Defines	10
R1	Relative weight at surface of Step 1 field and obs	User Defines	60
R2	Relative weight aloft of Step 1 field and obs	User Defines	100
DIVLIM	Maximum acceptable divergence	5.00E-06	5.00E-06
NITER	Max number of passes in divergence minimization	50	50
NSMTH	Number of passes in smoothing (NZ values)	2,4*(NZ-1)	2,4*(NZ-1)
NINTR2	Max number of stations for interpolations (NZ values)	99	99
CRITFN	Critical Froude number	1	1
ALPHA	Empirical factor triggering kinematic effects	0.1	0.1
IDIOPT1	Compute temperatures from observations (0 = True)	0	0
ISURFT	Surface station to use for surface temperature (between 1 and NSSTA)	User Defines	2
IDIOPT2	Compute domain-average lapse rates? (0 = True)	0	0
IUPT	Station for lapse rates (between 1 and NUSTA)	User Defines	3
ZUPT	Depth of domain-average lapse rate (m)	200	200
IDIOPT3	Compute internally initial guess winds? (0 = True)	0	0
IUPWND	Upper air station for domain winds (-1 = 1/ r**2 interpolation of all stations)	-1	-1
ZUPWND	Bottom and top of layer for 1st guess winds (m)	1, 1000	1, 5000
IDIOPT4	Read surface winds from SURF.DAT? (0 = True)	0	0
IDIOPT5	Read aloft winds from UPn.DAT? (0 = True)	0	0
CONSTB	Neutral mixing height B constant	1.41	1.41
CONSTE	Convective mixing height E constant	0.15	0.15
CONSTN	Stable mixing height N constant	2400	2400
CONSTW	Over-water mixing height W constant	0.16	0.16
FCORIOL	Absolute value of Coriolis parameter	1.00E-04	1.00E-04

Table A-2. IWAQM Phase II CALMET Option Settings Used for Refined Regional Haze Analysis

Variable	Description	Default Value	Modeled Value
IAVEXZI	Spatial averaging of mixing heights? (1 = True)	1	1
MNMDAV	Max averaging radius (number of grid cells)	1	3
HAFANG	Half-angle for looking upwind (degrees)	30	30
ILEVZI	Layer to use in upwind averaging (between 1 and NZ)	1	1
DPTMIN	Minimum capping potential temperature lapse rate	0.001	0.001
DZZI	Depth for comuting capping lapse rate (m)	200	200
ZIMIN	Minimum over-land mixing height (m)	50	50
ZIMAX	Maximum over-land mixing height (m)	3000	3000
ZIMINW	Minimum over-water mixing height (m)	50	50
ZIMAXW	Maximum over-water mixing height (m)	3000	3000
IRAD	Form of temperature interpolation (1 = 1/r)	1	1
TRADKM	Radius of temperature interpolation (km)	500	500
NUMTS	max number of station in temperature interpolations	5	5
IAVET	Conduct spatial averaging of temperature? (1 = True)	1	1
TGDEFB	Default over-water mixed layer lapse rate (K/m)	-0.0098	-0.0098
TGDEFA	Default over-water capping lapse rate (K/m)	-0.0045	-0.0045
JWAT1	Beginning landuse type defining water	999	50
JWAT2	Ending landuse type defining water	999	50
NFLAGP	Method for precipitation interpolation (2 = 1/r**2)	2	2
SIGMAP	Precip radius for interpolations (km)	100	100
CUTP	Minimum cut off precip rate (mm/hr)	0.01	0.01
SSn	NSSTA input records for surface stations	User Defines	8
USn	NUSTA input records for upper-air stations	User Defines	3
PSn	NPSTA input records for precipation stations	User Defines	57
Legend			
DEFAULT	Uses defaults		
VAR	Variable Input		
NA	Not Applicable		
SAME	Same as recommended		

Georgia-Pacific Corporation
133 Peachtree Street NE (30303)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

July 11, 2000

RECEIVED
JUL 12 2000
BUREAU OF AIR REGULATION

Mr. Joseph Kahn, P.E.
Florida Department of Environmental Protection
New Source Review Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: February 18, 2000 Comment Letter for the Proposed Georgia-Pacific Oriented Strandboard (OSB) Facility in Hosford, FL

Dear Mr. Kahn:

Georgia-Pacific Corporation (G-P) is pleased to provide the following additional information to complete the January PSD air permit application. Each one of your fourteen comments is addressed in the following pages with individual responses and attachments (as noted). Please contact me (404/652-4293) or Paul Vasquez (application contact at 404/652-7327) with any additional questions. Thank you for your help on this important project.

Sincerely,

Mark J. Aguilar, P.E.
Senior Environmental Engineer
Georgia-Pacific Corporation
P.E. Number 52248

PROFESSIONAL ENGINEER MARK AGUILAR CERTIFICATE NO 52248 STATE OF FLORIDA SEAL

Enclosures: 8 Attachments (as noted in the attached document)

cc:	P.J. Vasquez	GA030-17
	M.M. Vest	FL165 (Palatka)
	T.R. Wyles	GA030
	Gregg Worley	EPA Region IV
	John Bunyak	National Park Service
	Ed Middleswart	Florida DEP

Georgia-Pacific Corporation
133 Peachtree Street NE (30303)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

July 6, 2000

Ms. Cindy L. Phillips, P.E.
Florida Department of Environmental Protection
Air Toxics Unit
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Certified Mail Number
454 700 498

RE: February 18, 2000 Comment Letter for the Proposed Georgia-Pacific Oriented Strandboard Facility in Hosford, FL – Case-by-Case MACT Information

Dear Ms. Phillips:

Georgia-Pacific Corporation (G-P) is pleased to provide the following additional information to complete the January PSD air permit application. Each one of your five comments is addressed in the following pages with individual responses and attachments (as noted). Please contact me (404/652-4293) or Paul Vasquez (application contact at 404/652-7327) with any additional questions. Thank you for your help on this important project.

Sincerely,

Mark J. Aguilar

Mark J. Aguilar, P.E.
P.E. License no. 52248
Senior Environmental Engineer
Georgia-Pacific Corporation

Enclosures: Attachment 1, Supplemental HAP Emissions Estimates

cc:	Mr. Joseph Kahn	FDEP
	P.J. Vasquez	GA030-17
	M.M. Vest	FL165 (Palatka)
	T.R. Wyles	GA030-09

1. *The application states that "The proposed BACT for the dryers and press (see Section 8), regenerative thermal oxidation, satisfies the 112(g) MACT requirement for formaldehyde from these sources." Since a MACT must be proposed by the applicant in accordance with 40 CFR 63.43(e), see attachment, it is assumed that what this statement means is that the applicant wants the proposed BACT to also be considered as the proposed MACT.*

Response:

Georgia-Pacific does indeed propose that the BACT specified in the PSD permit application for the dryers and press also be considered as the proposed MACT for this facility. An updated hazardous air pollutant (HAP) list is provided in Attachment 1. Following development and subsequent submittal of the application, some updated information has become available and is reflected in this Attachment. Although HAP emissions are presented for the thermal oil heater, the annual values represent expected controlled emissions from the dryer regenerative thermal oxidizers (RTOs) – under normal operations, the exhaust from the thermal oil system will pass through the dryer RTOs before exiting to atmosphere. Based on the calculations, the proposed oriented strandboard (OSB) plant would only be considered a major HAP source if the thermal oil system exhaust bypassed the dryer RTOs for more than 500 hours per year. As such, it is questionable whether 112(g) is applicable for this facility. However, in order to avoid future operating restrictions, Georgia-Pacific is willing to follow the necessary application procedures in making the 112(g) demonstration.

The following should address the information that may be missing from the PSD permit application with respect to the proposed 112(g) MACT. The points noted correspond to FDEP's document, titled "What Information is Needed from the Applicant for a Case-by-Case MACT Determination":

- (2)(i) Name and address – see Attachment A to the PSD permit application
- (2)(ii) Brief description – see Section 3.2 and Attachment A to the PSD permit application; source category is "Plywood and Composite Wood MACT"
- (2)(iii) Expected commencement date – August 2000 or upon issuance of the PSD permit, whichever is earlier
- (2)(iv) Expected completion date – March 2001
- (2)(v) Expected start-up date – March 2001
- (2)(vi) HAP quantities – see Attachment 1 to this letter
- (2)(vii) Federally enforceable emission limitations – the is a new source, limits only as established in the PSD permit (yet to be issued)
- (2)(viii) Expected capacity/utilization is near 100 percent; controlled emission rates presented in Attachment 1 assume 90% control on VOC HAPs and 85% control on particulate matter HAPs
- (2)(ix) Expected capacity/utilization is near 100 percent; controlled emission rates are presented in Attachment 1 to this letter and in Attachment B of the PSD permit application
- (2)(x) Recommended emission limitations are as listed in Attachment 1 to this letter and in Attachment B of the PSD permit application, but only to the extent that limits are needed to address otherwise applicable requirements
- (2)(xi) Selected control technology is regenerative thermal oxidation on both the dryers and press; exhaust from the thermal oil system will normally exit through the dryer RTOs; technical information is provided in Attachment G to the PSD permit application
- (2)(xii) Supporting documents of alternatives are same as included in Attachment G to the PSD permit application; same controls will address HAPs as evaluated for volatile organic compounds
- (2)(xiii) No additional information requested

2. *In addition to formaldehyde, what other hazardous air pollutants (HAPs) will be emitted from the facility? What will be the potential plantwide emissions of total hazardous air pollutants per year?*

Response:

The estimated emissions are provided in Attachment 1.

3. *What events will require the use of the emergency exhausts shown in Figure 3-4a, Process Flow Diagram? How often are these events expected to occur, and of what duration are these expected to be?*

Response:

There are basically three types of dryer RTO bypass. First, a bypass can occur as a result of a systematic electrical or mechanical problem, unrelated to preventive maintenance. Based on our extensive experience operating RTOs, we have found that these units tend to experience some downtime due to systematic problems which normally last for a short period of time. As a safety feature of the RTO system, most of these systematic malfunctions result in temporary shutdown of the system. Restart of the system normally takes between 25 and 35 minutes to complete. These systematic malfunctions are difficult to anticipate and to quantify in terms of frequency.

The second type of bypass is related to necessary and previously scheduled maintenance activities involving bakeouts and washouts. While these activities will normally be scheduled to be conducted during periods when the rest of the plant is down for maintenance, there will be instances where, due to increasing pressure across the RTO, an unscheduled bakeout and/or washout may be necessary to restore normal operating conditions. This may take 8 (bakeout) to 72 hours (washout) to complete.

Finally, another possible instance of bypass can occur during plant start-up, when the RTO system does not respond accordingly. We understand that the proposed MACT for the Wood Products Manufacturing sector (Plywood and Composite Wood MACT), like most MACT standards, will include a section that will address start-up, shutdown, and malfunction (SSM) periods, accordingly.

4. *In which document did you find SCC 30701001, Flake Dryer,and SCC 30701053, Press Operations?*

Response:

The SCC codes were found on EPA's CHIEF air emissions database at the internet address, www.epa.gov/ttn/chief/scccodes.html.

5. *A quick scan of EPA data shows possible VOC removal efficiency of 95% for waferboard dryer (SCC 30700704), and 99% for particleboard drying (SCC 30700703). Please explain why these would not be the best controlled similar sources for MACT purposes.*

Response:

The VOC control technologies listed in EPAs RACT/BACT/LAER Clearinghouse include both RTO and regenerative catalytic oxidation (RCO) technology. The control efficiencies documented in the Clearinghouse vary greatly for the use of these technologies. It should also be noted that the control efficiencies for some HAPs are likely to be higher than what is estimated for total VOCs, while the control efficiencies for other HAPs may be lower. As such, the control efficiency ascribed to the selected technology should be designated based on what is consistently achievable by that technology in the given application. Accordingly, as noted on Page G-15 of Attachment G of the PSD permit application,

> *"It should be noted that information in the RBLC...indicates that...facilities can achieve VOC removal efficiencies in excess of 90% using RTOs. Georgia-Pacific believes that similar efficiencies may be achieved in practice by the RTOs proposed for Hosford. However, for permitting purposes, Georgia-Pacific is proposing a removal efficiency of 90%, consistent with at least three entries in the RBLC"*

In addition, 40 CFR 63.43(d)(4), Principles of MACT Determination, states:

> *"If the Administrator has either proposed a relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or adopted a presumptive MACT determination which includes the constructed or reconstructed major source, then the MACT requirements applied to the constructed or reconstructed major source shall have considered those MACT emission limitations and requirements of the proposed standard or presumptive MACT determination."*

Rulemaking activity on the Plywood and Composite Wood MACT has been well underway for some time and EPA staff and its contractor are in the final stages of drafting the proposed rule, which is slated for presentation to the Office of Management and Budget (OMB) in September 2000 and for formal proposal in the Federal Register in November 2000. EPA has reviewed the relevant technologies and has openly shared, with industry and others, their intent to propose a standard for OSB dryers and presses based on RTOs/RCOs at a 90% HAP reduction level. As such, EPA has, in effect, adopted a presumptive MACT determination for this source category. The EPA project manager for this source category is Ms. Mary Tom Kissell. Ms. Kissell can be reached by phone at (919/541-4516) or via e-mail at *kissell.mary@epa.gov*. We understand that both EPA and its contract staff have already confirmed these details to several state agencies in conjunction with other projects.

ATTACHMENT 1
Supplemental HAP Emissions Estimates

Additional controlled HAP emissions from the dryer and press RTOs (NCASI Technical Bulletin 772)

RTO-controlled Dryer Emissions (Oven-dried tons = 25,124 OD lbs/hour/dryer x 5 dryers x 8760 hours/year x ton/2000 lbs = 550,216 ODT/year):

Formaldehyde (from vendor, see Attachment B of application)	8.1 tpy
Acetaldehyde (NCASI TB 772, Mill 410, 1.5E-2 lb/ODT)	4.1 tpy
Methanol (NCASI TB 772, Mill 410, 8.9E-3 lb/ODT)	2.4 tpy
Phenol (NCASI TB 772, Mill 410, 1.7E-2 lb/ODT (average Mill 145 0.026 lb/ODT and Mill 410 0.0073 lb/ODT)	4.6 tpy

RTO-controlled Press Emissions:

Formaldehyde (from vendor, see Attachment B of application)	1.1 tpy
Phenol (NCASI TB 772, Mill 145, 5.4E-3 lb/MSF)	1.3 tpy

Blend House (from Attachment B of application):

Formaldehyde	0.4 tpy

Finished Product Storage (from Attachment B of application):

Formaldehyde	0.2 tpy

Thermal Oil System (attached):

Total Controlled HAPs	1.5 tpy

Total formaldehyde (w/thermal oil system exhaust exiting via dryer RTO) = 8.1 (dryer RTO, including thermal oil exhaust) + 1.1 tpy (press RTO) + 0.4 tpy (blend house) + 0.2 tpy (storage) = 9.8 tpy

All other individual HAPs are much less than 10 tpy total (less than 10 tpy)

Total HAPs (w/thermal oil system exhaust exiting via dryer RTO) = 19.2 tpy (dryer RTO, including formaldehyde from thermal oil system) + 2.4 tpy (press RTO) + 0.4 tpy (blend house) + 0.2 tpy (storage) + 1.5 tpy (thermal oil system) = 23.7 tpy (less than 25 tpy)

If thermal oil system operated in bypass mode more than about 500 hours per year, then the individual HAP threshold of 10 tpy would be exceeded for formaldehyde; if the system operated in bypass mode more than about 3300 hours per year, then the total HAP threshold of 25 tpy would be excceded.

Summary of Emissions from Hot Oil Heater, G-P Hosford OSB (revised July 2000)						
				Emission Rates (a)		
	Uncontrolled (b)			Uncontrolled	Controlled	
Substance	Emission Factor			(lb/hr)	(lb/hr) (c)	(tpy)
Particulate Matter (PM/PM10)	1.0E-01	lb/MMBtu	(1)	--	8.0	(included in Dryer RTO calcs)
Nitrogen Oxides	2.0E-01	lb/MMBtu	(2)	16.0	16.0	(included in Dryer RTO calcs)
Sulfur Dioxide	2.4E-02	lb/MMBtu	(2)	1.9	1.9	8.4
Carbon Monoxide	1.6E-01	lb/MMBtu	(2)	12.44	12.4	(included in Dryer RTO calcs)
<u>HAPs</u>						
2,3,7,8-Tetrachlorodibenzo-p-dioxins	7.9E-12	lb/MMBtu	(2)	6.32E-10	6.32E-11	2.77E-10
2,3,7,8-Tetrachlorodibenzo-p-furans	1.1E-10	lb/MMBtu	(2)	8.80E-09	8.80E-10	3.85E-09
2,4,6-Trichlorophenol	2.2E-07	lb/MMBtu	(2)	1.76E-05	1.76E-06	7.71E-06
2,4-Dinitotoluene	9.4E-07	lb/MMBtu	(2)	7.52E-05	7.52E-06	3.29E-05
2,4-Dinitrophenol	4.8E-07	lb/MMBtu	(2)	3.84E-05	3.84E-06	1.68E-05
2-Butanone (MEK)	1.3E-05	lb/MMBtu	(2)	1.04E-03	1.04E-04	4.56E-04
4-Nitrophenol	3.3E-07	lb/MMBtu	(2)	2.64E-05	2.64E-06	1.16E-05
Acetaldehyde	8.5E-03	lb/MMBtu	(2)	6.80E-01	6.80E-02	2.98E-01
Acetophenone	3.2E-09	lb/MMBtu	(2)	2.56E-07	2.56E-08	1.12E-07
Acrolein	3.0E-03	lb/MMBtu	(2)	2.40E-01	2.40E-02	1.05E-01
Arsenic	2.0E-05	lb/MMBtu	(2)	1.60E-03	2.40E-04	1.05E-03
Benzene	3.9E-03	lb/MMBtu	(2)	3.12E-01	3.12E-02	1.37E-01
Beryllium	1.5E-06	lb/MMBtu	(2)	1.20E-04	1.80E-05	7.88E-05
Cadmium	3.7E-06	lb/MMBtu	(2)	2.96E-04	4.44E-05	1.94E-04
Carbon tetrachloride	2.8E-05	lb/MMBtu	(2)	2.24E-03	2.24E-04	9.81E-04
Chlorine	6.0E-04	lb/MMBtu	(2)	4.80E-02	4.80E-03	2.10E-02
Chlorobenzene	1.7E-05	lb/MMBtu	(2)	1.36E-03	1.36E-04	5.96E-04
Chloroform	2.7E-05	lb/MMBtu	(2)	2.16E-03	2.16E-04	9.46E-04
Chromium, hexavalent	9.3E-04	lb/MMBtu	(2)	7.44E-02	1.12E-02	4.89E-02
Chromium, total	2.1E-05	lb/MMBtu	(2)	1.68E-03	2.52E-04	1.10E-03
Cobalt	6.6E-06	lb/MMBtu	(2)	5.28E-04	7.92E-05	3.47E-04
Dichlorobenzene	3.4E-07	lb/MMBtu	(2)	2.72E-05	2.72E-06	1.19E-05
Dichloromethane	2.9E-04	lb/MMBtu	(2)	2.32E-02	2.32E-03	1.02E-02
Ethylbenzene	3.1E-05	lb/MMBtu	(2)	2.48E-03	2.48E-04	1.09E-03
Formaldehyde	9.6E-03	lb/MMBtu	(2)	7.68E-01	7.68E-02	(included in Dryer RTO calcs)
Hexachlorobenzene	5.2E-07	lb/MMBtu	(2)	4.16E-05	4.16E-06	1.82E-05
Hydrogen chloride	2.0E-02	lb/MMBtu	(2)	1.60E+00	1.60E-01	7.01E-01
Lead	4.8E-05	lb/MMBtu	(2)	3.84E-03	5.76E-04	2.52E-03
Manganese	1.4E-03	lb/MMBtu	(2)	1.12E-01	1.68E-02	7.36E-02
Mercury	4.5E-06	lb/MMBtu	(2)	3.60E-04	5.40E-05	2.37E-04
Naphthalene	1.3E-04	lb/MMBtu	(2)	1.04E-02	1.04E-03	4.56E-03
Nickel	3.0E-05	lb/MMBtu	(2)	2.40E-03	3.60E-04	1.58E-03
Pentachlorophenol	2.4E-07	lb/MMBtu	(2)	1.92E-05	1.92E-06	8.41E-06
Phenol	2.8E-04	lb/MMBtu	(2)	2.24E-02	2.24E-03	9.81E-03

Summary of Emissions from Hot Oil Heater, G-P Hosford OSB (revised July 2000)						
				Emission Rates (a)		
	Uncontrolled (b)			Uncontrolled	Controlled	
Substance	Emission Factor			(lb/hr)	(lb/hr) (c)	(tpy)
Phosphorus	2.7E-05	lb/MMBtu	(2)	2.16E-03	3.24E-04	1.42E-03
Selenium	5.4E-06	lb/MMBtu	(2)	4.32E-04	6.48E-05	2.84E-04
Styrene	1.9E-03	lb/MMBtu	(2)	1.52E-01	1.52E-02	6.66E-02
Tetrachlorodibenzo-p-dioxins	3.5E-10	lb/MMBtu	(2)	2.80E-08	2.80E-09	1.23E-08
Toluene	6.5E-04	lb/MMBtu	(2)	5.20E-02	5.20E-03	2.28E-02
Trichlorobenzene	3.2E-07	lb/MMBtu	(2)	2.56E-05	2.56E-06	1.12E-05
Trichloroethene	3.2E-05	lb/MMBtu	(2)	2.56E-03	2.56E-04	1.12E-03
Trichlorophenols	2.7E-07	lb/MMBtu	(2)	2.16E-05	2.16E-06	9.46E-06
Vinyl Chloride	1.3E-05	lb/MMBtu	(2)	1.04E-03	1.04E-04	4.56E-04
o-Xylene	2.2E-05	lb/MMBtu	(2)	1.76E-03	1.76E-04	7.71E-04
m,p-Xylene	1.8E-05	lb/MMBtu	(2)	1.44E-03	1.44E-04	6.31E-04
Total HAPs				1.39	0.42	1.51

Notes

(a) Short Term Emission rates reflect maximum hourly design on 80 MMBtu/hr on bark
Annual Emissions reflect hourly bark rates for 8,760 hours / yr.

(b) Emission Factors do not reflect the use of the ESP, or RTO.

(c) Controlled emissions reflect a 90% control on volatile organic compounds from RTO, and 85% control on particulates from RTO or ESP. The calculation for SO2 assumes no control.

References:

(1) ESP Manufacturer guarantee

(2) 1999 **Draft** Compilation of Emission Factors, AP-42 (EPA, 1999). Section 1.6

INTEROFFICE MEMORANDUM

Date: 16-May-2000 05:27pm
From: Aguilar, Mark J.
MJAGUILA@GAPAC.com
Dept:
Tel No:

To: 'joseph.kahn@dep.state.fl.us' (joseph.kahn@dep.state.fl.us)
CC: Vasquez, Paul J. (PJVASQUE@GAPAC.com)

Subject: Letter from Georgia-Pacific

A signed original will be sent via mail to you.

<<Doc3.doc>>
Mark Aguilar P.E.
Senior Environmental Engineer
Georgia-Pacific Corporation
Environmental Affairs-Technical Support Group
Atlanta, GA
(404) 652-4293

Georgia-Pacific

133 Peachtree Street
Atlanta, GA 30303
May 16, 2000

Mr. Joseph Kahn, P.E.
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Proposed Hosford OSB Plant DEP File No. 0770010-001-AC(PSD-FL-282)

Dear Mr. Kahn:

Georgia-Pacific Corporation (G-P) thanks you for your cooperation to date on this project. G-P is preparing a submittal to address all of the concerns identified in letters from you and Ms. Cindy Phillips. However, at this time, G-P is still reviewing additional data from the equipment vendors. As you and I have discussed over the telephone, G-P requests an additional 60 days to respond to the FDEP requests. We desire to submit the information by July 18, 2000.

Please feel free to contact me on this request at (404) 652-4293 or FAX (404) 654-4706. Thank you for your cooperation on this important project.

Sincerely,

Mark J. Aguilar P.E.
Senior Environmental Engineer

Georgia-Pacific Corporation

Cc: Mr. Paul Vasquez, G-P

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 31 2000

4 APT-ARB

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: PSD Permit Application for Georgia-Pacific Corporation Oriented Strandboard (OSB) Plant located near Hosford (Liberty County), Florida
PSD-FL-282

Dear Mr. Linero:

Thank you for sending the permit application dated January 24, 2000, for the above referenced facility. The proposed project involves the construction and operation of an OSB facility near Hosford, Florida in northeastern Liberty County. The new facility will consist primarily of five dryers, a press, a thermal oil heating system, and associated materials handling equipment. It will have the capacity to produce 475 million square feet per year of OSB (on a 3/8-inch basis). Total emissions of particulate matter, both total and that less than 10 microns in diameter (PM_{10}), volatile organic compounds (VOC), carbon monoxide, and oxides of nitrogen (NO_X) from the proposed project are above the respective significance thresholds requiring Prevention of Significant Deterioration (PSD) review.

Provided below are two sets of comments; the first set covers topics other than the air impact assessment whereas the second set pertains specifically to the air impact assessment. Based on a review of the permit application, the U.S. Environmental Protection Agency (EPA) has the following comments:

1. In the Best Available Control Technology (BACT) analyses section of the permit application (Section G.5.2 of Attachment G), several control options have been eliminated on the basis of being too "costly" without any justification. For example, dryer exhaust recycle was eliminated as a potential control of organic emissions (i.e., VOC) in part because "the high temperature heat exchanger...requires costly materials of construction." Also, "sacrificial bed" pre-filters were eliminated in part because "the required maintenance is costly" for a similar application at another Georgia-

Pacific (GP) facility located in Monticello, Georgia. For a control option to be eliminated on the basis of being cost prohibitive, there must be accompanying cost analyses (including average cost effectiveness) which justify such a claim.

2. It appears that the "top down" approach was not used with regard to the selection of BACT for the control of NO_X emissions from the press. The BACT analysis (Section G.6.4 of Attachment G) simply states that low-NO_X burner design in combination with fuel enhancement will comprise BACT for the press without any discussions or rankings of other potential control options [e.g., selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR)]. Do the designs/layouts of the press and thermal oil heater create the same problems as those detailed for the dryers (Section G.5.2 of Attachment G) with respect to SCR or SNCR?

3. In the portion of the permit application which details the methodologies used to quantify emissions (Section 4, *Emission Rates*), it is stated that combustion emissions were estimated using AP-42 emission factors for wood firing because "in all cases, the emission factors for wood firing are higher than for natural gas firing." While verifying this claim with respect to NO_X emissions, EPA noted that the emission factor that was used (0.167 lb/MMBtu, converted from 1.5 lb/ton) was taken from a section of AP-42 dated 2/99 (Chapter 1, Section 1.6, *Wood Waste Combustion In Boilers*, Table 1.6-2). There is also a revised draft version of this section dated 9/99 which shows the NO_X emission factor for "bark and wet wood-fired boilers" to be 0.20 lb/MMBtu. It should be noted that this revised factor has a more reliable rating of "B" (versus "C" for the older factor). Consequently, this newer factor would increase the potential emissions of NO_X (related to wood combustion) by approximately 17 percent. This difference in emission rates may also have an impact on modeling and the air quality analysis. Therefore, EPA strongly recommends that all emissions be re-evaluated using the latest emission factors available, particularly those related to wood combustion.

Regarding the air quality impact assessment provided in support of the GP permit application, EPA has the following comments. Each of these issues has been discussed with the Florida Department of Environmental Protection.

1. Site Boundary - The site boundary used in the impact modeling should be land owned or controlled by GP with physical barrier to public access. The criteria used to define the modeled site boundary should be provided.

2. Emission Inventory - The following are comments concerning the inventory of other emission sources used in the cumulative PSD increment and National Ambient Air Quality Standards (NAAQS) compliance modeling.

- Although 50 kilometers (km) is the guideline distance beyond the significant impact area (SIA) for source inclusion in an emission inventory, very large sources just outside this range with a significant impact in the SIA should also be included. All emission sources more than 50 km from the SIA have been removed from the inventories (Tables 4 and 7) without impact consideration.

- The 43 Englehard emission sources provided in Table 6 were combined into one representative source for the cumulative impact modeling. A review of the emission characteristics of the Englehard sources indicates they would be better represented by merging into five to ten sources. This is especially true considering the relatively small number of other NAAQS and PSD sources in the modeled emission inventory (Table 5).

- Fugitive emissions were neither addressed nor included in the impact modeling.

- Although the PSD Class II increment consuming sources (Table 9) are a subset of the NAAQS emission inventory (Tables 5 and 8), different emission rates and exit variables exist for some of the PSD sources. The bases for these differences should be provide.

- The emission inventory for the Class I PSD cumulative assessment was not provided. Because emission sources about the Class I area are of concern in this assessment, the Class I emission inventory may include additional sources not included in the Class II PSD assessment.

3. PM_{10} NAAQS Compliance Standard - Although the highest second-highest value used for the 24-hour compliance assessment provides conservatively larger concentrations, the current PM_{10} NAAQS compliance standard when a 5-year data record is used is the sixth-highest 24-hour value at any receptor.

4. Visibility Impairment - The assessment of visibility impairment is not limited to Class I areas. This assessment should be performed in the impact area with particular emphasis at locations of sensitive receptors (e.g., scenic vistas, nearby airports, etc.).

5. Class I Area Visibility - The assessment of visibility at St. Marks National Wildlife Area used the highest second-highest modeled concentration. The largest modeled concentration should be used for this assessment.

6. Receptor Grid Resolution - The selected modeling grids for the determination of PSD increment and NAAQS compliance were not to 100-meters resolution.

Thank you for the opportunity to comment on the GP permit application. If you have any questions regarding these comments, please direct them to either Art Hofmeister at (404) 562-9115 or Jim Little at (404) 562-9118.

Sincerely,

Douglas Neeley

R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

cc: J. Kahn
NWD
NPS
C. Holladay
R. Paul, GA-Pacific

Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

March 21, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ronald L. Paul
Exec. V. P., Wood Products and Distribution
Georgia-Pacific Corporation
133 Peachtree St.
Atlanta, Georgia 30303

Re: Request for Additional Information – EPA Comments
DEP File No. 0770010-001-AC (PSD-FL-282)
Proposed Hosford OSB Plant

Dear Mr. Paul:

On February 18, 2000 the Department advised you that your application for an air construction/PSD permit for a proposed new OSB plant near Hosford, Florida was incomplete and we requested additional information. We recently received comments from the U.S. Environmental Protection Agency related to the modeling performed in support of the application. In order to complete our review we request that you respond to EPA's comments which are summarized below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. Please provide information that shows that the site boundary used in the impact modeling will be land owned or controlled by Georgia Pacific with a physical barrier to public access.
2. Please reevaluate the emission inventory for competing NO_X and PM_{10} sources to examine the possibility of including sources that are located more than 50 km from the Significant Impact Area (SIA). The current emission inventory disregards sources beyond this distance without examining the magnitude of their emissions. The 20D Rule may be used to prove the insignificance of these sources if they are not located in a close proximity to one another.
3. Please combine the Englehard emission sources into 5 to 10 representative sources, instead of combining them into one single source. This should be done by considering the similarity of source parameters such as location, stack height, exit temperature, and diameter.
4. Please update and provide the emission inventory used for the Class I PSD cumulative assessment. Because emission sources around the Class I areas are of concern in this assessment, the Class I emission inventory may include additional sources not contained in the Class II PSD assessment.
5. Please reevaluate 24-hour PM_{10} impacts by using the current compliance standard. The current 24-hour PM10 compliance standard is the highest 6th highest 24-hour value at any receptor when a 5-year data record is used.
6. Please evaluate visibility impairment in the SIA. The assessment of visibility impairment (coherent plume) is not limited to Class I areas. This assessment should be performed in the impact area with particular emphasis at locations of sensitive receptors e.g., scenic vistas, nearby airports, etc.
7. The assessment of visibility at St. Marks NWA used the high second-highest modeled concentration. The proper value to use for this assessment is the highest modeled concentration. Please use the highest modeled concentration when you conduct the refined regional haze analysis for the St. Marks NWA. The second-highest modeled concentration may be used in PSD and NAAQS analyses only.

8. Although the PSD Class II increment consuming sources (Table 9) are a subset of the complete NAAQS emission inventory (Tables 5 and 8), differences are noted in some of the emission rates and stack parameters for the PSD emission sources. Please provide the reason for these differences.

9. Please utilize a grid that has a 100-meter resolution around the maximum predicted concentration for all SIA, PSD increment, and NAAQS modeling.

The Department will complete its review after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Material changes to the application should also be accompanied by a new certification statement by the authorized representative or responsible official. If there are any questions, please call me at 850/921-9519. Matters regarding modeling issues should be directed to Chris Carlson (meteorologist) at 850/921-9537.

Sincerely,

Joseph Kahn, P.E.
New Source Review Section

/jk

cc: Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS
Mr. Ed Middleswart, NWD
Mr. Mark Aguilar, P.E., Georgia-Pacific Corp.

Z 031 391 886

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PS Form **3800**, April 1995

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Mr. Ronald L. Paul
Ga-Pacific Corp
133 Peachtree St.
Atlanta, GA 30303

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6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
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Golder Associates

February 18, 2000

0037506A/1

Mr. Cleve Holladay
Bureau of Air Quality Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: AIR MODELING PROTOCOL TO CONDUCT A REFINED REGIONAL HAZE ANALYSES FOR THE PROPOSED G-P HOSFORD PLANT

Dear Cleve:

On behalf of Georgia-Pacific Corporation (G-P), Golder Associates Inc. (Golder) is providing this air modeling protocol to the Florida Department of Environmental Protection (FDEP) for performing a refined regional haze analysis, requested by the FDEP for the proposed G-P Hosford Plant. The purpose of the protocol is to ensure that the analyses is performed in a manner conforming to FDEP and U.S. Fish and Wildlife Service (USFWS) requirements.

The analysis will assess the potential effect on the existing regional haze levels at the St. Marks National Wilderness Area (SMNWA). The SMNWA is a Prevention of Significant Deterioration (PSD) Class I area located approximately 57 km southeast of the proposed facility site. Based on previous telephone communications between G-P, Golder, and FDEP, this refined analysis is to assess the regional haze impacts at the SMNWA exclusively.

The refined modeling analysis will follow those procedures recommended in the Interagency Workgroup on Air Quality Modeling (IWAQM) Phase II report dated December 1998 and in the Federal Land Managers' Air Quality Related Values Workgroup (FLAG) Draft Phase I report dated October 1999, in coordination with the FDEP. This protocol includes a discussion of the databases to be used in the analysis, the preparation of the modeling databases for introduction into the modeling system, the air modeling methodology, and the presentation of the air modeling results. The proposed model parameter settings are discussed below.

Model Selection

The California Puff (CALPUFF, version 5.0) air modeling system will be used to model G-P's proposed facility and assess potential visibility impairment at the SMNWA. CALPUFF is a non-steady state Lagrangian Gaussian puff long-range transport model that includes algorithms for building downwash effects as well as chemical transformations (important for pollutants affecting visibility), and wet/dry deposition. The CALMET model, a preprocessor to CALPUFF, is a diagnostic meteorological model that produces a three-dimensional field of wind and temperature and a two-dimensional field of other meteorological parameters. Simply, CALMET was designed to process raw meteorological, terrain, and land-use databases to be used in the air modeling analysis. The CALPUFF modeling system uses a number of FORTRAN preprocessor programs that extract data from large databases and converts the data into formats suitable for input to CALMET.. The processed data produced from CALMET will be input to CALPUFF to assess the pollutant specific impact. Both CALMET and CALPUFF will be used in a manner that is recommended by the IWAQM Phase 2 Report. The proposed analysis will also be based on experience obtained with other recently completed CALPUFF refined modeling analyses in Oregon (Golder, July 1999).

Source Parameters and Emission Rates

The stack parameter and emission rates from the proposed facility are presented in G-P's Prevention of Significant Deterioration Air Permit Application for G-P Hosford, submitted to FDEP in January 2000 (hereinafter referred to as the PSD Application). The proposed facility's emissions of sulfur dioxide (SO_2), nitrogen oxides (NO_x), and particulate matter (PM_{10}) will be included in the refined modeling analysis. The modeling analysis will conservatively assume 100% conversion of NOx emissions to NO_2.

Building Wake Effects

The air modeling analysis will address the potential for building-induced downwash to occur at the proposed facility. Dimensions for all significant building structures, as determined by the Building Profile Input Program (BPIP, version 95086), will be included in CALPUFF model. These building dimensions are the same as those provided in the PSD Application.

Modeling Methodology

The analysis for regional haze will be performed using the refined procedure that is outlined in the IWAQM Phase 2 report. The maximum predicted 24-hour concentrations from the proposed facility will be applied to calculate the maximum change in light extinction. The calculated values will be compared to a threshold of five percent change in light extinction over the background level. Based on prior discussions with the USFWS, the background extinction coefficient for the SMNWR is 60.18 Mm^{-1}, and is equivalent to a conservative visual range of 65 km.

The CALPUFF model will be used to predict 24-hour concentrations of nitrates (NO_3), sulfates (SO_4) and PM_{10} for each day of the year. Based on the procedures provided in the IWAQM Phase II summary report, concentrations of NH_4 NO_3 and $(NH_4)_2SO_4$ will be determined by multiplying the maximum predicted NO_3 and SO_4 concentrations by factors of 1.29 and 1.375, respectively (i.e., based on the ratio of the molecular weights). Daily source extinction coefficients will be determined by multiplying the daily calculated concentrations of NH_4 NO_3 and $(NH_4)_2SO_4$ by calculated daily average relative humidity factors. The relative humidity factor represents the average relative humidity factor corresponding to each hour from the 24 hour period in which a maximum species pollutant impact occurred. The daily PM_{10} concentrations, because it does not chemically transform into another pollutant species and it is a non-hygroscopic pollutant, will then be added to the daily sums for the other pollutants. The maximum daily source extinction coefficient will be used directly to determine whether the proposed facility's emissions will exceed a 5 percent change in light extinction of the background levels.

Receptor Locations

The CALPUFF refined analysis will use an array of discrete Cartesian receptors at appropriate distances to ensure sufficient density and aerial extent to adequately characterize the pattern of pollutant impacts in the SMNWA. Specifically, the array will consist of receptor spacing of 2 km at the boundary and inside the PSD Class I area. Because the terrain elevation at the G-P Hosford site of 185 feet is significant higher than the elevation at the SMNWA, the actual G-P site elevation will be used in the analysis. A receptor elevation of zero will be assigned to each of the SMNWA receptors.

Modeling Domain

The modeling domain defines the boundary of plume simulation area. The modeling domain to be used for the analysis will be in the shape of a rectangle extending approximately 475 km in the east-west (x) direction and 300 km in the north-south (y) direction. The southwest corner of the rectangle will be the origin of the modeling domain and is located at 29.25 N degrees latitude and 81.5 W degrees longitude.

For the processing of meteorological and geophysical data, 95 grid cells will be used in the x-direction and 60 grid cells will be used in the y-direction. A 5-km grid spacing will be used. The air modeling analysis will be performed with the UTM coordinate system.

Mesoscale Model – Generation 4 (MM4) Data

Pennsylvania State University in conjunction with the NCAR Assessment Laboratory developed the MM4 data, a prognostic wind field or "guess" field, for the United States (U.S.). The hourly meteorological variables used to create this data set (wind, temperature, dew point depression, and geopotential height for eight standard levels and up to 15 significant levels) are extensive and only allow for one data base set for the year 1990. The analysis will use the MM4 data to initialize the CALMET wind field. The MM4 data have a horizontal spacing of 80 km and are used to simulate atmospheric variables within the modeling domain.

To apply the MM4 dataset to a regional modeling domain, such as the area that will incorporate G-P's proposed facility and the SMNWA, a sub-set domain will be developed based on the MM4 data local coordinate system. In this coordinate system, the subset domain will consist of a 8 x 6- cell rectangle, spaced at 80 km, extending from MM4 coordinates (45,13) to (52,18). These data will be processed to create a MM4.Dat file, which will be input to the CALMET model.

Composite Receptor Array and CALMET Domain
Figure 1 illustrates the relationship between CALPUFF modeling domain, the MM4 prognostic wind field domain and the approximate source and receptor locations.

Additional Data
The MM4 data set used in the CALMET, although advanced, lacks the fine detail of specific temporal and spatial meteorological variables and geophysical data. These variables will be processed into the appropriate format and introduced into the CALMET model through the additional data files. Additional meteorological data will include surface, upper air, and precipitation observations. Geophysical data will include topography and land use.

Surface Data Stations
The surface data processing will include the following seven primary weather stations that exist within or surround the modeling domain. These stations include Jacksonville, Gainesville, Tallahassee, and Tampa in Florida; Columbus and Macon in Georgia; and Mobile and Montgomery in Alabama. The parameters to be included for these stations are wind speed, wind direction, cloud ceiling height, opaque cloud cover, dry bulb temperature, relative humidity, station pressure and precipitation code that is based on current weather conditions. The weather station data for all stations but Gainesville will be downloaded for the year 1990 from the National Climatic Data Center's (NCDC) Solar and Meteorological Surface Observational Network (SAMSON) CD-ROM set. The surface data from Gainesville will be processed from NCDC CD-144 format. The data will be processed with the CALMET preprocessor utility program, SMERGE, to create one surface file. SURF.DAT. Because the air modeling domain extends of the Gulf of Mexico, surface observations from the Cape San Blas C-MAN station will be included in the analysis. The data will be converted into overwater surface station format for input to CALMET.

Upper Air Data Processing
Upper air data will be processed from four to three weather stations. The three stations that will be included are Apalachicola and Tampa Bay/Ruskin in Florida; and Waycross in Georgia. The upper air data will be obtained from the NCDC Radiosonde Data CD and processed into the NCDC Tape Deck (TD) 6201 format by the CALMET preprocessor utility program, READ62, to create an upper air file for each station.

Precipitation Data Processing
Precipitation data will be processed from a network of 32 hourly precipitation data files collected from primary and secondary NWS precipitation recording stations located in southern Alabama, southern Georgia and northern Florida. The stations will be selected so as to provide detailed coverage in all areas in and around the modeling domain. The data will be extracted from hourly data records obtained by the NCDC and organized by EarthInfo. These data will be extracted and processed into Tape Deck (TD) 3240 format. The CALPUFF preprocessor utility programs PXTRACT and PMERGE will be used to extract and merge, respectively, the hourly precipitation data into CALMET input format.

Geophysical Data Processing

Terrain elevations for each grid cell of the modeling domain will be obtained from 1-degree Digital Elevation Model (DEM) files obtained from US Geographical Survey (USGS). The DEM data for the modeling domain grid will be processed using the utility program TERREL. One-degree land-use data will also be obtained from the USGS. Land-use parameters for the modeling domain will be processed using the CALMET preprocessor utility programs CTGComp and GTGPROC. Other parameters to be processed include surface roughness, surface albedo, Bowen ratio, soil heat flux, and leaf index field. All of the processed land-use parameters will be combined with the terrain information and input to CALMET.

CALPUFF Settings

The following CALPUFF settings/values as defined in IWAQM Phase II are to be used for the refined modeling analysis:

Parameter	Setting
Six Pollutant Species	SO_2, SO_4, NO_x, HNO_3, NO_3, and PM_{10}
Chemical Transformation	MESOPUFF II scheme with CALPUFF
Deposition	Use dry and wet deposition, plume
Meteorological/Land Use	CALMET
Plume Rise	Transitional, Stack-tip downwash, Partial
Dispersion	Puff plume element, PG /MP coefficients,
Terrain Effects	Partial plume path adjustment
Output	Create binary file: output species SO_4, PM_{10},
Model Processing	Highest concentrations predicted for year
Default Background	Ozone: 80 ppb; Ammonia: 10 ppb

Should you have any questions or comments on the protocol, please contact me. Golder greatly appreciates the cooperation of the FDEP staff on this project.

Sincerely yours,

Steve Marks

Steven R. Marks, CCM
Senior Scientist

cc: M.J. Aguilar, G-P Atlanta
A. Meng, FDEP
B. Rolofson, USFWS – e mailed by DEP per applicant's request
E. Porter, USFWS – e mailed by DEP per applicant's request

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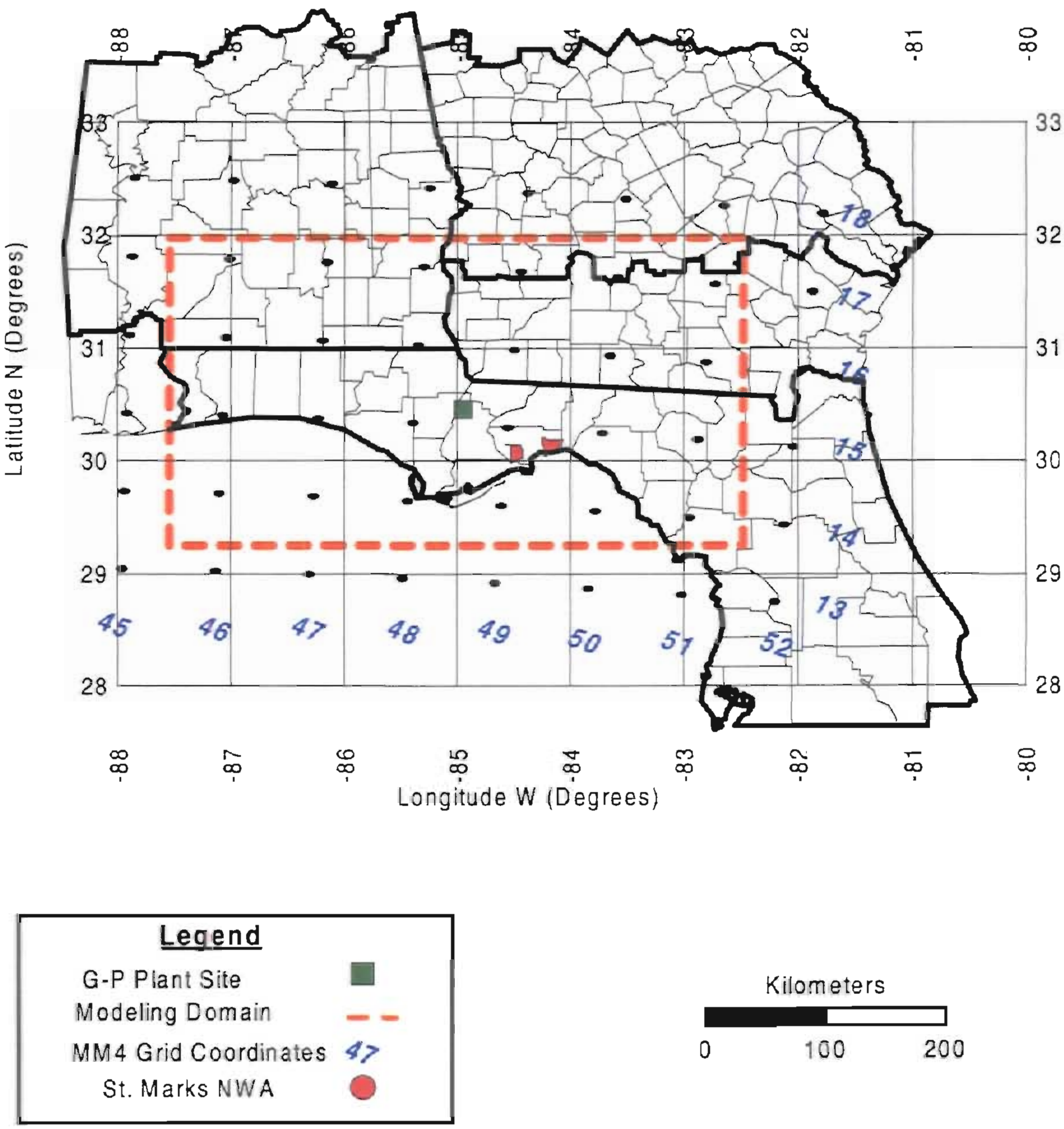
NWD
C. Carlson
NPS

EPA

Figure 1. Map of Modeling Domain
Refined Regional Haze Analysis
St. Marks National Wilderness Area



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

February 18, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ronald L. Paul
Exec. V. P., Wood Products and Distribution
Georgia-Pacific Corporation
133 Peachtree St.
Atlanta, Georgia 30303

Re: Request for Additional Information
DEP File No. 0770010-001-AC (PSD-FL-282)
Proposed Hosford OSB Plant

Dear Mr. Paul:

On January 21, 2000 the Department received your application and complete fee for an air construction/PSD permit for a proposed new OSB plant near Hosford, Florida. We are processing your application, but it is incomplete. In order to complete our review we will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. The application information states that fugitive sources are not required for evaluating PSD applicability. Rule 62-212.400(2)(b), F.A.C., provides for exemption of fugitive emissions from the determination of whether this facility is major for PSD, but Rule 62-212.400(2)(f), F.A.C., requires fugitive emissions be included in determining which pollutants equal or exceed the significant emission rate. The facility is major because of VOC potential emissions, and is significant for PM and PM_{10}, CO and NOx. Please address the PSD requirements of Rule 62-212.400, F.A.C., for PM and PM_{10} and VOC. Include an analysis of BACT for PM and PM_{10}, visible emissions, and VOC, and an air quality analysis, that take into account all quantifiable fugitive emissions from the proposed facility.
2. The Class I Significant Impact and Increment analyses do not include receptors in the western portion of the St. Marks National Wildlife Refuge. Please submit Class I Significant Impact and Increment analyses that utilize these receptors.
3. Please submit a report that describes the procedures utilized in the CALPUFF analysis that was conducted for the Bradwell Bay and St. Marks Class I Areas.
4. The application information states that during normal operations exhaust gases from the thermal oil system will be routed through the dryer system and the associated multiclones and RTOs. Under what conditions will these exhaust gases bypass this route and be emitted through EP-10, and what is the expected duration of these conditions?
5. What is the fuel consumption rate for the regenerative thermal oxidizers?
6. The SCC numbers for emissions unit 010 are for the electric generation industry. SCC numbers such as 1-03-009-02 and 1-03-006-02 for commercial/institutional external combustion sources may be appropriate. Please confirm these codes are appropriate or suggest other codes.
7. Please provide a copy of any available NCASI information that may be used to estimate emissions, either controlled or uncontrolled, from the drying and press operations.

8. Please provide a copy of the BACT determinations and construction permits for the G-P facilities in Arkansas and Virginia, and, if possible, the Louisiana Pacific facility in Alabama.

9. Please provide information to support the emission factors used by the vendor to estimate uncontrolled and controlled emissions from the dryers. Interestingly, for particulate matter, VOC and NOx, emission factors from EPA's AP-42 section 10.6.1 result in much lower estimated emissions than estimated by the dryer vendor. Please address this as part of your response.

10. Emission factors from EPA's AP-42 section 10.6.1 result in much lower estimated emissions for VOC emissions from the press than estimated by the stack test data. Please comment and provide supporting information for the stack test used by the vendor, and provide additional stack test data from the same or other facilities. Please provide a description of the equipment and processes used by this plant, and confirm whether this is or is not the Louisiana Pacific facility in Alabama listed in the RBLC database.

11. Information in the RBLC database suggests that other facilities achieve much lower hourly emissions than you have proposed as BACT, particularly for PM_{10}, VOC and NOx from the dryers, and VOC from the press. Please address this and reevaluate the level of emissions proposed for these sources and pollutants.

12. For emissions units 003 through 009, the emission limits you proposed as BACT are higher than recent BACT determinations of the Department. The Department is likely to impose more stringent limits regardless of the vendor's guarantees. For example, the Department recently determined that the BACT emission limit for a planermill controlled by a cyclone and baghouse combination was 0.004 grains per dscf. Please reevaluate the level of emissions proposed for these sources.

13. Enclosed are the preliminary comments from the U.S. Fish and Wildlife Service. We have similar concerns, some of which are reviewed above. Please respond to these comments, particularly the evaluation of acceptable BACT limits and the economic analysis.

14. Additional comments related to the case-by-case MACT determination required for this project will be sent to you by separate letter. Please respond to those comments with your response to the above.

The Department will complete its review after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Material changes to the application should also be accompanied by a new certification statement by the authorized representative or responsible official. Permit applicants are advised that Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days. If there are any questions, please call me at 850/921-9519. Matters regarding modeling issues should be directed to Chris Carlson (meteorologist) at 850/921-9537.

Sincerely,

Joseph Kahn, P.E.
New Source Review Section

/jk

cc: Mr. Gregg Worley, EPA
Mr. Ed Middleswart, NWD
Mr. John Bunyak, NPS
Mr. Mark Aguilar, P.E., Georgia-Pacific Corp.

Z 031 391 866

US Postal Service

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PS Form **3800**, April 1995

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- Complete items 3, 4a, and 4b.
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- The Return Receipt will show to whom the article was delivered and the date delivered.

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3. Article Addressed to:
Mr. Ronald Paul, Ex. V.P.
Wood Products & Distribution
Ga-Pacific Corp
133 Peachtree St.
Atlanta, GA 30303

4a. Article Number Z 031 391 866

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X Pam Moore

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Memorandum

To: Ellen Porter

From: Kirsten King

Re: Georgia Pacific Oriented Strandboard

Date: 2 February 2000

Background
Georgia Pacific proposes to construct an oriented strandboard facility near Hosford Florida. The facility will be comprised of five dryers equipped with TherMec Burners, a board press with two thermal oil heaters each containing one wood fired burner and one natural gas fired burner and a materials handling facility

Proposed Controls

Dryer and Board Press:
We agree with the emissions control equipment choices provided in the BACT analysis, however, the emissions limits provided are, in some cases, significantly higher than acceptable BACT. Table 1 shows the limits proposed by Georgia Pacific.

Table 1: Proposed limits

Equipment	Emissions limit (tpy)	Proposed Emissions Limit (lb/hr)	Emissions limit (lb./MMBTU)
Dryer (200MMBTU/hr max)			
PM/PM10	326.1	74.45	0.37
VOC	553	126.26	0.63
CO	147.15	33.60	0.16
NO_x	321.05	73.3	0.37
Press (80MMBTU/hr max)[1]			
PM/PM10	12.4	2.83	0.035
VOC	87.82	20.05	0.25
CO	31.76	7.25	0.091
NO_x	47	10.73	0.13

[1] The permit does not state the size of the two wood fuel suspension burners used in this process. 40 MMBTU each was assumed.

Table 2:Acceptable BACT limits

Equipment	BACT Emissions Limit (lb./MMBTU)	BACT Emissions Limit (lb./hr)
Dryer (200 MMBTU)		
PM/PM10	0.07	14.0
VOC	0.17	34
CO	0.2	40.0
NO_x	0.2	40.0
Press (80 MMBTU)		
PM/PM10	0.030	2.4
VOC	0.081	6.48
CO	0.379	30.32
NO_x	0.2	16.0

We believe that the limits for the press and the dryer should follow those listed in Table 2. These limits were taken from the RACT/BACT/LAER clearinghouse and a Virginia Georgia Pacific facility for similar technology. Because BACT is an emission limit based standard we propose that the permit reflect BACT emission limits in addition to BACT control technologies.

Economic Analysis:
Though we agree with the selection of BACT technologies made by Georgia Pacific, an economic analysis should have been done to establish the cost of control and support the rejection of SCR as a control technology.

Materials Handling:

For the material handling operations we agree that bagfilters are a BACT control technology, but again we disagree with the proposed emissions limit. The RACT/BACT/LAER clearinghouse indicates that for materials handling at OSB plants using bagfilters the PM limit should be 0.005 gr/dscf rather than 0.01 gr/dscf.

Other issues:
We contacted Steve Proctor from the North Carolina Division of Air Quality regarding the use of SCR on the Wierhauser particle board facility. Because of severe problems in keeping the catalyst clean they have just submitted a new PSD permit removing SCR from the facility.

Conclusions

The overall selection of BACT technology is acceptable in this situation, but the emission limits in some cases are higher than BACT. The Georgia Pacific facility should be able to meet the emissions limits provided above.

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

February 18, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ronald L. Paul
Exec. V. P., Wood Products and Distribution
Georgia-Pacific Corporation
133 Peachtree St.
Atlanta, Georgia 30303

Re: Request for Additional Information – Case-by-case MACT Information
DEP File No. 0770010-001-AC (PSD-FL-282)
Proposed Hosford OSB Plant

Dear Mr. Paul:

On January 21, 2000 the Department received your application and complete fee for an air construction/PSD permit for a proposed new OSB plant near Hosford, Florida. We are processing your application, but it is incomplete. In order to continue our review, in addition to the information requested by Joseph Kahn of the New Source Review Section, we will need the following information related to the case-by-case MACT determination. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. The application states that "The proposed BACT for the dryers and press (see Section 8), regenerative thermal oxidation, satisfies the 112(g) MACT requirement for formaldehyde from these sources." Since a MACT must be proposed by the applicant in accordance with 40 CFR 63.43(e), see attachment, it is assumed that what this statement means is that the applicant wants the proposed BACT to also be considered as the proposed MACT.

   Please review the attachment, "What Information is Needed from the Applicant for a Case-by-Case MACT Determination?" and supply the missing information.

2. In addition to formaldehyde, what other hazardous air pollutants (HAPs) will be emitted from the facility? What will be the potential plantwide emissions of total hazardous air pollutants per year?

3. What events will require the use of the emergency exhausts shown in Figure 3-4a, Process Flow Diagram? How often are these events expected to occur, and of what duration are these events expected to be?

4. In which document did you find SCC 30701001, Flake Dryer, and SCC 30701053, Press Operation?

5. A quick scan of EPA data shows possible VOC removal efficiency of 95% for waferboard dryer (SCC 30700704), and 99% for particleboard drying (SCC 30700703). Please explain why these would not be the best controlled similar sources for MACT purposes.

The Department will continue its review after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Material changes to the application should also be accompanied by a new certification statement by the authorized representative or responsible official. Permit applicants are advised that Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days.

If there are any questions, please call me at 850/921-9534 or send email to Cindy.Phillips@dep.state.fl.us .

Sincerely,

Cindy L. Phillips

Cindy L. Phillips, P.E.
Air Toxics Unit
Bureau of Air Regulation

attachment

cc: Mr. Gregg Worley, EPA
Mr. Ed Middleswart, NWD
Mr. John Bunyak, NPS
Mr. Mark Aguilar, P.E., Georgia-Pacific Corp.

What Information is Needed from the Applicant for a Case-by-Case MACT Determination?

{REFERENCE: Federal Register / Vol. 61, No. 250 / Friday, December 27, 1996 / Rules and Regulations}

63.43 (d) Principles of MACT determinations. The following general principles shall govern preparation by the owner or operator of each permit application or other application requiring a case-by-case MACT determination concerning construction or reconstruction of a major source, and all subsequent review of and actions taken concerning such an application by the permitting authority:

(1) The MACT emission limitation or MACT requirements recommended by the applicant and approved by the permitting authority shall not be less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the permitting authority.

(2) Based upon available information, as defined in this subpart, the MACT emission limitation and control technology (including any requirements under paragraph (d)(3) of this section) recommended by the applicant and approved by the permitting authority shall achieve the maximum degree of reduction in emissions of HAP which can be achieved by utilizing those control technologies that can be identified from the available information, taking into consideration the costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction.

(3) The applicant may recommend a specific design, equipment, work practice, or operational standard, or a combination thereof, and the permitting authority may approve such a standard if the permitting authority specifically determines that it is not feasible to prescribe or enforce an emission limitation under the criteria set forth in section 112(h)(2) of the Act.

(4) If the Administrator has either proposed a relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or adopted a presumptive MACT determination for the source category which includes the constructed or reconstructed major source, then the MACT requirements applied to the constructed or reconstructed major source shall have considered those MACT emission limitations and requirements of the proposed standard or presumptive MACT determination.

(e) Application requirements for a case-by-case MACT determination.

(1) An application for a MACT determination (whether a permit application under title V of the Act, an application for a Notice of MACT Approval, or other document specified by the permitting authority under paragraph (c)(2)(ii) of this section) shall specify a control technology selected by the owner or operator that, if properly operated and maintained, will meet the MACT emission limitation or standard as determined according to the principles set forth in paragraph (d) of this section.

(2) In each instance where a constructed or reconstructed major source would require additional control technology or a change in control technology, the application for a MACT determination shall contain the following information:

(i) The name and address (physical location) of the major source to be constructed or reconstructed;

(ii) A brief description of the major source to be constructed or reconstructed and identification of any listed source category or categories in which it is included;

(iii) The expected commencement date for the construction or reconstruction of the major source;

(iv) The expected completion date for construction or reconstruction of the major source;

(v) the anticipated date of start-up for the constructed or reconstructed major source;

(vi) The HAP emitted by the constructed or reconstructed major source, and the estimated emission rate for each such HAP, to the extent this information is needed by the permitting authority to determine MACT;

(vii) Any federally enforceable emission limitations applicable to the constructed or reconstructed major source;

(viii) The maximum and expected utilization of capacity of the constructed or reconstructed major source, and the associated uncontrolled emission rates for that source, to the extent this information is needed by the permitting authority to determine MACT;

(ix) The controlled emissions for the constructed or reconstructed major source in tons/yr at expected and maximum utilization of capacity, to the extent this information is needed by the permitting authority to determine MACT;

(x) A recommended emission limitation for the constructed or reconstructed major source consistent with the principles set forth in paragraph (d) of this section;

(xi) The selected control technology to meet the recommended MACT emission limitation, including technical information on the design, operation, size, estimated control efficiency of the control technology (and the manufacturer's name, address, telephone number, and relevant specifications and drawings, if requested by the permitting authority);

(xii) Supporting documentation including identification of alternative control technologies considered by the applicant to meet the emission limitation, and analysis of cost and non-air quality health environmental impacts or energy requirements for the selected control technology; and

(xiii) Any other relevant information required pursuant to subpart A.

(3) In each instance where the owner or operator contends that a constructed or reconstructed major source will be in compliance, upon startup, with case-by-case MACT under this subpart without a change in control technology, the application for a MACT determination shall contain the following information:

(i) The information described in paragraphs (e)(2)(i) through (e)(2)(x) of this section; and

(ii) Documentation of the control technology in place.

INTEROFFICE MEMORANDUM

Date: 16-Feb-2000 01:42pm
From: Joseph Kahn TAL
KAHN_J
Dept: Air Resources Management
Tel No: 850/921-9519

To: Ellen_Porter (Ellen_Porter@nps.gov)

Subject: Re: attached comments on GP-Hosford

Ellen,

I finally got the chance to review your comments about GP Hosford and I have a couple of comments. First, it appears that the Table 1 lb/mmBtu emissions limits for the dryers were calculated using 80 mmBtu/hr as the heat input, but the total heat input for the five dryers is 200 mmBtu/hr (40 mmBtu/hr each). This part of the table should be revised using the 200 mmBtu/hr rate. Second, although I agree generally that the applicant's proposed BACT emissions limits appear to be high, the limits of Table 2 seem too low to me. It looks like the limits of Table 2 are the lowest limits from the RBLC database, but they do not appear to have been adjusted for the size (processing/heat input capacity) of the GP Hosford emissions sources. Can you confirm for me whether the Table 2 limits consider the size of the sources?

I plan on including your comments with our request for additional information which we will mail to the applicant by Friday morning. Please get back with me about the above before then if possible. Thanks.

-Joe

INTEROFFICE MEMORANDUM

Date: 16-Feb-2000 08:50pm
From: Kirsten_King
Kirsten_King@nps.gov
Dept:
Tel No:

To: joseph.kahn (joseph.kahn@dep.state.fl.us)
CC: Ellen_Porter (Ellen_Porter@nps.gov)

Subject: Comments on GP-Hosford

Dear Mr.Kahn

You are correct about the 80 MMBTU/hr. I have corrected the lb./hr levels for the dryers. The values for the BACT level emission limit recommendations were in MMBTU/hr from the RACT/BACT/LAER clearinghouse and the Virginia permit, so these should be correct.

Thank you for your help on this. Please let me know if I can help clarify anything else or provide you with additional information.

Kirsten King
kirsten_king@nps.gov
(303)969.2153

I will be out of the office on 2/17 and 2/18, but would be happy to return a phone call.

Memorandum

To: Ellen Porter

From: Kirsten King

Re: Georgia Pacific Oriented Strandboard

Date: 2 February 2000

Background
Georgia Pacific proposes to construct an oriented strandboard facility near Hosford Florida. The facility will be comprised of five dryers equipped with TherMec Burners, a board press with two thermal oil heaters each containing one wood fired burner and one natural gas fired burner and a materials handling facility

Proposed Controls

Dryer and Board Press:
We agree with the emissions control equipment choices provided in the BACT analysis, however, the emissions limits provided are, in some cases, significantly higher than acceptable BACT. Table 1 shows the limits proposed by Georgia Pacific.

Table 1: Proposed limits

Equipment	Emissions limit (tpy)	Proposed Emissions Limit (lb/hr)	Emissions limit (lb./MMBTU)
Dryer (200MMBTU/hr max)			
PM/PM10	326.1	74.45	0.37
VOC	553	126.26	0.63
CO	147.15	33.60	0.16
NO_x	321.05	73.3	0.37
Press (80MMBTU/hr max)			
PM/PM10	12.4	2.83	0.035
VOC	87.82	20.05	0.25
CO	31.76	7.25	0.091
NO_x	47	10.73	0.13

Table 2:Acceptable BACT limits

The permit does not state the size of the two wood fuel suspension burners used in this process. 40 MMBTU each was assumed.

Equipment	BACT Emissions Limit (lb./MMBTU)	BACT Emissions Limit (lb./hr)
Dryer (200 MMBTU)		
PM/PM10	0.07	14.0
VOC	0.17	34
CO	0.2	40.0
NO_x	0.2	40.0
Press (80 MMBTU)		
PM/PM10	0.030	2.4
VOC	0.081	6.48
CO	0.379	30.32
NO_x	0.2	16.0

We believe that the limits for the press and the dryer should follow those listed in Table 2. These limits were taken from the RACT/BACT/LAER clearinghouse and a Virginia Georgia Pacific facility for similar technology. Because BACT is an emission limit based standard we propose that the permit reflect BACT emission limits in addition to BACT control technologies.

Economic Analysis:
Though we agree with the selection of BACT technologies made by Georgia Pacific, an economic analysis should have been done to establish the cost of control and support the rejection of SCR as a control technology.

Materials Handling:

For the material handling operations we agree that bagfilters are a BACT control technology, but again we disagree with the proposed emissions limit. The RACT/BACT/LAER clearinghouse indicates that for materials handling at OSB plants using bagfilters the PM limit should be 0.005 gr/dscf rather than 0.01 gr/dscf.

Other issues:
We contacted Steve Proctor from the North Carolina Division of Air Quality regarding the use of SCR on the Wierhauser particle board facility. Because of severe problems in keeping the catalyst clean they have just submitted a new PSD permit removing SCR from the facility.

Conclusions

The overall selection of BACT technology is acceptable in this situation, but the emission limits in some cases are higher than BACT. The Georgia Pacific facility should be able to meet the emissions limits provided above.

U.S.FISH&WILDLIFE SERVICE
AIR QUALITY BRANCH
P.O. BOX 25287, Denver, CO 80225-0287

FACSIMILE COVER SHEET

Date: February 9, 2000

Telephone: (303) 969-2617
Fax: (303) 969-2822

To: Joe Kahn

From: Ellen Porter

Subject: GP Hosford

Number of Pages: ~~3~~ 4
(Including this cover sheet)

Office Location: 7333 West Jefferson Ave, Suite 450, Lakewood, CO 80235

Preliminary Review of Prevention of Significant Deterioration Permit Application for Georgia-Pacific's Oriented Strandboard Facility Hosford, Florida

by

Air Quality Branch, U. S. Fish and Wildlife Service – Denver
February 2, 2000

Background

Georgia Pacific (GP) proposes to construct an oriented strandboard facility (OSF) near Hosford, Florida, 45 km northwest of St. Marks Wilderness, a Class I air quality area administered by the U.S. Fish and Wildlife Service. The facility will be comprised of five dryers equipped with TherMec Burners, a board press with two thermal oil heaters each containing one wood-fired and one natural gas-fired burner, and a materials handling facility

Proposed Controls

Dryer and Board Press:

We agree with the emissions control equipment choices provided in the BACT analysis, however, the emissions limits provided are significantly higher than acceptable BACT. Table 1 shows the limits proposed by Georgia Pacific.

Table 1: Proposed limits

Equipment	Emissions limit (tpy)	Proposed Emissions Limit (lb/hr)	Emissions limit (lb./MMBTU)
Dryer (80MMBTU/hr max)			
PM/PM10	326.1	74.45	0.93
VOC	553	126.26	1.58
CO	147.15	33.60	0.4199
NO_x	321,05	73.3	0.916
Press (80MMBTU/hr max)			
PM/PM10	12.4	2.83	0.035
VOC	87.82	20.05	0.25
CO	31.76	7.25	0.091
NO_x	47	10.73	0.13

Table 2:Acceptable BACT limits

Equipment	BACT Emissions Limit (lb/hr)
Dryer (80MMBTU/hr max)	
PM/PM10	6.42
VOC	3.669
CO	8.93
NO_x	18.38
Press (80MMBTU/hr max)	
PM/PM10	0.65
VOC	1.73
CO	8.19
NO_x	8.01

We believe that the limits for the press and the dryer should follow those listed in Table 2. These limits were taken from the RACT/BACT/LAER clearinghouse for similar technology. Because BACT is an emission limit based standard we propose that the permit reflect BACT emission limits in addition to BACT control technologies.

Materials Handling:

For the material handling operations we agree that bagfilters are a BACT control technology, but again we disagree with the proposed emissions limit. The RACT/BACT/LAER clearinghouse indicates that for materials handling at OSB plants using bagfilters the PM limit should be 0.005 gr/dscf rather than 0.01 gr/dscf.

Conclusions

The overall selection of BACT technology is acceptable in this situation, but the emission limits are far less than BACT. Because BACT is an emission limit based standard, this BACT analysis is not reasonable. The Georgia Pacific facility should be able to meet the emissions limits provided above with the technology they have proposed.

Air Quality Related Values Analysis

GP's haze analysis assumed a distance of 64 km (maximum of 81 km) from the facility to St. Marks. However, Section 6 of the application gives the distance as 45 km. Our measurements agree with the 45 km estimate. GP should verify the distance and re-do, if necessary, the haze analysis (assuming that some receptor in St. Marks will be greater than 50 km from the facility). In addition, GP should do a VISCREEN analysis for receptors in St. Marks less than 50 km from the facility

Our comments are preliminary and will be followed by a more detailed review of the proposed project.

Department of
Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

January 24, 2000

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS - Air Quality Division
Post Office Box 25287
Denver, Colorado 80225

Re: Georgia-Pacific Corporation, Hosford OSB Plant
PSD-FL-282

Dear Mr. Bunyak:

Enclosed is a copy of a PSD permit application for an oriented strandboard manufacturing plant to be constructed and operated by Georgia-Pacific Corporation near Hosford in Liberty County. The application includes the applicant's PSD analyses including a BACT analysis. This is a new facility. The emissions units include five flake dryers, a panel press, sawing and sanding operations, and a thermal oil system heated with wood. The applicant has proposed to use RTOs to control emissions from the flake dryers and panel press.

Please provide your comments as soon as possible. Our rules require us to determine whether an application is complete within 30 days of receipt and to make a Preliminary Determination within 60 days (given that the application is complete). This project is not subject to the Florida Power Plant Siting Act and review by the Governor and Cabinet. If you have any questions regarding this matter, please call me at 850/921-9519.

Sincerely,

Joseph Kahn, P.E.
New Source Review Section

/jk

Enclosure

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

January 24, 2000

Mr. Gregg Worley, Section Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
US EPA Region IV
61 Forsyth Street
Atlanta, Georgia 30303

Re: Georgia-Pacific Corporation, Hosford OSB Plant
PSD-FL-282

Dear Mr. Worley:

Enclosed is a copy of a PSD permit application for an oriented strandboard manufacturing plant to be constructed and operated by Georgia-Pacific Corporation near Hosford in Liberty County. The application includes the applicant's PSD analyses including a BACT analysis. This is a new facility. The emissions units include five flake dryers, a panel press, sawing and sanding operations, and a thermal oil system heated with wood. The applicant has proposed to use RTOs to control emissions from the flake dryers and panel press.

Please provide your comments as soon as possible. Our rules require us to determine whether an application is complete within 30 days of receipt and to make a Preliminary Determination within 60 days (given that the application is complete). This project is not subject to the Florida Power Plant Siting Act and review by the Governor and Cabinet. If you have any questions regarding this matter, please call me at 850/921-9519.

Sincerely,

Joseph Kahn, P.E.
New Source Review Section

/jk

Enclosure

Georgia-Pacific Corporation
133 Peachtree Street NE (30303-1847)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

RECEIVED
JAN ~~18~~ 2000
BUREAU OF AIR REGULATION

Rec'd Check 1/21/00

January 12, 2000

Mr. Al Linero
Florida Department of Environmental Protection (DEP)
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 3239902400

0770010-001-AC
PSD-FL-282

RE: PSD Permit Application Submittal – Georgia-Pacific OSB Plant, Hosford, FL

Dear Mr. Linero:

Enclosed please find an original and three copies of a Prevention of Significant Deterioration (PSD) permit application for the proposed oriented strandboard (OSB) facility to be constructed by Georgia-Pacific near Hosford.

Mr. Andy Allen, in the Pensacola Office of the DEP, requested that four copies of the application be submitted directly to you. I have also spoken with Mr. Clair Fancy on numerous occasions and he is aware of this proposed project as well.

The primary point of contact for this project, as listed in our application, is Mr. Paul Vasquez. He can be reached at (404/652-7327). We appreciate your assistance in reviewing this submittal and look forward to hearing from you in the future.

Sincerely,

Tammy Wyles

Tammy R. Wyles
Senior Environmental Consultant - Air

Enclosure One original and four copies of PSD permit application

cc:	P.J. Vasquez	GA030-17 (w/application)
	M.M. Vest	FL165 (Palatka) (w/application)
	J.A. Dees	GA030-18 (w/application)
	M.J. Aguilar	GA030-09 (letter only)
	J.L. Dozier	GA030-09 (letter only)
	Mr. Clair Fancy	FDEP, Tallahassee (letter only)
	Mr. Andy Allen	FDEP, Pensacola (letter only)

NPS NWD Cindy Phillips
EPA C. Carlson Joe Kahn

Georgia-Pacific Corporation
133 Peachtree Street NE (30303)
P.O. Box 105605
Atlanta, Georgia 30348-5605
Telephone (404) 652-4000

Ms. Kim Tober
Florida Department of Environmental Protection
2600 Blairstone Road
Mail Stn 5505
Tallahassee, FL 32399-2400

RECEIVED
JAN 21 2000
BUREAU OF AIR REGULATION

January 19, 2000

Dear Ms Tober:

Attached is Georgia-Pacific check number 901618224 dated February 5, 1999 for $7,500.00 towards the air construction permit for the G-P Hosford OSB Plant.

Sincerely,

Dworsfold

Dawn Worsfold

* Check

Georgia-Pacific

Best Available Copy

CHEMICAL BANK OF DELAWARE
1201 MARKET STREET
WILMINGTON, DELAWARE 19801 [redacted] 4645-09

GEORGIA-PACIFIC SHARED SERVICES CORPORATION
7016 A. C. SKINNER PARKWAY
JACKSONVILLE, FL 32256
1-888-663-3337

VENDOR NUMBER	DATE	CHECK NUMBER	PAY EXACTLY
119684	2/05/99	901618224	$******7,500.00

VOID AFTER 180 DAYS

PAY *Seven thousand five hundred and 00/100 Dollars*

TO THE ORDER OF

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
2600 BLAIRSTONE RD
MAIL STN 5505
TALLAHASSEE FL 32399-2400

[redacted]

VENDOR NUMBER	DATE	CHECK NUMBER
119684	2/05/99	901618224

Georgia-Pacific

GEORGIA-PACIFIC SHARED SERVICES CORPORATION
7016 A. C. SKINNER PARKWAY
JACKSONVILLE, FL 32256
1-888-663-3337

DATE	INVOICE #	GROSS AMOUNT	DISCOUNT	NET AMOUNT	PHONE CONTACT
2/03/99	02031999 CONSTRUCTION PERMIT	7,500.00	.00	7,500.00	404-652-4992
TOTALS		7,500.00	.00	7,500.00	

RECEIVED
JAN 21 2000
BUREAU OF AIR REGULATION

GP 10814 (9/97)

FORMS CONTROL NUMBER:
(SEE CHECK NUMBER ABOVE) 3869227

PSD PERMIT APPLICATION

GEORGIA-PACIFIC CORPORATION

Proposed Oriented Strandboard Facility
Hosford, Florida

January 2000

Check
Rec'd
January 21, 2000

PSD PERMIT APPLICATION

GEORGIA-PACIFIC CORPORATION

Proposed Oriented Strandboard Facility
Hosford, Florida

January 2000

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ATTACHMENT A	PERMIT APPLICATION FORMS
ATTACHMENT B	EMISSION CALCULATIONS AND VENDOR DOCUMENTATION
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ATTACHMENT E	AQRV ASSESSMENT AND ADDITIONAL IMPACTS ANALYSIS
ATTACHMENT F	AIR QUALITY ANALYSIS
ATTACHMENT G	BACT ANALYSIS

1. EXECUTIVE SUMMARY

Georgia-Pacific Corporation (G-P) proposes to construct and operate an oriented strandboard (OSB) facility near Hosford, Florida in northeastern Liberty County. The facility will be located approximately 7 kilometers (km) northeast of Hosford and 2 km north of Lowry. The plant will be bordered by State Route 65 on the east. The Apalachicola & Northern Railway will define the western boundary of the plant site. The plant entrance will be located along State Route 65.

Liberty County has been designated by the U.S. Environmental Protection Agency (US EPA) as in attainment or unclassified for all criteria pollutants. Under Prevention of Significant Deterioration (PSD) definitions, the Hosford OSB facility will be constructed as a major stationary source since it will have the potential-to-emit more than 250 tons per year (tpy) of at least one regulated air pollutant. As a new major source in an attainment region, the facility will be subject to PSD permitting requirements as described in 40 CFR 52.21.

The proposed OSB plant will have the capacity to produce 475 million square feet per year, on a 3/8-inch basis. Major pieces of equipment will include five dryers, a press, a thermal oil heating system, and associated materials handling equipment. Logs will be unloaded and stored in the log yard. The logs will then be cut to size, debarked, and processed into flakes. The flakes will be dried in the five rotary dryers and then mixed with resin and wax and formed into a mat. The mats will then move into the thermal oil-heated press, where they will be compressed and heated to bond the resin to the flakes. The OSB will be cut to size, cooled, and the edges will be sprayed with sealant to prevent swelling. The finished OSB will then be packed and shipped off-site. Bark from the debarkers and other green end material from the log yard will be shipped off-site for use as wood fuel or for use in horticultural applications. Dry end material will either be burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations. The press will be heated with thermal oil, using wood suspension burners, and will utilize natural gas as a back-up fuel.

The dryers and press will be controlled by three regenerative thermal oxidizers (RTOs). Two of the RTOs will be dedicated to the dryers and the third will control emissions from the press. The dryer RTOs will be preceded by multiclones. Emissions from the thermal oil system will be controlled by an electrostatic precipitator (ESP). During normal operations, the exhaust gases from the thermal oil system burners will be routed through the dryer system where they, along with the exhaust gases from the dryers, will pass through the multiclones and RTOs prior to exiting to the atmosphere. Particulate matter emissions resulting from material handling will be controlled by a series of bag filters.

The proposed plant is subject to PSD review for particulate matter (PM) (both total suspended particulate matter (TSP) and particulate matter less than 10 microns in diameter (PM_{10})), ozone (based on a significant increase in volatile organic compound (VOC) emissions), carbon monoxide (CO), and nitrogen oxides (NO_x).

This completed PSD permit application contains an air quality modeling analysis, Best Available Control Technology (BACT) review, Class I areas analysis, additional impacts analysis, and completed permit application forms.

2. PERMIT APPLICATION FORMS

The completed permit application forms are included in Attachment A.

3. INTRODUCTION

Georgia-Pacific Corporation (G-P) proposes to construct and operate an oriented strandboard (OSB) facility near Hosford, Florida in northeastern Liberty County. The facility will have the capacity to produce 475 million square feet (MMSF) (3/8-inch basis) of OSB annually.

Liberty County has been designated by the U.S. Environmental Protection Agency (US EPA) as in attainment or unclassified for all criteria pollutants. Under Prevention of Significant Deterioration (PSD) definitions, the Hosford OSB facility will be constructed as a major stationary source since it will have the potential-to-emit more than 250 tons per year (tpy) of at least one regulated air pollutant. As a new major source in an attainment region, the facility will be subject to PSD permitting requirements as described in 40 CFR 52.21.

3.1 Facility Location

The facility will be located approximately 7 kilometers (km) northeast of Hosford and 2 km north of Lowry. The plant will be bordered by State Route 65 on the east. The Apalachicola & Northern Railway will define the western boundary of the plant site. The plant entrance will be located along State Route 65. The proposed location for the facility is shown on a United States Geological Survey (USGS) map in Figure 3-1.

3.2 Process Description

A drawing of the plant layout, showing the property boundary, is included as Figure 3-2. A more detailed plot plan, showing the equipment layout, is included as Figure 3-3. Two process flow diagrams are included as Figures 3-4a and 3-4b.

Logs, resin (liquid or powdered), and wax are the primary raw materials used in OSB panel production. The production process will be comprised of four principal manufacturing processes: (1) furnish production, which includes debarking, slashing, and flaking; (2) flake drying; (3) forming and pressing; and (4) finishing, which consists of sawing and sanding.

Logs will be unloaded and temporarily stored in the log yard. The logs will then be cut to size, debarked, and processed into flakes.

The drying process will consist of five (5) flake dryers (horizontal, cylindrical rotary drum-type) heated by suspension-type burners, and a pneumatic system which conveys the flakes through the dryers. The suspension burners will be designed to burn ground wood fuel. Raw wood fuel will first be ground in the hammermill and then stored in a metering bin. From the metering bin, the ground wood fuel will be pneumatically transferred and blown into the burner. Maximum heat input to each dryer will be 40 million British thermal units per hour (MMBtu/hr). The wood fuel will be introduced tangentially to the burners, creating a cyclonic flow pattern, thereby promoting combustion efficiency. The flue gases leaving the combustion zone will be at approximately 1600 degrees Fahrenheit (°F), but will be immediately cooled down to between 600 and 1200°F by the addition of dilution air between the burner

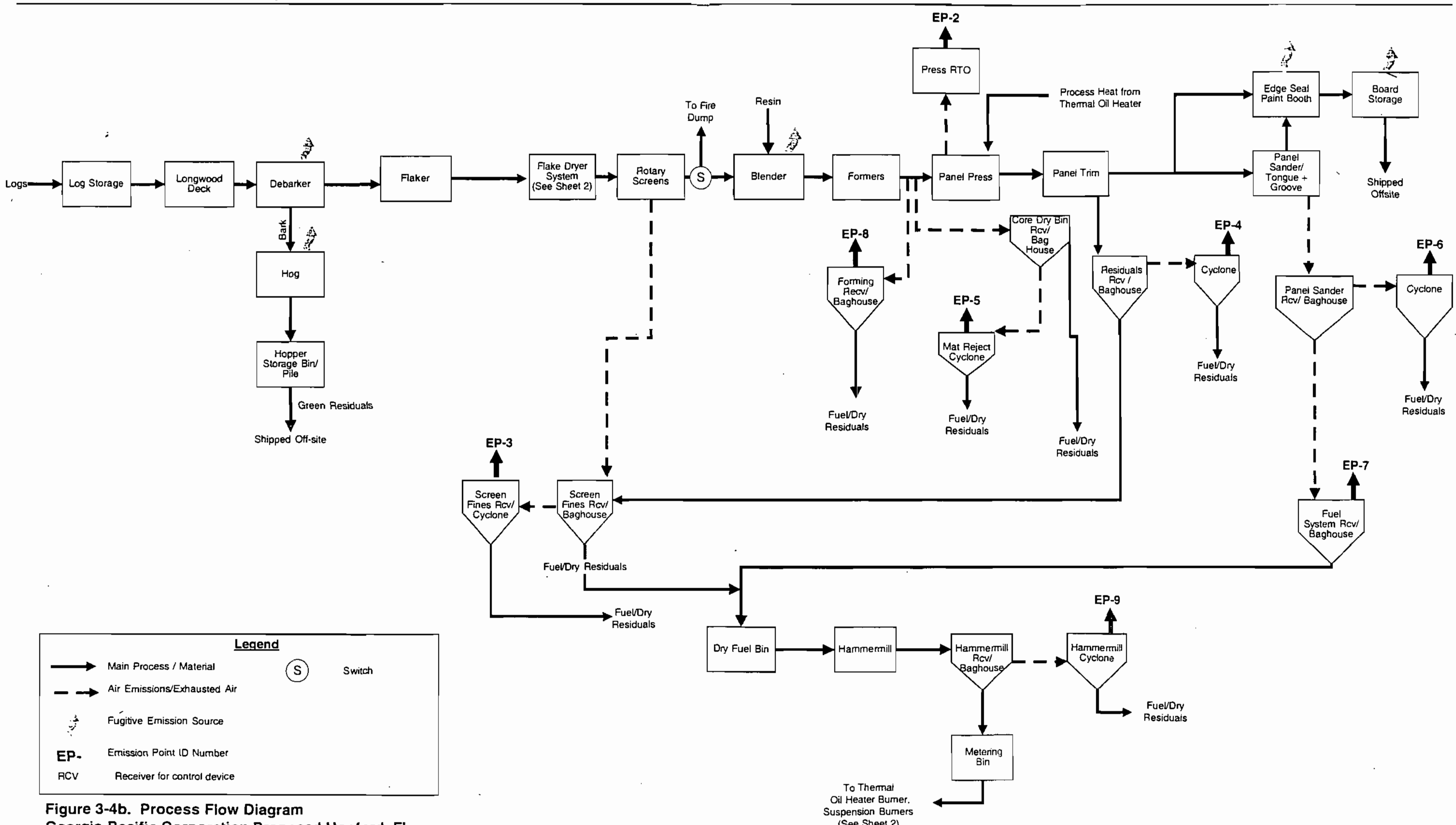

Figure 3-4b. Process Flow Diagram
Georgia-Pacific Corporation Proposed Hosford, FL OSB Facility
Sheet 1 of 1

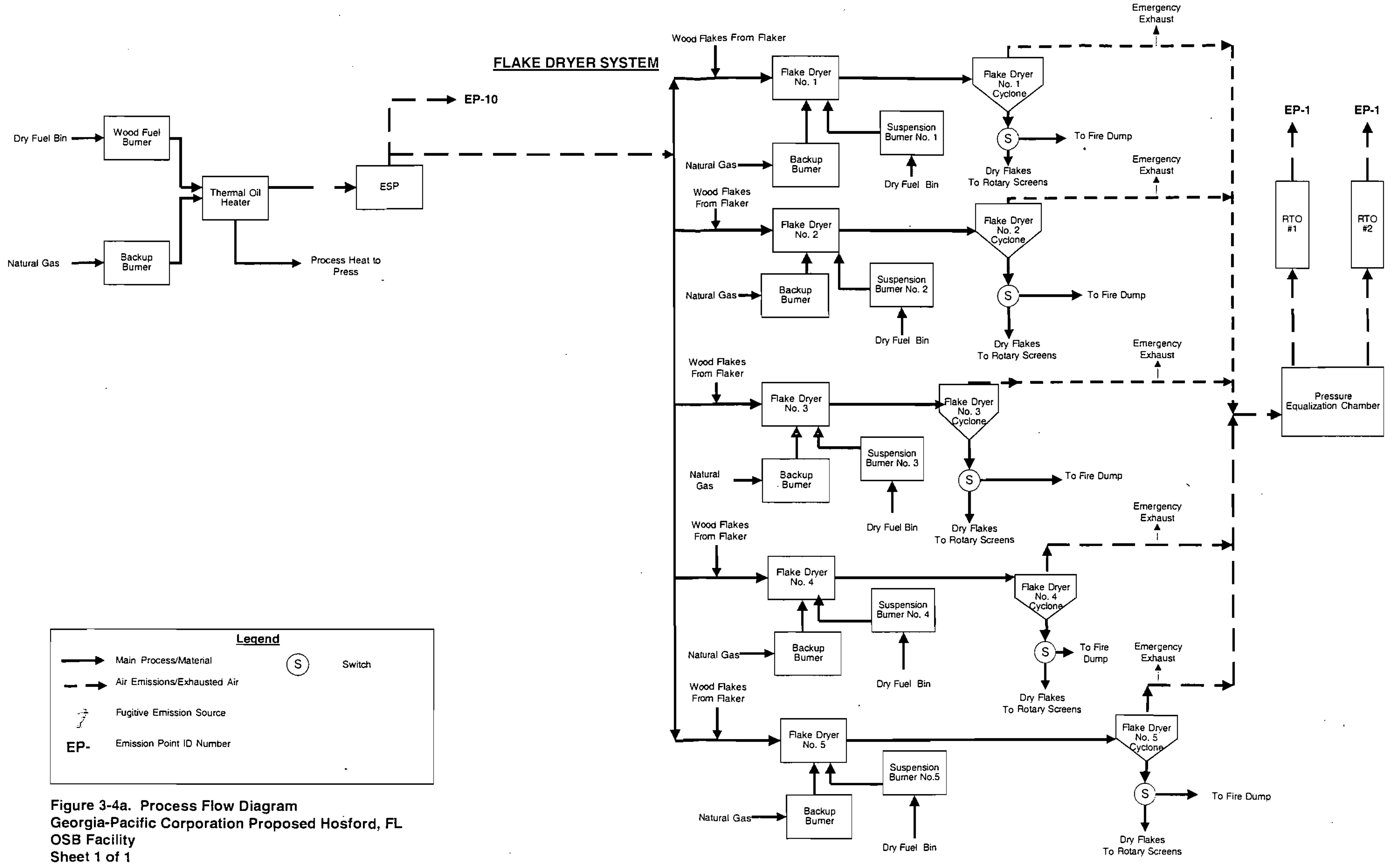

Figure 3-4a. Process Flow Diagram
Georgia-Pacific Corporation Proposed Hosford, FL
OSB Facility
Sheet 1 of 1

and the dryer. The hot exhaust from the burner combines with ambient air pulled through by the dryer's pneumatic system to dry the flakes. The amount of dilution air, and resulting gas temperature, are dependent on the dryer operating rate, wood moisture content, desired moisture content of the furnish, etc. Air pollutant emissions associated with the drying operation will include products of wood fuel combustion, such as particulate matter (PM), volatile organic compounds (VOCs), carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO_2). They will also include additional PM, VOCs, CO, and formaldehyde, which are produced in the wood drying process.

The dried wood flakes will be blended with resin and wax and will then be placed as a mat on the forming line in layers oriented at right angles to provide structural integrity. The mat will then be moved into the thermal oil-heated press, where it will be compressed and heated to bond the resin to the flakes. The thermal oil will be heated to the appropriate temperature in a separate system, consisting of two, wood fuel, suspension-type burners. During normal operations, the exhaust gases from the thermal oil system burners will be routed through the dryer system. Air pollutant emissions associated with the board press operation will include PM, VOCs, CO, NO_x and formaldehyde.

The pressed mats will be cut to size, cooled, and the edges will be sprayed with sealant to prevent swelling. The finished OSB will then be packed and shipped off-site. Dry end material will either be burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in
* other wood products manufacturing operations.

Numerous material handling operations, which represent both point sources and fugitive emission sources, will be associated with the production of the OSB. Those operations that can be characterized as point sources include the screen fines with saw trim transfer pneumatics, saw trim and finishing line pneumatics, materials reject and flying saw pneumatics, specialty saw and sander pneumatics, fuel system pneumatics, forming bin pneumatics, and hammermill system pneumatics. The pollutant emissions from these operations are limited to PM. Fugitive sources of PM include the bark handling (batch drops and wind erosion from storage piles), paved and unpaved roads, debarkers, bark hog, and edge-sealing of finished boards.

Additional fugitive emission sources of VOCs and/or formaldehyde include the resin storage tanks, blend house, and finished product storage.

The dryers and press will be controlled by three regenerative thermal oxidizers (RTOs). Two of the RTOs will be dedicated to the dryers and the third will control emissions from the press. The dryer RTOs will be preceded by multiclones Emissions from the thermal oil system will be controlled by an electrostatic precipitator (ESP). During normal operations, the exhaust gases from the thermal oil system burners will be routed through the dryer system where they, along with the exhaust gases from the dryers, will pass through the multiclones and RTOs prior to exiting to the atmosphere. Particulate matter emissions resulting from material handling will be controlled by a series of bag filters.

4. EMISSION RATES

The methodologies used to quantify emissions for the proposed emission units to be installed at the Hosford OSB Plant are summarized in this section of the permit application. The emission rates are calculated for all point and fugitive emission sources, although only point source emissions have to be considered in the evaluation of PSD applicability. The detailed emission calculations, as well as the supporting documentation from the vendor, are contained in Attachment B. It should be noted that the vendor sheets are titled, "Fordyce, Arkansas". Georgia-Pacific currently has another, near identical facility under construction near Fordyce. The emission estimates provided by the vendor apply to both Fordyce and Hosford.

The estimated hourly and annualized emission rates are summarized in Table 4-1.

4.1 EP-1 Dryers

The five dryers will be equipped with TherMec Burners (suspension-type). With the exception of sulfur dioxide, the emission rates are supplied by the vendor and take into account control by the multiclones and RTOs. Removal efficiencies of 90, 90, and 75 percent are assumed for particulate matter, volatile organic compounds, and carbon monoxide, respectively. Emission estimates for sulfur dioxide (for the burners associated with the dryers and thermal oil system) are made based on wood fuel combustion factors contained in the US EPA emission estimation document, AP-42.

4.2 EP-2 Press

Emissions information for the press was supplied by the vendor based on tests performed at a similar Louisiana-Pacific (L-P) plant located in Hanceville, Alabama. The vendor scaled the L-P test values by the ratio of the production rates between the two facilities. The G-P OSB Plant will have a production level of 475 MMSF/year, while the L-P tests were conducted at a production level of 350 MMSF/year. RTO removal efficiencies of 75, 90, and 75 percent are assumed for particulate matter, volatile organic compounds, and carbon monoxide, respectively.

4.3 EP-3 - EP-9 Material Handling Sources

Two methodologies are used in estimating particulate matter emissions for the bag filters. First, emission estimates are made using material throughput rates and a removal efficiency of 99.96 percent. The second methodology utilizes air flow rates and assumes a particulate matter loading of 0.01 grain per dry standard cubic foot (gr/dscf) exiting the bag filters. Both sets of calculations are included in Attachment B. The vendor is only willing to guarantee the higher of the two values for each of the sources. For emission points EP-3, EP-7, and EP-9, the first methodology (material throughput and removal efficiency) yields the highest estimates. For emission points EP-4, EP-5, EP-6, and EP-8, the second methodology (air flow rate and loading) yields the highest estimates.

Table 4-1. Estimated Hourly and Annual Emission Rates, Proposed Hosford OSB Plant

Emission Source	Point	TSP		PM_{10}		VOC		CO		NO_x		SO_2		Pb		HCOH	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Dryers (RTO)	EP-1	74.45	326.10	74.45	326.10	126.25	553.00	33.60	147.15	73.30	321.05	2.30	10.20	–	–	1.85	8.10
Press (RTO)	EP-2	2.83	12.40	2.83	12.40	20.05	87.82	7.25	31.76	10.73	47.00	–	–	–	–	0.24	1.05
Screen Fines with Saw Trim Transfer (Bag Filter)	EP-3	2.10	9.20	2.10	9.20	–	–	–	–	–	–	–	–	–	–	–	–
Saw Trim/Finishing Line (Bag Filter)	EP-4	2.63	11.52	2.63	11.52	–	–	–	–	–	–	–	–	–	–	–	–
Mat Reject/Flying Saw (Bag Filter)	EP-5	3.90	17.08	3.90	17.08	–	–	–	–	–	–	–	–	–	–	–	–
Specialty Saw/Sander (Bag Filter)	EP-6	2.17	9.50	2.17	9.50	–	–	–	–	–	–	–	–	–	–	–	–
Fuel System (Bag Filter)	EP-7	0.34	1.50	0.34	1.50	–	–	–	–	–	–	–	–	–	–	–	–
Forming Bins (Bag Filter)	EP-8	1.90	8.32	1.90	8.32	–	–	–	–	–	–	–	–	–	–	–	–
Hammermill System (Bag Filter)	EP-9	2.10	9.20	2.10	9.20	–	–	–	–	–	–	–	–	–	–	–	–
Thermal Oil System[1]	EP-10	8.00	35.00	8.00	35.00	2.00	8.60	120.90	529.50	13.30	58.40	0.70	2.90	.0001	.0006	0.073	0.32

[1] During normal operation, source exhaust exits with the dryers' exhaust via EP-1; emission estimates for EP-1 include this source. Annual average estimates provided for this source are extreme overestimates given fact that these emissions only occur during a bypass.

4.4 EP-10 Thermal Oil System

The thermal oil system, used to heat the press, will be comprised of two thermal oil heaters. Each thermal oil heater will contain one wood-fired burner and one natural gas-fired burner. The wood-fired burners will have a capacity of 40 MMBtu/hr, while the natural gas burners will have a capacity of 30 MMBtu/hr. Each of the heaters will be controlled independently. Neither heater can be fired simultaneously on wood and natural gas. The plant will be able to operate both heaters simultaneously on wood or natural gas. Also, one heater could be fired on wood, while the other is fired on natural gas. Therefore, the maximum hourly heat input rate to the heaters will not exceed 80 MMBtu/hr under any of the firing combinations.

Emissions are estimated using AP-42 emission factors for wood firing. In all cases, the factors for wood firing are higher than for natural gas firing.

4.5 Fugitive Emission Sources

While not required in evaluating PSD applicability, emission estimates are made for fugitive sources of PM, VOCs, and formaldehyde. Fugitive sources of PM include the bark handling (batch drops and wind erosion from storage piles), paved and unpaved roads, debarkers, bark hog, and edge-sealing of finished boards. Fugitive emission sources of VOCs and/or formaldehyde include the resin storage tanks, blend house, and finished product storage. The emissions for the fugitive sources are estimated using material balance, AP-42 emission factors, and Version 3.1 of the EPA TANKS program.

5. REGULATORY APPLICABILITY

5.1 PSD Applicability

The PSD regulatory program is contained in 40 CFR 52.21. Since emissions for at least regulated pollutant will exceed 250 tons per year, the plant will be constructed as a "major stationary source", subject to PSD permitting requirements.

The estimated emissions are summarized and compared to the PSD significant increase levels in Table 5-1. The proposed plant will be subject to PSD review for total suspended particulate matter (TSP), particulate matter less than 10 microns in diameter (PM_{10}), ozone (based on a significant increase in VOC emissions), CO, and NO_x.

5.2 NSPS Applicability

A few of the emission sources are potentially subject to the New Source Performance Standards (NSPS), as defined in 40 CFR 60, based on construction date. However, as described below, based on an analysis of the individual NSPS, none of the sources are found to be subject to regulation.

Dryers, NSPS Subparts Db and Dc

NSPS Subpart Db applies to steam generating units, with a capacity greater than 100 MMBtu/hr, commencing construction after June 19, 1984. Subpart Dc is applicable for steam generating units, with a capacity of 100 MMBtu/hr or less, but greater than 10 MMBtu/hr, commencing construction after June 9, 1989. Depending on whether the dryers are considered individually or jointly, Subparts Db and Dc are potentially applicable.

The issue of applicability of NSPS Subparts Db and Dc has been evaluated in the past with regard to process dryers. In a memorandum, dated November 17, 1992, US EPA recognized that there are both similarities and differences between traditional steam generating units and process dryers. In this memorandum, US EPA concludes that NSPS Subparts Db and Dc do not apply to process dryers. A copy of the memorandum is included in Attachment C.

Thermal Oil System, NSPS Subpart Dc

As stated above, Subpart Dc is applicable for steam generating units, with a capacity of 100 MMBtu/hr or less, but greater than 10 MMBTU/hr, commencing construction after June 9, 1989. As stated previously, during normal operations, the combustion products from the burners associated with the thermal oil heat exchangers combine with outside air to provide heat to the flake dryers. As such, the combustion products are intermixed and come into direct contact with the dryers' heat transfer medium.

Table 5-1. PSD Applicability Summary

Emission Source	Emission Point Number	Emissions (tons per year)						
		TSP	PM_{10}	VOC	CO	NO_X	SO_2	Pb
Dryers (multiclones/RTO)	EP-1	326.10	326.10	553.00	147.15	321.05	10.20	–
Press (RTO)	EP-2	12.40	12.40	87.82	31.76	47.00	–	–
Screen Fines with Saw Trim Transfer (Bag Filter)	EP-3	9.20	9.20	–	–	–	–	–
Saw Trim/Finishing Line (Bag Filter)	EP-4	11.52	11.52	–	–	–	–	–
Mat Reject/Flying Saw (Bag Filter)	EP-5	17.08	17.08	–	–	–	–	–
Specialty Saw/Sander (Bag Filter)	EP-6	9.50	9.50	–	–	–	–	–
Fuel System (Bag Filter)	EP-7	1.50	1.50	–	–	–	–	–
Forming Bins (Bag Filter)	EP-8	8.32	8.32	–	–	–	–	–
Hammermill System (Bag Filter)	EP-9	9.20	9.20	–	–	–	–	–
Thermal Oil System (ESP)[1]	EP-10	35.00	35.00	8.60	529.50	58.40	2.90	0.0006
TOTAL		439.82	439.82	649.42	708.41	426.45	13.10	0.0006
PSD Significance Level		25	15	40	100	40	40	0.6

[1] During normal operation, source exhaust exits with the dryers' exhaust via EP-1; emission estimates for EP-1 include this source. Annual average estimates provided for this source are extreme overestimates given fact that these emissions only occur during a bypass.

Fugitive Emission Sources (not included in PSD applicability determination):

	PM/PM_{10} (tpy)	VOC (tpy)
Resin storage tanks	-------	0.30
Bark handling (batch drop)	0.019/0.014	-------
Bark handling (wind erosion)	0.088/0.044	-------
Paved roads	136.0/26.5	-------
Unpaved roads	9.11/8.02	-------
Debarker	14.1/6.5	-------
Bark Hog	1.4/0.65	-------
Blend House	-------	0.41
Finished product storage	-------	0.18
Edge sealing	0.0034/0.0026	-------

The key point in determining applicability of Subpart Dc is hinged upon the existence of intermixing of combustion gases and the heat transfer medium, as expressed clearly in US EPA's 1992 determination memorandum (see Attachment C). While it is true that the thermal oil will be indirectly heated, under normal operations the final combustion gases are intermixed and come into "direct" contact with the wood flake dryers' heat transfer medium. As such, the thermal oil system would not be subject to NSPS Subpart Dc under normal operating conditions.

A possible exception is the case where the combustion gases from the thermal oil suspension burners exit through a bypass stack, as opposed to being routed to the dryers. In order to insure that the system meets the requirements when operating in bypass mode, an electrostatic precipitator and continuous opacity monitor will be installed. Also, daily records will be maintained of fuel usage as required under 40 CFR 60.48c(g).

Resin Storage Tanks, NSPS Subpart Kb

NSPS Subpart Kb applies to storage tanks, constructed after July 23, 1984, with a volume of 40 cubic meters (m^3) or greater, storing volatile organic liquids. The storage tanks to be installed at Hosford will have a capacity of 10,000 gallons, or approximately 38 m^3. As such, these tanks will not be subject to NSPS Subpart Kb.

5.3 NESHAP Applicability

Section 112(d) of the Clean Air Act, as amended in November 1990, requires that the US EPA, "promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air listed for regulation...". These National Emission Standards for Hazardous Air Pollutants (NESHAPs), to be published in 40 CFR 63, are to be based on the Maximum Achievable Control Technology (MACT). The US EPA currently has studies underway to identify the MACT standards for the building products sector, including standards for hazardous air pollutant sources at oriented strandboard plants. Those standards are expected to be promulgated in November 2000. As such, there are no NESHAPs currently applicable for this type of facility. Furthermore, there are no existing NESHAPs (40 CFR 61) applicable for this type of facility.

Section 112(g) of the Clean Air Act requires that each newly constructed "major" emission source of hazardous air pollutants (HAPs) meet emission limits specified in the applicable 112(d) MACT standard or resulting case-by-case MACT determination when the 112(d) standard has not yet been promulgated by the US EPA for the specified source category. A major source of HAPs is defined as one that emits 10 tons per year or more of a single HAP or 25 tons per year or more of all HAPs combined. Emissions information supplied by the vendor, and obtained by Georgia-Pacific, indicates that plantwide formaldehyde emissions will be slightly greater than 10 tons per year, considering both point and fugitive emission sources. As such, the proposed OSB facility will be subject to MACT review under Section 112(g).

Under Section 112(g), the Maximum Achievable Control Technology limitation for new sources is defined in 40 CFR 63.41 as:

> *"...the emission limitation which is not less stringent than the emission limitation achieved in practice 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 or reconstructed major source."*

The RTOs proposed for installation on the dryers and press are estimated to be at least 90% efficient in the removal of formaldehyde. The total, controlled formaldehyde emissions from these two sources are estimated at 9.15 tons per year (see Table 4-1). Fugitive emission sources of formaldehyde and potential uncontrolled emissions from the thermal oil system operating in bypass mode add an additional 0.91 ton per year (0.32 tpy from the thermal oil system in bypass mode, assuming 8,760 hours/year in bypass; 0.41 tpy from the blend house, assuming all of the VOCs are formaldehyde; and 0.18 tpy from finished product storage, assuming all of the VOCs are formaldehyde). Thus, total formaldehyde emissions, from all sources, are estimated at 10.1 tons per year, just over the 10-ton-per-year threshold for triggering 112(g) applicability. This is a very conservative estimate that assumes that the thermal oil system will operate in bypass mode continuously.

The proposed BACT for the dryers and press (see Section 8), regenerative thermal oxidation, satisfies the 112(g) MACT requirement for formaldehyde from these sources. The remaining sources, the thermal oil system (in bypass mode), the blend house, and finished product storage, are very minimal sources that are not typically controlled.

5.4 Compliance Assurance Monitoring

In order for the Compliance Assurance Monitoring (CAM) Rule to apply to a specific emission unit/pollutant, the following, four criteria must be met:

1) The emission unit must be located at a major source for which a Part 70 or Part 71 permit is required.
2) The emission unit must be subject to an emission limitation or standard.
3) The emission unit must use a control device to achieve compliance.
4) The emission unit must have potential, pre-controlled emissions of the pollutant of at least 100 percent of the major source threshold.

The CAM Plan proposed for the Hosford facility is included as Attachment D.

6. ADDITIONAL IMPACTS AND CLASS I AREAS ANALYSIS

The PSD regulations require that applicants address additional impacts that may result from the proposed modification or installation. The additional impacts analysis addresses growth, impacts on soils and vegetation, and the potential for visibility impairment. In addition, applicants are required to address potential impacts in Class I areas. Class I areas are areas of special national or regional value from a natural, scenic, recreational, or historic perspective. The PSD regulations provide for special protection of these areas.

If a proposed major source or major modification may affect a Class I area, PSD regulations require the reviewing authority to provide written notification to the Federal Land Manager (FLM). The meaning of the term "may affect" is interpreted by the US EPA to include all major sources or modifications located with 100 km of a Class I area. Two Class I areas, the Bradwell Bay and St. Marks National Wilderness Areas (NWAs), are located within 100 km of the proposed site. The Bradwell Bay and St. Marks NWAs are located approximately 35 and 45 km southeast of the proposed site, respectively.

The results of the Class I area increment analysis are summarized in Section 7 of this report, while the assessment of air quality related values (AQRVs) and other impacts (*e.g.*, growth, visibility, etc.) is included as Attachment E. The results of the analysis indicate that the proposed plant will not have an adverse impact on any of these parameters.

7. AIR QUALITY ANALYSIS

An applicant for a PSD permit is required to conduct an air quality analysis to determine the ambient impacts associated with the construction and operation of the proposed source. The primary purpose is to demonstrate that new emissions will not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS) or a PSD increment.

The results of the air quality analysis are contained in Attachment F. The facility, as proposed, will not cause or contribute to a violation of the NAAQS or PSD increments.

8. BACT ANALYSIS

As part of this PSD permit application, a Best Available Control Technology (BACT) analysis is required. The requirement is set forth in the PSD regulations at 40 CFR 52.21(b)(12):

> "... *an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source...which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable...*"

For this permit application, a BACT analysis is required for particulate matter (TSP and PM_{10}), volatile organic compounds, carbon monoxide, and nitrogen oxides.

8.1 Technical Approach

The BACT analysis is based on the "top-down" approach outlined in US EPA's December 1, 1987 policy memorandum, and their "New Source Review Workshop Manual". The steps followed for each pollutant/source combination are as follows:

- Characterize the emission stream;
- Identify all potential control options;
- Evaluate and reject infeasible options;
- Evaluate the economic, environmental, and energy impacts associated with the most effective option(s);
- Document the BACT determination.

8.2 Information Sources for Potential Control Options

A comprehensive review of potential control technologies was conducted, utilizing the following sources:

- The BLIS database (the RACT/BACT/LAER Clearinghouse);
- Pollution control technology vendors;
- US EPA control technology documents;
- Experts familiar with both the OSB manufacturing industry; and
- G-P experience with similar pollution control technologies in OSB manufacturing.

8.3 BACT Determination

The results of the full BACT analysis are contained in Attachment G.

For the dryers, the following, potential controls are identified:

- Regenerative thermal oxidation (RTO) with particulate matter control (controls VOCs, PM, and CO)
- Regenerative catalytic oxidation (RCO) with particulate matter control (controls VOCs, PM, and CO)
- Biofilter with particulate matter control (controls VOCs, PM, CO, and potentially NO_x)
- Recycle system with indirect heat exchange and particulate matter control (controls VOCs, PM, and CO)
- Wet electrostatic precipitator (controls PM, and potentially controls VOCs)
- Wet scrubber (controls PM, and potentially controls VOCs)
- Selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR) (controls NO_x)

Biofiltration technology is limited to gas streams which can be consistently maintained at a temperature less than 105 °F. The exit temperature from the dryers is predicted by the vendor to be in the range of 265 °F. As such, biofiltration technology is found to be technically infeasible for the dryers. SCR and SNCR are also found to be technically infeasible due to temperature constraints (both require a higher temperature and longer residence time). Recycling of the dryer exhaust represents an example of a process change that eliminates the need for end-of-the-pipe control. Although the system is based on proven components, the higher temperature heat exchanger necessary to transfer heat from the heat source to the ambient air used to dry the wood requires costly materials of construction. As such, this technology is eliminated from further consideration on the basis of engineering and cost considerations. Of the remaining technologies, multiclones, followed by an RTO, represent the most efficient control for VOCs, PM, and CO. As such, this technology is proposed as BACT for the dryers.

For the board press, the technologies considered are the same as those considered for the dryers, although multiclones are not considered in conjunction with the RTO/RCO due to the fact that PM emissions from the press are much lower and some degree of control (approximately 75%) is achieved with the RTO alone. In addition, biofilters are considered technically feasible for the press due to the lower operating temperature for the press. The RTO is found to be the most efficient control device and is proposed as BACT for the board press.

For the thermal oil system, an electrostatic precipitator is proposed to control particulate matter. During normal operations, the exhaust from the burners associated with the thermal oil system will exit with the exhaust from the dryers through the multiclones and RTO after passing through the ESP. As discussed in the BACT analysis (Attachment G), the combined particulate matter control efficiency from the multiclones and RTO is expected to be 90%. In bypass mode, the thermal oil system exhaust will still pass through the ESP for an expected control efficiency for particulate matter of 85.8 percent.

For the material handling sources, bagfilter-type dust collectors are proposed as BACT. For these sources, the vendor has provided information showing that these devices should be in the range of 98.35 to 99.96 percent efficient in the removal of particulate matter, depending on the source and emission estimation method used.

Attachment A

PERMIT APPLICATION FORMS

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : Georgia-Pacific Corporation	
2. Site Name : Georgia-Pacific Hosford OSB Plant	
3. Facility Identification Number :	[X] Unknown
4. Facility Location : State Route 65 Street Address or Other Locator : City : Hosford County : Liberty Zip Code : 32334	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [ ] Yes [X] No

Rec'd check 1/21/00
Airs ID # 0770010-001-AC
PSD-FL-282

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

   Name : Mr. Ronald L. Paul

   Title : Executive Vice President, Wood Products and Distribution

2. Owner or Authorized Representative or Responsible Official Mailing Address :

   Organization/Firm : Georgia-Pacific Corporation

   Street Address : 133 Peachtree St

   City : Atlanta

   State : GA Zip Code : 30303

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

   Telephone : 404/652-6308 Fax : 404/230-1674

4. Owner/Authorized Representative or Responsible Official Statement :

   I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

   Ronald L. Paul 1/12/00

   Signature Date

* Attach letter of authorization if not currently on file.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	Five Flake Dryers	AC1A
002	Panel Press	AC1C
003	Screen Fines with Saw Trim Transfer	AC1E
004	Saw Trim/Finishing	AC1E
005	Mat Reject/Flying Saw	AC1E
006	Specialty Saw/Sander	AC1E
007	Fuel System	AC1F
008	Forming Bins	AC1E
009	Hammermill System	AC1E
010	Thermal Oil System	AC1C

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

[ ] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

[ ] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

[ ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

[ ] Renewal air operation permit under Fule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

[ ] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

[**X**] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :
NA

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one :

[X] Attached - Amount : $7500.00 [ ] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations : Construction of a new Oriented Strandboard (OSB) plant with the capacity to produce 475 million square feet (MMSF) (3/8-inch basis) in Liberty County	
2. Projected or Actual Date of Commencement of Construction :	01-Aug-2000
3. Projected Date of Completion of Construction :	28-Mar-2001

Professional Engineer Certification

1. Professional Engineer Name : Mark Aguilar Registration Number : 52248	
2. Professional Engineer Mailing Address : Organization/Firm : Georgia-Pacific Corporation Street Address : P.O. Box 105605 City : Atlanta	State : GA Zip Code : 30348-5605
3. Professional Engineer Telephone Numbers : Telephone : (404)652-4293	Fax : (404)654-4695

4. Professional Engineer Statement :

I, the undersigned, hereby certify, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature: [signature] Date: 1-11-2000

(seal)

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact : Name : Paul Vasquez Title : Manager, Str. Panels Env. Engrng
2. Application Contact Mailing Address : Organization/Firm : Georgia-Pacific Corp Street Address : PO Box 105605, 17th Floor City : Atlanta State : GA Zip Code : 30348-5605
3. Application Contact Telephone Numbers : Telephone : (404)652-7327 Fax : (404)588-3975

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility, Location, and Type

1. Facility UTM Coordinates : Zone : 16 East (km) : 713.50 North (km) : 3369.50			
2. Facility Latitude/Longitude : Latitude (DD/MM/SS) : Longitude (DD/MM/SS) :			
3. Governmental Facility Code : 0	4. Facility Status Code : C	5. Facility Major Group SIC Code : 24	6. Facility SIC(s) : 2493
7. Facility Comment : Oriented Strandboard Manufacturing			

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Contact

1. Name and Title of Facility Contact : Paul Vasquez Manager, Str Panels Env. Egrng
2. Facility Contact Mailing Address : Organization/Firm : Georgia-Pacific Corporation Street Address : PO Box 105605 City : Atlanta State : GA Zip Code : 30348-5605
3. Facility Contact Telephone Numbers :

Telephone : (404)652-7327 Fax : (404)588-3957

Facility Regulatory Classifications

1. Small Business Stationary Source?	N
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	N
10. Title V Source by EPA Designation?	N
11. Facility Regulatory Classifications Comment : Facility is subject to PSD review.	

B. FACILITY REGULATIONS

Rule Applicability Analysis

Title V Core List (see attached list)

B. FACILITY REGULATIONS

List of Applicable Regulations

Title V Core List (see attached list)

Title V Core List   Effective: 03/21/96

[**Note:** The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: ***(description)***

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: ***(description)***

CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application.
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review.
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 04-18-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 01-01-96

62-210.300, F.A.C.: Permits Required.
62-210.300(1), F.A.C.: Air Construction Permits.
62-210.300(2), F.A.C.: Air Operation Permits.
62-210.300(3), F.A.C.: Exemptions.
62-210.300(5), F.A.C.: Notification of Startup.

62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.400, F.A.C.: Emission Estimates.
62-210.650, F.A.C.: Circumvention.
62-210.700, F.A.C.: Excess Emissions.

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.
62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 01-01-96

62-212.700, F.A.C.: Source Reclassification.

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 01-01-96

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.210, F.A.C.: Permit Application Processing Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form and Instructions.

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 01-01-96

62-296.310(3), F.A.C.: Unconfined Emissions of Particulate Matter.

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 01-01-96

62-297.310, F.A.C.: General Test Requirements.
62-297.330, F.A.C.: Applicable Test Procedures.
62-297.340, F.A.C.: Frequency of Compliance Tests.
62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.
62-297.350, F.A.C.: Determination of Process Variables.
62-297.570, F.A.C.: Test Report.
62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94
62-257, F.A.C.: Asbestos Notification and Fee, effective 12-31-95
62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 04-16-92

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C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
CO	A
NOX	A
PM	A
PM10	A
SO2	B
VOC	A
H095	A
HAPS	B

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 1

1. Pollutant Emitted :	CO
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment : No emission cap requested.	

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 2

1. Pollutant Emitted : NOX	
2. Requested Emissions Cap : (lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment : No emission cap requested.	

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 3

1. Pollutant Emitted : PM		
2. Requested Emissions Cap :	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code :		
4. Facility Pollutant Comment : No emission cap requested.		

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 4

1. Pollutant Emitted :	PM10
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment : No emission cap requested.	

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 5

1. Pollutant Emitted :	SO2
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment : No emission cap requested.	

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 6

1. Pollutant Emitted :	VOC
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment : No emission cap requested.	

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 7

1. Pollutant Emitted :	H095
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment : No emission cap requested.	

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 8

1. Pollutant Emitted : HAPS	
2. Requested Emissions Cap : (lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment : No emission cap requested.	

D. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location :	Fig. 3-1
2. Facility Plot Plan :	Fig. 3-2,3-3
3. Process Flow Diagram(s) :	Fig. 3-4a, 3-4b
4. Precautions to Prevent Emissions of Unconfined Particulate Matter :	NA
5. Fugitive Emissions Identification :	Attachment B
6. Supplemental Information for Construction Permit Applica	Attachment B

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt
8. List of Equipment/Activities Regulated under Title
9. Alternative Methods of Operation :
10. Alternative Modes of Operation (Emissions
11. Identification of Additional Applicable
12. Compliance Assurance Monitoring
13. Risk Management Plan Verification :
14. Compliance Report and Plan :
15. Compliance Certification (Hard-copy Requir

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

Five Flake Dryers

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Five Flake Dryers		
2. Emissions Unit Identification Number : 001 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Flake system controlled by multiclones and two RTO's.		

Emissions Unit Information Section 1

Five Flake Dryers

Emissions Unit Control Equipment 1

1. Description : Multiclones control Particulate Matter.	
2. Control Device or Method Code :	9

Emissions Unit Information Section 1

Five Flake Dryers

Emissions Unit Control Equipment 2

1. Description : Two regenerative thermal oxidizers (RTO's) that destroy volatile organic compounds by raising the temperature (1500-1600 F) in a retention chamber. PM, CO, formald, and Total HAPS are also controlled.	
2. Control Device or Method Code :	99

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Five Flake Dryers

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer :	Model Number :
4. Generator Nameplate Rating :	MW
5. Incinerator Information : Dwell Temperature : 0 Degrees Fahrenheit Dwell Time : 0.00 Seconds Incinerator Afterburner Temperature : Degrees Fahrenheit	

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	200	mmBtu/hr	
2. Maximum Incinerator Rate :		lb/hr	tons/day
3. Maximum Process or Throughput Rate :	0		
4. Maximum Production Rate :	475	mmsf / year	
5. Operating Capacity Comment : These values are for all five flake dryers.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 1

Five Flake Dryers

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 1

Five Flake Dryers

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	001	
2. Emission Point Type Code :	3	
3. Descriptions of Emission Points Comprising this Emissions Unit : Two RTO stacks		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common : Five flake dryers exhausted to two RTO stacks preceded by multiclones.		
5. Discharge Type Code :	V	
6. Stack Height :	130	feet
7. Exit Diameter :	8.50	feet
8. Exit Temperature :	259	°F
9. Actual Volumetric Flow Rate :	0	acfm
10. Percent Water Vapor :		%
11. Maximum Dry Standard Flow Rate :		dscfm
12. Nonstack Emission Point Height :	120	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.799 North (km) : 3,369.490		
14. Emission Point Comment : The Flowrate is 170,973 acfm for each stack. The UTM's above are for one stack, and the UTM's for the second identical stack is 713.898 east, and 3369.574 north		

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Five Flake Dryers

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Oven dried ton of wood material processed in the flake dryers.	
2. Source Classification Code (SCC) : 30701001	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 0.00	5. Maximum Annual Rate : 550,216.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 0	
10. Segment Comment : The values are for all five Flake Dryers	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

Five Flake Dryers

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - CO	099		NS
2 - NOX	024		NS
3 - PM	009	099	NS
4 - PM10	009	099	NS
5 - VOC	099		NS
6 - H095	099		NS
7 - SO2			NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **CO**	
2. Total Percent Efficiency of Control : 75.00 %	
3. Potential Emissions : 33.6000000 lb/hour	147.1500000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 1	
8. Calculations of Emissions : See attachment B. CO emissions come from both the wood fuel burners and the drying of the flakes themselves.	
9. Pollutant Potential/Estimated Emissions Comment :	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **NOX**	
2. Total Percent Efficiency of Control : %	
3. Potential Emissions : 73.3000000 lb/hour	321.0500000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 1	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : NOx is added from the thermal oil heater burners and the RTO burners to the NOx from the dryers' burners.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted : **PM**
2. Total Percent Efficiency of Control : 90.00 %
3. Potential Emissions : 74.4500000 lb/hour 326.1000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
7. Emissions Method Code : 1
8. Calculations of Emissions : See Attachment B
9. Pollutant Potential/Estimated Emissions Comment : PM values above are for all five dryers and the thermal oil heater burners exhaust through the multiclones and RTO's. The combined efficiency of 90% from the multiclone and 33.3% from the RTO is 85%.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted : **PM10**	
2. Total Percent Efficiency of Control : 90.00 %	
3. Potential Emissions : 74.4500000 lb/hour	326.1000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference :	
7. Emissions Method Code : 1	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : PM10 values above are for five dryers and the thermal oil heater burners exhaust through the multiclones and RTO's. The combined efficiency of 90% from the multiclone and 33.3% from the RTO is 85%.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted : **H095**	
2. Total Percent Efficiency of Control : 90.00 %	
3. Potential Emissions : 1.8500000 lb/hour	8.1000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference :	
7. Emissions Method Code : 1	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : Formaldehyde emissions come from the wood fuel burners (Dryers and Thermal Oil System) and from the drying of the wood.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 7

1. Pollutant Emitted : **SO2**			
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	2.3000000 lb/hour		10.2000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor 0 Reference : AP-42		Units lb/ton	
7. Emissions Method Code : 3			
8. Calculations of Emissions : See Attachment B.			
9. Pollutant Potential/Estimated Emissions Comment : SO2 comes from the burning of wood (dryers and thermal oil system.) Emission factor is 0.075 lb/ton.			

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 7

1. Pollutant Emitted : **SO2**		
2. Total Percent Efficiency of Control : %		
3. Potential Emissions :	2.3000000 lb/hour	10.2000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor 0 Reference : AP-42	Units lb/ton	
7. Emissions Method Code : 3		
8. Calculations of Emissions : See Attachment B.		
9. Pollutant Potential/Estimated Emissions Comment : SO2 comes from the burning of wood (dryers and thermal oil system.)		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Five Flake Dryers

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		40	%
Maximum Period of Excess Opacity Allowed :		2	min/hour
4. Method of Compliance : Annual Method 9 Test			
5. Visible Emissions Comment : 62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 1

Five Flake Dryers

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[X] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : C	NO2 : C
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1

Five Flake Dryers

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :	
13. Compliance Assurance Monitoring Plan :	
14. Acid Rain Application (Hard-copy Required) :	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 2

Panel Press

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Panel Press		
2. Emissions Unit Identification Number : 002 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : The press shall have 16 openings to press an 8' x 24' mat of wood flakes. Panel press is controlled by an RTO.		

Emissions Unit Information Section 2

Panel Press

Emissions Unit Control Equipment 1

1. Description : One RTO for the press emission unit.	
2. Control Device or Method Code :	99

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2

Panel Press

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer :		Model Number :
4. Generator Nameplate Rating :	MW	
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :	 0 0.00	 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	0	mmBtu/hr	
2. Maximum Incinerator Rate :		lb/hr	tons/day
3. Maximum Process or Throughput Rate :	0		
4. Maximum Production Rate :	475	mmsf/yr (3/8 in	
5. Operating Capacity Comment : The value is for two presses.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 2

Panel Press

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 2

Panel Press

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram : 2		
2. Emission Point Type Code : 1		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common : Panel press vents to an RTO.		
5. Discharge Type Code :	V	
6. Stack Height :	100	feet
7. Exit Diameter :	7.2	feet
8. Exit Temperature :	154	°F
9. Actual Volumetric Flow Rate :	0	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.731 North (km) : 3369.574		

14. Emission Point Comment :

The flowrate is 146,551 acfm

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

Panel Press

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Press operation	
2. Source Classification Code (SCC) : 30701053	
3. SCC Units : Thousand Units Produced or Manufactured	
4. Maximum Hourly Rate : 0.00	5. Maximum Annual Rate : 475,000.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Units are 1000 square feet of board produced.	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 2

Panel Press

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - CO	099		NS
2 - NOX	024		NS
3 - PM	099		NS
4 - PM10	099		NS
5 - VOC	099		NS
6 - H095	099		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Panel Press

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **CO**	
2. Total Percent Efficiency of Control : 75.00 %	
3. Potential Emissions : 7.2500000 lb/hour	31.7600000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference :	
7. Emissions Method Code : 1	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment :	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Panel Press

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **NOX**	
2. Total Percent Efficiency of Control : %	
3. Potential Emissions : 10.7300000 lb/hour	47.0000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 1	
8. Calculations of Emissions : See Attachment B	
9. Pollutant Potential/Estimated Emissions Comment :	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Panel Press

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted : **PM**
2. Total Percent Efficiency of Control : 75.00 %
3. Potential Emissions : 2.8300000 lb/hour 12.4000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
7. Emissions Method Code : 1
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Panel Press

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted : **PM10**	
2. Total Percent Efficiency of Control : 75.00 %	
3. Potential Emissions : 2.8300000 lb/hour	12.4000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 1	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment :	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Panel Press

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted : **VOC**	
2. Total Percent Efficiency of Control : 90.00 %	
3. Potential Emissions : 20.0500000 lb/hour	87.8200000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference :	
7. Emissions Method Code : 1	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment :	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Panel Press

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted : **H095**
2. Total Percent Efficiency of Control : 90.00 %
3. Potential Emissions : 0.2400000 lb/hour 1.0500000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
7. Emissions Method Code : 1
8. Calculations of Emissions : See Attachment B
9. Pollutant Potential/Estimated Emissions Comment :

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
Panel Press

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :	20	%	
Exceptional Conditions :	40	%	
Maximum Period of Excess Opacity Allowed :	2	min/hour	
4. Method of Compliance : Annual Method 9 Test			
5. Visible Emissions Comment : 62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 2

Panel Press

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major-source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[X] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : C
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 2

Panel Press

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :
13. Compliance Assurance Monitoring Plan :
14. Acid Rain Application (Hard-copy Required) : Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

<u>Type of Emissions Unit Addressed in This Section</u>

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section 3

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Screen Fines with Saw Trim Transfer		
2. Emissions Unit Identification Number : 003 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Source controlled by a bagfilter.		

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Emissions Unit Control Equipment 1

1. Description : Screen fines receiver/baghouse. The one device acts as a bagfilter and also cyclone in one piece of equipment.	
2. Control Device or Method Code :	18

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer : MAC		Model Number : 144 MCF 153
4. Generator Nameplate Rating :	MW	
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :		 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	26	thousand lb/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment : Throughput is based on 5 (sawtrim) & 21.3 (screen fines) thousand pounds /hour.		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram : 003		
2. Emission Point Type Code : 1		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	110	feet
7. Exit Diameter :	2.3	feet
8. Exit Temperature :	70	°F
9. Actual Volumetric Flow Rate :	13171	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.861 North (km) : 3369.583		

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Sawtrim and fines processed, in tons.	
2. Source Classification Code (SCC) : 30700799	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 13.10	5. Maximum Annual Rate : 114,953.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Sawtrim =4.9 Mlb/hr screen fines = 21.3 Mlb/hr SCC based on SIC code 2493- other- tons processed	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		NS
2 - PM10	018		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **PM**	
2. Total Percent Efficiency of Control : 99.90 %	
3. Potential Emissions : 2.1000000 lb/hour	9.2000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 2	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : Actual efficiency estimated at 99.96%.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **PM10**	
2. Total Percent Efficiency of Control : 99.90 %	
3. Potential Emissions : 2.1000000 lb/hour	9.2000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 2	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : Actual efficiency estimated at 99.96%.	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3
Screen Fines with Saw Trim Transfer

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		40	%
Maximum Period of Excess Opacity Allowed :		2	min/hour
4. Method of Compliance :			
Annual Method 9 test			
5. Visible Emissions Comment :			
62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit only emits PM.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 3

Screen Fines with Saw Trim Transfer

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	Attachment G.
3. Detailed Description of Control Equipment :	NA
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :
13. Compliance Assurance Monitoring Plan :
14. Acid Rain Application (Hard-copy Required) : Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section ____4____

Saw Trim/Finishing

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Saw Trim/Finishing		
2. Emissions Unit Identification Number : 004 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Source controlled by a bagfilter		

Emissions Unit Information Section 4

Saw Trim/Finishing

Emissions Unit Control Equipment 1

1. Description : Saw Trim /Finishing Line receiver/baghouse. The one device acts as a bagfilter and also cyclone in one piece of equipment.	
2. Control Device or Method Code :	18

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 4
Saw Trim/Finishing

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : MAC	Model Number : 144 MCF 361
4. Generator Nameplate Rating :	MW
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :	 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	5	thousand lb/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment :		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 4

Saw Trim/Finishing

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 4

Saw Trim/Finishing

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram : 004		
2. Emission Point Type Code : 1		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	100	feet
7. Exit Diameter :	3.7	feet
8. Exit Temperature :	70	°F
9. Actual Volumetric Flow Rate :	30733	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.625 North (km) : 3369.465		

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 4

Saw Trim/Finishing

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Saw Trim /Finishing Line processed, in tons.	
2. Source Classification Code (SCC) : 30700799	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 2.50	5. Maximum Annual Rate : 21,510.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 4

Saw Trim/Finishing

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		NS
2 - PM10	018		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Five Flake Dryers

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted : **VOC**		
2. Total Percent Efficiency of Control : 90.00 %		
3. Potential Emissions :	126.2500000 lb/hour	553.0000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Reference :	Units	
7. Emissions Method Code : 1		
8. Calculations of Emissions : See Attachment B.		
9. Pollutant Potential/Estimated Emissions Comment : VOC emissions come from the wood fuel burners (Dryers and Thermal Oil System) and from the drying of the wood.		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 4

Saw Trim/Finishing

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **PM**
2. Total Percent Efficiency of Control : 99.70 %
3. Potential Emissions : 2.6300000 lb/hour 11.5200000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
7. Emissions Method Code : 2
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 99.73%.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 4

Saw Trim/Finishing

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **PM10**		
2. Total Percent Efficiency of Control : 99.70 %		
3. Potential Emissions :	2.6300000 lb/hour	11.5200000 tons/year
4. Synthetically Limited? [ ] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Reference :	Units	
7. Emissions Method Code : 2		
8. Calculations of Emissions : See Attachment B.		
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 99.73%.		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 4
Saw Trim/Finishing

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :	20	%	
Exceptional Conditions :	40	%	
Maximum Period of Excess Opacity Allowed :	2	min/hour	
4. Method of Compliance : Annual Method 9 Test			
5. Visible Emissions Comment : 62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 4

Saw Trim/Finishing

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit only emits PM.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 4

Saw Trim/Finishing

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G.
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :
13. Compliance Assurance Monitoring Plan :
14. Acid Rain Application (Hard-copy Required) : Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 5

Mat Reject/Flying Saw

<u>Type of Emissions Unit Addressed in This Section</u>

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Mat Reject/Flying Saw		
2. Emissions Unit Identification Number : 005 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Source controlled by a bagfilter		

Emissions Unit Information Section 5

Mat Reject/Flying Saw

Emissions Unit Control Equipment 1

1. Description : Mat Reject/Flying Saw receiver/baghouse. The one device acts as a bagfilter and also cyclone in one piece of equipment.	
2. Control Device or Method Code :	18

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 5
Mat Reject/Flying Saw

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer : MAC		Model Number : 144 MCF 361
4. Generator Nameplate Rating :	MW	
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :		 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	1	thousand lb/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment : Throughput based on 0.04 (mat reject) and 1.1 (flying saw) thousand pounds/hour.		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 5

Mat Reject/Flying Saw

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 5

Mat Reject/Flying Saw

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram : 005		
2. Emission Point Type Code : 1		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	120	feet
7. Exit Diameter :	4.0	feet
8. Exit Temperature :	70	°F
9. Actual Volumetric Flow Rate :	45720	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.807 North (km) : 3369.534		

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 5

Mat Reject/Flying Saw

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Mat Reject/ flying saw processed, in tons.	
2. Source Classification Code (SCC) : 30700799	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 0.59	5. Maximum Annual Rate : 5,185.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 5

Mat Reject/Flying Saw

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		NS
2 - PM10	018		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 5

Mat Reject/Flying Saw

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **PM**	
2. Total Percent Efficiency of Control : 98.40 %	
3. Potential Emissions : 3.9000000 lb/hour	17.0800000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 2	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 98.35%.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 5

Mat Reject/Flying Saw

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **PM10**		
2. Total Percent Efficiency of Control : 98.40 %		
3. Potential Emissions :	3.9000000 lb/hour	17.0800000 tons/year
4. Synthetically Limited? [ ] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Reference :	Units	
7. Emissions Method Code : 2		
8. Calculations of Emissions : See Attachment B.		
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 98.35%.		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 5
Mat Reject/Flying Saw

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		40	%
Maximum Period of Excess Opacity Allowed :		2	min/hour
4. Method of Compliance :			
Annual Method 9 TEst			
5. Visible Emissions Comment :			
62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 5

Mat Reject/Flying Saw

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit only emits PM.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 5

Mat Reject/Flying Saw

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	Attachment G
3. Detailed Description of Control Equipment :	NA
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Altemtive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :
13. Compliance Assurance Monitoring Plan :
14. Acid Rain Application (Hard-copy Required) : Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 6

Specialty Saw/Sander

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Specialty Saw/Sander		
2. Emissions Unit Identification Number : 006 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Source controlled by a bagfilter.		

Emissions Unit Information Section 6

Specialty Saw/Sander

Emissions Unit Control Equipment 1

1. Description : Specialy Saw/Sander receiver/baghouse. The one device acts as a bagfilter and also cyclone in one piece of equipment.	
2. Control Device or Method Code :	18

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 6

Specialty Saw/Sander

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer : MAC		Model Number : 144 MCF 255
4. Generator Nameplate Rating :	MW	
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :		 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	4	thousand lbs/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment :		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 6

Specialty Saw/Sander

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 6

Specialty Saw/Sander

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	006	
2. Emission Point Type Code :	1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	90	feet
7. Exit Diameter :	3.3	feet
8. Exit Temperature :	70	°F
9. Actual Volumetric Flow Rate :	25343	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.628 North (km) : 3369.468		

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6

Specialty Saw/Sander

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Specialty Saw/Sander processed, in tons	
2. Source Classification Code (SCC) : 30700799	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 2.10	5. Maximum Annual Rate : 18,457.50
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 6

Specialty Saw/Sander

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		NS
2 - PM10	018		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 6
Specialty Saw/Sander

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **PM**	
2. Total Percent Efficiency of Control : 99.70 %	
3. Potential Emissions : 2.1700000 lb/hour	9.5000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference :	
7. Emissions Method Code : 2	
8. Calculations of Emissions : See Attachment B	
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 99.74%.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 6

Specialty Saw/Sander

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **PM10**
2. Total Percent Efficiency of Control : 99.70 %
3. Potential Emissions : 2.1700000 lb/hour 9.5000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
7. Emissions Method Code : 2
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 99.74%.

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 6
Specialty Saw/Sander

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		40	%
Maximum Period of Excess Opacity Allowed :		2	min/hour
4. Method of Compliance : Annual Method 9 test.			
5. Visible Emissions Comment : 62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 6

Specialty Saw/Sander

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit only emits PM.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 6

Specialty Saw/Sander

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G.
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :
13. Compliance Assurance Monitoring Plan :
14. Acid Rain Application (Hard-copy Required) : Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 7

Fuel System

<u>Type of Emissions Unit Addressed in This Section</u>

1. Regulated or Unregulated Emissions Unit? Check one :

   [X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   [ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

   [X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   [ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   [ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section 7

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Fuel System		
2. Emissions Unit Identification Number : 007 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Source controlled by a bagfilter.		

Emissions Unit Information Section 7

Fuel System

Emissions Unit Control Equipment 1

1. Description : Fuel System receiver/baghouse. The one device acts as a bagfilter and also cyclone in one piece of equipment.	
2. Control Device or Method Code :	18

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 7
Fuel System

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : MAC	Model Number : 72 AV R7
4. Generator Nameplate Rating :	MW
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :	 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	4	thousand lb/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment :		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 7

Fuel System

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 7

Fuel System

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram : 007		
2. Emission Point Type Code : 1		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	W	
6. Stack Height :	75	feet
7. Exit Diameter :	0.8	feet
8. Exit Temperature :	70	°F
9. Actual Volumetric Flow Rate :	490	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.000 North (km) : 3369.580		

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 7

Fuel System

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Fuel System Processed, in Tons	
2. Source Classification Code (SCC) : 30700799	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 2.10	5. Maximum Annual Rate : 18,457.50
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 7

Fuel System

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		NS
2 - PM10	018		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 7

Fuel System

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **PM**	
2. Total Percent Efficiency of Control : 99.90 %	
3. Potential Emissions : 0.3400000 lb/hour	1.5000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to tons/year	
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 2	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : Actual efficiency estimated at 99.96%.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 7

Fuel System

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **PM10**
2. Total Percent Efficiency of Control : 99.90 %
3. Potential Emissions : 0.3400000 lb/hour 1.5000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
7. Emissions Method Code : 2
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Actual efficiency estimated at 99.96%.

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 7
Fuel System

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		40	%
Maximum Period of Excess Opacity Allowed :		2	min/hour
4. Method of Compliance : Annual Method 9 Test			
5. Visible Emissions Comment : 62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 7

Fuel System

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit only emits PM		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 7

Fuel System

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G.
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :	
13. Compliance Assurance Monitoring Plan :	
14. Acid Rain Application (Hard-copy Required) :	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 8

Forming Bins

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Forming Bins		
2. Emissions Unit Identification Number : 008 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Source controlled by a bagfilter.		

Emissions Unit Information Section 8

Forming Bins

Emissions Unit Control Equipment 1

1. Description : Forming Bins receiver/baghouse. The one device acts as a bagfilter and also cyclone in one piece of equipment.	
2. Control Device or Method Code :	18

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 8
Forming Bins

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer : MAC		Model Number : 144 MCF 153
4. Generator Nameplate Rating :	MW	
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :		 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	879	pounds/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment :		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 8
Forming Bins

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 8

Forming Bins

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram : 008		
2. Emission Point Type Code : 1		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	105	feet
7. Exit Diameter :	2.5	feet
8. Exit Temperature :	70	°F
9. Actual Volumetric Flow Rate :	22140	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.804	North (km) :	3369.519

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 8

Forming Bins

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Forming Bins Processed, in tons.	
2. Source Classification Code (SCC) : 30700799	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 0.44	5. Maximum Annual Rate : 3,850.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 8

Forming Bins

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		NS
2 - PM10	018		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 8

Forming Bins

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **PM**			
2. Total Percent Efficiency of Control : 98.90 %			
3. Potential Emissions :	1.9000000 lb/hour		8.3200000 tons/year
4. Synthetically Limited? [ ] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor Reference :		Units	
7. Emissions Method Code : 2			
8. Calculations of Emissions : See Attachment B.			
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 98.92%.			

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 8

Forming Bins

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **PM10**	
2. Total Percent Efficiency of Control : 98.90 %	
3. Potential Emissions : 1.9000000 lb/hour	8.3200000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference :	
7. Emissions Method Code : 2	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : Control efficiency for bag filter based on air flow and grain loading (see Section 4.3 of main text) yielding a control efficiency of 98.92%.	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 8
Forming Bins

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		40	%
Maximum Period of Excess Opacity Allowed :		2	min/hour
4. Method of Compliance : Annual Method 9 Test			
5. Visible Emissions Comment : 62-296.320(4)(b) F.A.C.			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 8

Forming Bins

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit only emits PM.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 8

Forming Bins

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G.
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	
11. Alterntive Modes of Operation (Emissions Trading) :	

12. Identification of Additional Applicable Requirements :	
13. Compliance Assurance Monitoring Plan :	
14. Acid Rain Application (Hard-copy Required) :	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 9

Hammermill System

<u>Type of Emissions Unit Addressed in This Section</u>

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section 9

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Hammermill System		
2. Emissions Unit Identification Number : 009 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : Source controlled by a bagfilter.		

Emissions Unit Information Section 9

Hammermill System

Emissions Unit Control Equipment 1

1. Description : Hammermill System receiver/baghouse. The one device acts as a bagfilter and also cyclone in one piece of equipment.	
2. Control Device or Method Code :	18

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 9
Hammermill System

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : MAC	Model Number : 144 MCF
4. Generator Nameplate Rating :	MW
5. Incinerator Information : Dwell Temperature : / Dwell Time : / Incinerator Afterburner Temperature :	Degrees Fahrenheit / Seconds / Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	26	thousand lb/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment :		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 9

Hammermill System

Rule Applicability Analysis

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 9

Hammermill System

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram : 009		
2. Emission Point Type Code : 1		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	110	feet
7. Exit Diameter :	2.5	feet
8. Exit Temperature :	70	°F
9. Actual Volumetric Flow Rate :	14700	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	0	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.864 North (km) : 3369.584		

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 9

Hammermill System

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Hammermill System Processed, in tons.	
2. Source Classification Code (SCC) : 30700799	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 13.10	5. Maximum Annual Rate : 114,953.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 9

Hammermill System

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		NS
2 - PM10	018		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 9

Hammermill System

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **PM**		
2. Total Percent Efficiency of Control : 99.90 %		
3. Potential Emissions :	2.1000000 lb/hour	9.2000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Reference :	Units	
7. Emissions Method Code : 2		
8. Calculations of Emissions : See Attachment B.		
9. Pollutant Potential/Estimated Emissions Comment : Actual efficiency estimated at 99.96%.		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 9

Hammermill System

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **PM10**
2. Total Percent Efficiency of Control : 99.90 %
3. Potential Emissions : 2.1000000 lb/hour 9.2000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
7. Emissions Method Code : 2
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Actual efficiency estimated at 99.96%..

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 9
Hammermill System

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		40	%
Maximum Period of Excess Opacity Allowed :		2	min/hour
4. Method of Compliance : Annual Method 9 Test			
5. Visible Emissions Comment :			

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 9

Hammermill System

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit only emits PM.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 9

Hammermill System

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G.
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :
13. Compliance Assurance Monitoring Plan :
14. Acid Rain Application (Hard-copy Required) : Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 10

Thermal Oil System

<u>Type of Emissions Unit Addressed in This Section</u>

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Thermal Oil System		
2. Emissions Unit Identification Number : 010 [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 24
6. Emissions Unit Comment : The Thermal Oil Sys. to heat the press, will be comprised of 2 thermal oil heaters. Each heater is heated by a 40 mmbtu/hr wood fuel burner. A 30 mmbtu/hr natural gas burner is backup. Each heater is controlled independently. Neither heater can be fired simultaneously on wood or gas. Exhaust gases from the thermal oil heat system pass through a dry ESP. During normal ops, the exhaust from the therm. oil system burners are routed through the dryer system.		

Emissions Unit Information Section 10

Thermal Oil System

Emissions Unit Control Equipment 1

1. Description : Electro Static Precipitator. During normal operations, exhaust from the thermal oil system also passes through the multiclones and RTO's which control the dryer exhaust.	
2. Control Device or Method Code :	10

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 10
Thermal Oil System

Emissions Unit Details

1. Initial Startup Date :	01-Aug-2000
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer :	Model Number :
4. Generator Nameplate Rating :	MW
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :	 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	80	mmBtu/hr	
2. Maximum Incinerator Rate :		lb/hr	tons/day
3. Maximum Process or Throughput Rate :	9	tons/hour	
4. Maximum Production Rate :	0		
5. Operating Capacity Comment : System consists of 2 thermal oil heaters.Each thermal oil heater is equipped with a 40 mmbtu/hr wood fuel burnr and a 30 mmbtu/hr natural gas burner(backup).Both burners are not fired simultaneoously.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 10

Thermal Oil System

Rule Applicability Analysis

List of Applicable Regulations

62-296.410(2) F.A.C.

NSPS Subpart Dc when operating in bypass mode (see Section 5.2 of main text.)

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 10

Thermal Oil System

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	EU010	
2. Emission Point Type Code :	3	
3. Descriptions of Emission Points Comprising this Emissions Unit : RTO Stack for normal operation. ESP stack for bypass mode.		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	120	feet
7. Exit Diameter :	5.50	feet
8. Exit Temperature :	700	°F
9. Actual Volumetric Flow Rate :	29,698	acfm
10. Percent Water Vapor :		%
11. Maximum Dry Standard Flow Rate :		dscfm
12. Nonstack Emission Point Height :		feet
13. Emission Point UTM Coordinates : Zone : 16 East (km) : 713.768 North (km) : 3,369.591		
14. Emission Point Comment : ESP stack for thermal oil heater		

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 10

Thermal Oil System

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Wood/bark fuel burned as the primary fuel to heat the thermal oil. System is comprised of two identical heaters. Each heater has a 40 mmbtu/hr wood fueled burner.	
2. Source Classification Code (SCC) : 10100902	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate : 8.90	5. Maximum Annual Rate : 77,867.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 10

Thermal Oil System

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Natural gas burned as a backup fuel. System is comprised of two identical heaters. Each heater has a 30 mmbtu/hr natural gas fired burner.	
2. Source Classification Code (SCC) : 10100601	
3. SCC Units : Million Cubic Feet Burned (all gaseous fuels)	
4. Maximum Hourly Rate : 0.06	5. Maximum Annual Rate : 526.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur : 0.00	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 10

Thermal Oil System

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - NOX			NS
2 - CO			NS
3 - PM	011		NS
4 - VOC			NS
5 - SO2			NS
6 - PM10	011		NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 10

Thermal Oil System

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **NOX**			
2. Total Percent Efficiency of Control :	0.00 %		
3. Potential Emissions :	13.3000000 lb/hour		58.4000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor 0 Reference : AP-42		Units lb/mmbtu	
7. Emissions Method Code : 3			
8. Calculations of Emissions : See Attachment B.			
9. Pollutant Potential/Estimated Emissions Comment :			

#9
During normal operations, source exhausts with the dryers' exhaust via EP-1. emission estimates for EP-1 include this source

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 10

Thermal Oil System

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **NOX**		
2. Total Percent Efficiency of Control : 0.00 %		
3. Potential Emissions :	13.3000000 lb/hour	58.4000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor 0 Reference : AP-42	Units lb/mmbtu	
7. Emissions Method Code : 3		
8. Calculations of Emissions : See Attachment B.		
9. Pollutant Potential/Estimated Emissions Comment : Emission Factor is 0.167 lb/mmbtu. During normal operation source exhaust with the dryer exhaust via EP-1: emission estimates for EP-1 include this source.		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 10

Thermal Oil System

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **CO**
2. Total Percent Efficiency of Control : 0.00 %
3. Potential Emissions : 120.9000000 lb/hour 529.5000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 2 Units lb/mmbtu Reference : AP-42
7. Emissions Method Code : 3
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Emission Factor is 1.5 lb/mmbtu. During normal operation source exhaust with the dryer exhaust via EP-1: emission estimates for EP-1 include this source.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 10

Thermal Oil System

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted : **PM**	
2. Total Percent Efficiency of Control : 85.80 %	
3. Potential Emissions : 8.0000000 lb/hour	35.0000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor 0 Units lb/mmbtu Reference : ESP Manufacture Guar	
7. Emissions Method Code : 4	
8. Calculations of Emissions : See Attachment B.	
9. Pollutant Potential/Estimated Emissions Comment : Emission Factor is 0.1 lb/mmbtu. During normal operation source exhaust with the dryer exhaust via EP-1: emission estimates for EP-1 include this source.	

Emissions Unit Information Section 10
Thermal Oil System

Pollutant Information Section 3

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE			
2. Future Effective Date of Allowable Emissions :				
3. Requested Allowable Emissions and Units :	0.10	lb/mmbtu		
4. Equivalent Allowable Emissions :	8.00	lb/hour	35.00	tons/year
5. Method of Compliance : Source test at startup				
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :				

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 10

Thermal Oil System

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted : **VOC**
2. Total Percent Efficiency of Control : 0.00 %
3. Potential Emissions : 2.0000000 lb/hour 8.6000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0 Units lb/mmbtu Reference : AP-42
7. Emissions Method Code : 3
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Emission Factor is 0.02 lb/mmbtu. During normal operation source exhaust with the dryer exhaust via EP-1: emission estimates for EP-1 include this source.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 10

Thermal Oil System

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted : **SO2**
2. Total Percent Efficiency of Control : 0.00 %
3. Potential Emissions : 0.7000000 lb/hour 2.9000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0 Units lb/mmbtu Reference : AP-42
7. Emissions Method Code : 3
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Emission Factor is 0.008 lb/mmbtu. During normal operation source exhaust with the dryer exhaust via EP-1: emission estimates for EP-1 include this source.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 10

Thermal Oil System

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted : **PM10**
2. Total Percent Efficiency of Control : 85.80 %
3. Potential Emissions : 8.0000000 lb/hour 35.0000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0 Units lb/mmbtu Reference : ESP Manufacture Guar
7. Emissions Method Code : 4
8. Calculations of Emissions : See Attachment B.
9. Pollutant Potential/Estimated Emissions Comment : Emission Factor is 0.1 lb/mmbtu. During normal operation source exhaust with the dryer exhaust via EP-1: emission estimates for EP-1 include this source.

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 10

Thermal Oil System

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20		
2. Basis for Allowable Opacity :	RULE		
3. Requested Allowable Opacity :			
Normal Conditions :		20	%
Exceptional Conditions :		27	%
Maximum Period of Excess Opacity Allowed :		6	min/hour
4. Method of Compliance : C.E.M. required by N.S.P.S.			
5. Visible Emissions Comment : 40CFR60.43c(c).			

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 10

Thermal Oil System

Continuous Monitoring System Continuous Monitor 1

1. Parameter Code : VE	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment :	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 10

Thermal Oil System

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[X] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : C	NO2 : C
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 10

Thermal Oil System

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig. 3-4a, 3-4b
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment G.
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	Enclosed Report
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alterntive Modes of Operation (Emissions Trading) :

12. Identification of Additional Applicable Requirements :
13. Compliance Assurance Monitoring Plan :
14. Acid Rain Application (Hard-copy Required) : Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) New Unit Exemption (Form No. 62-210.900(1)(a)2.) Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Attachment B

EMISSION CALCULATIONS AND VENDOR DOCUMENTATION

M·E·C COMPANY

Neodesha, Kansas U.S.A.

REV. 29 MAY 1998

By BCB Date 14 MARCH 1997

Customer GEORGIA-PACIFIC CORPORATION

Job No. D-0160-3 Location FORDYCE, ARKANSAS Sht. No 1 of 10

DRYER SYSTEM EMISSIONS
EMISSION POINT NO. 1

Basis: 475 MM, 20% Fines, 120% ODMC, Peak Flow, TherMec™ Burners + Flue Gas

Case: Dryer Performance Case 90-A

From: M-E-C Emission Estimate EADGPEM3 dated 4/15/98

	PM	VOC	CO	NOX	HCOH
lb/h (exit primary collector)	148.81	252.53	26.87	11.94	3.74
lb/h (Exit Secondary Collector)	99.26	252.53	26.87	11.94	3.74
lb/h (exit RTO)	14.89	25.25	6.72	14.66	.37
RTO Removal Efficiency	85.0%	90.0%	75.0%	Add 10 ppm	90.0%
TPY, 8760 h/y	65.22	110.60	29.43	64.21	1.62
TPY, Total (5) Five Dryers	326.10	553.0	147.15	321.05	8.1

BEST AVAILABLE COPY

MEC DRYER SYSTEM EMISSIONS ES.IMATE

G-P CORP. 4/15/98

FORDYCE, ARKANSAS (1) OF (5) 1360-T DRYERS BCB

MAXIMUM CONDITIONS EADGPEM3

CASE NO:	90-A
CAPACITY, OD LB/HR:	25,124
INLET TEMP. F:	1,336
SENSIBLE HEAT,MMBTU/H:	44.32
BURNER HEAT, MMBTU/H:	48.02
PM, PRIMARY COLLECTOR:	UHE
EM FACTOR W/WOOD:	11.85
PM, FRONT, LB/HR:	119.05
PM, BACK, LB/HR:	29.76
PM, TOTAL, LB/HR:	148.81
PM, SECONDARY:	CA
EFFICIENCY:	33.3%
PM LB/HR:	99.26
PM, TERTIARY:	RTO
EFFICIENCY:	85.0%
PM EMISSIONS LB/HR:	14.89
VOC, PRIMARY:	UHE
HWD E-FACTOR:	2.80
SYP E-FACTOR:	20.10
HWD CONTENT, %:	0.0%
CUT, %:	100.0%
TOTAL VOC, LB/HR:	252.53
VOC, SECONDARY:	CA
D/R EFFICIENCY:	0.0%
TOTAL VOC, LB/HR:	252.53
VOC, TERTIARY:	RTO
D/R EFFICIENCY:	90.0%
VOC EMISSIONS LB/HR:	25.25
CARBON MONOXIDE:	
BURNER E.F. LB/MMBTU:	0.25
BURNER, LB/HR:	11.08
DRYER E.F. LB/OD TON:	1.26
DRYER, LB/HR:	15.79
TOTAL, LB/HR:	26.87
RTO D/R EFFICIENCY:	75.0%
CO EMISSIONS,LB/HR:	6.72
NOX (BURNER ONLY):	
E.F., LB/MMBTU:	0.269
NOX, LB/HR:	11.94
RTO ADD NOX, PPM:	10.00
AIRFLOW, SCFM:	47,500
ADD NOX, LB/HR:	2.72
NOX EMISSIONS, LB/HR:	14.66
HCOH	
HWD E.F. LB/OD TON:	2.37
SYP E.F. LB/OD TON:	0.30
HWD CONTENT, %:	0.0%
TOTAL, LB/HR:	3.74
RTO D/R EFFICIENCY:	90.0%
HCOH EMISSIONS, LB/HR:	0.37

Calculations for Sulfur Dioxide from Dryers/RTO (used AP-42; values not provided by vendor)

AP-42 Factor for firing wood fuel in boilers = 0.15 lb/ton wood fuel fired (wet basis)

Dryer has 5 burners at 40 MMBTU/hr each, for a total of 200 MMBTU/hr

Thermal oil heater (combustion products ducted to dryer system) has 2 burners at 40 MMBTU/hr each, for a total of 80 MMBTU/hr

Total exiting dryer system = 280 MMBTU/hr

Sulfur dioxide emissions:

280 MMBTU/hr x lb/4500 BTU x ton/2000 lbs x 0.075 lb SO_2/ton = 2.3 lbs/hr (10.2 tpy)

M·E·C COMPANY

Neodesha, Kansas U.S.A.

REV. 29 MAY 1998

By BCB Date 14 MARCH 1997

Customer GEORGIA-PACIFIC CORPORATION

Job No. D-0160-3 Location FORDYCE, ARKANSAS Sht. No. 2 of 10

PRESS EMISSIONS
EMISSION POINT NO. 2

Basis: 475 MM, 20% Fines, 120% ODMC, Peak Flow

From: L-P, OSB, Hanceville, AL Press RTO Testing June, 1994, 350 MSF production

	PM	VOC	CO	NOX	HCOH
RTO Removal Efficiency	75.0%	90.0%	-	-	98.0%
Test (lb/h)	2.08	14.74	5.33	7.89	.18
Factor 475 MM/y / 350 MM/y	1.36	1.36	1.36	1.36	1.36
lb/h	2.83	20.05	7.25	10.73	0.24
TPY 8760 h/y	12.4	87.82	31.76	47.00	1.05

SCREEN FINES W/SAW TRIM TRANSFER PNEUMATICS CP-003
EMISSION POINT NO. 3

Saw Trim Transfer (CP-004) From CP-001
= 4,911 lb/h

From Flowrate Determination, 475 MM, 20% Fines

Screen Fines
From Flowrate Determination, (20%)
= 21,334 lb/h

4,911 lb/h Saw Trim
21,334 lb/h Screen Fines
26,245 lb/h Total

Receiver is 80% eff per MFH
Filter is 99.96% eff MAC Model 144 MCF 153

$\therefore$ (1-.8)(1-.9996) 26,245 lb/h = 2.1 lb/h
x4.38

$\frac{8760\ h/y}{2{,}000\ lb/ton} = 4.38$ Factor

$\boxed{9.20\ TPY}$

Calculation based on 0.01 grains/dscf:

(.01 gr/dscf)(13,171 dscfm)(60 min/h)(1 lb/7000 grains) = 1.13 lb/h
x4.38

$\boxed{4.95\ TPY}$

SAW TRIM/FINISHING LINE PNEUMATICS CP-001
EMISSION POINT NO. 4

From Flowrate Determination, 475 MM, 20% Fines

Trim Saws Remove: $\boxed{\text{4,911 lb/h}}$

Receiver is 80% eff per MFH
Filter is 99.96% eff per MAC (Model 144 MCF 361)
∴ (1-.8)(1-.9996) 4,911 lb/h= .39 lb/h
x4.38

$$\frac{8760\ \text{h/y}}{2{,}000\ \text{lb/ton}} = 4.38\ \text{Factor}$$

$\boxed{\text{1.71 TPY}}$

Calculation based on 0.01 grains/dscf:

(.01 gr/dscf)(30,733 dscfm)(60 min/h)(1 lb/7000 grains) = 2.63 lb/h
x4.38

$\boxed{\text{11.52 TPY}}$

MAT REJECT/FLYING SAW PNEUMATICS CP-005
EMISSION POINT NO. 5

From Flowrate Determination, 475 MM, 20% Fines

Mat Reject:

M sqft/day = 1334

Ton/day = 896

$\therefore$ Mat = 1.3434 lb/ft^2
Mat = 8′ x 24′ = 192 ft^2
Mat = 247.9 lb

Assume reject 3 Mat in 21.6 hours

$\therefore$ (3) (257.0 lb)/21.6 H) = $\boxed{\text{35.8 lb/h from Mat Reject}}$

Flying Saws:

Assume Remove ≈ 4"/Mat on 8′ Side

$\therefore$ 4"/12" x 8′ = 2.66 ft^2/Mat
@ 1,334,000/21.6 h = 61,759 ft^2/h
61,759 ft^2/h/192 ft^2/Mat = 321 Mat/h

Remove 2.66 ft^2/Mat on 321 Mat/h = 853.9 ft^2/h
@ 1.3434 lb/ft^2

$\therefore$ $\boxed{\text{1,147 lb/h from Saw}}$

CP-005 Handles:

35.8 lb/h Mat Reject
1,147.0 lb/h Flying Saw
1,183.8 lb/h Total
========

MEC COMPANY

Neodesha, Kansas U.S.A.

By BCB

Rev. 29 May 1999
Date 14 Mar. 1999

Customer GEOGRIA-PACIFIC CORPORATION

Proposal No. D-0014-9 Location FORDYCE, ARKANSAS

CP-005 Cont.:

- Assume 120" Collector @ 0% Removal as instantaneous loading does not set up a vortex.

Receiver is 80% eff per MFH
Filter is 99.96% eff per MAC Model 144 MCF 361

(1-.8) (1-.9996) 1,183 lb/h = .09 lb/h
x4.38

$\frac{8760 \text{ h/y}}{2,000 \text{ lb/ton}}$ = 4.38 Factor $\boxed{.4 \text{ TPY}}$

Calculation based on 0.01 grains/dscf:

(.01 gr/dscf) (45,720 dscfm) (60 min/h) (1 lb/7000 grains) = 3.90 lb/h
x4.38
$\boxed{17.08 \text{ TPY}}$

SPECIALTY SAW/SANDER PNEUMATICS CP-006
EMISSION POINT NO. 6

From Flowrate Determination, 475 MM, 20% Fines:
Sander Removes .009" Total $\frac{.009"}{12"/ft}$ = .0008' Per MFH

Assume 100% Sanded
From Flowrate Determination, 475 MM, 20% Fines:

61,759 ft^2/h x .0008'
= 49.4 ft^3/h
@ 46 ft^3 Board Density

= $\boxed{\text{2,272 lb/h}}$

Specialty Saw (T & G)
T & G Removes 2.34% by Weight Per MFH

Assume 100% is T & G
From Flowrate Determination, 475 MM, 20% Fines:

83,006 lb/h x .0234 = $\boxed{\text{1,942 lb/h}}$

CP-006 Handles:

2,272 lb/h Sander
1,942 lb/h T & G
4,214 lb/h Total
=====

Receiver is 80% eff per MFH
Filter is 99.96% eff MAC Model 144 MCF 255

∴ (1-.8)(1-.9996) 4,214 lb/h = .34 lb/h
x4.38

$\frac{8760\ h/y}{2{,}000\ lb/ton}$ = 4.38 Factor $\boxed{\text{1.49 TPY}}$

Calculation based on 0.01 grains/dscf:
(0.1 gr/dscf)(25,343 dscfm)(60 min/h)(1 lb/7000 grains) = 2.17 lb/h
x4.38

$\boxed{\text{9.50 TPY}}$

FUEL SYSTEM PNEUMATICS CP-006
EMISSION POINT NO. 7

From Flowrate Determination, 475 MM, 20% Fines
From Specialty Saw Filter 4,214 lb/h

Receiver is 80% eff per MFH
Filter is 99.96% eff MAC Model 72 AVR7
∴(1-.8)(1-.9996) 4,214 lb/h = .34 lb/h
x4.38

$\frac{8760 \text{ h/y}}{2{,}000 \text{ lb/ton}}$ = 4.38 Factor

$\boxed{1.5 \text{ TPY}}$

Calculation based on 0.01 grains/dscf:

(.01 gr/dscf)(490 dscfm)(60 min/h)(1 lb/7000 grains) = 0.04 lb/h
x4.38

$\boxed{0.18 \text{ TPY}}$

MEC COMPANY

Neodesha, Kansas U.S.A.

By BCB

Rev. 29 May 1998
Date 14 Mar. 1999

Customer GEOGRIA-PACIFIC CORPORATION

Proposal No. D-0160-3 Location FORDYCE, ARKANSAS

FORMING BINS PNEUMATICS CP-002

EMISSION POINT NO. 8

From Flowrate Determination, 475 MM, 20% Fines

"Press+Line Losses"

(87,974-87,095) = $\boxed{\text{879 lb/h}}$

Receiver is 80% eff per MFH
Filter is 99.96% eff per MAC (Model 144 MCF 153)
∴ (1-.8) 1-.9996) 879 lb/h = .07 lb/h
x4.38

$\dfrac{\text{8760 h/y}}{\text{2,000 lb/ton}}$ = 4.38 Factor $\boxed{\text{.31 TPY}}$

Calculation based on 0.01 grains/dscf:

(.01 gr/dscf) (22,140 dscfm) (60 min/h) (1 lb/7000 grains) = 1.90 lb/h
x4.38
$\boxed{\text{8.32 TPY}}$

HAMMERMILL SYSTEM PNEUMATICS
EMISSION POINT NO. 9

Hammermill Grinds = 26,245 lb/h

Receiver is 80% eff per MFH
Filter is 99.96% eff MAC Model 144 MCF
$\therefore$ (1-.8)(1-.9996) 26,245 lb/h = 2.1 lb/h
x4.38

$$\frac{8760\ \text{h/y}}{2{,}000\ \text{lb/ton}} = 4.38\ \text{Factor}$$

$\boxed{9.20\ \text{TPY}}$

Calculation based on 0.01 grains/dscf:

(.01 gr/dscf)(14,700 dscfm)(60 min/h)(1 lb/7000 grains) = 1.26 lb/h
x4.38

$\boxed{5.52\ \text{TPY}}$

THERMAL OIL HEATER

Summary of Emissions from Hot Oil Heater, G-P Hosford OSB

Substance	Emission Factor		Emission Rates (a) (lb/hr)	(tpy)
Particulate Matter (PM/PM10)	0.1 lb/MMBtu	(1)	8.0	35.0
Nitrogen Oxides	0.167 lb/MMBtu	(2)	13.3	58.4
Sulfur Dioxide	0.008 lb/MMBtu	(2)	0.7	2.9
Carbon Monoxide	1.511 lb/MMBtu	(2)	120.9	529.5
VOCs	0.02 lb/MMBtu	(2)	2.0	8.6
Lead	1.78E-06 lb/MMBtu	(2)	1.42E-04	6.23E-04
HAPs				
Phenols	1.89E-05 lb/MMBtu	(2)	1.51E-03	6.62E-03
Acenaphthene	4.56E-07 lb/MMBtu	(2)	3.64E-05	1.60E-04
Fluorene	9.13E-07 lb/MMBtu	(2)	7.31E-05	3.20E-04
Phenanthrene	5.58E-06 lb/MMBtu	(2)	4.46E-04	1.95E-03
Fluoranthene	2.03E-06 lb/MMBtu	(2)	1.63E-04	7.12E-04
Benzo(a)anthracene	3.63E-07 lb/MMBtu	(2)	2.91E-05	1.27E-04
Benzo(k)fluoranthrene	8.50E-08 lb/MMBtu	(2)	6.80E-06	2.98E-05
Benzo(b+k)fluoranthene	3.22E-06 lb/MMBtu	(2)	2.58E-04	1.13E-03
Benzofluoranthenes	1.20E-07 lb/MMBtu	(2)	9.60E-06	4.20E-05
Benzo(a)pyrene	7.50E-09 lb/MMBtu	(2)	6.00E-07	2.63E-06
Benzo(g,h,l)perlyene	1.57E-07 lb/MMBtu	(2)	1.25E-05	5.49E-05
Chrysene	5.02E-08 lb/MMBtu	(2)	4.02E-06	1.76E-05
Indeno(1,2,3,c,d)pyrene	4.00E-08 lb/MMBtu	(2)	3.20E-06	1.40E-05
Acenaphthlyene	5.29E-06 lb/MMBtu	(2)	4.23E-04	1.85E-03
Methyl anthracene	1.56E-05 lb/MMBtu	(2)	1.24E-03	5.45E-03
Acrolien	4.44E-07 lb/MMBtu	(2)	3.56E-05	1.56E-04
Formaldehyde	9.11E-04 lb/MMBtu	(2)	7.29E-02	3.19E-01
Acetaldehyde	2.13E-04 lb/MMBtu	(2)	1.71E-02	7.48E-02
Benzene	1.11E-03 lb/MMBtu	(2)	8.84E-02	3.87E-01
Naphthanlene	3.77E-04 lb/MMBtu	(2)	3.01E-02	1.32E-01
2-Chlorophenol	5.70E-08 lb/MMBtu	(2)	4.56E-06	2.00E-05
2,4-Dinitrophenol	4.70E-07 lb/MMBtu	(2)	3.76E-05	1.65E-04
4-Nitrophenol	3.30E-07 lb/MMBtu	(2)	2.64E-05	1.16E-04
Total HAPs			0.21	0.93

Notes

(a) Short-term emission rates reflect maximum hourly design on 80 MMBtu/hr on wood/bark
Annual emissions reflect hourly wood/bark rates for 8,760 hours/year

References:

(1) ESP manufacturer guarantee

(2) Compilation of Emission Factors, AP-42 (EPA, 1999). Factors in lb/ton units were converted to lb/MMBtu units using a 4500 Btu/lb heating value

RESIN STORAGE TANKS

TANKS PROGRAM 3.1
EMISSIONS REPORT - SUMMARY FORMAT
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification	
Identification No.:	Resin Tank
City:	Hosford
State:	FL
Company:	Georgia-Pacific Corporation
Type of Tank:	Vertical Fixed Roof
Description:	Resin
Tank Dimensions	
Shell Height (ft):	16.9
Diameter (ft):	10.0
Liquid Height (ft):	16.9
Avg. Liquid Height (ft):	12.7
Volume (gallons):	10000
Turnovers:	120.0
Net Throughput (gal/yr):	1200000
Paint Characteristics	
Shell Color/Shade:	Aluminum/Specular
Shell Condition:	Good
Roof Color/Shade:	Aluminum/Specular
Roof Condition:	Good
Roof Characteristics	
Type:	Cone
Height (ft):	5.42
Radius (ft) (Dome Roof):	0.00
Slope (ft/ft) (Cone Roof):	1.0840
Breather Vent Settings	
Vacuum Setting (psig):	-0.03
Pressure Setting (psig):	0.03

Meteorological Data Used in Emission Calculations: Tallahassee, Florida (Avg Atmospheric Pressure = 14.7 psia)

TANKS PROGRAM 3.1
EMISSIONS REPORT - SUMMARY FORMAT
LIQUID CONTENTS OF STORAGE TANK

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
PF resin	All	66.98	58.93	75.03	68.54	0.1000	0.1000	0.1000	445.480				
FORMALDEHYDE										0.0010	0.0000	30.03	Option 1
Unidentified Components										0.9990	1.0000		

TANKS PROGRAM 3.1
EMISSIONS REPORT - SUMMARY FORMAT
INDIVIDUAL TANK EMISSION TOTALS

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Working	Total
PF resin	75.05	528.11	603.16
FORMALDEHYDE	0.00	0.00	0.00
Unidentified Components	75.05	528.11	603.15
Total:	75.05	528.11	603.16

□

BARK HANDLING

Fugitive Emissions from Batch Drop of Bark onto Bark Pile

Emission Factor

AP-42 calculates an emission factor as follows:

Factor (lbs. PM/ton bark dropped) = $((k*0.0032*(U/5)^{1/.3}/(M/2)^{1.4}$

The AP-42 formula assumptions are:

For TSP PM, the value of K = 1

For PM10, the value of K = 0.74 see AP-42

U, Wind Speed = 7.1 miles per hour

M, Moisture content of bark = 50%

The emission factors are calculated as follows:

PM10: $0.74 \times 0.0032 \times (7.1/5)^{1.3} \times (50/2)^{1.4}$

= 0.000041 lb. PM10/ton bark

TSP PM: $1 \times 0.0032 \times (7.1/5)^{1.3} \times (50/2)^{1.4}$

= 0.000055 lb. TSP PM/ton bark

Bark Processed

Based on 475,000 MSF of board, and an approximate factor of 75.4 lbs. bark/MSF, the throughput is:

475,000 MSF/year x 75.4 lbs. bark/MSF x ton/2,000 lbs.= 112,800 tons/year

Emission Rate

G-P will ship bark material offsite by trucks or by a rail system. To move the bark from the pile to a truck or rail will require the use of conveyors. G-P estimates the number of transfer points along the transfer route of pile-to-truck/rail to be 6 or less. Therefore, the emission rate is calculated to be:

PM10: 6 x 112,800 tons/year x 0.000041 lb. PM10/ton bark = 28 lbs/year (0.014 tpy)

TSP PM: 6 x 112,800 tons/year x 0.000055 lb. TSP PM/ton bark = 38 lbs/year (0.019 tpy)

Wind Erosion Calculation

Emission Factor:

The emissions factor is based on the exposed surface area and the following equation:

Gram PM/square meter surface area =K x 58 (u*-ut*)^2 + 25 (u* - ut*)

Ut* = threshold friction velocity. By using ½ of the loose coal factor, ut*=0.56 meter/s

U*= friction velocity = 0.53 x "fastest velocity". Bt assuming fastest velocity = 30 miles/hour,. U*= 0.689

For PM10, the value of k = 0.5; for TSP PM, the value of k = 1. See AP-42.

For PM10, the emission factor is calculated as 4.19 gram/m2 per wind event

For PM, the emissin factor is calculated as 8.38 grams/m2 per wind event

Surface Area

The Surface area is calculated with the following factors:

Shape is conical

Height is 15 feet.

Radius is 50 feet.

Calculated Exposed Area = 8,200 square feet (762 square meters)

Wind Events

Assume 2 wind events per day, and 100 events per year above the threshold of 30 miles/hour

Emission Rate

The pile will be partially enclosed by retaining walls. Assuming that these walls block the wind from some surfaces of the pile, the calculation below assumes that only 25% of the total surface area is exposed to a wind event, the daily emission rates are:

PM10: 0.25 x 762 square meters x 4.19 grams/square meter x 2 events/day = 1,600 grams/day x lb/454 grams = 3.6 lbs./day.
TSP PM: 0.25 x 762 square meters x 8.38 grams/square meter x 2 events/day = 1,600 grams/day x lb/454 grams = 7.2 lbs./day.

The annual emission rates are calculated to be:

PM10: 0.25 x 762 square meters x 4.19 grams/square meter x 100 events/year = 39,900 grams/year x lb/454 grams = 88 lbs./year (0.044 ton/year)

TSP PM: 0.25 x 762 square meters x 8.38 grams/square meter x 100 events/year = 39,900 grams/year x lb/454 grams = 176 lbs./year (0.088 ton/year)

PAVED ROADS

Paved Roads:

Log and bark trucks operate on the paved roads at the plant. Each truck is either delivering logs or receiving bark. Therefore, each truck will travel on the roads as "empty" one-way, and "loaded" the other way.

Emission Factors

The AP-42 Emission factor equation calculates the factor as follows:

Emission Factor (lbs. PM10/vehicle mile traveled) = 0.016 x (silt load/2)^0.65 x (truck wt/3)^1.5

Emission factor (lbs TSP PM/vehicle mile traveled) = 0.082 x (silt load/2)^0.65 x (truck wt/3)^1.5

For log truck and bark truck travel, the estimated factors are:

Silt Load = 3. See AP-42.

Weight of full truck = 40 tons

Weight of empty truck = 20 tons

The emission factor for empty trucks is calculated as:

Lbs. PM10/VMT = 0.016 x (3/2)^0.65x (20/3)^1.5 = 0.36 lbs. PM10/VMT

Lbs. TSP PM/VMT = 0.082 x (3/2)^0.65x (20/3)^1.5 = 1.84 lbs. TSP/VMT

The emission factor for full trucks is calculated as:

Lbs. PM10/VMT = 0.016 x (3/2)^0.65x (40/3)^1.5 = 1.01 lbs. PM10/VMT

Lbs. TSP PM/VMT = 0.082 x (3/2)^0.65x (40/3)^1.5 = 5.19 lbs. TSP PM/VMT

Travel Distances

The estimated amount of travel is estimated with the following factors:

Average speed of truck = 10 miles/hour

One way trip length = 3,500 feet

Number of log trucks/day =160

Number of bark trucks/day = 10

Vehicle miles traveled = 3,500 ft/truck x 160 trucks/day x mile/5,280 feet = 106 miles/day

Emission Rate

The emission rate is calculated with the emission factor and the estimated amount of travel:

lbs. PM10/day =106 miles/day x (1.01 lb. PM10/VMT [full trucks] + 0.36 lb. PM10/VMT [empty trucks])

= 106 x 1.37 = 145 lbs. PM10 /day

For annual emissions, assume continuous operation

145 lbs. PM10/day x 365 days/year x ton/2,000 lbs. = 26.5 tons/year

lbs. TSP PM/day = 106 miles/day x (5.19 lbs. TSP PM/VMT [full trucks]+ 1.84 lbs. TSP PM/VMT [empty trucks])

= 106 x 7.03 = 745 lbs. TSP PM /day

For annual emissions, assume continuous operation

745 lbs. TSP PM/day x 365 days/year x ton/2,000 lbs. = 136 tons/year

UNPAVED ROADS

Unpaved Roads

The only unpaved road in continuous daily use is a service road on the north side of the main manufacturing building. Operators will use this road approximately 2 times per shift to inspect equipment.

Occasionally, market conditions will favor the temporary stock-piling of logs. During these unexpected periods, log trucks will deliver logs to a staging area by traveling on two unpaved roads.

Emission Factors

The AP-42 Emission factor equation calculates the factor as follows:

Emission Factor (lbs. PM10/vehicle mile traveled) = 5.9 x 0.36 x (silt%/12) x (speed/30) x (weight/3)^0.7 x (wheels/4)^0.5 x (365-rain days)/365

For TSP PM, the value of K=1.0; for PM10, the value of K=0.36

The two unpaved routes at the plant are: 1) log trucks and 2) north service. For these routes, the estimated factors are:

Silt % = 15

Speed of trucks = 10 miles/hour

Full log truck weight = 40 tons

Empty log truck weight = 20 tons

Service road truck weight = 2 tons

Log truck wheel count = 18

Service road truck wheel count = 4

Rain days per year = 110. See AP-42. 13.2-2-1

The emission factor for empty log trucks is:

5.9 x 0.36 x (15/12) x (10/30) x (20/3)^0.7 x (18/4)^0.5 x (365-110)/365 = 4.95 lbs PM10/VMT

5.9 x 1 x (15/12) x (10/30) x (20/3)^0.7 x (18/4)^0.5 x (365-110)/365 = 13.75 lbs PM TSP /VMT

The emission factor for full log trucks is:

5.9 x 0.36 x (15/12) x (10/30) x (40/3)^0.7 x (18/4)^0.5 x (365-110)/365 = 8.0 lbs PM10/VMT

5.9 x 1 x (15/12) x (10/30) x (40/3)^0.7 x (18/4)^0.5 x (365-110)/365 = 22.2 lbs PM TSP/VMT

The emission factor for service road trucks is:

5.9 x 0.36 x (15/12) x (10/30) x (2/3)^0.7 x (18/4)^0.5 x (365-100)/365 = 0.99 lb PM10/VMT

5.9 x 1 x (15/12) x (10/30) x (2/3)^0.7 x (18/4)^0.5 x (365-100)/365 = 2.75 lbs PM TSP/VMT

Travel Distances

The estimated amount of travel is estimated with the following factors:

One way trip length for log trucks = 600 feet for unpaved road section

Number of log trucks trucks/day =100.

Number of log/trucks per year is dependent on market conditions. Log truck will travel on the unpaved roads approximately 30% of the year.

Vehicle miles traveled (log trucks)= 600 ft/truck x 100 trucks/day x mile/5,280 feet = 11.4 miles/day each way

The annual estimated distance for the log trucks is 11.4 miles/day x 100 days/year = 1,140 miles/year each way

Round trip length for service road = 3,000 feet.

Number of service vehicles/day = 2 vehicles/shift x 3 shifts/day = 6 trips/day

Vehicle miles traveled (service vehicles) = 3,000 ft/truck x 6 trips/day x mile/5,280 feet = 3.4 miles/day

The annual estimated distance for the service vehicles is 3.4 miles/day x 365 days/year = 1,244 miles/year

Summary

Parameter	Empty Log Trucks	Full Log Trucks	Service Vehicles
Daily VMT	11.4	11.4	3.4
Annual VMT	1140	1140	1244

Emission Rate

The emission rate is calculated with the emission factor and the estimated amount of travel:

PM10

For log trucks:

= 11.4 miles/day x (4.95 lb/VMT [empty] + 8.lb/VMT [full])

= 148 lbs PM10/day

For annual basis: 1,140 miles/year x (4.95 lb/VMT [empty]+ 8 lb/VMT [full]) x ton/2,000 lbs = 7.4 tons PM10/year

For service trucks:

= 3.4 miles/day x 0.99 lb./VMT = 3.4 lbs PM10/day

For annual basis: 1,244 miles/yr x 0.99 lb./VMT x ton/2,000 lbs = 0.62 ton PM10/year

TSP

For log trucks:

= 11.4 miles/day x (13.75 lb/VMT [empty] + 22.2 lb/VMT [full])

= 410 lbs TSP PM/day

For annual basis: 1,140 miles/year x (13.75 lbs/VMT [empty] + 22.2 lbs/VMT [full]) x ton/2,000 lbs = 7.4 tons TSP PM/year

For service trucks:

=3.4 miles/day x 2.75 lbs./VMT = 9.4 lbs TSP PM/day

For annual basis: 1,244 miles/yr x 2.75 lbs./VMT x ton/2,000 lbs = 1.71 tons TSP PM/year

OTHER FUGITIVE SOURCES

Calculations for other fugitive emission sources

Debarker (PM emissions)

TSP PM 134.5 tons logs/hour x 0.024 lb/ton (AP-42) = 3.2 lbs/hr (14.1 tpy)

PM10 134.5 tons logs/hour x 0.011 lb/ton (SCC) = 1.5 lbs/hr (6.5 tpy)

Bark Hog (PM emissions)

Assume bark = 10% by weight of total logs = 13.5 lbs/hr; use debarking factors as representative

TSP PM 13.5 tons bark/hour x 0.024 lb/ton (AP-42) = 0.32 lb/hr (1.4 tpy)

PM10 13.5 tons bark/hour x 0.011 lb/ton (SCC) = 0.15 lb/hr (0.65 tpy)

Blend House (VOC/HCOH emissions; Resin and wax are blended with dry wood in the blend house)

OSHA testing has indicated 0.47 ppm VOCs and formaldehyde; assume a fan flow of 40,000 acfm

VOC 0.47 $ft^3/MMft^3$ air x 60 mins/hr x 40,000 ft^3 air/min x 30.03 lb/lb-mol x lb-mol/359 ft^3 = 0.09 lb/hr (0.41 tpy)

HCOH Assume formaldehyde = VOCs

Finished Product Storage (VOC/HCOH emissions)

OSHA testing has indicated 0.21 ppm VOCs and formaldehyde; assume a fan flow of 40,000 acfm

VOC 0.21 $ft^3/MMft^3$ air x 60 mins/hr x 40,000 ft^3 air/min x 30.03 lb/lb-mol x lb-mol/359 ft^3 = 0.04 lb/hr (0.18 tpy)

HCOH Assume formaldehyde = VOCs

Edge Sealing of Boards outside Spray Booth (PM emissions)

Assume 10 gallons/year coating at 8.5 lbs/gallon density and 20% solids content; assume a sprayer transfer efficiency of 60%

TSP PM 10 gallons/year x 8.5 lbs/gallon x 0.2 lbs solids/lb coating x (1 - 0.6) = 6.8 lbs/year (0.0008 lb/hr and 0.0034 tpy)

PM10 Assume PM10 = 75% of PM = 5.1 lbs/year (0.0006 lb/hr and 0.0026 tpy)

Attachment C

US EPA NSPS MEMORANDUM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

NOV 17 1982

MEMORANDUM

SUBJECT: Applicability of NSPS Subparts Db/Dc to Process Dryers

FROM: Bruce Jordan, Director
Emission Standards Division (MD-13)
Office of Air Quality Planning and Standards

TO: See Below

Questions have been raised recently concerning the applicability of the new source performance standards (NSPS) for steam generating units (40 CFR Part 60, Subparts Db and Dc) to process dryers and various types of kilns, such as cement kilns. Subparts Db and Dc do not apply to process dryers or kilns.

A steam generating unit is defined under Subparts Db and Dc as any device which combusts any fuel to produce steam, heat water, or heat any heat transfer medium. A heat transfer medium is defined as any material used for transferring heat from one point to another point (§60.41b and §60.41c).

Although steam generating units are frequently used to generate steam, as the term implies, it is not uncommon to find these same types of devices used to heat water, air, or other heat transfer mediums (e.g., Dowtherm®) to provide space heating or process heating. As a result, the definition of steam generating unit was intentionally made quite broad in Subparts Db and Dc so the NSPS would not be limited solely to units generating steam.

There are a number of similarities between steam generating units and process dryers or kilns. Both combust fuel. In addition, process dryers frequently "transfer" heat to a heat transfer medium. Normally this is ambient air introduced into the combustion gases following combustion to reduce the temperature of the gases to the level necessary for proper drying of the material(s) being dried. It is much less common for kilns to transfer heat to a heat transfer medium. Normally the combustion gases are passed directly over or through the material(s) being dried or preheated and no heat transfer medium is involved.

On the other hand, there are a number of differences, particularly in design and appearance, between steam generating units and process dryers or kilns. Steam generating units, whether they are used to generate steam or heat water, air, or other heat transfer mediums are similar in design and tend to look much the same. Process dryers and kilns, however, are quite different in design than steam generating units and generally look very different.

The key to distinguishing between a steam generating unit and a process dryer or kiln, however, is the method of heat transfer between the combustion gases and the heat transfer medium (if a heat transfer medium is involved). In a steam generating unit there is a physical barrier between the combustion gases and the heat transfer medium (e.g., the waterwall or tubes in the steam generating unit). Thus, there is no direct contact or intermixing of the combustion gases and the heat transfer medium.

As a result, devices which combust fuel and transfer heat from the combustion gases to a heat transfer medium across a physical barrier which prevents direct contact or intermixing of the combustion gases and the heat transfer medium are considered steam generating units under Subparts Db and Dc. Devices which either (1) combust fuel but do not transfer heat from the combustion gases to a heat transfer medium or (2) transfer heat to a heat transfer medium by direct contact or intermixing of the combustion gases and the heat transfer medium are not considered steam generating units under Subparts Db and Dc. Process dryers and kilns fall into this latter category and, as a result, Subparts Db and Dc do not apply to these types of combustion devices.

This response has been coordinated with the Office of General Counsel and the Stationary Source Compliance Division. If you have any questions, please call Rick Copland at (919) 541-5265.

Addressees:

Linda Murphy, Director
Air Management Division
Region I

Conrad Simon, Director
Air and Waste Management Division
Region II

Thomas Maslany, Director
Air, Radiation and Toxics Division
Region III

Attachment D

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

Attachment D
Compliance Assurance Monitoring (CAM) Plan
Hosford, FL Oriented Strandboard (OSB) Plant

Applicability

In order for the CAM Rule to apply to a specific emission unit/pollutant, the following, four criteria must be met:

1) The emission unit must be located at a major source for which a Part 70 or Part 71 permit is required.

2) The emission unit must be subject to an emission limitation or standard.

3) The emission unit must use a control device to achieve compliance.

4) The emission unit must have potential, pre-controlled emissions of the pollutant of at least 100 percent of the major source threshold.

The potential uncontrolled and controlled emissions are summarized for each of the emission units at the proposed Hosford OSB Plant in Table 1.

Table 1. Hosford OSB Plant - Uncontrolled and Controlled Emission Levels (tons per year)

Emission Source	Emission Point Number	Control Device	TSP		PM_{10}		VOC		CO		HCOH	
			Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Dryers	EP-1	RTO w/MC	3,261	326.10	3,261	326.10	5,530	553.00	588.5	147.15	81	8.1
Press	EP-2	RTO	49.6	12.40	49.6	12.40	878.2	87.82	127.04	31.76	10.5	1.05
Screen Fines with Saw Trim Transfer	EP-3	Bag Filter	23,000	9.20	23,000	9.20	–	–	–	–	–	–
Saw Trim/Finishing Line	EP-4	Bag Filter	4,302	11.52	4,302	11.52	–	–	–	–	–	–
Mat Reject/Flying Saw	EP-5	Bag Filter	1,036	17.08	1,036	17.08	–	–	–	–	–	–
Specialty Saw/Sander	EP-6	Bag Filter	3,691	9.50	3,691	9.50	–	–	–	–	–	–
Fuel System	EP-7	Bag Filter	3,691	1.50	3,691	1.50	–	–	–	–	–	–
Forming Bins	EP-8	Bag Filter	770	8.32	770	8.32	–	–	–	–	–	–
Hammermill System	EP-9	Bag Filter	23,000	9.20	23,000	9.20	–	–	–	–	–	–
Thermal Oil System	EP-10	ESP	246.5	35.00	246.5	35.00	–	–	–	–	–	–

Notes: RTO w/MC = Regenerative thermal oxidizer with multiclones
RTO = Regenerative thermal oxidizer
ESP = Electrostatic precipitator

Pre = Pre-controlled emissions
Post = Post-controlled emissions

In the CAM Rule (40 CFR 64), Section 64.5(a) states that, "...For all pollutant-specific emissions units with the potential to emit...taking into account control devices...the applicable regulated air pollutant in an amount equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source...On or after April 20, 1998, the owner or operator shall submit information as part of an application for an initial part 70 or 71 permit, if, by that date, the application...Has not been filed..." "For all other pollutant-specific emission units subject to this part...the owner or operator shall submit the information required...as part of an application for a renewal of a part 70 or 71 permit." In a telephone conversation with the CAM Rule's author on July 24, 1998, it was confirmed that this applicability language applied to both new and existing facilities.[1]

As shown in Table 1, and as indicated in the permit application, control devices have been proposed for all of the sources, although not for all pollutants. The following emission units/pollutants will be subject to CAM as part of this initial Part 70 permit:

> **Dryers** (with regenerative thermal oxidizer (RTO) and multiclones) - potential, post-control emissions greater than 100 tons per year for particulate matter (PM), volatile organic compounds (VOCs), and carbon monoxide (CO)

All other controlled emission units have potential, post-control emissions which are less than the major source threshold (10 tons per year for formaldehyde; 100 tons per year for all other pollutants). As noted above, these units will need to be re-evaluated for CAM applicability at the time of Part 70 permit renewal. It is noted that post-control nitrogen oxides emissions from the dryer are also greater than 100 tons per year. However, under the definition of "Control Device", the CAM Rule specifically states that, "For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the...use of combustion or other process design features or characteristics." As such, the low-NO_x burner design proposed for the RTO does not constitute a "control device". Therefore, a CAM Plan is not required for this emission unit/pollutant combination.

Components of CAM Plan

The CAM Rule contains the following submittal requirements:

40 CFR 64.4(a)	Information on indicators, including indicator ranges or a description of the process by which indicators are to be established and a discussion of performance criteria for the monitoring
40 CFR 64.4(b)	Justification for the proposed elements of the monitoring
40 CFR 64.4(c)	Control device operating data recorded during performance test, supplemented by engineering assessments or manufacturer's recommendations to justify the proposed indicator range

[1] Telephone conversation between Tammy Wyles of Georgia-Pacific Corporation and Mr. Peter Westlin of U.S. EPA, July 24, 1998.

40 CFR 64.4(d)	Test plan and schedule for obtaining data, if performance test data are not available
40 CFR 64.4(e)	Implementation plan, if monitoring requires installation, testing, or other activities prior to implementation

Monitoring Approach

Georgia-Pacific proposes to monitor two types of parameters. These are compliance control parameters, which will be used to assure maintenance of compliance and operational status indicators, which will be used solely as an aid to the facility in anticipating maintenance needs and documenting operation.

1. Compliance Control Parameters

The compliance control parameters will be RTO retention chamber temperature and outlet volumetric air flow. Both parameters will be controlled, monitored, and recorded continuously in both dryer RTOs.

VOC and PM emissions will be reduced to acceptable levels based on a minimum operating temperature. CO emissions are minimized at higher operating temperatures as well. As such, a single, minimum set temperature, as opposed to a range, should be sufficient to minimize emissions for all three pollutants.

Since the RTOs will be equipped with variable speed drives on their fans, air flow will fluctuate depending on the number of flake dryers on-line. At any given time, each RTO may receive the flow from all or none of the five dryers. Normal operation is for the flow from the five dryers to be split evenly between the two RTOs. However, each RTO will be designed to handle the flow from all five dryers, for a total of approximately 295,000 actual cubic feet per minute (ACFM). The situation where the entire flow is directed to one of the RTOs represents the worst-case operating condition. Under this condition, both maximum heat input and air flows are required, resulting in the maximum amount of pollutants emitted from the dryers being conveyed to the RTO. On the other hand, operating less than five dryers, or splitting the flow, will result in relatively less emissions and air flow, leading to an increase in retention time in the RTO and increasing overall destruction efficiency. Given this information, a single, upper-end flow rate will be established for the units. Ideally, this level will correspond to the maximum, manufactured capacity of the RTOs.

2. Operational Status Indicators

In addition to the compliance control parameters described above, operational status indicators to be monitored include static pressure at the inlet of the RTO ID fans and the position of the isolation dampers between the pressure equalization chamber (PEC) and the RTOs. These indicators will not represent compliance parameters, but will only serve to aid the facility in anticipating maintenance and documenting operations. Although the multiclones will be in place to minimize PM prior to introduction to the RTOs, plugging problems in the RTOs may occur from time-to-time. Therefore, static pressure at the inlet of the RTO ID fan will be used to monitor pressure changes in the system in response to potential plugging and overloading conditions. Tracking pressure changes in the system will help facility personnel determine the frequency for bakeouts and/or washdowns of the RTOs, if necessary.

Monitoring the position of the isolation dampers will be helpful in documenting when gases from a flake dryer are vented to the atmosphere.

Monitoring Location and Averaging Period

The RTOs' temperature will be evaluated based on the average of temperature taken by thermocouples located in the retention chamber of each RTO and above each cell. The continuous readings will be recorded every 15 minutes and averaged every 12 hours.

Since the RTOs will be equipped with variable speed drives on their fans, air flow will fluctuate depending on the number of flake dryers on line and directed to the each RTO. Air flows from the dryers will be measured using insertion-style pitot averaging flow sensors. As is the case with temperature, these values will be monitored continuously with reading recorded every 15 minutes and averaged over a 12-hour period.

The operational status indictors will also be monitored continuously. The static pressure at the inlet of the ID fans will be recorded hourly and reduced to a 24-hour average. The isolation damper position status will be recorded continuously to document operating conditions as far as malfunctions, start-up, etc.

Recording and Recordkeeping

Each RTO will be equipped with a Programmable Logic Controller (PLC), with the capability of controlling and monitoring the compliance control parameters and operational status indicators discussed previously. Recordkeeping and reporting of these parameters will be managed using a dedicated computer equipped with a relational database (Wonderware's Industrial SQL Server Software).

Testing and Implementation Schedule

Emission testing will be required in order to establish the minimum operating temperature necessary to insure compliance with the limits established for PM, VOCs, and CO. Also, validation testing will be performed for each RTO to verify that the limits are met under maximum flow conditions (all five dryers directed to each RTO).

A test plan will be submitted to the Florida Department of Environmental Protection (FDEP) within 90 days of achieving normal operation. The actual testing will take place within 180 days from the start of operation. A final report, proposing a minimum set point for the chamber temperature will be submitted to the FDEP within 60 days of test completion.

Quality Assurance/Quality Control

The Operator will print a monitoring report daily and check the data for completeness, legibility, reasonableness, and accuracy.

The temperature and flow sensors will be initially certified to meet the accuracy specifications stated by the vendor. Thereafter, subsequent calibrations will be conducted according to the manufacturer's instructions at least annually.

The RTO control system will feature audible and visual alarms to alert personnel of a malfunction. These alarms will remain active until the proper corrective action is taken. If deficiencies in the performance of the parametric monitoring system occur, corrective action(s) will be taken. The alarms will be automatically recorded with the isolation damper position report. For the purposes of this Plan, corrective actions may include revision of operating and/or maintenance procedures, and/or training.

Attachment E

AQRV ASSESSMENT FOR CLASS I AREAS

Attachment E
AQRV Assessment and Additional Impacts Analysis
Hosford, FL Oriented Strandboard (OSB) Plant

E.1 Growth

The proposed facility will employ approximately 120 persons. It is anticipated that a large percentage of the work force will come from local and regional populations. As such, growth in the area should not be extensive.

There will be a small, temporary increase in personnel and traffic during the construction phase.

E.2 Soils and Vegetation

The United Stated Department of Agriculture (USDA) Soil Survey of Liberty County is incomplete, although a description of the soils in the vicinity of the proposed plant was obtained from USDA personnel in Liberty County. Dominant soils in the area include Chipley sand, 0 to 5% slopes; Rutlege and Plummer depressional soils; Foxworth sand, 0-5% slopes; Lakeland sand, 0-5% slopes; Leon sand, 0-2% slopes; Leon-Lynn Haven complex, 0-2% slopes; and frequently flooded Rutlege, Bibb, and Surrency soils.

The Chipley, Rutlege, Foxworth, and Lakeland series consist of very deep, moderately well drained or poorly drained, rapidly permeable soils that formed in thick deposits of sandy marine sediments. The Leon series consists of very deep, poorly and very poorly drained, sandy soils on flatwoods, depressions, low areas on uplands, stream terraces, and tidal areas. The Bibb series consists of very deep, poorly drained, moderately permeable soils that formed in stratified loamy and sandy alluvium. These soils are on flood plains of streams in the Coastal Plain. They are commonly flooded and water runs off from the surface very slowly. The Surrency series consists of deep, very poorly drained soils in depressions and drainageways of the Atlantic Coastal Plains.

As described in the air quality impact analysis (Section 7 of main text and Attachment F), the maximum predicted nitrogen dioxide (NO_2), particulate matter (PM), and carbon monoxide (CO) concentrations in the vicinity of the proposed plant site are less than the National Ambient Air Quality Standards (NAAQS). Since the NAAQS are designed to protect the public welfare, including effects on soils and vegetation, no detrimental effects on soils or vegetation should occur in this area.

The potential impacts of SO_2, NO_2, PM, and CO on soils, vegetation, and visibility in the Bradwell Bay and St. Marks PSD Class I areas are addressed in the analysis of Air Quality Related Values (AQRVs).

E.3 Air Quality Related Values

This section focuses on the ecological effects of the proposed facility's impacts on Air Quality Related Values (AQRVs), as defined under the PSD regulations, in the Bradwell Bay and St. Marks National Wilderness Areas (NWAs). The AQRVs are defined as being:

> *"All those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way on the air environment. These values include visibility and those scenic, cultural, biological, and recreational resources of an area that are affected by air quality. Important attributes of an area are those values or assets that make an area significant as a monument, preserve, or primitive area. They are the assets that are to be preserved if the area is to achieve the purposes for which it was set aside" (Federal Register, 1978).*

The AQRVs include freshwater and coastal wetlands, dominant plant communities, unique and rare plant communities, soils and associated periphyton, and the wildlife dependent on these communities for habitat. Rare, endemic, threatened, and endangered species of the wilderness areas and bioindicators of air pollution (*e.g.,* lichens) are also evaluated.

Impacts to Soils

For soils, the potential and hypothesized effects of atmospheric deposition include:

- Increased soil acidification,
- Alteration in cation exchange,
- Loss of base cations, and
- Mobilization of trace metals.

The potential sensitivity of specific soils to atmospheric inputs is related to two factors. First, the physical ability of a soil to conduct water vertically through the soil profile is important in influencing the interaction with deposition. Second, the ability of the soil to resist chemical changes, as measured in terms of pH and soil cation exchange capacity (CEC), is important in determining how a soil responds to atmospheric inputs.

According to the USDA Soil Survey, the soils of the Bradwell Bay NWA are primarily Croatan-Dorovan mucks, while the primary soil types in the St. Marks NWA include Bayvi, Isles, and Estero soils. The Croatan-Dorovan mucks are very poorly drained with very high organic matter content. The Bayvi, Isles, and Estero soils are found in tidal marsh areas, are flooded daily by high tides, and have moderate organic matter content. The soils of both the Bradwell Bay and St. Marks NWAs are generally classified as histosols. Histosols (peat soils) are organic and have extremely high buffering capacities based on their CEC, base saturation, and bulk density. Therefore, they would be relatively insensitive to atmospheric inputs.

The relatively low sensitivity of the soils to atmospheric inputs, coupled with the extremely low ground-level concentrations of contaminants projected for the Bradwell Bay and St. Marks NWAs, precludes any significant impact on soils.

Impacts to Vegetation

The maximum predicted gaseous concentrations of SO_2, NO_2, PM, and CO were used in the determination of impacts on vegetation. These compounds are believed to interact predominantly with foliage and this is considered the major route of entry into plants. In this assessment, 100 percent of the compound of interest was assumed to interact with the vegetation. The modeled concentrations are presented in Tables 1 and 2.

Sulfur Dioxide: Sulfur is an essential plant nutrient usually taken up as sulfate ions by the roots from the soil solution. When sulfur dioxide in the atmosphere enters the foliage through pores in the leaves, it reacts with water in the leaf interior to form sulfite ions. Sulfite ions are highly toxic. They interact with enzymes, compete with normal metabolites, and interfere with a variety of cellular functions (Horsman and Wellburn, 1976). However, within the leaf, sulfite is oxidized to sulfate ions, which can then be used by the plant as a nutrient. Small amounts of sulfite may be oxidized before it proves harmful.

SO_2 gas at elevated levels has long been known to cause injury to plants. Acute SO_2 injury usually develops within a few hours or days of exposure, with symptoms including marginal, flecked, and/or intercostal necrotic areas that appear water-soaked and dullish green initially. This injury generally occurs to younger leaves. Chronic injury usually is evident by signs of chlorosis, bronzing, premature senescence, reduced growth, and possible tissue necrosis (EPA, 1982). Typical background levels of SO_2 range from 2.5 to 25 migrograms per cubic meter ($\mu g/m^3$). Observed SO_2 effect levels for several plant species and plant sensitivity groupings are presented in Tables 3 and 4, respectively.

Many studies have been conducted to determine the effects of high-concentration, short-term SO_2 exposure on the vegetation of natural communities. Sensitive plants include ragweed, legumes, blackberry, southern pine, and red and black oak. These species are injured by exposure to 3-hour SO_2 concentrations of 790 to 1,570 $\mu g/m^3$. Intermediate plants include locust and sweetgum. These species are injured by exposure to 3-hour SO_2 concentrations of 1,570 to 2,100 $\mu g/m^3$. Resistant species (injured at concentrations above 2,100 $\mu g/m^3$ for 3 hours) include white oak and dogwood (EPA, 1982). Jack pine seedlings exposed to SO_2 concentrations of 470 to 520 $\mu g/m^3$ for 24 hours demonstrated inhibition of foliar lipid synthesis; however, this inhibition was found to be reversible (Malhotra and Kahn, 1978). Black oak exposed to 1,310 $\mu g/m^3$ of SO_2 for 24 hours a day for one week demonstrated a 48 percent reduction in photosynthesis (Carlson, 1979).

A study of native Floridian species (Woltz and Howe, 1981) demonstrated that cypress, slash pine, live oak, and mangrove exposed to 1,300 $\mu g/m^3$ SO_2 for 8 hours were not visibly damaged. These findings support the levels cited by other researchers on the effects of SO_2 exposure on vegetation. A corroborative study (McLaughlin and Lee, 1974) demonstrated that approximately 20 percent of a cross-section of plants, ranging from sensitive to tolerant, were visibly injured at 3-hour SO_2 concentrations of 920 $\mu g/m^3$.

Two lichen species indigenous to Florida exhibited signs of SO_2 damage in the form of decreased biomass gain and photosynthetic rates as well as membrane leakages when exposed to concentrations of 200 to 400 $\mu g/m^3$ for 6 hours/week for 10 weeks (Hart et al., 1988).

Table 1. Maximum Predicted Concentrations at Bradwell Bay NWA

Pollutant	Concentrations[a] ($\mu g/m^3$) for Averaging Times				
	Annual	24-Hour	8-Hour	3-Hour	1-Hour
Sulfur Dioxide (SO_2)	0.002	0.070	0.13	0.31	0.50
Nitrogen Dioxide (NO_2)	0.055	1.25	2.73	5.69	8.49
Particulate Matter (PM_{10})	0.068	1.3	3.51	7.3	11.0
Carbon Monoxide (CO)	0.013	3.41	7.45	15.05	23.11

[a] From the ISCST3 model and 5 years of hourly meteorological data from Tallahassee Regional Airport, 1986-1990

Table 2. Maximum Predicted Concentrations at St. Marks NWA

Pollutant	Concentrations[a] ($\mu g/m^3$) for Averaging Times				
	Annual	24-Hour	8-Hour	3-Hour	1-Hour
Sulfur Dioxide (SO_2)	0.006	0.19	0.42	0.85	1.30
Nitrogen Dioxide (NO_2)	0.018	0.60	1.13	2.61	4.26
Particulate Matter (PM_{10})	0.022	0.76	1.43	3.33	5.49
Carbon Monoxide (CO)	0.038	1.23	2.37	5.54	8.95

[a] From the ISCST3 model and 5 years of hourly meteorological data from Tallahassee Regional Airport, 1986-90

Table 3. SO_2 Effects Levels for Various Plant Species

Plant Species	Observed Effect Level ($\mu g/m^3$)	Exposure (Time)	Reference
Sensitive to tolerant	920 (20 percent displayed visible injury)	3 hours	McLaughlin and Lee, 1974
Lichens	200-400	6 hr/wk for 10 weeks	Hart *et al.*, 1988
Cypress, slash pine, live oak, mangrove	1,300	8 hours	Woltz and Howe, 1981
Jack pine seedlings	470-520	24 hours	Malhotra and Kahn, 1978
Black oak	1,310	Continuously for 1 week	Carlson, 1979

Table 4. Sensitivity Groupings of Vegetation Based on Visible Injury at Different SO_2 Exposures[a]

Sensitivity Grouping	SO_2 Concentration		Plants
	1-Hour	3-Hour	
Sensitive	1,310 - 2,620 $\mu g/m^3$ (0.5 - 1.0 ppm)	790 - 1,570 $\mu g/m^3$ (0.3 - 0.6 ppm)	Ragweeds Legumes Blackberry Southern pines Red and black oaks White ash Sumacs
Intermediate	2,620 - 5,240 $\mu g/m^3$ (1.0 - 2.0 ppm)	1,570 - 2,100 $\mu g/m^3$ (0.6 - 0.8 ppm)	Maples Locust Sweetgum Cherry Elms Tuliptree Many crop and garden species
Resistant	>5,240 $\mu g/m^3$ (>2.0 ppm)	>2,100 $\mu g/m^3$ (>0.8 ppm)	White oaks Potato Upland cotton Corn Dogwood Peach

[a] Based on observations over a 20-year period of visible injury occurring on over 120 species growing in the vicinities of coal-fired power plants in the southeastern United States.

Source: EPA, 1982a.

The maximum predicted SO_2 concentrations in the Class I areas were modeled using 1, 3, 8, 24, and annual averaging times. The predicted concentrations range from 0.002 (annual averaging time) to 0.31 $\mu g/m^3$ (1-hour averaging time) and 0.0006 (annual averaging time) to 0.16 $\mu g/m^3$ (1-hour averaging time) for the Bradwell Bay and St. Marks NWAs, respectively (Tables 1 and 2). These levels are much lower than those known to cause damage to test species. The maximum predicted 24-hour incremental increase in SO_2 at Bradwell Bay (0.046 $\mu g/m^3$) is 0.02% of the value that caused a decrease in lichen biomass, and poses only a minimal threat to area vegetation.

Nitrogen Dioxide: Nitrogen dioxide is another pollutant of concern for the proposed plant. This compound can injure plant tissue with symptoms usually appearing as irregular white to brown collapsed lesions between the leaf veins and near the margins. Conversely, non-injurious levels of NO_2 can be absorbed by plants, enzymatically transformed into ammonia, and incorporated into plant constituents such as amino acids (Matsumaru et al., 1979).

Plant damage can occur through either acute (short-term, high concentration) or chronic (long-term, relatively low concentration) exposure. For plants that have been determined to be more sensitive to NO_2 exposure than others, acute (1, 4, and 8 hours) exposure caused 5 percent foliar injury at concentrations ranging from 3,800 to 15,000 $\mu g/m^3$ (Heck and Tingey, 1979). Chronic exposure of selected plants (some considered NO_2-sensitive) to NO_2 concentrations of 2,000 to 4,000 $\mu g/m^3$ for 213 to 1,900 hours caused reductions in yield of up to 37 percent and some chlorosis (Zahn, 1975).

By comparison of published toxicity values for NO_2 exposure to both acute and long-term (annual averaging time) modeled concentrations, the possibility of plant damage in the Class I areas can be examined. For an acute exposure (1-hour averaging time), the maximum predicted concentrations in the Bradwell Bay and St. Marks NWAs are 12.98 and 6.59 $\mu g/m^3$, respectively (Tables 1 and 2), which is 0.34 to 0.17 percent of the level that caused foliar injury to sensitive species. In the chronic exposure scenario, the annual estimated NO_2 concentrations (0.076 and 0.025 $\mu g/m^3$ in Bradwell Bay and St. Marks, respectively) are 0.004 to 0.001 percent of the levels that caused reduction in yield and chlorosis in plant tissue.

Although it has been shown that simultaneous exposure to SO_2 and NO_2 results in synergistic plant injury (Ashenden and Williams, 1980), the magnitude of this response is generally only 3 to 4 times greater than either pollutant alone and usually occurs at unnaturally high levels for each pollutant. Therefore, the concentrations within the Class I areas are still far below the levels that potentially cause plant injury for either acute or chronic exposure.

Particulate Matter: Although information pertaining to the effects of PM on plants is scarce, baseline concentrations are available (Mandoli and Dubey, 1988). Ten species of native Indian plants were exposed to levels of PM that ranged from 210 to 366 $\mu g/m^3$ for an 8-hour averaging period. Damage in the form of a higher leaf area/dry weight ratio was observed at varying degrees for most plants tested. Concentrations of PM lower than 163 $\mu g/m^3$ did not appear to be injurious to the tested plants.

The 1-hour, 3-hour, 8-hour, 24-hour, and annual estimated PM_{10} concentrations in the Bradwell Bay NWA are 11.0, 7.3, 3.5, and 0.060 $\mu g/m^3$ (Table 1), respectively. In the St. Marks NWA, the estimated concentrations are 5.49, 3.33, 1.43, 0.76, and 0.022 $\mu g/m^3$ (Table 2), respectively. By comparison of published toxicity values for PM_{10} exposure (8-hour averaging time) with the predicted concentrations in the Class I areas, the possibility of plant damage due to the project can be determined. The 8-hour estimated PM_{10} concentrations at the point of maximum impact in the Bradwell Bay and St. Marks NWAs (3.5 and 1.43 $\mu g/m^3$, respectively) are below the values that affected plant foliage, respectively.

Carbon Monoxide: As with PM, information pertaining to the effects of CO on plants is scarce. The main effect of high concentrations of CO is the inhibition of cytochrome *c* oxidase, the terminal oxidase in the mitochondrial electron transfer chain. Inhibition of cytochrome *c* oxidase depletes the supply of ATP, the principal donor of free energy required for cell functions. However, this inhibition only occurs at extremely high concentrations of CO. Pollok et al. (1989) reported that exposure to a $CO:O_2$ ratio of 25 (equivalent to an ambient CO concentration of 6.85×10^6 $\mu g/m^3$) resulted in stomatal closure in the leaves of the sunflower (*Helianthus annuus*). Naik et al. (1992) reported cytochrome *c* oxidase inhibition in corn, sorghum, millet, and Guinea grass at $CO:O_2$ ratios of 2.5 (equivalent to an ambient CO concentration of 6.85×10^5 $\mu g/m^3$). These plants were considered the species most sensitive to CO-induced inhibition of cytochrome *c* oxidase.

The 1-hour, 3-hour, 8-hour, 24-hour, and annual estimated CO concentrations in the Bradwell Bay NWA are 23.11, 15.05, 7.45, 3.41, and 0.013 $\mu g/m^3$ (Table 1), respectively. In the St. Marks NWA, the estimated CO concentrations are 8.95, 5.54, 2.37, 1.23, and 0.038 $\mu g/m^3$ (Table 2), respectively. The predicted maximum 1-hour concentrations in the Bradwell Bay and St. Marks NWAs (23.11 and 8.95 $\mu g/m^3$, respectively) are far less than 0.001 the values that caused inhibition in laboratory studies.

In summary, the phytotoxic effects from the proposed plant emissions are minimal. It is important to note that the elements were conservatively modeled with the assumption that 100 percent was available for plant uptake. This is rarely the case in a natural ecosystem.

Impacts to Wildlife

A wide range of physiological and ecological effects to fauna has been reported for gaseous and particulate pollutants (Newman, 1981; Newman and Schreiber, 1988). The most severe of these effects have been observed at concentrations above the secondary ambient air quality standards. Physiological and behavioral effects have been observed in experimental animals at or below these standards. No observable effects to fauna are expected at concentrations below the values reported in Table 5.

The major air quality risk to wildlife in the United States is from continuous exposure to pollutants above the National Ambient Air Quality Standards. This occurs in non-attainment areas (*e.g.*, Los Angeles Basin). Risks to wildlife also may occur for species living in the vicinity of an emission source that experiences frequent upsets or episodic conditions resulting from malfunctioning equipment, unique meteorological conditions, or startup operations (Newman and Schreiber, 1988). Under these conditions, chronic effects (*e.g.*, particulate contamination) and acute effects (*e.g.*, injury to health) have been observed (Newman, 1981).

Table 5. Examples of Reported Effects of Air Pollutants at Concentrations below the Secondary National Ambient Air Quality Standards

Pollutant	Reported Effect	Concentration ($\mu g/m^3$)	Exposure
Sulfur Dioxide[1]	Respiratory stress in guinea pigs	427 to 854	1 hour
	Respiratory stress in rats	267	7 hours/day; 5 day/week for 10 weeks
	Decreased abundance in deer mice	13 to 157	continually for 5 months
Nitrogen Dioxide[2,3]	Respiratory stress in mice	1,917	3 hours
	Respiratory stress in guinea pigs	96 to 958	8 hours/day for 122 days
Particulate Matter[1]	Respiratory stress, reduced respiratory disease defenses	120 PbO_3	continually for 2 months
	Decreased respiratory disease defenses in rats, same with hamsters	100 $NiCl_2$	2 hours

Source: [1]Newman and Schreiber, 1988.
[2]Gardner and Graham, 1976.
[3]Trzeciak et al., 1977.

For impacts on wildlife, the lowest threshold values of SO_2, NO_2, and particulate matter which are reported to cause physiological changes are 13, 96, and 100 $\mu g/m^3$, respectively (Table 5). These values are up to orders of magnitude larger than maximum predicted concentrations for the Class I areas. No effects on wildlife AQRVs from SO_2, NO_x, and particulate matter are expected.

Impacts to Visibility

A change in visibility is characterized by either a change in the visual range, defined as the greatest distance that a large dark object can be seen, or by a change in the light-extinction coefficient (b_{ext}). The b_{ext} is the attenuation of light per unit distance due to the scattering and absorption by gases and particles in the atmosphere. A change in the extinction coefficient produces a perceived visual change that is measured by a visibility index called the deciview. The deciview (dv) is defined as:

$$dv = 10 \ln (1 + b_{exts} / b_{extb})$$

where

b_{exts} is the extinction coefficient calculated for the source, and
b_{extb} is the background extinction coefficient

The source extinction coefficient is determined from NOx, SO_2, and PM_{10} emission's increase from the proposed project. The background extinction coefficient s for each area evaluated are based on existing ambient monitoring data. Based on predicted SO_4, NO_3, and PM_{10} concentrations, the increase in the project's emissions were compared a 5 percent change in light extinction of the background levels. This is equivalent to a change in deciview of 0.5.

The modeling analysis determined the deciview change at receptors along two circles of 64.4 and 81.8 km. These represent the closest and furthest distance of the St. Marks National Wilderness Area (NWA) PSD Class I area from the G-P Hosford Plant. As all of Bradwell Bay NWA lies within 50 km from the project site, a regional haze analysis did not include the Bradwell Bay NWA.

Methodology

Following the recommendations of the Interagency Workgroup on Air Quality Modeling (IWAQM) Phase II report, a level II screening analysis was performed using the California Puff (CALPUFF) long-range transport model, along with an enhanced ISC meteorological data record. The CALPUFF postprocessor model CALPOST was used to summarize the maximum concentrations of SO_4, NO_3, and PM_{10} that were predicted with the CALPUFF model.

CALPUFF used in a manner recommended by the IWAQM Phase 2 Summary Report (EPA, 12/98). A summary of the parameter settings that were used in the CALPUFF model is presented in Table A-1 along with the IWAQM Phase 2 recommended parameter settings. The recommended parameter settings are presented in Appendix B of the IWAQM Phase II Summary Report. The CALPUFF model was used in an ISC screening mode with an "enhanced" ISCST3 meteorological data set.

The following CALPUFF settings/values were implemented in the Level II screening analysis:

- Use of six pollutant species of SO_2, SO_4, NO_x, HNO_3, NO_3, and PM10.
- Use of MESOPUFF II scheme for chemical transformation with CALPUFF default background concentrations
- Include both dry and wet deposition and plume depletion
- Use Agricultural, unirrigated land use; minimum mixing height of 50 m

- Use transitional plume rise, stack-tip downwash, and partial plume penetration
- Use puff plume element dispersion, PG /MP coefficients, rural mode, and ISC building downwash scheme
- Use of partial plume path adjustment terrain effects
- Use highest, second-highest predicted concentration 5 years for comparison to the maximum percent change in extinction

Emission Inventory

Based on recommendations of the IWAQM Phase II Report, the regional haze analysis considered only the maximum 24-hour increase in emissions due to the G-P Hosford Plant's proposed project. A summary of the maximum SO_2, NO_x and PM_{10} emission rates for each source is presented in Table 6.

Table 6. Maximum SO_2, NO_x, and PM_{10} Emission Increases (g/s) for the Regional Haze Analysis

Source	SO_2	NO_x	PM_{10}
EP_1A	0.105	4.62	4.69
EP_1B	0.105	4.62	4.69
EP_2	--	1.35	0.36
EP_3	--	--	0.26
EP_4	--	--	0.33
EP_5	--	--	0.49
EP_6	--	--	0.27
EP_7	--	--	0.043
EP_8	--	--	0.24
EP_9	--	--	0.26
EP_10	0.084	1.68	1.01

Building Wake Effects

The air modeling analysis included the G-P Hosford Plant's building dimensions to account for the effects of building-induced downwash on the emission sources. Dimensions for all significant building structures were processed with the Building Profile Input Program (BPIP), Version 95086, and were included in the CALPUFF model.

Receptor Locations

Receptors were located along a two circles that was centered over the G-P Hosford Plant with radii equal to the minimum (i.e., 64.4 km) and maximum (81.8 km) distances from the St. Marks NWA PSD Class I Area. The circles were each comprised of 180 polar receptors, spaced at 2-degree intervals for a total of 360 receptors. Because the area's terrain is flat, all receptors were assumed to be at zero elevation.

Background Visual Ranges and relative humidity factors

Because PM_{10} is the only pollutant and is non-hydroscopic, relative humidity factors were not required to calculate the change in visibility due to the proposed project. The background extinction coefficient was based on data representative of the mean of the top 20-percentile air quality days. For the St. Marks NWA, a background extinction coefficient of 0.0602 km^{-1} was used, equating to a background visual range of 65 km.

Meteorological Data

A five-year data record was used for years 1986 through 1990. The data set consisting of hourly surface observations from the Tallahassee and twice-daily mixing height data obtained from

Apalachicola National Weather Service (NWS) offices. The surface and upper data were preprocessed into an ASCII modeling format by EPA 's PCRAMMET meteorological preprocessing program. An anemometer height of 25 ft was used.

Additional meteorological parameters were added to the meteorological data records for use with the CALPUFF model. The addition parameters include friction velocity, Monin-Obukhov length, and surface roughness used for calculating dry deposition; precipitation type code and precipitation rate used for calculating wet deposition, and short-wave solar radiation and relative humidity use for calculating chemical transformation rates. The dry deposition parameters were added to the meteorological data records using the PCRAMMET model in dry deposition mode. Using the guidance provided in Section 3.1 of the PCRAMMET User's Manual (8/98), the following input values were selected:

- Surface roughness at both application and measurement sites: 0.15 m
- Noontime Albedo: 0.18
- Bowen Ratio: 0.8
- Anthropogenic Heat flux: 0
- Minimum Monin-Obukhov Length: 2 m
- Fraction of Net Radiation Absorbed by Ground: 0.15

Hourly precipitation amounts, relative humidity and short-wave radiation values were added separately to the meteorological data set. These parameters were obtained from Tallahassee surface data available from Solar and Meteorological Surface Observation Network (SAMSON) data.

Based on the precipitation classification scheme provided in the CALPUFF Users's Manual (Table 2-11) (7/95), each hour's precipitation code was set to 0 1, 2 or 3. An hour in which no precipitation occurred received a code of 0. If precipitation occurred, the code was set from 1 to 3 depending on the intensity. All precipitation was assumed to be in the form of rain.

Chemical Transformation

The air modeling analysis included all chemical transformation processes that occur for the emitted species.

Results

Table 7 summarizes the highest, second-highest concentrations for each species for five years of meteorological data. The maximum concentrations are 0.000962, 0.110, and 0.576 for sulfate, nitrate, and PM_{10}, respectively. Table 8 presents the hourly relative humidity for the worst-case days for each of the species. The computed f(RH) reflect the October 1999 Federal Land Manager's Air Quality Related Values Workgroup (FLAG) Draft Phase I report.

Table 9 presents the visibility calculations. The calculations reflect the IWAQM methodology. The maximum change in perception is 0.491 deciview, or 4.921 percent. This is below the visibility threshold of 5%. Therefore, it is concluded that the G-P Hosford Plant will not pose a significant impact on the visibility at the St. Marks NWR PSD Class I area.

Table 7.Highest-Second Highest Predicted Species Concentrations and Day

Species Predicted	Year	Concentration[a] (ug/m^3)	Julian Day
SO_4	1986	0.000937	303
	1987	0.000878	345
	1988	**0.000962**	**364**
	1989	0.000763	101
	1990	0.000705	71
NO_3	1986	**0.110**	**303**
	1987	0.093	36
	1988	0.107	22
	1989	0.086	40
	1990	0.065	49
PM10	1986	0.463	341
	1987	0.449	245
	1988	**0.576**	**12**
	1989	0.490	21
	1990	0.360	261

a. Predicted with CALPUFF model and ISCST3 meteorological data from Tallahassee/Apalachicola for 1986-1990

Note: Values in bold indicated selected species values and worst days

Table 8. Computed Daily Average RH Factors for Predicted Worst Days

Hour Ending	October 30, 1986		January 12, 1988		December 29, 1988	
	RH(%)	f(RH)	RH(%)	f(RH)	RH(%)	f(RH)
0	90	4.7	88	4.0	83	3.1
1	90	4.7	92	5.9	86	3.6
2	90	4.7	92	5.9	86	3.6
3	90	4.7	88	4.0	86	3.6
4	90	4.7	92	5.9	86	3.6
5	90	4.7	88	4.0	86	3.6
6	90	4.7	88	4.0	80	2.7
7	90	4.7	88	4.0	74	2.1
8	84	3.2	70	1.9	69	1.9
9	78	2.5	55	1.3	61	1.5
10	76	2.3	52	1.3	60	1.4
11	64	1.6	41	1.1	60	1.4
12	62	1.5	37	1.0	56	1.3
13	62	1.5	30	1.0	56	1.3
14	64	1.6	31	1.0	56	1.3
15	66	1.7	29	1.0	53	1.3
16	66	1.7	31	1.0	54	1.3
17	71	2.0	55	1.3	67	1.7
18	73	2.1	73	2.1	80	2.7
19	73	2.1	82	3.0	86	3.6
20	76	2.3	89	4.4	77	2.4
21	78	2.5	92	5.9	83	3.1
22	84	3.2	85	3.4	89	4.4
23	84	3.2	89	4.4	89	4.4
Average		3.03		3.03		2.54

a. Hourly relative humidity data from Tallahassee, Fl

b. Factors are derived from Draft Phase I FLAG Report (October, 1999)

Table 9. Regional Haze Screening Analysis Results, G-P Hosford Mill

Item	Units	Value
Maximum Predicted Concentration	ug/m^3	
PM10		0.576180
SO_4		0.000962
NO_3		0.110120
Computed Concentrations	ug/m^3	
$(NH_4)_2SO_4$		0.001323
NH_4NO_3		0.1421
Average Relative Humidity Factor(a)		3.03
Background Visual Range(b), Vr		65
Background Extinction Coeff.(bext)	km^{-1}	0.0602
Source Extinction Coeff (bexts)	km^{-1}	
$(NH_4)_2SO_4$		0.000012
NH_4NO_3		0.001291
PM10		0.001729
Total bexts	km^{-1}	0.003032
Deciview Change		0.491
Percent Change (%)		4.91
Allowable Criteria (%)		5.0

a. Computed from Tallahassee RH data
b. Provided by U.S. Fish and Wildlife Service

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Attachment F

AIR QUALITY ANALYSIS

ATTACHMENT F

AIR QUALITY ANALYSIS

HOSFORD, FL ORIENTED STRANDBOARD FACILITY

F.1 AIR MODELING METHODOLOGY

F.1.1 Significant Impact Analysis

The proposed project will result in emissions increases above the United States Environmental Protection Agency (US EPA) Prevention of Significant Deterioration (PSD) significant emission rate levels for several criteria pollutants (see Table 5-1 in main body of report): ozone (based on the increase in volatile organic compound (VOC) emissions), particulate matter less than 10 microns in diameter (PM_{10}), nitrogen oxides (NO_x), carbon monoxide (CO) total suspended, and particulate matter (TSP). For PM_{10}, NO_x, and CO, a significant impact analysis was performed to determine whether the emissions result in predicted impacts in excess of the PSD modeling significance levels. Because the project is a completely new facility, the significant impact analysis includes all sources.

In addition to modeling for comparison to the PSD modeling significance levels, the results are also compared to the US EPA monitoring deminimis levels to determine if pre-construction monitoring is required.

Current US EPA and Florida Department of Environmental Protection (FDEP) policies stipulate that the highest predicted annual average and short-term (*i.e.*, 24 hours and less) concentrations be used for comparison to the applicable significant impact levels and deminimis monitoring concentrations.

F.1.2 NAAQS/PSD Class II Modeling Analysis

If the project's net emissions increase results in air quality impacts that are above the significant impact level for a particular pollutant, then more detailed air quality modeling analyses are performed for that pollutant to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) and allowable PSD increments.

In general, when 5 years of meteorological data are used for an air quality modeling analysis, the highest annual and the highest, second-highest (HSH) short-term concentrations are used for comparison to the applicable NAAQS and allowable PSD increments.

The US EPA has promulgated NAAQS for PM_{10}, nitrogen dioxide (NO_2), and CO and allowable PSD Class II increments for PM_{10} and NO_2. The State of Florida has adopted these air quality standards.

For Liberty County, the minor source baseline dates have not been triggered for either PM_{10} or NO_x. The baseline date will be triggered for both pollutants once this PSD permit application is ruled complete.

F.1.3 PSD Class I Modeling Analysis

Generally, if the project site is within 100 kilometers (km) of a PSD Class I area, a significant impact analysis is also performed at the PSD Class I area. Currently, the National Park Service (NPS) has recommended significant impact levels for PSD Class I areas, although the recommended levels have never been promulgated as rules. US EPA has also proposed PSD Class I area significant impact levels, but they have not yet been finalized. The nearest PSD Class I areas to the proposed facility are the St. Marks National Wilderness Area and the Bradwell Bay National Wilderness Area. These areas are within 50 kilometers of the facility, to the southeast, along Florida's coastline. A significant impact analysis was conducted for these areas.

F.1.4 Model Selection

The selection of an appropriate air dispersion model is based on the model's ability to simulate air quality impacts in areas surrounding the proposed Hosford site. The area surrounding the proposed plant is mostly rural and flat. Based on these features, the Industrial Source Complex Short-Term (ISCST3) model (Version 99155) is selected for predicting maximum concentrations in all areas in the vicinity of the plant site.

The criteria used to determine when the rural or urban mode is appropriate are based on land use in the vicinity of the source (Auer, 1978). If the land use is classified as heavy industrial, light-moderate industrial, commercial, or compact residential for more than 50 percent of the area within a 3-km radius circle centered on the plant site, the urban option should be selected. Otherwise, the rural option is more appropriate. Based on an analysis of U.S. Geological Survey (USGS) topographic maps, land use within 3 km of the proposed Hosford Plant is mostly rural. Therefore, the rural mode is used for the ISCST3 modeling.

In this analysis, the US EPA regulatory default options are utilized in the ISCST3 model to predict all maximum impacts. These options include:

1. Final plume rise at all receptor locations
2. Stack-tip downwash
3. Buoyancy-induced dispersion
4. Default wind speed profile coefficients
5. Default vertical potential temperature gradients
6. Calm wind processing

F.1.5 Meteorological Data

Meteorological data used in the modeling analysis to predict air quality impacts consists of a preprocessed, five-year record of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS). The hourly surface observations were collected at the Tallahassee Airport. The upper air data was collected at Apalachicola, Florida. The period of record covers the years 1986 through 1990. FDEP prepared the preprocessed meteorological data and provided it to Georgia-Pacific (G-P). G-P did not perform any additional processing of the data. The NWS office at Tallahassee is located approximately 30 miles northeast of the proposed Hosford Plant and is the closest primary weather station to the study area that is representative. G-P used an anemometer height of 25 feet for the air dispersion modeling analyses.

F.1.6 Ambient Monitoring Analysis

Background concentrations are necessary to determine total ambient air quality impacts to demonstrate compliance with the NAAQS. "Background concentrations" are defined as concentrations due to sources other than those specifically included in the modeling analysis. For all pollutants, background would include other point sources not included in the modeling (*i.e.*, distant sources or small sources, fugitive emission sources, and natural background sources).

PM_{10} Ambient Background Concentrations

Presented in Attachment 1 is a summary of existing continuous ambient PM_{10} data for monitors located in the area for the period 1996 through 1998. Concentration data from monitoring stations from Gulf and Bay counties were selected as being representative of what should be expected at the Hosford site because these stations are closest to Hosford. Concentration data from the Charlotte county, Punta Gorda site was selected as being representative of what should be expected at the Hosford site because this station is located in a rural region. In an effort to chose a conservative background concentration, data for these stations was compiled in a table and the highest ambient concentrations for the 24 and annual averaging periods was chosen.

The PM_{10} monitoring data show that ambient PM_{10} concentrations were well below the ambient air quality standards of 50 micrograms per cubic meter ($\mu g/m^3$) annual average and 150 $\mu g/m^3$ 24-hour average.

For purposes of an ambient PM_{10} background concentration for use in the modeling analysis, the annual average concentration of 27 $\mu g/m^3$ recorded at the Punta Gorda monitor during 1997 was selected. The 24 hour concentration of 54 $\mu g/m^3$ recorded at Port St. Joe during 1998 was selected for use as an ambient PM_{10} background concentration.

NO_x Ambient Background Concentrations

Presented in Attachment 1 is a summary of existing continuous ambient NO_2 data for monitors located in the area. Data are presented for 1996 through 1998. As shown, no NO_2 monitors were operational in the vicinity of Hosford during this period. The nearest NO_2 monitoring stations are located in Pensacola.

The NO_2 monitoring data show that ambient NO_2 concentrations were well below the ambient air quality standards of 100 $\mu g/m^3$ annual average.

For purposes of an ambient NO_2 background concentration for use in the modeling analysis, the annual average concentration of 16 $\mu g/m^3$ recorded at the Pensacola monitor during 1997 was selected. This concentration is very conservative since this monitor is impacted by significant mobile sources in Pensacola, while Hosford has relatively little mobile traffic.

F.1.7 Receptor Locations

Significant Impact/Maximum Impact

For predicting the significant impact area, a polar receptor grid is utilized. The receptors are spaced at 500 m and 1000 m intervals in areas beyond the plant boundary. The receptors extend out from the plant to a distance where no impacts above the significant impact levels are predicted. Along the plant boundary, fenceline receptors are spaced at 50-meter (m) intervals. Access to the G-P property will be restricted along the modeled boundary by man-made boundaries (*e.g.*, fences).

NAAQS/PSD Class II Areas

For the NAAQS and PSD increment analyses, a polar receptor grid, along with discrete receptors placed along the fenceline, is utilized. G-P modeled additional polar receptors beyond the fenceline at 100 to 500 m increments out to a downwind distance of the significant impact distance.

Modeling refinements are performed to ensure that the maximum predicted impacts are identified. If the maximum predicted impact occurs in an area with receptor spacing greater than 100 m, additional receptors, surrounding the maximum impact location, are modeled in a refined analysis. The refined analysis applies receptors spaced 100 m apart or less.

PSD Class I Areas

G-P used discrete Cartesian receptors for the Class I areas. G-P modeled receptors spaced at 2 km and 3 km intervals inside the Class I areas. The total numbers of receptors are 18, and 15 for the Bradwell Bay and St. Marks NWAs, respectively. G-P modeled the proposed plant by itself to determine if the plant will have a significant impact. The maximum impacts were compared to the EPA proposed significant impact levels. If an impact is greater than these levels, then a full PSD Class I analysis was performed. A full PSD Class I analysis includes the G-P plant and additional sources provided by FDEP. The total predicted impact by all sources are compared to the PSD Class I increments.

F.1.8 Source Parameters - G-P Hosford Sources

All proposed G-P emission sources are included in all analyses. The proposed Hosford Plant will operate continuously, and all sources are modeled without any restrictions on the daily or annual hours of operation.

The sources include fuel-burning, material handling sources, and other process equipment. The locations and stack parameters used for the point sources are presented in Table 1. All source locations are relative to the center of the Process Building press with respect to true north (3 degrees counterclockwise from plant north).

Sources that will emit PM_{10} include:

1. Dryer Regenerative Thermal Oxidizer (RTO) stacks (EP-1A and EP-1B),
2. Press Vent RTO stack (EP-2),
3. Thermal Oil Heater with Electrostatic Precipitator (ESP) (EP-10) (in bypass mode only)
4. Seven baghouses for material handling:
   - Screen Fines/Saw Trim Transfer System (EP-3),
   - Saw Trim/Finishing Line (EP-4),
   - Mat Reject/Flying Saw (EP-5),
   - Specialty Saw/Sander (EP-6),
   - Fuel Handling System (EP-7),
   - Forming Bins (EP-8), and
   - Hammermill System (EP-9).

The emission rates for the PM_{10} sources are presented in Table 2.

Sources that will emit CO and NO_2, include the Dryer RTO stacks (EP-1A and EP-1B), the Press Vent RTO stack (EP-2), and the Thermal Oil System Stack (EP-10) (in bypass mode only). No other point sources at the proposed plant emit CO or NO_2. The proposed emission rates for the CO and NO_2, sources are presented in Table 2. EP-1 Dryer emissions include emissions from the Thermal Oil System. The ESP controls the Thermal Oil System emissions. In normal operation, the ESP exhaust will be routed through the Dryer RTO (EP-1A, EP-1B). In bypass mode, the ESP will vent to atmosphere through stack EP-10. The model was run assuming the ESP was bypassing the RTO. This assumption creates a "double-counting" of emissions from the Thermal Oil System.

Table 1. Stack Parameters for Emission Sources at Proposed G-P Plant, Hosford											
		Stack Parameters									
		Source Location (m) [a]		Stack Height		Stack Exit Temp		Stack Exit Velocity		Stack Diameter	
Model ID	Description	X	y	(ft)	(m)	K	F	(fpm)	(m/s)	(in)	(m)
EP-1A	Dryer RTO Stack A	-98.3	-84.3	130	39.6	399.3	259.0	3013	15.31	102	2.59
EP-1B	Dryer RTO Stack B	0	0	130	39.6	399.3	259.0	3013	15.31	102	2.59
EP-2	Press Vent RTO Stack	-167	0.4	100	30.5	340.9	154.0	3633	18.46	86	2.18
EP-3	Screen Fines/Saw Trim Baghouse CP-003	-36.1	8.8	110	33.5	294.3	70.0	3143	15.97	28	0.71
EP-4	Saw Trim/Finishing Line Baghouse CP-001	-272.7	-109.1	100	30.5	294.3	70.0	2970	15.09	44	1.12
EP-5	Mat Reject/Flying Saw Baghouse CP-005	-90.8	-39.7	120	36.6	294.3	70.0	3637	18.48	48	1.22
EP-6	Specialty Saw/Sander Baghouse 1 CP-006-1	-269.7	-106.5	90	27.4	294.3	70.0	2963	15.05	40	1.02
EP-7	Fuel Handling System Baghouse CP-006-2	-43.9	5.7	75	22.9	294.3	70.0	--	0.01[b]	10	0.25
EP-8	Forming Bins Baghouse CP-002	-93.9	-55.3	105	32.0	294.3	70.0	4509	22.91	30	0.76
EP-9	Hammermill/Dry Fuel System Baghouse	-34	10.3	110	33.5	294.3	70.0	2996	15.22	30	0.76
EP-10	Thermal Oil Heating System ESP	-129.5	16.5	120	36.6	644.3	700.0	1250	6.35	66	1.68

Notes:

[a] Source Locations are with respect to the Dryer RTO Stack B in a true north coordinate system.

[b] Source has a raincap, exit velocity set equal to 0.01 m/s.

Table 2. Emission Rates for Sources at Proposed G-P Plant, Hosford							
		Proposed Facility-Wide Emissions					
Model ID	Description	PM_{10} (tpy)	PM_{10} (g/s)	CO (tpy)	CO (g/s)	NO_x (tpy)	NO_x (g/s)
EP-1A	Dryer RTO Stack A	163.05	4.69	73.58	2.12	160.53	4.62
EP-1B	Dryer RTO Stack B	163.05	4.69	73.58	2.12	160.53	4.62
EP-2	Press Vent RTO Stack	12.40	0.36	31.76	0.91	47.00	1.35
EP-3	Screen Fines/Saw Trim Baghouse CP-003	9.2	0.26	---	---	---	---
EP-4	Saw Trim/Finishing Line Baghouse CP-001	11.52	0.33	---	---	---	---
EP-5	Mat Reject/Flying Saw Baghouse CP-005	17.08	0.49	---	---	---	---
EP-6	Specialty Saw/Sander Baghouse 1 CP-006-1	9.5	0.27	---	---	---	---
EP-7	Fuel System Baghouse 2 CP-006-2	1.5	0.043	---	---	---	---
EP-8	Forming Bins Baghouse CP-002	8.32	0.24	---	---	---	---
EP-9	Hammermill/Dry Fuel System Baghouse	9.2	0.26	---	---	---	---
EP-10	Thermal Oil Heating System ESP	35.0	1.01	530	15.2	58.4	1.68
Totals[a]		439.8	12.6	708.9	20.4	426.5	12.3

a Totals may not represent sum of individual values due to rounding.

F.1.9 Building Downwash

In accordance with current US EPA policy, the effect of building downwash on predicted air quality concentration levels is evaluated in the modeling analysis. For this analysis, the US EPA-developed Building Profile Input Program (BPIP, Version 95086) is used to determine the appropriate direction-specific building heights and widths for all point sources at the proposed facility whose stack heights are below that considered good engineering practice (GEP). A summary of the horizontal and vertical structure dimensions at the G-P plant that are considered in the downwash analysis is provided in Table 3.

Table 3. Building Dimensions for Proposed G-P Plant, Hosford

Building Description	Maximum Horizontal Dimensions (ft)		Height (m)
	Length	Width	
Process Building, (Section A)	340	200	22.86
Process Building, (Section B)	480	200	24.38
Process Building, Lower Bay	210	200	15.75
Process Building, High Bay	100	200	26.67
Thermal Oil Building	100	80	18.3
Dryer RTO A	145	23	9.75
Dryer RTO B	145	23	9.75
Press RTO	80	24	9.75
Mechanical Building	180	40	11.7
Dryer Control Building	60	37	10.67
ESP Building 1	37	12	15.5
Administration	280	40	10.67
Finish Warehouse	480	320	11.7

F.1.10 Emission Inventory of Competing Sources

As discussed in the results section (Section F.2), preliminary modeling of the proposed facility indicated a significant impact (*i.e.*, maximum impact at or above the PSD significance levels) for PM_{10} and NO_2. The significant impacts for PM_{10} and NO_2 are predicted to occur up to distances of 14 and 7 km, respectively. No significant impact is predicted for CO. Therefore, a full air quality analysis, to demonstrate compliance with the NAAQS and Class II PSD increments, is performed for PM_{10} and NO_2.

A full analysis must reflect competing facilities with emissions for this pollutant. Competing facilities considered in the analysis include sources within the screening area. The screening area is the area within a circle centered on the proposed facility with a radius equal to the significant impact distance plus 50 km. Therefore, for this facility, the screening areas for PM_{10} and NO_2 are 64 and 57 km, respectively.

FDEP provided for all competing, PM_{10} and NO_2 emitting facilities. Copies of the original emission inventory data are provided in Attachment 1 to this report. Facilities that are beyond G-P's proposed project significant impact distance are evaluated with the North Carolina Screening Technique. Using this technique, facilities whose maximum annual emissions, in tons per year, do not exceed the quantity 20 x (D-S) (where D is the distance between the competing source and G-P Hosford and S is the proposed project's significant impact distance) are eliminated from further consideration in the NAAQS modeling analysis. Additional information on the North Carolina Screening Technique is included in Attachment 2.

A summary of PM_{10} competing facilities within 64 km of the proposed facility site is presented in Table 4. For each facility, its distance and direction relative to the G-P site were determined. Based on the distance, an emission threshold, Q, was determined. Facilities within the significant impact area (*i.e.*, 14 km for PM_{10}) were automatically included in the NAAQS modeling analysis. Emissions for facilities that are beyond the significant impact area were compared to the threshold. If the emissions were below the threshold, the facility was eliminated from the NAAQS modeling analysis.

For facilities that were included in the modeling analysis, the source emission rates and stack parameters were developed for inclusion in the modeling analysis. A summary of these data is presented in Table 5. The emission data represent the maximum potential hourly rate for each source.

For Englehard (Facility ID 0390005) only, sources were combined based on the US EPA's method for merging sources (US EPA, 1992). For each stack, the parameter M was computed as:

$$M = (h_s)(V)(T_s)/(Q)$$

Table 4. PM_{10} Competing Sources Considered in the NAAQS Analysis, G-P Hosford

Facility ID Number	Facility Name	UTM Coordinates East (km)	UTM Coordinates North (km)	Location Relative to G-P Hosford X (m)	Y (m)	Dist. (km)[a]	Facility Wide Data Emission Rate (tpy)	Threshold "Q"	Include in Modeling Analysis
0390029	Station 14	719.9	3377.4	6400	7900	10.2	1.9	63	No
0770009	Timber Energy Resources	709.4	3358.1	-4100	-11400	12.1	48.4	102	No
0390032	C. W. Roberts Contracting Inc.	726.5	3371.4	13000	1900	13.1	2.1	123	No
0390025	Florida Rock Industries, Inc.	728.4	3385.4	14900	15900	21.8	28.4	296	No
0390026	Florida Rock Industries, Inc.	728.4	3385.4	14900	15900	21.8	28.4	296	No
0390030	Harborlite Corporation	729.8	3385.2	16300	15700	22.6	27.9	313	No
0390006	Higdon Furniture Co	729.7	3386.5	16200	17000	23.5	11.0	330	No
0390007	Pat Higdon Industries	729.9	3386.5	16400	17000	23.6	5.0	332	No
0390020	Mactavish Furniture Industries	730.6	3385.8	17100	16300	23.6	13.3	332	No
0390033	Sasser Morgan-Mcclellan Funeral Home	732.6	3386.1	19100	16600	25.3	2.6	366	No
0770007	North Florida Lumber	689.54	3358.88	-23960	-10620	26.2	83.3	384	No
0390005	Engelhard Corporation	732.6	3387.5	19100	18000	26.2	301.0	385	No
0630014	Scholz Plant	702.4	3395.8	-11100	26300	28.5	707.0	431	Yes
0390022	Byrd Landfill	737.6	3385.6	24100	16100	29.0	47.5	440	No
0130007	Blountstown Concrete Plant	684.43	3370.28	-29070	780	29.1	0.9	442	No
0390004	Florida State Hospital – Chattahoochee	707.6	3399.2	-5900	29700	30.3	5.7	466	No
0390034	Chattahoochee Sand And Gravel	703.08	3398.09	-10420	28590	30.4	15.0	469	No
0630044	Apalachee Correctional Institution	703.04	3399.32	-10460	29820	31.6	1.4	492	No
0730003	Arvah B.Hopkins Generating Station	749.53	3371.7	36030	2200	36.1	1767.3	582	Yes
0730040	Mitchell Brothers, Inc.	752	3370.9	38500	1400	38.5	55.8	631	No
7770014	Peavy And Son Construction Company	742.4	3395.2	28900	25700	38.7	22.2	633	No
0730056	General Dynamics	754	3374.4	40500	4900	40.8	10.0	676	No
0730068	Fairchild Cremation Services, Inc.	754.2	3373.5	40700	4000	40.9	0.3	678	No
0730012	Sonas Systems	754.5	3370.4	41000	900	41.0	79.8	680	No
0390009	Havana Mills	747.1	3394.3	33600	24800	41.8	260.0	695	No
0730052	Terminal Service Company	755.2	3373.1	41700	3600	41.9	0.2	697	No
0730072	U.S. Marine	754.98	3379.1	41480	9600	42.6	14.4	712	No
0630028	Marianna Sawmill	683.3	3400.1	-30200	30600	43.0	115.2	720	No
0730057	Talla - Comm Industries Inc.	756.6	3367.3	43100	-2200	43.2	10.0	723	No
0730065	National Linen Service	759	3368.3	45500	-1200	45.5	1.9	770	No
0730046	Florida Rock Industry	759.1	3367.9	45600	-1600	45.6	0.8	773	No
0630046	Dolomite Inc.	673.92	3392.93	-39580	23430	46.0	0.3	780	No
0730069	Fl. Mining & Materials Concrete	759.6	3369.9	46100	400	46.1	0.4	782	No
7770255	Southern Concrete And Construction	759.68	3363.26	46180	-6240	46.6	0.7	792	No
0730009	Physical Plant	760.5	3368.9	47000	-600	47.0	49.5	800	No
0730062	Department Of Management Services	760.9	3370.2	47400	700	47.4	0.2	808	No
0730066	Fl. Mining & Materials Concrete	760.8	3366.1	47300	-3400	47.4	10.0	808	No
0730060	Mcneill Company Inc.	761.7	3364.6	48200	-4900	48.4	39.3	829	No
0730030	Sikes Industries, Inc.	762.4	3369.6	48900	100	48.9	4.4	838	No
7770064	Woodville Plant	762.8	3361.6	49300	-7900	49.9	30.9	859	No
0630035	Plant #2	677	3404.5	-36500	35000	50.6	40.1	871	No
0730042	Culley & Sons Funeral Home	765.2	3372.5	51700	3000	51.8	0.4	896	No
0630052	Concrete Plant #2	672.31	3401.25	-41190	31750	52.0	49.0	900	No
7775064	Anderson Columbia	672.12	3401.19	-41380	31690	52.1	8.0	902	No
0730034	Mitchell Brothers, Inc.	766.2	3372.1	52700	2600	52.8	14.8	915	No
0730059	Fl. Mining & Materials Concrete	766.6	3372.2	53100	2700	53.2	10.0	923	No
0630024	Marianna Concrete Plant	670	3406	-43500	36500	56.8	1.1	996	No
0450008	Eagle Recycling, Inc.	669.14	3333.88	-44360	-35620	56.9	16.8	998	No
0630038	Alliance Laundry Systems Llc	674.4	3412.8	-39100	43300	58.3	11.0	1027	No
1290007	L. B. Brooks	749.5	3322.6	36000	-46900	59.1	10.0	1042	No
0630002	Baxter Asphalt & Concrete	666.7	3406.9	-46800	37400	59.9	43.0	1058	No
1290003	Primex Technologies	767.6	3342.2	54100	-27300	60.6	62.1	1072	No
0630041	Golden Peanut Company	675.2	3416.9	-38300	47400	60.9	40.2	1079	No
1290002	St.Marks Refinery,Inc.	769	3340.1	55500	-29400	62.8	56.7	1116	No
1290001	Tallahassee City Purdom Station	769.5	3339.97	56000	-29530	63.3	689.0	1126	Yes[b]
0630039	Clover Leaf Gin, Incorporated	670.3	3416.3	-43200	46800	63.7	49.3	1134	No
1290005	St. Marks Terminal	769.3	3338.4	55800	-31100	63.9	5.6	1138	No

Notes:

Sources within GP's Significant Impact Area are automatically included in the modeling analysis.

[a] Facilities greater than 64 km from GP were removed from the analysis. (50 km beyond significant impact area (14 km))

[b] Purdom Generating Station was included due to the large amount of particulate emissions from this source.

Table 5. Summary of Modeling Parameters for PM_{10} Competing Sources							
Facility ID	Facility Name/ Stack Description	Model ID	PM_{10} Emission Rate g/s	Stack Height (m)	Stack Diameter (m)	Exit Temperature (K)	Exit Velocity (m/s)
0390005	Englehard Corporation	0390005	8.966	17.68	0.40	299.8	0.00
0390029	Station 14 NG Fired engine, 2,700	0390029A	0.01	15.24	0.43	560.93	52.39
0390029	Station 14 NG Fired engines, 1401, 1402, 1403, 1404, 1405	0390029B	0.0441	8.6	0.44	589	36.6
0390032	CW Roberts – Baghouse	0390032A	0.0378	12.5	1.28	394.26	17.37
0390032	CW Roberts – Asphalt Heater	0390032B	0.0194	4.3	0.2	533.2	4.6
0630014	Scholz - Unit 1	0630014A	7.3961	45.72	4.11	438.71	12.19
0630014	Scholz - Unit 2	0630014B	7.3961	45.72	4.11	438.71	12.19
0730003	Hopkins Boiler #1	0730003A	11.378	67.06	3.35	399.82	11.95
0730003	Hopkins Combustion Turbine #1	0730003B	0.35	8.84	2.8	700.93	34.87
0730003	Hopkins Combustion Turbine #2	0730003C	0.572	9.14	4.48	740.93	21.15
0730003	Hopkins Boiler #2	0730003D	31.50	76.2	4.27	377.59	21
0770009	Timber Energy Resources Boiler	0770009A	1.45	24.69	2.19	460.93	12.19
1290001	Purdom	UNIT7	0.25	54.9	274	422	14.44
1290001	Purdom	GT2	0.01	11.6	3.05	744	25.56
1290001	Purdom	UNIT8	1.14	60.97	5	367	24.24
1290001	Purdom	COOLT	0.3	13.4	10.08	305	7.09

where: M = merged stack parameter which accounts for the relative influence of stack height, plume rise, and emission rate on concentrations

h_s = stack height (m)

V = $(\pi/4)\, d_s^2 v_s$ = stack gas volumetric flow rate (m^3/s)

d_s = inside stack diameter (m)

v_s = stack gas exit velocity (m/s)

T_s = stack gas exit temperature (K)

Q = pollutant emission rate (g/s)

The stack with the lowest value of M is used as the representative stack. Then, the sum of the emissions from all applicable sources is assumed to be emitted from the representative stack. Table 6 summarizes the information for the sources, which are combined for the air modeling analysis.

A summary of NO_2 competing facilities within 57 km of the proposed facility site is presented in Table 7. For each facility, its distance and direction relative to the G-P site were determined. Based on the distance, an emission threshold, Q, was determined. Facilities within the significant impact area (*i.e.*, 7 km for NO_2) were automatically included in the NAAQS modeling analysis. Emissions for facilities that are beyond the significant impact area were compared to the threshold. If the emissions were below the threshold, these facilities were eliminated from the NAAQS modeling analysis.

For facilities that were included in the modeling analysis, the source emission rates and stack parameters were developed for inclusion in the modeling analysis. A summary of these data is presented in Table 8. The emission data represent the maximum potential annual rate for each source.

FDEP also provided an inventory of sources of PM_{10} and NO_2 , which consume and expand PSD increment. Table 9 presents a summary of these non G-P sources for the PSD Class II and Class I analyses.

Table 6. Summary of Stack Merge Calculations for PM_{10} NAAQS Competing Sources

Facility ID	Facility Name	Stack ID	PM_{10} Emission Rate (g/s)	Stack Height (m)	Stack Diameter (m)	Exit Temp (K)	Exit Velocity (m/s)	Computed M Factor
390005	Engelhard Corporation	2	0.8820	18.59	1.55	366.5	10.20	78769
390005	Engelhard Corporation	8	0.8820	18.59	1.55	366.5	10.20	78769
390005	Engelhard Corporation	11	0.3276	12.19	0.76	299.8	15.01	167439
390005	Engelhard Corporation	13	0.1386	15.24	0.37	299.8	33.24	1095791
390005	Engelhard Corporation	14	0.5292	30.48	0.76	328.7	20.18	382066
390005	Engelhard Corporation	15	0.5544	30.48	1.16	328.7	17.16	310036
390005	Engelhard Corporation	16	0.0882	19.81	0.40	299.8	15.31	1031027
390005	Engelhard Corporation	17	0.0630	27.43	0.37	299.8	15.72	2052387
390005	Engelhard Corporation	18	0.4914	24.99	0.64	299.8	32.27	492056
390005	Engelhard Corporation	19	0.8820	18.59	1.55	294.3	10.20	63246
390005	Engelhard Corporation	20	0.0882	16.15	0.37	299.8	15.72	863306
390005	Engelhard Corporation	21	0.0630	16.15	0.37	299.8	13.48	1035967
390005	Engelhard Corporation	22	0.0252	30.48	0.24	299.8	14.15	5130968
390005	Engelhard Corporation	23	0.0252	30.48	0.24	299.8	14.15	5130968
390005	Engelhard Corporation	24	0.0252	30.48	0.24	302.6	14.15	5178506
390005	Engelhard Corporation	25	0.2142	14.63	0.67	299.8	16.04	328405
390005	Engelhard Corporation	26	0.0630	14.63	0.37	299.8	15.72	1094607
390005	Engelhard Corporation	27	0.0504	18.29	0.30	299.8	11.32	1231432
390005	Engelhard Corporation	28	0.3024	19.81	0.76	299.8	12.94	254105
390005	Engelhard Corporation	29	0.5922	28.96	1.98	380.4	18.06	335981
390005	Engelhard Corporation	30	0.5922	28.96	1.98	380.4	18.06	335981
390005	Engelhard Corporation	31	0.0882	27.43	0.55	299.8	19.96	1861576
390005	Engelhard Corporation	32	0.1260	28.96	0.46	299.8	17.25	1188430
390005	Engelhard Corporation	33	0.5040	25.60	1.37	299.8	19.16	291895
390005	Engelhard Corporation	35	0.3024	30.48	0.91	299.8	21.56	651552
390005	Engelhard Corporation	36	0.1260	21.34	0.67	299.8	20.05	1017713
390005	Engelhard Corporation	37	0.0781	17.68	0.40	299.8	0.00	207
390005	Engelhard Corporation	38	0.0479	20.73	0.24	299.8	0.00	396
390005	Engelhard Corporation	39	0.2596	34.44	0.46	299.8	34.50	1372433
390005	Engelhard Corporation	40	0.0252	28.04	0.24	299.8	11.82	3944982
390005	Engelhard Corporation	42	0.0227	10.36	0.61	299.8	1.62	221528
390005	Engelhard Corporation	43	0.0227	14.33	0.24	299.8	10.11	1913933
390005	Engelhard Corporation	44	0.0252	21.64	0.24	299.8	11.82	3044497
390005	Engelhard Corporation	46	0.1474	28.04	0.21	299.8	92.40	5269691
390005	Engelhard Corporation	48	0.0139	19.81	0.24	299.8	0.00	1306
390005	Engelhard Corporation	49	0.0869	31.09	0.30	299.8	25.87	2773910
390005	Engelhard Corporation	50	0.0869	31.09	0.30	299.8	25.87	2773910
390005	Engelhard Corporation	53	0.0164	21.34	0.24	299.8	0.00	1190
390005	Engelhard Corporation	41a	0.0214	27.13	0.30	299.8	6.14	2333168
390005	Engelhard Corporation	41b	0.0050	27.13	0.15	299.8	6.21	10020341
390005	Engelhard Corporation	41c	0.0151	26.82	0.24	299.8	7.07	3762710
390005	Engelhard Corporation	41d	0.0504	27.43	0.30	299.8	15.20	2480457
390005	Engelhard Corporation	41e	0.0151	27.43	0.24	299.8	7.07	3848226
Selected Merged Stack Parameters								
390005	Engelhard Corporation	37	8.9660	17.68	0.40	299.8	0.00	207

Table 7. NO_2 Competing Sources Considered in the NAAQS Analysis, G-P Hosford									
		UTM Coordinates		Location Relative to G-P Hosford			Emissions	Total Emission	Include In
Facility ID Number	Facility Name	East (km)	North (km)	X (m)	Y (m)	Dist. (km)[a]	Threshold "Q"	Rate (tpy)	Modeling Analysis
0390029	Florida Gas Transmission Co	719.9	3377.4	6400	7900	10.2	63	1185.2	Yes
0770009	Timber Energy Resources	709.4	3358.1	-4100	-11400	12.1	102	140.0	Yes
0390032	C. W. Roberts Contracting Inc.	726.5	3371.4	13000	1900	13.1	123	11.9	No
0390030	Harborlite Corporation	729.8	3385.2	16300	15700	22.6	313	9.1	No
0390006	Higdon Furniture Co	729.7	3386.5	16200	17000	23.5	330	1.8	No
0390007	Pat Higdon Industries	729.9	3386.5	16400	17000	23.6	332	0.3	No
0390020	Mactavish Furniture Ind.	730.6	3385.8	17100	16300	23.6	332	4.7	No
0390033	Sasser Morgan-Mcclellan	732.6	3386.1	19100	16600	25.3	366	1.0	No
0770007	North Florida Lumber	689.54	3358.88	-23960	-10620	26.2	384	73.9	No
0390005	Engelhard Corporation	732.6	3387.5	19100	18000	26.2	385	124.0	No
0630014	Gulf Power Co	702.4	3395.8	-11100	26300	28.5	431	1264.9	Yes
0390022	City Of Quincy	737.6	3385.6	24100	16100	29.0	440	97.4	No
0390004	Dept. Of Children + Families	707.6	3399.2	-5900	29700	30.3	466	62.1	No
0630044	Apalachee Correctional	703.04	3399.32	-10460	29820	31.6	492	14.0	No
0730003	City Of Tallahassee Hopkins	749.53	3371.7	36030	2200	36.1	582	3055.1	Yes
0730040	Mitchell Brothers, Inc.	752	3370.9	38500	1400	38.5	631	99.0	No
7770014	Peavy And Son Construction	742.4	3395.2	28900	25700	38.7	633	53.1	No
0730068	Fairchild Cremation Services,	754.2	3373.5	40700	4000	40.9	678	0.2	No
0730012	Sonas Systems Of Florida	754.5	3370.4	41000	900	41.0	680	57.5	No
0390009	Coastal Lumber Co	747.1	3394.3	33600	24800	41.8	695	62.0	No
0630028	Louisiana Pacific Corp	683.3	3400.1	-30200	30600	43.0	720	10.3	No
0730065	National Linen Service	759	3368.3	45500	-1200	45.5	770	5.4	No
0730009	Florida A&M University	760.5	3368.9	47000	-600	47.0	800	98.1	No
0730062	Department Of Mgmt Services	760.9	3370.2	47400	700	47.4	808	2.9	No
7770064	Peavy & Son Construction Co.	762.8	3361.6	49300	-7900	49.9	859	83.4	No
0630035	Anderson Columbia Company,	677	3404.5	-36500	35000	50.6	871	5.6	No
0730034	Mitchell Brothers, Inc.	766.2	3372.1	52700	2600	52.8	915	26.0	No
0450008	Eagle Recycling, Inc.	669.14	3333.88	-44360	-35620	56.9	998	2.5	No
1290001	Tallahassee City Purdom	769.5	3339.97	56000	-29530	63.3	1126	2719.3	Yes[a]

Notes:

Sources within GP's Significant Impact Area are automatically included in the modeling analysis.

[a] Facilities greater than 57 km from GP were removed from the analysis. (50 km beyond significant impact area (7 km))

[a] Purdom Generating station was included in the analysis due to it's large NO_X emissions.

Table 8. Summary of Modeling Parameters for NO_2 Competing Sources								
Facility ID	Facility Name/ Stack Description	Model ID	NO_2 Emission Rate g/s	Stack Height (m)	Stack Diameter (m)	Exit Temperature (K)	Exit Velocity (m/s)
0390029	Florida Gas, Station 14 – 2,700 Gas Fired Engine	0390029A	1.34	15.2	0.43	561	52.39
0390029	Florida Gas, Station 14 – 4 Gas-Fired Engines (1401-1405)	0390029B	32.76	8.6	0.44	589	36.60
0630014	Gulf Power , Scholz – Unit 1	0630014A	59	45.72	4.11	438.71	12.19
0630014	Gulf Power, Scholz – Unit 2	0630014B	59	45.72	4.11	438.71	12.19
0730003	Hopkins Boiler #1	0730003A	50	67.06	3.35	399.80	11.95
0730003	Hopkins Combustion Turbine #1	0730003B	6.46	8.84	2.8	700.93	34.87
0730003	Hopkins Combustion Turbine #2	0730003C	10.5	9.14	4.48	740.93	21.15
0730003	Hopkins Boiler #2	0730003D	94.5	76.2	4.27	377.59	21
0770009	Timber Energy Resources Carbonaceous Boiler	0770009A	4.2	24.69	2.19	460.93	12.19
1290001	Purdom Generating Station	UNIT7	13.2	54.9	2.74	422	14.44
1290001	Purdom Generating Station	GT2	0.21	11.6	3.05	744	25.56
1290001	Purdom Generating Station	AUXBOIL	0.00299	9.2	0.61	450	6.47

Table 9. Summary of PSD Increment Analysis Competing Sources provided by FDEP									
			Emission Rate (g/s)		Stack	Stack	Exit	Exit
Facility ID Number	Facility Name/ Stack Description	MODEL ID	NOx	PM_{10}	Height (m)	Diameter (m)	Temp (K)	Velocity (m/s)
0730003	**City of Tallahassee Hopkins Generating Station**							
	Boiler #2	HOPK	94.5	29.32	76.2	4.27	400	21.0
1290001	**City of Tallahassee Purdom Generating Station**							
	Unit #2	UNIT2	--	-1.81	26.0	1.95	478	5.89
	Unit #3	UNIT3	--	-1.81	26.0	1.95	478	5.89
	Unit #4	UNIT4	--	-1.81	26.0	1.95	478	5.89
	Unit #5	UNIT5	-0.52	-4.73	38.1	3.96	447	7.23
	Unit #6	UNIT6	-1.25	-4.73	38.1	3.96	447	7.23
	Unit #7	UNIT7	11.98	--	54.9	2.74	422	14.44
	Unit #8	UNIT8	--	2.14	54.9	5.00	353	15.38
	Cool T.	COOLT	--	0.30	13.4	10.08	305	7.09
	Gas Turbine	GT2	0.17	--	11.6	3.05	744	25.56
	Auxiliary Boiler	AUXBOIL	0.0675	--	9.2	0.61	450	6.47

F.2 AIR MODELING ANALYSIS RESULTS

F.2.1 Significant Impact Analysis

Particulate Matter

By modeling the emissions that would result from the proposed project, it was determined that the proposed facility will have a significant PM_{10} impact out to 14 km. The results of the significant impact analysis are presented in Table 10. The maximum 24-hour total PM_{10} impact due to the proposed project is 31.7 μg/m^3, which is above the modeling and monitoring significance levels of 5 and 10 μg/m^3, respectively. Also, the maximum annual value of 7.1 μg/m^3 exceeds the modeling significance level for that averaging period. Therefore, full NAAQS and PSD Class II increment analyses are performed for PM_{10}.

Nitrogen Dioxide

By modeling the emissions that would result from the proposed project, it was determined that the proposed facility will have a significant NO_2 impact out to 7 km. The results of the significant impact analysis are presented in Table 11. For this analysis, all of the NO_x is assumed to be converted to NO_2. The maximum annual impact due to the proposed project is 3.8 μg/m^3, which is above the modeling significance level of 1 μg/m^3, but below the monitoring significance level of 14 μg/m^3. Therefore, a full NAAQS analysis is performed for NO_2, but pre-construction monitoring is not required.

Carbon Monoxide

The results of the CO significant impact analysis are presented in Table 12. The maximum 1-hour and 8-hour CO impacts due to the proposed project are 654 and 276 μg/m^3, respectively. These impacts are well below the modeling significance levels of 2000 and 500 μg/m^3 for the 1-hour and 8-hour averaging periods, respectively. Therefore, NAAQS and Class II increment analyses are not performed for CO. Furthermore, the maximum 8-hour concentration is much less than the monitoring significance level of 575 μg/m^3. As such, pre-construction monitoring is not required for CO.

Table 10. Significant Impact Analysis Results, PM_{10}								
Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location[a]		Period Ending (YYMMDDHH)	Modeling Significance Level ($\mu g/m^3$)	Monitoring Significance Level ($\mu g/m^3$)	Maximum Distance to Significant Impact (km)
			Distance X (m)	Distance Y (m)				
24-hour	1986	27.7	-186	-556	86110124	5	10	14
	1987	25.1	-245	-544	87090424	5	10	10
	1988	27.7	-186	-556	87010824	5	10	14
	1989	31.7	744	462	89060924	5	10	7
	1990	25.1	-478	-165	89022724	5	10	7
Annual	1986	4.4	-186	-556	---	1	---	6
	1987	7.1	-186	-556	---	1	---	7
	1988	6.1	-186	-556	---	1	---	7
	1989	3.8	-52	295	---	1	---	4
	1990	3.7	-42	-234	---	1	---	4

Note: YY= year, MM=Month, DD=Day, HH=Hour.
[a] Relative to Dryer RTO Stack B

Table 11. Significant Impact Analysis Results, NO_2							
Averaging Period	Year	Modeled Concentration[b] ($\mu g/m^3$)	Receptor Location[a]		Modeling Significance Level ($\mu g/m^3$)	Monitoring Significance Level ($\mu g/m^3$)	Maximum Distance to Significant Impact (km)
			Distance X (m)	Distance Y (m)			
	1986	2.2	-245	-544	1	14	5
Annual	1987	3.8	-245	-544	1	14	7
	1988	3.2	-205	-564	1	14	6
	1989	2.1	-131	227	1	14	4
	1990	2.4	-131	227	1	14	4

[a] Relative to Dryer RTO Stack B
b Assumes full conversion of NO_x to NO_2.

Table 12 Significant Impact Analysis Results, CO							
Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location[a]		Period Ending (YYMMDDHH)	Modeling Significance Level ($\mu g/m^3$)	Monitoring Significance Level ($\mu g/m^3$)
			Distance X (m)	Distance Y (m)			
1-hour	1986	645	-131	227	86021721	2000	---
	1987	609	-103	282	87120324	2000	---
	1988	638	-180	224	88112004	2000	---
	1989	654	-84	231	89020320	2000	---
	1990	630	-180	224	90082407	2000	---
8-hour	1986	276	42	240	86040824	500	575
	1987	171	-193	230	87041224	500	575
	1988	216	-193	230	88042408	500	575
	1989	177	-131	227	89012916	500	575
	1990	201	-422	-74	90022708	500	575

Note: YY= year, MM=Month, DD=Day, HH=Hour.

[a] Relative to Dryer RTO Stack B

F.2.2 NAAQS Analysis

Particulate Matter

Background concentrations of 54 and 27 $\mu g/m^3$ are added to the modeling results for the 24-hour and annual averaging periods, respectively. A summary of the PM_{10} NAAQS modeling results is presented in Table 13. From the modeling, the highest, second-highest 24-hour average and the maximum annual concentrations are 29.6 and 7.3 $\mu g/m^3$, respectively.

As summarized in Table 14, when adding the background concentrations, the highest, second-highest 24-hour average and maximum annual values are 83.6 and 34.3 $\mu g/m^3$, respectively. These impacts are less than the NAAQS of 150 and 50 $\mu g/m^3$ for the 24-hour and annual averaging periods, respectively. Therefore, it is demonstrated that the proposed facility will not cause or contribute to a violation of the NAAQS.

Nitrogen Dioxide

A background concentration of 16 $\mu g/m^3$ is added to the modeling results. A summary of the NO_2 NAAQS modeling results is presented in Table 15. From the modeling, the highest annual concentration is 16.2 $\mu g/m^3$.

As summarized in Table 16, when adding the background concentration, the maximum annual value is 32.2 $\mu g/m^3$. This impact is less than the NAAQS of 100 $\mu g/m^3$. Therefore, it is demonstrated that the proposed facility will not cause or contribute to a violation of the NAAQS.

Table 13. NAAQS Modeling Results, PM_{10}						
Averaging Period	Year	Modeled Concentration (µg/m³)	Receptor Location[a]		Period Ending (YYMMDDHH)	NAAQS (µg/m³)
			Distance X (m)	Distance Y (m)		
24-hour HSH	1986	26.3	-186	-556	86111324	150
	1987	23.1	-88	-575	87021824	150
	1988	24.4	-201	-553	88020524	150
	1989	29.6	670	394	89061024	150
	1990	22.1	-478	-165	90042024	150
Annual	1986	4.5	-186	-556	---	50
	1987	7.3	-186	-556	---	50
	1988	6.3	-186	-556	---	50
	1989	4.0	-52	295	---	50
	1990	3.9	-41	234	---	50

Note: YY= year, MM=Month, DD=Day, HH=Hour, HSH= High,Second Highest

[a] Relative to Dryer RTO Stack B

Table 14. Total NAAQS Results (Modeled + Background), PM_{10}				
Averaging Period	Modeled Concentration (µg/m³)	Background Concentration (µg/m³)	Total Concentration (µg/m³)	NAAQS (µg/m³)
24-hour HSH	29.6	54	83.6	150
Annual	7.3	27	34.3	50

Note: HSH= High, Second Highest

Table 15. NAAQS Modeling Results, NO_2					
Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location[a]		NAAQS ($\mu g/m^3$)
			Distance X (m)	Distance Y (m)	
Screening Analysis					
Annual	1986	9.2	5362	4500	100
	1987	14.4	6062	3500	100
	1988	13.7	6062	3500	100
	1989	8.1	6062	3500	100
	1990	6.2	6062	3500	100
Refined Analysis					
Annual	1987	16.2	5517	4310	100

Note: YY= year, MM=Month, DD=Day, HH=Hour.

[a] Relative to Dryer RTO Stack B

Table 16. Total NAAQS Results (Modeled & Background), NO_2				
Averaging Period	Modeled Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
Annual	16.2	16	32.2	100

F.2.3 Class II Increment Analysis

Particulate Matter

The results for the PM_{10} PSD Class II increment analysis are summarized in Table 17. Since five years of meteorological data are utilized in the analysis, the highest, second-highest 24-hour concentrations are used for comparison to the increment value. The highest, second-highest 24-hour average and the maximum annual concentrations are 29.6 and 7.1 $\mu g/m^3$, respectively. These values are less than the PSD Class II increments of 30 and 17 $\mu g/m^3$, for the 24-hour and annual averaging periods, respectively. As such, it is demonstrated that this project will not cause or contribute to a violation of the PSD increments.

Nitrogen Dioxide

The results for the NO_2 PSD Class II increment analysis are summarized in Table 18. The maximum annual average concentration is 3.9 $\mu g/m^3$, which is less than the allowable PSD Class II increment of 25 $\mu g/m^3$. As such, it is demonstrated that this project will not cause or contribute to a violation of the PSD increment.

F.2.4 Class I Area Significant Impact Analysis

The results of the PM_{10} and NO_2 Class I increment analyses are presented in Table 19.

Particulate Matter

The maximum 24-hour and annual PM_{10} concentrations are 1.60 and 0.068 $\mu g/m^3$, respectively. The 24 hour concentration is above the US EPA proposed PSD Class I significance levels of 0.3 $\mu g/m^3$ for the 24-hour and annual averaging periods, respectively. Therefore, further analysis for the PSD Class I Area is performed for PM_{10}.

Nitrogen Dioxide

The maximum annual NO_2 concentration, conservatively assuming full conversion of NO_x to NO_2, is 0.068 $\mu g/m^3$. This value is well below the US EPA proposed PSD Class I significance level of 0.1 $\mu g/m^3$. Therefore, no further analysis for the PSD Class I area is performed.

Table 17. PSD Class II Increment Analysis, PM_{10}

Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Receptor Location[a] Distance X (m)	Receptor Location[a] Distance Y (m)	Period Ending (YYMMDDHH)	PSD Increment ($\mu g/m^3$)
24-hour	1986	26.3	-186	-556	86111324	30
	1987	23.1	-88	-575	87021824	30
	1988	24.4	-201	-553	88020524	30
	1989	29.6	670	394	89061024	30
	1990	21.9	-478	-165	90042024	30
Annual	1986	4.3	-186	-556	---	17
	1987	7.1	-186	-556	---	17
	1988	6.1	-186	-556	---	17
	1989	3.8	-52	295	---	17
	1990	3.7	-41	234	---	17

Note: YY= year, MM=Month, DD=Day, HH=Hour.
[a] Relative to RTO Stack B

Table 18. PSD Class II Increment Analysis, NO_2

Averaging Period	Year	Modeled Concentration[b] ($\mu g/m^3$)	Receptor Location[a] Distance X (m)	Receptor Location[a] Distance Y (m)	PSD Increment ($\mu g/m^3$)
Annual	1986	2.3	-245	-544	25
	1987	3.9	-245	-544	25
	1988	3.3	-205	-564	25
	1989	2.2	-131	227	25
	1990	2.5	-131	227	25

[a] Relative to RTO Stack B
[b] Assumes full conversion of NO_x to NO_2.

Table 19. Class I Increment Significant Impact Analysis, PM_{10} and NO_2

Pollutant	Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Period Ending (YYMMDDHH)	Screening Level[a] ($\mu g/m^3$)
PM_{10}	24-hour	1986	1.23	86090524	0.3
		1987	0.87	87012524	0.3
		1988	1.60	88121724	0.3
		1989	1.16	89022424	0.3
		1990	1.29	90102424	0.3
	Annual	1986	0.048	---	0.2
		1987	0.035	---	0.2
		1988	0.038	---	0.2
		1989	0.068	---	0.2
		1990	0.058	---	0.2
NO_2	Annual	1986	0.039	---	0.1
		1987	0.029	---	0.1
		1988	0.031	---	0.1
		1989	0.055	---	0.1
		1990	0.047	---	0.1

Note: YY= year, MM=Month, DD=Day, HH=Hour.
[a] US EPA proposed screening levels for Class I areas.

F.2.5 Full PSD Class I Increment Analysis for PM_{10}

The refined analysis for PM_{10} accounts for sources, which are consuming increment in the PSD Class I Area, as well as sources that were in operation when baseline date was established and have been removed from service or had their emissions reduced. The maximum 24-hour and annual PM_{10} modeled concentrations are 0.96 and 0.048 $\mu g/m^3$, respectively. These values are less than the PSD Class I increments of 8 and 4 $\mu g/m^3$, for the 24-hour and annual averaging periods, respectively. As such, it is demonstrated that this project will not cause or contribute to a violation of the PSD increments.

Table 20. Class I Increment Analysis, PM_{10}

Pollutant	Averaging Period	Year	Modeled Concentration ($\mu g/m^3$)	Period Ending (YYMMDDHH)	PSD Class I Increment ($\mu g/m^3$)
PM_{10}	24-hour	1986	0.73	86021524	8
		1987	0.63	87061324	8
		1988	0.76	88042924	8
		1989	0.96	89091724	8
		1990	0.91	90041624	8
	Annual	1986	0.017	---	4
		1987	0.013	---	4
		1988	0.011	---	4
		1989	0.048	---	4
		1990	0.033	---	4

Note: YY= year, MM=Month, DD=Day, HH=Hour.

[a] US EPA proposed screening levels for Class I areas.

Attachment 1

BACKGROUND CONCENTRATIONS

Table A1-1Summary of NO_2 Ambient Monitoring Data Collected near Hosford					
Year	County	Station ID	Monitor Location	Number of Observations	Concentration Annual Average ($\mu g/m^3$)
1998	No data available for stations near Hosford				
1997	Escambia	3540-004-F01	Pensacola/Ellyson Industrial Park	6161	16
1996	Escambia	3540-004-F01	Pensacola/Ellyson Industrial Park	3548	15
				Selected Background Concentration	**16**

Note: $\mu g/m^3$= micrograms per cubic meter.

Table A1-2. Summary of PM_{10} Ambient Monitoring Data Collected Near Hosford						
Year	County	Station ID	Monitor Location	Number of Observations	Concentration 2nd High 24 Hour Average ($\mu g/m^3$)	Concentration Annual Average ($\mu g/m^3$)
1998	Bay	12-005-1004	Panama City, Cherry St and Henderson Ave S.T.P.	27	52	No Data
1998	Gulf	12-045-1003	Port St. Joe, Water Plant on Kenny's Mill Road	30	54	No Data
1997	Charlotte	3760-002-F01	Punta Gorda/3201 Golf Course Blvd.	27	43	27
1996	Bay	3480-004-F02	Panama City, Cherry St and Henderson Ave S.T.P.	57	50	23
1996	Gulf	3740-003-F02	Port St. Joe, Water Plant on Kenny's Mill Road	59	47	20
				Selected Background Concentration	**54**	**27**

Note: $\mu g/m^3$ = micrograms per cubic meter.

Attachment 2

FDEP EMISSIONS INVENTORY

Table 1-1, Summary of Air Pollutant Standards and Terms

Gulf Power Company
Scholz Generating Plant

FINAL Permit No.: 0630014-001-AV
Facility ID No.: 0630014

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of the permit.

E. U. ID No.	Brief Description	Pollutant Name	Fuel(s)	Hours/ Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See Permit Condition(s)
					Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
-001	Boiler #1	VE	Coal	8760	40%			N/A	N/A	62-296.405(1)(a)	A.5.
	(645.7 MMBtu/hour - Coal)		Liquid Fuel	8760	40%			N/A	N/A	62-296.405(1)(a)	A.5.
	(12.4 MMBtu/hour -Oil)	PM	Coal	8760	0.1 lb/MMBtu	N/A	N/A	64.6	282.9	62-296.405(1)(b)	A.7.
			Liquid Fuel	8760	0.1 lb/MMBtu	N/A	N/A	1.2	5.4	62-296.405(1)(b)	A.7.
		PM - SB	Coal	3 hr/day	0.3 lb/MMBtu	N/A	N/A	193.7	353.5	62-210.700(3)	A.8.
	-Acid Rain Phase I Unit	**	Liquid Fuel	3 hr/day	0.3 lb/MMBtu	N/A	N/A	3.7	6.8	62-210.700(3)	A.8.
	-Acid Rain Phase II Unit	SO_2	Coal	8760	6.17 lb/MMBtu	N/A	N/A	3,984.0	17,449.8	62-204.240(1)	A.9.
			Liquid Fuel	8760	2.75 lb/MMBtu	N/A	N/A	34.1	149.4	62-296.405(1)(c)1.j.	A.10
-002	Boiler #2	VE	Coal	8760	40%			N/A	N/A	62-296.405(1)(a)	A.5.
	(645.7 MMBtu/hour - Coal)		Liquid Fuel	8760	40%			N/A	N/A	62-296.405(1)(a)	A.5.
	(12.4 MMBtu/hour - Oil)	PM	Coal	8760	0.1 lb/MMBtu	N/A	N/A	64.6	282.9	62-296.405(1)(b)	A.7.
			Liquid Fuel	8760	0.1 lb/MMBtu	N/A	N/A	1.2	5.4	62-296.405(1)(b)	A.7.
		PM - SB	Coal	3 hr/day	0.3 lb/MMBtu	N/A	N/A	193.7	353.5	62-210.700(3)	A.8.
	-Acid Rain Phase I Unit	**	Liquid Fuel	3 hr/day	0.3 lb/MMBtu	N/A	N/A	3.7	6.8	62-210.700(3)	A.8.
	-Acid Rain Phase II Unit	SO_2	Coal	8760	6.17 lb/MMBtu	N/A	N/A	3,984.0	17,449.8	62-2204.240(1)	A.9.
			Liquid Fuel	8760	2.75 lb/MMBtu	N/A	N/A	34.1	149.4	62-296.405(1)(c)1.j.	A.10

Notes:
* The "Equivalent Emissions" listed are for informational purposes.
** PM - SB refers to "soot blowing" and "load change".

Section IV. Acid Rain Part.

Operated by: Gulf Power Company
ORIS Code: 0642

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions units listed below are regulated under Acid Rain, Phase II.

E.U. ID No.	Description
-001	Boiler Number 1 - 645.7 MMBtu/hour
-002	Boiler Number 2 - 645.7 MMBtu/hour

A.1. The Phase II permit applications, the Phase II NO_X compliance plans and the Phase II NO_X averaging plans submitted for this facility, as approved by the Department, are a part of this permit (included as Attachments). The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the applications listed below:

a. DEP Form No. 62-210.900(1)(a), F.A.C., received 12/18/95 (Signed 12/8/95).
b. DEP Form No. 62-210.900(1)(a)4., F.A.C., received 12/22/97 (Signed 12/18/97).
c. DEP Form No. 62-210.900(1)(a)5., F.A.C., received 08/24/99 (signed 08/17/99).

[Chapter 62-213 and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO_2) allowance allocations and nitrogen oxide (NO_X) requirements for each Acid Rain unit are as follows:

E.U. ID #	EPA ID	Year	2000	2001	2002	2003	2004
-001	**ID No. 1 Boiler 1**	**SO_2 allowances, under Table 2, 3, or 4 of 40 CFR 73**	1,958*	1,958*	1,958*	1,958*	1,958*
		NO_X limit	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2000, 2001, 2002, 2003 and 2004. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.68** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 1,855,434** MMBtu. Also, see Additional Requirements 1, 2 and 3, below.				

E.U. ID #	EPA ID	Year	2000	2001	2002	2003	2004
-002	**ID No. 2 Boiler 2**	**SO_2 allowances, under Table 2, 3, or 4 of 40 CFR 73**	2,050*	2,050*	2,050*	2,050*	2,050*
		NO_X limit	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO_X emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2000, 2001, 2002, 2003 and 2004. Under each plan, this unit's NO_X emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.77** lb/MMBtu. In addition, this unit shall not have an annual heat input **greater than 1,864,795** MMBtu. Also, see Additional Requirements 1, 2 and 3, below.				

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2, 3, or 4 of 40 CFR 73.

Additional Requirements

1. Under the plan (NO_X Phase II averaging plan), the actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.

2. In accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only after the Alabama Department of Environmental Management, the Jefferson County (Alabama) Department of Health, the Georgia Department of Natural Resources and the Mississippi Department of Environmental Quality, have also approved this averaging plan.

3. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

Phase I Station Characteristics

Compressor Station:	Number 14
Name:	Quincy
County:	Gadsden
Nearest City:	Quincy
Compressor Supervisor:	James Dollar
Mailing Address:	Route 3, Box 3390 Quincy, Florida 32351-9803
Telephone:	904-627-8090
Latitude:	30-30-38
Longitude:	84-42-28
UTM Zone:	16
UTM Easting:	719.97 km
UTM Northing:	3,377.39 km
Elevation (ft):	260

Phase I Engine Characteristics

Engine Identification	1	2	3	4	5
Permit Number					
Serial Nnumber	G-2369	G-2370	G-2371	G-2662	G-2779
Operating Time					
Hours/Day	24	24	24	24	24
Days/Week	7	7	7	7	7
Weeks/Year	52	52	52	52	52
Engine Type	Recip	Recip	Recip	Recip	Recip
Date of Installation	1958	1958	1958	1966	1968
Engine Make	Worthington	Worthington	Worthington	Worthington	Worthington
Engine Model	SEHG-8	SEHG-8	SEHG-8	SEHG-8	SEHG-8
Horsepower Rating	2000	2000	2000	2000	2000
Air Charging	Turbo.	Turbo.	Turbo.	Turbo.	Turbo.
Exhaust Temperature (F)	600	600	600	600	600
Mass Flow Rate (lbs/hr) (a)	26172	26172	26172	26172	26172
Volumetric Flow Rate (acfm)	11637	11637	11637	11637	11637
Volumetric Flow Rate (dscfm)	5333	5333	5333	5333	5333
Exit Velocity (af/s)	119.5	119.5	119.5	119.5	119.5
Water Vapor Content (%)	8	8	8	8	8
Ave. Fuel Consumption (MMCF/Hr) (b)	0.0144	0.0144	0.0144	0.0144	0.0144
Max. Fuel Consumption (MMCF/Hr) (b)	0.0144	0.0144	0.0144	0.0144	0.0144
Specific Fuel Consump. (BTU/bhp-hr)	6350	6350	6350	6350	6350
Maximum Heat Input (MMBTU/Hr)	15	15	15	15	15
Stack Height (ft)	28.08	28.08	28.08	28.08	28.08
Stack Diameter (in)	17.25	17.25	17.25	17.25	17.25
Stack to Building Offset (ft)	17.00	17.00	17.00	17.00	17.00
Building Height (ft) (c)	31.75	← Same	← Same	← Same	← Same
Building Length (ft) (c)	240 ~~200.00~~	←	←	←	←
Building Width (ft) (c)	55.00	←	←	←	←

Phase I Fuel Characteristics

Fuel Type	N.G.	N.G.	N.G.	N.G.	N.G.
Heating Value (BTU/CF)	1040	1040	1040	1040	1040
Heat Capacity (BTU/lb)	22857	22857	22857	22857	22857
Density (lb/cubic ft)	0.0455	0.0455	0.0455	0.0455	0.0455
Percent Sulfur (%) (d)	0.031	0.031	0.031	0.031	0.031
Percent Ash (%)	N/A	N/A	N/A	N/A	N/A

Phase II Station Characteristics

Compressor Station:	Number 14
Name:	Quincy
County:	Gadsden
Nearest City:	Quincy
Compressor Supervisor:	James Dollar
Mailing Address:	Route 3, Box 3390
	Quincy, Florida 32351-9803
Telephone:	904-627-8090
Latitude:	30-30-38
Longitude:	84-42-28
UTM Zone:	16
UTM Easting:	719.97 km
UTM Northing:	3,377.39 km
Elevation (ft):	260

Phase II Engine Characteristics

Engine Identification	6
Permit Number	
Serial Nnumber	48489
Operating Time	
Hours/Day	24
Days/Week	7
Weeks/Year	52
Engine Type	Recip
Date of Installation	1991
Engine Make	Cooper-Bessemer
Engine Model	GMVR-12 C2
Horsepower Rating	~~2400~~ 2700
Air Charging	Turbo.
Exhaust Temperature (F)	550
Mass Flow Rate (lbs/hr) (a)	36860
Volumetric Flow Rate (acfm)	15857
Volumetric Flow Rate (dscfm)	7511
Exit Velocity (af/s)	71.68
Water Vapor Content (%)	8
Ave. Fuel Consumption (MMCF/Hr) (b)	0.0162
Max. Fuel Consumption (MMCF/Hr) (b)	0.0162
Specific Fuel Consump. (BTU/bhp-hr)	7000
Maximum Heat Input (MMBTU/Hr)	16.8
Stack Height (ft)	50.75
Stack Diameter (in)	26
Stack to Building Offset (ft)	17.00
Building Height (ft) (c)	31.75
Building Length (ft) (c)	240.00
Building Width (ft) (c)	55.00

Phase II Fuel Characteristics

Fuel Type	N.G.
Heating Value (BTU/CF)	1040
Heat Capacity (BTU/lb)	22857
Density (lb/cubic ft)	0.0455
Percent Sulfur (%) (d)	0.031
Percent Ash (%)	N/A

Table 1-1, Summary of Air Pollutant Standards and Terms

Florida Gas Transmission
Compressor Station No. 14

FINAL Permit No.: 0390029-001-AV
Facility ID No.: 0390029

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
006	Internal Combustion Engine No. 1406

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
Nitrogen Oxides	Gas	8760		10.6	46.4			62-212.400	III.A.5
Carbon Monoxide	Gas	8760		11.1	48.7			62-212.400	III.A.5
VOC (non methane)	Gas	8760		2.6	11.5			62-212.400	III.A.5
PM (TSP)	Gas	8760		0.08	0.35			62-212.400	III.A.5
PM (PM10)	Gas	8760		0.08	0.35			62-212.400	III.A.5
Sulfur Dioxide	Gas	8760		0.46	2.0			62-212.400	III.A.5
Visible Emissions	Gas	8760		5% Opacity				62-212.400	III.A.5

E.U. ID No.	Brief Description
007	Internal Combustion Engines No. 1401, 1402, 1403, 1404, 1405

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
Nitrogen Oxides	Gas	8760				260.0	1,138.8		
Carbon Monoxide	Gas	8760				35.3	154.6		
VOC (non methane)	Gas	8760				15.9	69.65		
PM (TSP)	Gas	8760				0.35	1.65		
PM (PM10)	Gas	8760				0.35	1.65		
Sulfur Dioxide	Gas	8760				2.1	9.0		
Visible Emissions	Gas	8760				5% Opacity			

NOTES: * The " Equivalent Emissions" listed are for informational purposes only.

Table 1-1. Summary of Air Pollutant Standards and Terms

Engelhard Corporation
Quincy Operations

FINAL Permit No.: 0390005-002-AV
Facility ID No.: 0390005

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

GEL CLAY PRODUCTION EQUIPMENT NOT SUBJECT TO NSPS (BAGHOUSES)

E.U. ID No.	**Brief Description**
017	Min-U-Gel Truck Loading and Bagging

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	0.5	2.2			62-212.400, F.A.C.	A.4.
VE			5% opacity					62-212.400, F.A.C.	A.3.

E.U. ID No.	**Brief Description**
021	Coarse Gel West Bagging

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	0.5	1.9			62-212.400, F.A.C.	A.4.
			5% opacity					62-212.400, F.A.C.	A.3.

E.U. ID No.	**Brief Description**
022	East Product Storage Bin

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	0.2	0.9			62-212.400, F.A.C.	A.4.
			5% opacity					62-212.400, F.A.C.	A.3.

E.U. ID No.	**Brief Description**
023	West Product Storage Bin

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	0.2	0.9			62-212.400, F.A.C.	A.4.
			5% opacity					62-212.400, F.A.C.	A.3.

E.U. ID No.	**Brief Description**
024	Miscellaneous Product Storage Bin

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	0.2	0.9			62-212.400, F.A.C.	A.4.
			5% opacity					62-212.400, F.A.C.	A.3.

E.U. ID No.	**Brief Description**
025	Fine Gel Mill Product Collector

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	1.7	7.3			62-212.400, F.A.C.	A.4.
			5% opacity					62-212.400, F.A.C.	A.3.

E.U. ID No.	**Brief Description**
026	Fine Gel Classifier System

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	0.5	2.2			62-212.400, F.A.C.	A.4.
			5% opacity					62-212.400, F.A.C.	A.3.

Total - Gel Clay Production Not Subject to NSPS 3.8 16.3

GEL CLAY PRODUCTION EQUIPMENT SUBJECT TO NSPS (BAGHOUSES)

E.U. ID No.	**Brief Description**
013	Fine Grinding

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 grms/dscm	1.1	4.4			62-204.800, F.A.C.	B.4.
VE			5% opacity					62-204.800, F.A.C.	B.3.

E.U. ID No.	**Brief Description**
016	Extrusion Reagent Process

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 grms/dscm	0.7	3.1			62-204.800, F.A.C.	B.4.
VE			5% opacity					62-204.800, F.A.C.	B.3.

E.U. ID No.	**Brief Description**
018	#4 Mill Material Handling

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 grms/dscm	3.9	17.1			62-204.800, F.A.C.	B.4.
VE			5% opacity					62-204.800, F.A.C.	B.3.

E.U. ID No. **Brief Description**
020 East Bagging and Fugitive Dust

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 grms/dscm	0.7	2.8			62-204.800, F.A.C.	B.4.
VE			5% opacity					62-204.800, F.A.C.	B.3.

E.U. ID No. **Brief Description**
027 Loadoout East Bagging

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 grms/dscm	0.4	1.4			62-204.800, F.A.C.	B.4.
VE			5% opacity					62-204.800, F.A.C.	B.3.

E.U. ID No. **Brief Description**
028 Classifier Product Bagging System

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 grms/dscm	2.4	9.9			62-204.800, F.A.C.	B.4.
			5% opacity					62-204.800, F.A.C.	B.3.

Total Gel Clay Production Equipment (NSPS) 9.2 38.6

GRANULAR CLAY PRODUCTION EQUIPMENT SUBJECT TO NSPS

E.U. ID No. **Brief Description**
011 #1 Milling Area

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM		5740	0.05 gms/dscm	2.6	7.5			62-204.800, F.A.C.	C.4.
VE			5% opacity					62-204.800, F.A.C.	C.3.

E.U. ID No. **Brief Description**
031 Fluid Bed Dryer Material Handling

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 gms/dscm	0.7	2.8			62-204.800, F.A.C.	C.4.
VE			5% opacity					62-204.800, F.A.C.	C.3.

E.U. ID No. **Brief Description**
032 Reconstitution Area

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 gms/dscm	1.0	4.4			62-204.800, F.A.C.	C.4.
VE			5% opacity					62-204.800, F.A.C.	C.3.

E.U. ID No. **Brief Description**
033 #1A Mill System

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 gms/dscm	4.0	17.6			62-204.800, F.A.C.	C.4.
			5% opacity					62-204.800, F.A.C.	C.3.

E.U. ID No. **Brief Description**
035 Finishing Area

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 gms/dscm	2.4	10.6			62-204.800, F.A.C.	C.4.
			5% opacity					62-204.800, F.A.C.	C.3.

E.U. ID No. **Brief Description**
036 Granular Packaging Area

			Allowable Emissions			Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 gms/dscm	1.0	4.4			62-204.800, F.A.C.	C.4.
			5% opacity					62-204.800, F.A.C.	C.3.

Total Granular Clay Production (NSPS) 11.7 47.3

GRANULAR CLAY FIRED EQUIPMENT NOT SUBJECT TO NSPS

E.U. ID No. **Brief Description**
029 Fluid Bed Dryer - North

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	4 7	20.6			62-212.400, F A C.	D.5.
NOX					124 TPY (facility)			62-212.400, F.A.C.	D.6.: Facility 9
VE			5% opacity					62-212.400, F.A.C.	D.4

E.U. ID No. **Brief Description**
031 Fluid Bed Dryer Material Handling

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.017 gpdscf	4 7	20.6			62-212.400, F.A.C.	D.5.
NOX					124 TPY (facility)			62-212.400, F.A.C.	D.6.: Facility 9
VE			5% opacity					62-212.400, F.A.C.	D.4.

Totals Granular Clay Fired Equipment not NSPS:

PM	9.4	41.2
NOX		124 (facility)

GRANULAR CLAY FIRED EQUIPMENT NOT SUBJECT TO NSPS

E.U. ID No. **Brief Description**
014 High Temperature Drying Kiln no. 1

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM				4.2	18.4			62-212.400, F.A.C.	E.5.
NOX					124 TPY (facility)			62-212.400, F.A.C.	E.6., Facility 9
VE			5% opacity					62-212.400, F.A.C.	E.4.

E.U. ID No. **Brief Description**
015 High Temperature Drying Kiln no. 1

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM				4.4	19.3			62-212.400, F.A.C.	E.5.
NOX					124 TPY (facility)			62-212.400, F.A.C.	E.6., Facility 9
VE			5% opacity					62-212.400, F.A.C.	E.4.

Totals Granular Clay Fired Equipment:

PM	6.4	27.6
NOX		124 TPY (facility)

GELLING CLAY FIRED EQUIPMENT NOT SUBJECT TO NSPS

E.U. ID No. **Brief Description**
002 Mill #4A

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM				7.0	30.7			62-212.400, F.A.C.	F.5.
NOX					124 TPY (facility)			62-212.400, F.A.C.	F.6.
VE			5% opacity					62-212.400, F.A.C.	F.4.

E.U. ID No. **Brief Description**
008 Mill #4

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM				7.0	30.7			62-212.400, F.A.C.	F.5.
NOX					124 TPY (facility)			62-212.400, F.A.C.	F.6.
VE			5% opacity					62-212.400, F.A.C.	F.4.

E.U. ID No. **Brief Description**
019 Mill # 4B

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM				7.0	30.7			62-212.400, F.A.C.	F.5.
NOX					124 TPY (facility)			62-212.400, F.A.C.	F.6.
VE			5% opacity					62-212.400, F.A.C.	F.4.

Totals Gelling Clay Fired Equipment:

NOX		124 TPY (facility)
PM	21	92.1

ACM MILLING/ULTRA FINE GRIND WITH BAGHOUSES - NPSP

E.U. ID No. **Brief Description**
038 ACM Milling

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
PM			0.05 gms/dscf	6.8	20.8			62-204.800, F.A.C.	G.4.
VE			5% opacity					62-204.800, F.A.C.	G.3.

E.U. ID No. **Brief Description**
039 Ultra Fine Grind

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
				2.0	6.9				
PM			0.05 gms/dscf					62-204.800, F.A.C.	G.4.
VE			5% opacity					62-204.800, F.A.C.	G.3.

Totals: ACM Milling/Ultra Fine 8.8 27.7

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type: (See Table 47-5)

Table 47-5

	Mill #4A Scrubber	Mill #4 Scrubber	Mill #4B Scrubber
1. Identification of Emission Point on Plot Plan	2	8	19
2. Emission Point Type Code	1	1	1
3. Description of Emission Point	Stack #2	Stack #8	Stack #19
5. Discharge Type Code	V	V	V
6. Stack Height (ft)	61	61	61
7. Exit Diameter (ft)	5.1	5.1	5.1
8. Exit Temperature (F)	200	200	200
9. Actual Volumetric Flow Rate (acfm)	41,000	41,000	41,000
10. Percent Water Vapor	20	20	20
11. Maximum Dry Standard Flow Rate (dscfm)	25,850	25,850	25,850
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500
Emission Point Comment	None	None	None

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type: (See Table 42-5)

Table 42-5

	Min-U-Gel	Coarse Gel West Bagging	East Product Storage Bin	West Product Storage Bin	Misc. Product Storage Bin	Fine Gel Mill Product Collector	Fine Gel Classifier System
1. Identification of Emission Point on Plot Plan	Stack #17	Stack #21	Stack #22	Stack # 23	Stack #24	Stack #25	Stack #26
2. Emission Point Type Code	1	1	1	1	1	1	1
3. Description of Emission Point	Stack #17 only	Stack #21 only	Stack #22 only	Stack #23 only	Stack #24 only	Stack #25 only	Stack #26 only
5. Discharge Type Code	V	V	V	V	V	V	V
6. Stack Height (ft)	90	53	100	100	100	48	48
7. Exit Diameter (ft)	1.2	1.2	0.8	0.8	0.8	2.2	1.2
8. Exit Temperature (F)	80	80	80	80	80	80	80
9. Actual Volumetric Flow Rate (acfm)	3500	3000	1400	1400	1400	12000	3500
10. Percent Water Vapor	3.0	3.0	3.0	3.0	3.0	3.0	3.0
11. Maximum Dry Standard Flow Rate (dscfm)	3325	2850	1330	1330	1330	11400	3320
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500
Emission Point Comment	None	None	None	None	None	None	None

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type: (See Table 45-5)

Table 45-5

	Fluid Bed Dryer-North	Fluid Bed Dryer-South
1. Identification of Emission Point on Plot Plan	29	30
2. Emission Point Type Code	1	1
3. Description of Emission Point	Stack #29	Stack #30
5. Discharge Type Code	V	V
6. Stack Height (ft)	95	95
7. Exit Diameter (ft)	6.5	6.5
8. Exit Temperature (F)	225	225
9. Actual Volumetric Flow Rate (acfm)	118,000	118,000
10. Percent Water Vapor	4	4
11. Maximum Dry Standard Flow Rate (dscfm)	69,925	69,925
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500
Emission Point Comment	None	None

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type: (See Table 46-5)

Table 46-5

	High Temperature Drying Kiln #1	High Temperature Drying Kiln #2
1. Identification of Emission Point on Plot Plan	14	15
2. Emission Point Type Code	1	1
3. Description of Emission Point	Stack #14	Stack #15
5. Discharge Type Code	V	V
6. Stack Height (ft)	100	100
7. Exit Diameter (ft)	2.5	3.8
8. Exit Temperature (F)	132	132
9. Actual Volumetric Flow Rate (acfm)	19,500	38,300
10. Percent Water Vapor	15	15
11. Maximum Dry Standard Flow Rate (dscfm)	14,560	28,600
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500
Emission Point Comment	None	None

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type: (See Table 43-5)

Table 43-5

	Fine Grinding	Extrusion Reagent Process	#4 Mill Material Handling	East Bagging and Fugitive Dust	Loadout East Bagging	Classifier Product Bagging System
1. Identification of Emission Point on Plot Plan	Stack #13	Stack #16	Stack #18	Stack # 20	Stack #27	Stack #28
2. Emission Point Type Code	1	1	1	1	1	1
3. Description of Emission Point	Stack #13 only	Stack #16 only	Stack #18 only	Stack #20 only	Stack #27 only	Stack #28 only
5. Discharge Type Code	V	V	V	V	V	V
6. Stack Height (ft)	50	65	82	53	60	65
7. Exit Diameter (ft)	1.2	1.3	2.1	1.2	1.0	2.5
8. Exit Temperature (F)	80	80	80	80	80	80
9. Actual Volumetric Flow Rate (acfm)	7400	4000	22000	3500	1750	12500
10. Percent Water Vapor	3.0	3.0	3.0	3.0	3.0	3.0
11. Maximum Dry Standard Flow Rate (dscfm)	7030	3740	20600	3325	1660	11875
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500
Emis. Point Comment	None	None	None	None	None	None

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type: (See Table 48-5)

Table 48-5

	ACM Feed Bin	Return Conveyor Exhaust	ACM Mill Receiver Collector	#1 Mill Classifier Feed Bin	Product Bin 400	Product Bin 405
1. Identification of Emission Point on Plot Plan	Stack #37	Stack #38	Stack #39	Stack # 40	Stack #41a	Stack #41b
2. Emission Point Type Code	1	1	1	1	1	1
3. Description of Emission Point	Stack #37 only	Stack #38 only	Stack #39 only	Stack #40 only	Stack #41a only	Stack #41b only
5. Discharge Type Code	H	H	V	V	V	V
6. Stack Height (ft)	58	68	113	92	89	89
7. Exit Diameter (ft)	1.3	0.8	1.5	0.8	1.0	0.5
8. Exit Temperature (F)	80	80	80	80	80	80
9. Actual Volumetric Flow Rate (acfm)	3600	2200	12000	1170	1000	250
10. Percent Water Vapor	3.0	3.0	3.0	3.0	3.0	3.0
11. Maximum Dry Standard Flow Rate (dscfm)	3420	2100	11400	1110	950	240
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500
Emission Point Comment	None	None	None	None	None	None

Table 48-5 (cont.)

	Bagger Exhaust	Receiver Bin Vent	FEM Mill #1 Receiver Collector	FEM Mill #2 Receiver Collector	#2 Classifier Feed Vent
1. Identification of Emission Point on Plot Plan	Stack #46	Stack #48	Stack #49	Stack # 50	Stack #53
2. Emission Point Type Code	1	1	1	1	1
3. Description of Emission Point	Stack #46 only	Stack #48 only	Stack #49 only	Stack #50 only	Stack #53 only
5. Discharge Type Code	V	H	V	V	H
6. Stack Height (ft)	92	65	102	102	70
7. Exit Diameter (ft)	0.7	0.8	1.0	1.0	0.8
8. Exit Temperature (F)	80	80	80	80	80
9. Actual Volumetric Flow Rate (acfm)	7000	625	4000	4000	750
10. Percent Water Vapor	3.0	3.0	3.0	3.0	3.0
11. Maximum Dry Standard Flow Rate (dscfm)	6650	595	3800	3800	715
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500
Emission Point Comment	None	None	None	None	None

Table 48-5 (cont.)

	Product Bin 410	**Product Bin 600**	**Product Bin 700**	**Bulk Loadout Exhaust-Truck**	**Bulk Loadout Exhaust-Rail**	**Receiver Bin Vent**
1. Identification of Emission Point on Plot Plan	Stack #41c	Stack #41d	Stack #41e	Stack # 42	Stack #43	Stack #44
2. Emission Point Type Code	1	1	1	1	1	1
3. Description of Emission Point	Stack #41c only	Stack #41d only	Stack #41e only	Stack #42 only	Stack #43 only	Stack #44 only
5. Discharge Type Code	V	V	V	V	V	V
6. Stack Height (ft)	88	90	90	34	47	71
7. Exit Diameter (ft)	0.8	1.0	0.8	2.0	0.8	0.8
8. Exit Temperature (F)	80	80	80	80	80	80
9. Actual Volumetric Flow Rate (acfm)	700	2350	700	1000	1000	1170
10. Percent Water Vapor	3.0	3.0	3.0	3.0	3.0	3.0
11. Maximum Dry Standard Flow Rate (dscfm)	665	2230	665	950	950	1110
13. Point UTM Coordinates	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500	East 732580 North 3387500
Emission Point Comment	None	None	None	None	None	None

Attachment 3

NORTH CAROLINA SOURCE SCREENING PROCEDURE

To. Mark Aguilar FAX (404)
From Steve Marks 230-8314
Attachment 4
4 Pages
9737574-0100

State of North Carolina
Department of Natural Resources and Community Development
Division of Environmental Management
512 North Salisbury Street • Raleigh, North Carolina 27611

James G. Martin, Governor
S. Thomas Rhodes, Secretary

July 22, 1985

R. Paul Wilms
Director

Mr. Lewis Nagler
Air Management Branch
EPA Region IV
345 Courtland Street
Atlanta, Georgia 30365

Dear Mr. Nagler:

Subject: A Screening Method for PSD

A simple screening procedure which is applicable to PSD has been developed by the North Carolina Air Quality Section. The "Screening Threshold" method is designed to rapidly and objectively eliminate from the emissions inventory those sources which are beyond the PSD impact area yet within the screening area, but are not likely to have significant interaction with the PSD source. Sources which are flagged by this procedure may then be evaluated with conventional screening techniques, or else be included in refined modeling.

Page I-C-18 of the PSD Workshop Manual does state "A simple screening model technique can be used to justify the exclusion of certain emissions...Such exclusions should be justified and documented." The "Screening Threshold" method is documented in the attachment.

We would very much appreciate your comments and ultimate approval. Please feel free to direct any questions or comments to me in writing or by phone at (919) 733-7015.

Sincerely,

Eldewins Haynes

Eldewins Haynes, Meteorologist
Air Permit Unit

Attachment

cc: Mr. Ogden Gerald
Mr. Mike Sewell
Mr. Sammy Amerson
Mr. Jerry Clayton
Mr. Richard Laster
Regional Air Engineers

"Screening Threshold" Method for PSD Modeling
North Carolina Air Quality Section

This method is best suited for situations where a PSD source has several sources outside its impact area, but within its screening area. The object is to find an effective means to minimize the number of such sources in a model, yet to include all sources which are likely to have a significant impact inside the impact area.

As a first-level screening technique, it is suggested to include those sources within the screening area when

$$Q \geq 20D$$

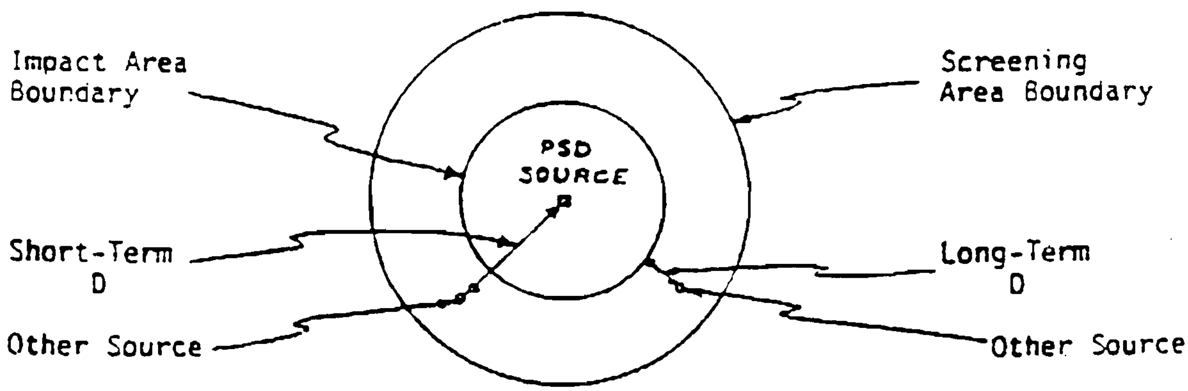
where Q is the maximum emission rate, in tons/year, of the source in the screening area; and D is a distance, in kilometers, from either:

a. the source in the screening area to the nearest edge of the impact area, for long-term analyses

or

b. the source in the screening area to the PSD source defining the impact area, for short-term analyses.

The figure below illustrates the difference between the long-term D and the short-term D.



This method does not preclude the use of alternate screening techniques or of more sophisticated screening techniques given the approval of the review agency. Also, this method does not prevent the review agency from specifying additional sources of interest in the modeling analysis.

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The justification for this "Screening Threshold Method" rests upon the following assumptions:

a. effective stack height = 10 meters
b. stability class D (neutral)
c. 2.5 meter/second wind speed
d. mixing height = 300 meters
e. Q = 20D = critical emission rate for a given pollutant
f. one-hour concentrations derived from figure 3-5D in Turner's WADE or from PTDIS.
g. 3-hour and 24-hour concentrations estimated using "Vol. 10R". Annual impacts are 1/7 of 24 hour impacts.

The results, for various distances, are shown in the table below:

D (km)	Q (T/yr)	1-hr Conc. (ug/m^3)	3-hr Conc. (ug/m^3)	24-hr Conc. (ug/m^3)	Annual Conc. (ug/m^3)
0.5	10	47	42	19	2.7
1.0	20	32	29	13	1.9
1.5	30	27	24	10	1.4
2.0	40	23	21	9	1.3
3	60	18	16	7	1.0
4	80	17	15	7	1.0
5	100	14	13	6	1
6	120	13	12	5	1
10	200	10	9	4	1
20	400	7	6	3	1
30	600	6	6	3	1
40	800	6	6	3	1
50	1000	7	6	3	1

The "Screening Threshold" method is conservative. Most sources either have effective stack heights greater than 10 meters, or they have several short stacks spread out over an industrial complex. Thus, actual modeled concentrations will most likely be lower than the "Screening Threshold" would indicate in the table above. One implication of the table is that all major sources within 5 km of the subject PSD source or within 5 km of the PSD source's impact area should be scrutinized before being exempted from the final emissions inventory.

The "Screening Threshold" method is in qualitative agreement with the suggestions on page I-C-18 of the <u>Prevention of Significant Deterioration Workshop Manual (1980)</u>. On that page, it is suggested that a 100 T/Y source 10 km outisde the impact area may be excluded from the analysis. The above table would exclude a 100 T/Y source more than 5 km beyond the impact area for long-term analyses or more than 5 km away from the PSD source for short-term analyses; if the source is inside the impact area, it must be included regardless of the "Screening

Threshold". The PSD Workshop Manual also states on page I-C-18 that a 10,000 T/Y source 40 km outside the impact area would probably have to be included in the increment analysis. By the "Screening Threshold" method, the critical distance D = Q/20 = 10,000/20 = 500 km. Thus a 10,000 T/Y source within 500 km would always be included for short-term and long-term analyses if within the screening area.

This "Screening Threshold" method is quick, inexpensive to execute, conservative, and consistent with the intent of the PSD Workshop Manual.

Attachment G

BACT ANALYSIS

ATTACHMENT G

BACT ANALYSIS

HOSFORD, FL ORIENTED STRANDBOARD FACILITY

G.1 INTRODUCTION

The control technology review requirements of the federal and State PSD regulations require that all applicable federal and State emission-limiting standards be met, and that Best Available Control Technology (BACT) be applied to control emissions from the source. The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the significant emission rate. The State of Florida has adopted the federal regulations (40 CFR 52.21) by reference (Florida Administrative Code 62-212.400(5)(c)).

BACT is defined in 40 CFR 52.21(b)(12) as:

> "*...An emissions limitation (including a visible emission standard), based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source...which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable...*".

The requirements for BACT were promulgated within the framework of the PSD program in the 1977 Amendments to the Clean Air Act [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air quality (US EPA, 1978; 1980). Guidelines for the evaluation of BACT can be found in EPA's Guidelines for Determining Best Available Control Technology (BACT) (US EPA, 1978) and in the PSD Workshop Manual (US EPA, 1990). These guidelines were drafted by US EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative emission control systems are measured by the same set of parameters. In addition, through implementation of these guidelines, BACT in one area of the country may not be identical to BACT in another area. According to US EPA (1980):

> BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis.

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, at a minimum, demonstrate compliance with New Source Performance Standards (NSPS) for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (US EPA, 1978).

Historically, a bottom-up approach, consistent with the BACT Guidelines and PSD Workshop Manual, has been used. With this approach, an initial control level, which is usually NSPS, is evaluated against successively more stringent controls until a BACT level is selected. However, US EPA developed a concern that the bottom-up approach was not providing the level of BACT decisions originally intended. As a result, in December 1987, the US EPA Assistant Administrator for Air and Radiation mandated changes in the implementation of the PSD program, including the adoption of a new "top-down" approach to BACT decision-making.

The top-down BACT approach essentially starts with the most stringent (or top) technology and emissions limits that have been applied elsewhere to the same, or a similar, source category. The applicant must next provide a basis for rejecting this technology in favor of the next most stringent technology or propose to use the more stringent technology. Rejection of control alternatives may be based on technical or economic infeasibility. Such decisions are made on the basis of physical differences (*e.g.*, fuel type), locational differences (*e.g.*, availability of water), or significant differences that may exist in the environmental, economic, or energy impacts. The differences between the proposed facility and the facility on which the control technique was applied previously must be justified. Several years ago, EPA issued a draft guidance document on the top-down approach entitled, "Top-Down Best Available Control Technology Guidance Document (US EPA, 1990)". However, to date, US EPA has not promulgated the top-down approach for determining BACT.

G.2 PROCESS DESCRIPTION

Logs, resin (liquid and powdered), and wax are the primary raw materials used in OSB panel production. The production process will be comprised of four principal manufacturing processes: (1) Furnish production, which includes debarking, slashing, and flaking; (2) flake drying; (3) forming and pressing; and (4) finishing, which includes sawing and sanding.

The various processes are described in more detail in the following sections.

G.2.1 Furnish Production

Logs will be unloaded and temporarily stored in the log yard. The logs will then be cut to size, debarked, and processed into flakes. Bark from the debarkers and other green end material from the log yard will be shipped off-site for use as wood fuel or for use in horticultural applications.

G.2.2 Flake Drying

The drying process will consist of five (5) flake dryers (horizontal, cylindrical rotary drum-type) heated by suspension-type burners, and a pneumatic system which conveys the flakes through the dryers. The suspension burners will be designed to burn ground wood fuel. Raw wood fuel will first be ground in the hammermill and then stored in a metering bin. From the metering bin, the ground wood fuel will be pneumatically transferred and blown into the burner. Maximum heat input to each dryer is 40 million British thermal units per hour (MMBtu/hr). The wood fuel will be introduced tangentially to the burners, creating a cyclonic flow pattern, thereby promoting combustion efficiency. The flue gases leaving the combustion zone will be at approximately 1600 degrees Fahrenheit (°F), but will be immediately cooled down to between 600 and 1200 degrees Fahrenheit by the addition of dilution air between the burner and the dryer. The hot exhaust from the burner combines with ambient air pulled through by the dryer's pneumatic system to dry the flakes. The amount of dilution air, and resulting gas temperature, are dependent on the dryer operating rate, wood moisture content, desired moisture content of the furnish, etc. Air pollutant emissions associated with the drying operation will include products of wood fuel combustion, such as PM, VOCs, CO, NO_x, and SO_2. They will also include additional PM, VOC, CO, and formaldehyde, which are produced in the wood drying process.

G.2.3 Forming and Pressing

The dried wood flakes will be blended with resin and wax and will then be placed as a mat on the forming line in layers oriented at right angles to provide structural integrity. The mat will then be moved into the thermal-oil-heated press, where it will be compressed and heated to bond the resin to the flakes. The thermal oil will be heated to the appropriate temperature in a separate system, consisting of two, wood fuel, suspension burners. Air pollutant emissions associated with the board press operation include PM, VOCs, CO, NO_x and formaldehyde. During normal operations, the exhaust gases from the thermal oil system burners will be routed through an electrostatic precipitator (ESP) before being routed through the dryer system.

G.2.4 Finishing

The pressed mats will be cut to size, cooled, and the edges will be sprayed with sealant to prevent swelling. The finished OSB will then be packed and shipped off-site. Dry end material will either be burned to heat the dryers and thermal oil system or shipped off-site for use as wood fuel or as furnish in other wood products manufacturing operations.

Numerous material handling operations, which represent both point sources and fugitive emission sources, will be associated with the production of the OSB. Those operations that can be characterized as point sources include the screen fines with saw trim transfer pneumatics, saw trim and finishing line pneumatics, materials reject and flying saw pneumatics, specialty saw and sander pneumatics, fuel system pneumatics, forming bin pneumatics, and hammermill system pneumatics. The pollutant emissions from these operations are limited to PM. Fugitive sources of PM include the bark handling (batch drops and wind erosion from storage piles), paved and unpaved roads, debarkers, bark hog, and edge-sealing of finished boards.

Additional fugitive emission sources of VOCs and/or formaldehyde include the resin storage tanks, blend house, and finished product storage.

Uncontrolled and controlled air pollutant emission rates from the various emission points associated with the categories of processing equipment listed above are summarized in Tables 1 and 2, respectively.

Table 1. Uncontrolled and Controlled Emissions, from Dryers and Press, Georgia-Pacific Corporation OSB Plant, Hosford, Florida													
	Proposed Control System	PM/PM10			VOC			CO			NOx		
Source		Uncontrolled (TPY)	Controlled (TPY)	Eff. (%)	Uncontrolled (TPY)	Controlled (TPY)	Eff. (%)	Uncontrolled (TPY)	Controlled (TPY)	Eff. (%)	Uncontrolled (TPY)	Controlled (TPY)	Eff. (%)
Dryers	Multiclones/RTO	3,261	326.1	90.0	5,530	553	90.0	588.5	147.15	75.0	261.5	321.05 (a)	NA
Press	RTO	49.6	12.4	75.0	878.2	87.82	90.0	127.04	31.76	75.0	47.0	47.0	NA

Source: MEC Company (vendor), 1999
Georgia-Pacific, 1999

Notes:
(a) Controlled emissions from dryers are higher than uncontrolled due to fuel burned in RTO.

Table 2. Uncontrolled and Controlled Emissions, from Materials Handling Sources, Georgia-Pacific Corporation OSB Plant, Hosford, Florida					
			PM/PM10		
Source	Description	Proposed Control System	Uncontrolled (TPY)	Controlled (TPY)	Eff. (%)
CP-003 (EP-3)	Screen Fines With Saw Trim Transfer Pneumatics	Bagfilters	23,000	9.2	99.96
CP-001 (EP-4)	Saw Trim/Finishing Line Pneumatics	Bagfilters	4,302	11.52	99.73
CP-005 (EP-5)	Materials Reject/Flying Saw Pneumatics	Bagfilters	1,036	17.08	98.35
CP-006-1 (EP-6)	Specialty Saw/Sander Pneumatics	Bagfilters	3,691	9.5	99.74
CP-006-2 (EP-7)	Fuel System Pneumatics	Bagfilters	3,691	1.5	99.96
CP-002 (EP-8)	Forming Bins Pneumatics	Bagfilters	770	8.32	98.92
Dry Fuel System (EP-9)	Hammermill System Pneumatics	Bagfilters	23,000	9.2	99.96

G.3 APPLICABILITY

PM, VOC, CO and NO_x emissions are subject to PSD review (see Table 5-1 in main body of the report). As a result, sources of these emissions are subject to BACT review. According to the federal PSD regulations, a newly constructed major source must apply BACT for these pollutants for each new emissions unit constructed. As such, the BACT analysis is completed for the dryers, board press, and all material handling sources.

G.4 PROPOSED AIR EMISSION CONTROLS

The following control equipment is proposed as BACT for each equipment type:

1. Dryers - Multiclones followed by Regenerative Thermal Oxidation (RTO).
2. Board Press - RTO.
3. Material Handling Sources - Bagfilters.

These control devices are listed in Tables 1 and 2, along with their respective control efficiencies.

G.5 BACT ANALYSIS FOR DRYERS

G.5.1 Selection of Control Options

Selection of air emission control options for the dryers must consider the high moisture content of the gas stream, the relatively high concentration of fine, organic and inorganic particulate matter and the condensable VOC material present. These considerations limit the control options to those systems that have been either demonstrated in practice (at least on a pilot scale) to be able to operate in the previously described conditions or can be reasonably expected to handle the conditions based on applications with similarly harsh conditions. On this basis, the following control options can be considered to have a practical potential for application to OSB drying:

1. Regenerative thermal oxidation (RTO) with particulate matter control
2. Regenerative catalytic oxidation (RCO) with particulate matter control
3. Biofilter with particulate matter control
4. Recycle system with indirect heat exchange and particulate matter control
5. Wet electrostatic precipitation (wet ESP)

The first four options are capable of controlling VOC, PM and CO emissions. Biofilters are reported to control NO_x emissions as well. The last option is a particulate matter control device with a potential for VOC control as well. Various particulate matter control devices can be identified as having a practical potential for application. These include, in addition to the wet ESP, bagfilters, wet scrubbers, electrostatic filter beds (EFB) and so-called "sacrificial bed filters" developed by a few RTO vendors.

Control of NO_x requires additional equipment for each option other than biofiltration. Selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR) are add-on control systems that have a practical potential for application. Combustion control is also an alternative for NO_x control.

Although other options may be considered at this stage of the evaluation, none has the emission reduction potential of those already mentioned. Furthermore, there is sufficient documentation in the recent BACT evaluations issued to support various wood products manufacturing process permitting activities to dismiss them outright. These options include carbon adsorption and chemical scrubbers for VOC control.

Recent BACT determinations for dryers in the OSB industry, as contained on the RACT/BACT/LAER Clearinghouse (RBLC), are presented in Tables 3 through 6 for PM, VOCs, NO_x, and CO, respectively.

Table 3. Summary of PM BACT Determinations for Dryers

Company	State	Permit #	Permit Issue Date	Throughput	PM10 Emission Limit	Control Equipment	Efficiency (%)
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	200 MMBtu/hr	74.5 lb/hr	RTO/Multiclones	90.0
LOUISIANA-PACIFIC CORP.	VA	11021	3/15/95	37 TPY	16.5 lb/hr	RTO in Series with Reverse Jet Wet Scrubber	90.0
GEORGIA-PACIFIC CORPORATION (b)	VA	30903	05/18/94	318,300 tons flakes/yr	101.86 TPY	Multiclone and ESP	--
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	20.35 lb/hr	WESP and RTO	91.0
WEYERHAEUSER COMPANY	MS	1920-00012	11/30/94	30 MMBtu/hr	0.16 Lb/MSF 3/8"	RCO	80.0
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	16.65 lb/hr	RTO	89.9
WEYERHAUSER CO.	AL	408-S003	10/28/94	--	9.4 TPY	RCO	80.0
LOUISIANA PACIFIC CORP.	WI	92-MWH-099	3/22/94	22 MMBtu/hr	8.42 lb/hr	EFB, RTO	95
WEYERHAEUSER COMPANY	NC	3449R19	2/25/97	--	29.8 lb/hr	Wet ESP in series with RCO	90
WEYERHAEUSER COMPANY	NC	3449R19	2/25/97	--	4.16 lb/hr	Wet ESP in series with RCO	90
LOUISIANA PACIFIC CORP.	MI	19-88D	3/1/96	--	1.50E-02 gr/dscf	Wet ESP/RTO	--

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

(a) Dryer exhaust includes emissions from thermal oil heating system

(b) Determination is a state BACT only, not federal

RTO = Regenerative Thermal Oxidizer

RCO = Regenerative Catalytic Oxidizer

ESP = Electrostatic Precipitator

WESP = Wet Electrostatic Precipitator

EFB = Electrostatic Filter Bed

gr/dscf = grains per dry standard cubic feet

Table 4. Summary of VOC BACT Determinations for Dryers

Company	State	Permit #	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Efficiency (%)
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	200 MMBtu/hr	126.3 lb/hr (a)	RTO/Multiclones	90.0
BOISE CASCADE CORPORATION	WA	PSD-96-03	11/16/96	280,000 MSF 3/8 THS per yr	542.47 lb/day	--	--
WEYERHAEUSER COMPANY	MS	1920-00012	11/30/94	30 MMBtu/hr	0.22 lb/MSF 3/8	RCO	90.0
WEYERHAUSER CO.	AL	408-S003	10/28/94	--	48.5 TPY	RCO	90.0
GEORGIA-PACIFIC CORPORATION(b)	VA	30903	05/18/94	318,300 tons flakes/yr	101.86 TPY	--	--
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	44.0 lb/hr	RTO	99.3
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	27.4 lb/hr	WESP and RTO	94.0
CELLWOOD PRODUCTS	SC	600-16	08/30/91	1,000,000 pairs of shutters/yr	56.35 lb/gal ACS	--	--
LOUISIANA PACIFIC CORP.	MI	19-88D	3/1/96		31.6 lb/hr	Combustion	
WEYERHAEUSER COMPANY	NC	3449R19	2/25/97		39.5 lb/hr	RCO	
WEYERHAEUSER COMPANY	NC	3449R19	2/25/97		28.9 lb/hr	RCO	
LOUISIANA PACIFIC CORP.	WI	92-MWH-099	3/22/94	21.58 MMBtu/hr	3.67 lb/hr	Wood Selection, RTO	

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

(a) Dryer exhaust includes emissions from thermal oil heating system

(b) Determination is a state BACT only, not federal

RTO = Regenerative Thermal Oxidizer

RCO = Regenerative Catalytic Oxidizer

WESP = Wet Electrostatic Precipitator

Table 5. Summary of NOx BACT Determinations for Dryers							
Company	State	Permit #	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Efficiency
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	200 MMBtu/hr	73.3 (a)	Low-NOx burners/Fuel Enhancement	--
LOUISIANA-PACIFIC CORP.—NORTH	VA	11021	3/15/95	37 TPY	24.3 lb/hr	--	--
GEORGIA-PACIFIC CORPORATION(b)	VA	30903	05/18/94	318,300 tons flakes/yr	203.72 TPY	--	--
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	67.74 lb/hr	Low NOx Burners	--
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	31.31 lb/hr	--	--
LOUISIANA PACIFIC CORP.	MI	19-88D	3/1/96		45.8 lb/hr	Combustion	--
POTLATCH CORPORATION – WOOD PRODUCTS, MN DIV.	MN	13700083-007	1/17/95	30 Tons flakes/hr	45.8 lb/hr	Good combustion practices, (*i.e.*, maintenance, limiting excess air.)	--
LOUISIANA PACIFIC CORP.	WI	92-MWH-099	3/22/94	22 MMBtu/hr	18.38 lb/hr	Good combustion, Low NOx technology in RTO	--
WEYERHAEUSER COMPANY	NC	3449R19	2/25/97		61.8 lb/hr	SCR as an integral part of the RCO	50

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

(a) Dryer exhaust includes emissions from thermal oil heating system

(b) Determination is a state BACT only, not federal

RTO = Regenerative Thermal Oxidizer
RCO = Regenerative Catalytic Oxidizer
SCR = Selective Catalytic Reduction

Table 6. Summary of CO BACT Determinations for Dryers

Company	State	Permit #	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Efficiency (%)
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	200 MMBtu/hr	33.6 (a)	RTO/Multiclones	75
LOUISIANA-PACIFIC CORP.—NORTH	VA	11021	3/15/95	37 TPY	31.9 lb/hr	RTO in Series with Wet Scrubber	70
GEORGIA-PACIFIC CORPORATION (b)	VA	30903	05/18/94	318,300 tons flakes/yr	203.72 TPY	--	--
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	156.28 lb/hr	--	58.4
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	15.47 lb/hr	WESP and RTO	91.7
LOUISIANA PACIFIC CORP.	MI	19-88D	3/1/96		285 lb/hr	Combustion	70
LOUISIANA PACIFIC CORP.	WI	92-MWH-099	3/22/94	22 MMBtu/hr	15.1 lb/hr	Good combustion, RTO	90
WEYERHAEUSER COMPANY	NC	3449R19	2/25/97		61.8 lb/hr	SCR as an integral part of the RCO	50

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

(a) Dryer exhaust includes emissions from thermal oil heating system

(b) Determination is a state BACT only, not federal

RTO = Regenerative Thermal Oxidizer

RCO = Regenerative Catalytic Oxidizer

SCR = Selective Catalytic Reduction

G.5.2 Elimination of Technically Infeasible Options

Of the control options identified, only three can be eliminated on the grounds of being technically infeasible. Biofiltration technology has been proposed for full-scale applications for board press emissions. However, the strict temperature limitations on the technology limit its potential to gas streams that can be consistently maintained below approximately 105°F. This is not the case with the OSB dryer exhaust unless very large quantities of dilution air are considered. It should also be noted that other wood products manufacturing facilities, such as those operated by Weyerhaeuser in Grayling, Michigan and Adel, Georgia, have been unable to maintain high VOC removal efficiencies on a continuing basis.

Likewise, selective catalytic reduction (SCR) for NO_x control is infeasible due to the inability to locate the equipment at a point in the process where the required temperature range is present (600-800°F). A system has been proposed for a full scale application on a particleboard plant in North Carolina. It is to be integrated with an RCO system. The BACT analysis for this project contains no information justifying the feasibility of this technology and therefore this option is not considered further.

SNCR technology for NO_x control has developed considerably since its inception in the early 70's. Both ammonia and urea based systems rely on a complex series of chemical reactions to reduce NO_x into molecular nitrogen (N_2). The effectiveness of the technology is highly dependent on a number of factors, the most critical being temperature, residence time, and the initial NO_x concentration. SNCR requires gas temperatures in the range of 1,600 to 2,000°F for an adequate residence time. The particular wood combustion process chosen as the heat source for the new drying system at Hosford cannot accommodate either an ammonia or a urea based SNCR system. The temperature of the gasses leaving the combustion chamber will be approximately 1,600°F. However, once combustion is complete and the gasses leave the combustion chamber they are rapidly reduced in temperature to accommodate the drying process. The gas temperature is reduced to between 600 and 1,200°F by adding dilution air. The anticipated residence time of less than 1 second is too short to obtain any reasonable reduction in NO_x emissions. Therefore, this option is not technically feasible.

Another example of a high temperature oxidation control device is dryer exhaust recycle, which represents an example of a process change that eliminates the need for end-of-the-pipe control of organics. The system is based on proven components and has a control efficiency similar to that of an RTO. However, the high temperature heat exchanger necessary to transfer heat from the heat source to the ambient air used to dry the wood requires costly materials of construction. In addition, a significantly greater amount of wood fuel has to be burned to completely oxidize all of the organic material in the high volume dryer exhaust which is, in fact, used as combustion air. Since the Plant is designed to burn wood fuel, there is no excess availability. For these reasons, exhaust gas recycle is not considered further.

As previously mentioned, so-called "sacrificial bed" pre-filters are being developed by several RTO vendors. Pilot scale studies have been conducted on wood dryers. In addition, Georgia-Pacific has operated a full-scale unit at its medium density fiberboard facility in Monticello, Georgia for the past two years. There have been numerous problems with the system and required maintenance is costly, in terms of both personnel and components.

Bagfilters and dry ESP's, it should be noted, are only feasible where the condensable VOC has been eliminated. This requirement limits their application to downstream of the VOC control device.

Although other control options have not been eliminated, it is important to consider the lack of long-term operating experience with most of the options evaluated.

G.5.3 Ranking of Control Options

This part of the evaluation is performed by ranking the various control options not eliminated in the previous step. Each remaining option is discussed in detail below and a hierarchy of control effectiveness is established.

RTO

RTO represents a general class of control devices which rely on high temperature oxidation of organic material. It is unique because of the high degree of thermal efficiency that is possible by alternately passing hot and cool gas through a fixed bed of ceramic material. As with other thermal oxidation devices, it incorporates a high temperature combustion chamber to ensure complete oxidation of organics. Due to the high volumes of air that must be treated and the very low concentration of organic material (in terms of fuel value), other less energy efficient incineration methods would clearly not be cost effective.

The ceramic media responsible for the high energy efficiency in the RTO poses significant operational problems in a wood dryer application since the dryer exhaust contains a substantial amount of particulate matter and condensable organics. Under these conditions, there is a great potential for plugging of the media bed. For this reason, RTO vendors universally recommend a high degree of precleaning, often through the addition of multiclones, before the gas stream is allowed to reach the RTO.

Experience from several full scale units that have been operating for close to a year indicates that the problem is serious, and in addition to the gradual build up of material on the ceramic media, a glazing phenomenon has occurred whereby ash remaining on the media has fused, and in some cases, broken down the media. The problem is more severe in applications without highly efficient particulate matter control. Higher than normal amounts of potassium and sodium salts in the inorganic fraction of the particulate matter are thought to be the cause since these salts can significantly lower ash fusion temperature. More operational experience is needed to determine the length of time before the bed has to be replaced and whether or not periodic replacement of the portion of the bed most seriously affected will prolong the total bed life. Nevertheless, it is recognized that the initial estimates of going up to three years or more before replacement is now shortened considerably.

Hosford will employ both primary cyclones (to capture wood material) and secondary cyclones (to capture fine dust) prior to the RTO, in order to reduce the PM loading to the RTO to an acceptable level.

RTO with multiclones has been demonstrated to control VOC, CO, and particulate matter. Based on current BACT determinations, the anticipated degree of control for the various pollutants is as follows: VOC - 90%, particulate matter - 90%, and CO - 75%.

It should be noted that information in the RBLC (see Table 4) indicates that two facilities can achieve VOC removal efficiencies in excess of 90% using RTOs. Georgia-Pacific believes that similar efficiencies may be achieved in practice by the RTOs proposed for Hosford. However, for permitting purposes, Georgia-Pacific is proposing a removal efficiency of 90%, consistent with at least three entries in the RBLC.

Emissions of NO_x are increased in the RTO due to the combustion of natural gas as a supplemental fuel. Georgia-Pacific plans to utilize a low-NO_x burner design. In addition, fuel enhancement will be employed for the natural gas. Fuel enhancement involves the injection of natural gas directly into the inlet pipe to the RTO, which simulates an enriched fuel value gas stream. A vendor guarantee of less than a 10 part per million by volume (ppmv) increase in NO_x forms the basis for this evaluation. Beyond this guarantee, credit is not taken for the burner design or the fuel enhancement.

Entries in the RBLC for carbon monoxide (see Table 6) indicate that two plants can achieve a removal efficiency of at least 90% with an RTO (J.M. Huber (Virginia) – 91.7%, Louisiana-Pacific (Wisconsin) – 90%). With regard to the entry for J.M. Huber, further discussions with the permittee reveal that the reported efficiency is an estimate based on using a controlled mass emission rate from the RTO vendor and an estimated uncontrolled mass emission rate. JM Huber used stack testing from another OSB facility to estimate the uncontrolled emission rate. Because the basis for the controlled and uncontrolled emission rates are not consistent, G-P believes that the stated CO removal efficiency is misleading for this technology. In fact, in subsequent BACT determinations for JM Huber OSB plants with RTOs for the dryers, the reported CO removal efficiency is 70%. With regard to the entry for Louisiana-Pacific, Georgia-Pacific contacted the Wisconsin Department of Natural Resources (WDNR) in January 2000. During that conversation, the permit engineer indicated that the source, after being placed in operation, could not achieve the 90% removal efficiency. As a result, the WDNR is in the process of revising the emission limit and removal efficiency for this source in the Title V permit. It should be recognized that subsequent BACT analyses for CO from OSB dryers at Louisiana-Pacific facilities set a removal efficiency of 70% (see Table 6).

The remaining BACT determinations show efficiencies of 50, 58.4, 70%, and 75%. The proposed 75% control rate for Hosford seeks to maximize carbon monoxide destruction, while minimizing the formation of nitrogen oxides. Very high carbon monoxide efficiencies can only be achieved with very high operating temperatures, which also lead to an increase in the formation of nitrogen oxides. Thus, one pollutant is heavily controlled at the expense of the other. In addition, abnormally high operating temperatures can lead to operational problems, such as deterioration of the bed and erosion of the insulation. As such, the proposed 75% control for carbon monoxide seeks to balance all of these effects.

RCO

RCO, preceded by multiclones for PM removal, also represents a general class of control devices that relies on high temperature oxidation of organics. However, the presence of a catalyst allows the oxidation reaction to occur at much lower temperature (600-900°F) than RTO. The general operation of the RCO is similar to an RTO and operational problems applicable to RTO are also applicable to RCO. Catalyst deactivation due to blinding of the catalyst part of the media bed is a more serious problem with an RCO since the control effectiveness would be adversely effected. An advantage of the RCO is that energy costs associated with its operation should be significantly less than an RTO system as a result of the lower operating temperatures.

The degree of control possible with an RCO system should approach that of an RTO. Since an RTO operating in the gas injection mode operates well below the temperatures where thermal NO_x is a problem, an RCO should not be any more effective in controlling the amount of additional NO_x created. For the purposes of this evaluation, the control effectiveness for CO emissions is considered equal to that of an RTO (75%) and based on current BACT determinations the control effectiveness of PM and VOC is estimated at 80% and 90%, respectively. Emissions of NO_x are increased in an RCO due to the combustion of supplemental fuel.

ESP

ESP's (including EFB's), which rely on the electrostatic charging potential of pollutants in the gas stream, have been proven on a wide variety of sources, including wood-fired combustion sources. Their application to wood dryer exhaust gas streams necessitates gas stream saturation equipment and wet electrode cleaning due to the sticky nature of the particulate matter. This has increased the operational complexity considerably and has added the additional complication of an extensive wastewater treatment requirement. Corrosion of internal metal surfaces can be reduced with stainless steel, but this issue is still a concern.

The degree of particulate matter control possible is very high. Wet ESP's have been employed on wood dryer exhaust gas streams in several commercial scale applications. They are very efficient on filterable particulate matter as measured by US EPA Reference Method 5. However, when total filterable and condensable particulate matter control efficiency is evaluated, the overall control efficiency drops to about 80%.

Since wet ESP's also cool the exhaust and allow some VOCs to condense and be captured, some VOC control is possible. The degree of VOC control has been measured using both US EPA Reference Methods 25 and 25A and the results have varied considerably. At least some of this variability is due to problems with the VOC test methods. For this evaluation, the degree of VOC control possible for wet ESP's is assumed to be 5%.

Wet Scrubber

There is a very wide variety of control devices in this classification. For the most part, they rely on inertial impaction between the scrubbing media (usually water) and the pollutants in the gas stream. As with wet ESP's, the wastewater consideration is the major concern. A relatively clean scrubbing media is required, and for dirty gas streams this usually requires a large quantity blowdown and clean water replacement. Where strict limitations apply, or even prohibitions on water use exist, as is the case in the wood products manufacturing industry, extensive wastewater treatment is needed. A highly efficient capture device for the media droplets formed when the gas mixes with the scrubbing media is also necessary. Wet Scrubbers are usually ruled out for consideration for this reason. However, a system such as that represented by the Dynawave® scrubber can operate with much higher solids loadings, with a significant reduction in the amount of wastewater to be handled.

The only pollutant considered for control with wet scrubber technology is particulate matter. The degree of control possible is very high for gas streams without a large fraction of submicron sized particles. However, dryer exhaust gas contains a significant percentage of very small inorganic and organic particulate matter. For this reason, this device is assigned a control efficiency of 80%. It is possible that some amount of VOC control (5%) will be accomplished with wet scrubber technology since it is capable of cooling the gas stream enough to allow some VOCs to condense and form aerosols which can then be captured.

In order of decreasing effectiveness, the various control options are combined and ranked as follows:

Control Option	*Degree of Control (%)*		
	PM	*CO*	*VOC*
RTO/Multiclones	*90*	*75*	*90*[1]
RCO/Multiclones	*80*	*75*	*90*
Wet ESP	*80*	*NA*	*5*
Wet Scrubbers	*80*	*NA*	*5*

[1]From Table 4, it is shown that some RTOs may have efficiencies exceeding 90%.
However, in terms of a permit limit, Georgia-Pacific has a vendor guarantee of 90% control.

G.5.4 Selection of BACT

Since RTO (with multiclones) represents the highest overall degree of control technologically feasible, it is selected as BACT for PM, CO, and VOC emissions. A low-NOx burner design, combined with fuel enhancement, is proposed as BACT for NO_x. This selection matches the determination of the Arkansas Department of Environmental Quality (ADEQ) for an identical G-P OSB plant permitted in 1999.

It should be noted, as it has in prior sections of the PSD permit application, that under normal operating conditions, the exhaust from the thermal oil system burners will exit with the exhaust from the dryers through the multiclones and RTO, after passing through an electrostatic precipitator (ESP). As discussed above, the combined particulate matter control efficiency from the multiclones and RTO is expected to be 90%. In bypass mode, the thermal oil system exhaust will still pass through the ESP for an expected control efficiency for particulate matter of 85.8 percent. Since the thermal oil system will only be operating in this mode during bypass, a separate BACT analysis is not conducted for the system.

G. 6 BACT ANALYSIS FOR BOARD PRESS

G.6.1 Selection of Control Options

Recent BACT determinations for presses in the OSB industry, as contained in the RACT/BACT/LAER Clearinghouse, are presented in Tables 7 through 10 for PM, VOCs, NO_x, and CO, respectively.

As with the board drying operation, selection of control options for the board press pollutant emissions must consider the high moisture content of the gas stream and the condensable VOC material present. There is also a small amount of particulate matter to consider. These considerations limit the control options to those systems that have been either demonstrated in practice (at least on a pilot scale) to be able to operate in the previously described conditions or can be reasonably expected to handle the conditions based on applications with similarly harsh conditions. On this basis, the following control options can be considered to have a practical potential for application to OSB board presses:

1. RTO
2. RCO
3. Biofilter
4. Wet ESP

The first three options are capable of controlling VOCs, PM and CO. The last option is a particulate matter control device with a limited potential for VOC control.

At this point, some assumption regarding the potential for capturing board press emissions and directing them to a control device must be made. The design of the press is such that essentially total enclosure of the operation is possible and therefore capture efficiency can be assumed to be 100%.

G.6.2 Elimination of Technically Infeasible Options

All of the options identified are considered technically feasible with the qualifications presented in Sections G.5.2 and G.5.3.

G.6.3 Ranking of Control Options

This part of the evaluation is performed by ranking the various control options not eliminated in the previous step. Each remaining option not discussed in the previous section is discussed in detail below and a hierarchy of control effectiveness is established.

Table 7. Summary of PM BACT Determinations for Presses

Company	State	Permit #	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Efficiency (%)
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	475 MMsf/yr	2.8 lb/hr	RTO	75
WEYERHAEUSER COMPANY	NC	3449R19	02/25/97	--	3.29 lb/hr	--	--
WEYERHAEUSER COMPANY	NC	3449R19	02/25/97	--	6.9 lb/hr	--	--
LOUISIANA PACIFIC CORP.	MI	19-88D	03/01/96	--	12.1 PPH	RTO	--
WEYERHAEUSER COMPANY	MS	1920-00012	11/30/94	--	0.05 lb/MSF 3/8	--	--
WEYERHAUSER CO.	AL	408-S003	10/28/94	--	4 TPY	--	--
WEYERHAUSER CO.	AL	408-S003	10/28/94	--	4 TPY	--	--
GEORGIA-PACIFIC CORPORATION	VA	30903	05/18/94	50,000 sq ft/hr	63.66 TPY	--	--
LOUISIANA PACIFIC CORP.	WI	92-MWH-99	03/22/94	21.58 MMBtu/hr	0.65 lb/hr	RTO	--
LOUISIANA-PACIFIC CORP.	VA	11021	03/15/95	37 TPY	16.5 lb/hr	RTO	90.0
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	0.44 lb/hr	RTO	74.8
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	20.35 lb/hr	WESP AND RTO	91.0
LOUISIANA PACIFIC CORP.	CO	89MO373	01/21/92	--	49 TPY	BAG FILTERS	--
TEMPLE-INLAND FOREST PRODUCTS CORP.	AL	106-0004-X006	3/16/98	150 Msf/yr 3/4 in basis	3.23 lb/hr	RTO AND LOW NOX BURNERS	85

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

RTO = Regenerative Thermal Oxidizer

RCO = Regenerative Catalytic Oxidizer

ESP = Electrostatic Precipitator

WESP = Wet Electrostatic Precipitator

Table 8. Summary of VOC BACT Determinations for Presses

Company	State	Permit #	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Efficiency (%)
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	475 MMsf/yr	20 lbs./hr	RTO	90
WEYERHAEUSER COMPANY	NC	3449R19	02/25/97	--	32.1 lb/hr	--	--
WEYERHAEUSER COMPANY	NC	3449R19	02/25/97	--	21.3	--	--
LOUISIANA PACIFIC CORP.	MI	19-88D	03/01/96	--	9.1	RTO	95
LOUISIANA-PACIFIC CORP.	VA	11021	3/15/95	37 TPY	9.4	RTO	90
WEYERHAEUSER COMPANY	MS	1920-00012	11/30/94	--	0.15	--	--
WEYERHAUSER CO.	AL	408-S003	10/28/94	--	21	--	--
WEYERHAUSER CO.	AL	408-S003	10/28/94	--	4	--	--
GEORGIA-PACIFIC CORPORATION	VA	30903	05/18/94	50,000 sq ft/hr	21.22	Fan Powered Stack	--
LOUISIANA PACIFIC CORP.	WI	92-MWH-99	03/22/94	21.58 MMBtu/hr	1.73	RTO	95
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	4.74	RTO	99.7
LOUISIANA PACIFIC CORP.	CO	89MO373	01/21/92	--	124	COMBUSTION CONTROL	--
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	27.4	WESP AND RTO	94
TEMPLE-INLAND FOREST PRODUCTS CORP.	AL	106-0004-X006	3/16/98	150 Msf/yr 3/4 in basis	6.13	RTO AND LOW-NOX BURNERS	90

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

RTO = Regenerative Thermal Oxidizer

RCO = Regenerative Catalytic Oxidizer

ESP = Electrostatic Precipitator

WESP = Wet Electrostatic Precipitator

Table 9. Summary of NOx BACT Determinations for Presses						
Company	State	Permit #	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	475 MMsf/yr	10.7 lb/hr	RTO and Low NOx Burners
LOUISIANA-PACIFIC CORP.	VA	11021	3/15/95	37 TPY	24.3 lb/hr	--
GEORGIA-PACIFIC CORPORATION	VA	30903	05/18/94	50,000 sq ft/hr	1.27 TPY	--
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	12.84 lb/hr	Low NOx Burners
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	31.31 lb/hr	--
TEMPLE-INLAND FOREST PRODUCTS CORPORATION	AL	106-0004-X006	3/16/98	150 MMsf/yr 3/4 in basis	20 PPM	RTO and Low NOx Burners
LOUISIANA PACIFIC CORP.	MI	19-88D	3/1/96		19.2 lb/hr	

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

RTO = Regenerative Thermal Oxidizer

RCO = Regenerative Catalytic Oxidizer

ESP = Electrostatic Precipitator

WESP = Wet Electrostatic Precipitator

Table 10. Summary of CO BACT Determinations for Presses

Company	State	Permit #	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Efficiency(%)
GEORGIA-PACIFIC CORPORATION	AR	1803-AOP-R0	6/8/99	475 MMsf/yr	7.3 lb/hr	RTO	75
WEYERHAEUSER COMPANY	NC	3449R19	02/25/97	--	2.2 lb/hr	--	--
LOUISIANA PACIFIC CORP.	MI	19-88D	03/01/96	--	6 PPH	RTO	70
LOUISIANA-PACIFIC CORP.	VA	11021	3/15/95	37 TPH	31.9 lb/hr	RTO	70
GEORGIA-PACIFIC CORPORATION	VA	30903	05/18/94	50,000 sq ft/hr	29.71 TPY	Fan Powered Stack	--
LOUISIANA PACIFIC CORP.	WI	92-MWH-99	03/22/94	21.58 MMBtu/hr	8.2 lb/hr	RTO	--
LOUISIANA PACIFIC CORP.	AL	702-0027	2/8/94	--	20.84 lb/hr	RTO	74.4
J.M. HUBER CORPORATION	VA	30905	01/05/94	7,920 hr/yr	15.47 lb/hr	WESP and RTO	91.7
TEMPLE-INLAND FOREST PRODUCTS CORPORATION	AL	106-0004-X006	3/16/98	150 MMsf/yr 3/4 in basis	50 lb/hr	RTO and Low NOX Burners	0

Source: EPA's RACT/BACT/LAER Clearinghouse, 1999

Notes:

RTO = Regenerative Thermal Oxidizer

RCO = Regenerative Catalytic Oxidizer

ESP = Electrostatic Precipitator

WESP = Wet Electrostatic Precipitator

Biofilter

Biofilter technology relies on a sustained culture of microorganisms that are able to absorb and biologically degrade air pollutants in a gas stream. The design for controlling board press emissions incorporates some type of media bed to provide a habitat for the microorganisms and a system to distribute gas throughout the bed. If a biodegradable media is employed it has to be replaced when pressure drop through the bed gets too high. Both temperature and humidity must be controlled. The temperature limitation is a concern. However, in a board press application the temperature can be kept below the critical temperature without excessive dilution air.

Biofilter pilot testing has shown that VOCs, CO, particulate matter, and even NO_x can be controlled. Based on information contained in a Weyerhaeuser PSD permit BACT evaluation prepared in July 1994 (not included in RBLC), the degree of control possible is as follows: VOC - 90% and CO - 50%. No information regarding the particulate matter or NO_x control potential is provided in the BACT analysis.

In order of decreasing effectiveness, the various control options are combined and ranked as follows:

Control Option	*Degree of Control (%)*		
	PM	*CO*	*VOC*
RTO	*75*	*75*	*90*[1]
RCO	*75*	*75*	*90*
Biofilter	*NA*	*50*	*90*
Wet ESP	*80*	*NA*	*5*
Wet Scrubber	*80*	*NA*	*5*

[1]From Table 8, it is shown that some RTOs may have efficiencies exceeding 90%. However, in terms of a permit limit, Georgia-Pacific has a vendor guarantee of 90% control.

As is the case for the dryers, the RBLC (see Table 8) indicates that several facilities can achieve VOC removal efficiencies in excess of 90% using RTOs. Georgia-Pacific believes that similar efficiencies may be achieved in practice by the RTO proposed for Hosford. However, for permitting purposes, Georgia-Pacific is proposing a removal efficiency of 90%. Also, for the reasons noted above, for the dryers (see Section G.5.3), an efficiency greater than 75% for carbon monoxide can be achieved, but additional nitrogen oxides will be generated.

With regard to particulate matter, a number of the presses are shown to be uncontrolled. Others are shown to be controlled by RTOs, with removal efficiencies generally in the range of 75 to 90% (see Table 7). As noted above, with regard to the entry for J.M. Huber, further discussions with the permittee reveal that the reported efficiency is an estimate based on using a controlled mass emission rate from the RTO vendor and an estimated uncontrolled mass emission rate. JM Huber used stack testing from another OSB facility to estimate the uncontrolled emission rates. Because the bases for the controlled and uncontrolled emission rates are not consistent, G-P believes that the stated PM removal efficiency is misleading for this technology. It should also be noted that other facilities using the same technology as that proposed for the Hosford Plant (an RTO) still have much higher hourly emission rates (for smaller plants), even though the reported removal efficiencies are higher. As such, Georgia-Pacific believes that the proposed control, regenerative thermal oxidation, represents BACT for controlling particulate matter emissions from the press.

G.6.4 Selection of BACT

Since RTO represents the highest overall degree of control technologically feasible (equal to RCO, although overall PM control values for RCO are likely over-estimated), it is selected as BACT for PM, CO, and VOC emissions. A low-NOx burner design, combined with fuel enhancement, is proposed as BACT for NO_x. This selection matches the determination of the ADEQ for an identical G-P OSB plant permitted in 1999.

G.7 BACT ANALYSIS FOR MATERIAL HANDLING SOURCES

G.7.1 Selection of Control Options

Bagfilter-type dust collectors are feasible for controlling emissions from all of the previously described point sources. As discussed in the main body of this report (see Section 4.3 in that portion of the report), two methodologies are used in estimating particulate matter emissions for the bag filters. First, emission estimates are made using material throughput rates and a removal efficiency of 99.96 percent. The second methodology utilizes air flow rates and assumes a particulate matter loading of 0.01 grain per dry standard cubic foot (gr/dscf) exiting the baghouses. Both sets of calculations are included in Attachment B. The vendor is only willing to guarantee the higher of the two values for each of the material handling sources. For emission points EP-3, EP-7, and EP-9, the first methodology (material throughput and removal efficiency) yields the highest estimates. As such, a removal efficiency of 99.96 percent is proposed for the bagfilters associated with these sources. For emission points EP-4, EP-5, EP-6, and EP-8, the second methodology (air flow rate and loading) yields the highest estimates. Using these emission estimates, the back-calculated efficiencies are 99.73 (EP-4), 98.35 (EP-5), 99.74 (EP-6), and 98.92 (EP-8) percent, respectively. The common element for all of these, however, is the outlet loading of 0.01 gr/dscf.

Other particulate matter control methods, such as wet scrubbers or ESP's, although feasible, are not considered practical for these sources since they could not be any more effective and either create problems such as wastewater disposal (wet scrubbing systems) or are overly complex and energy intensive (ESP). No controls are considered for the hog fuel handling operations since the material handled produces a minimal amount of fugitive particulate matter emissions. The sawdust material handling system includes equipment to minimize the creation of fugitive particulate matter. These material conveying devices will be enclosed and the relatively dry material (sawdust, planer shavings, etc.) will be stored in an enclosed building. Since the proposed methods of particulate matter control are clearly the most effective in terms of the degree of control possible, no further evaluation of controls is warranted.

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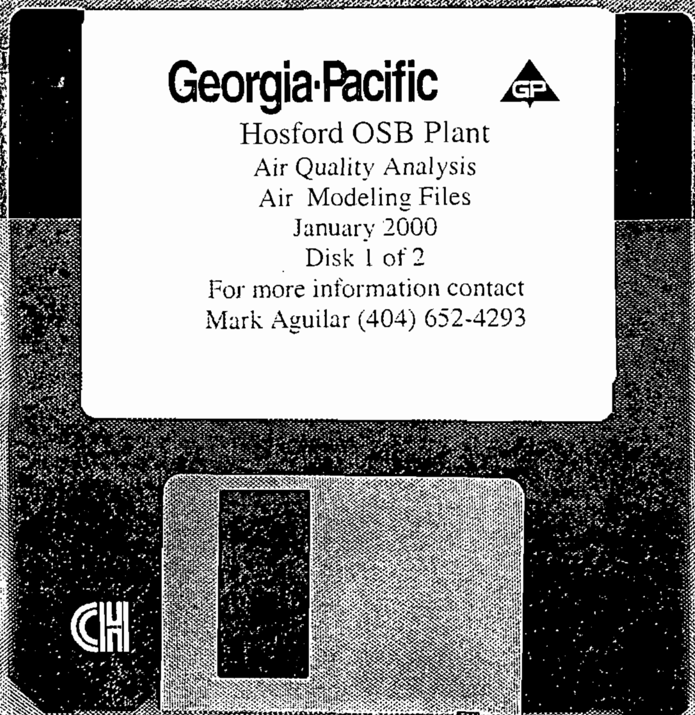

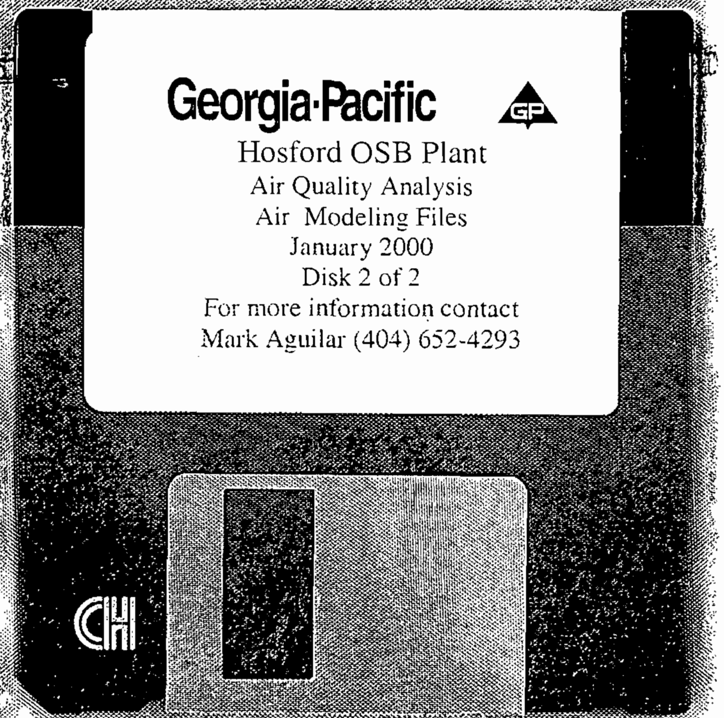

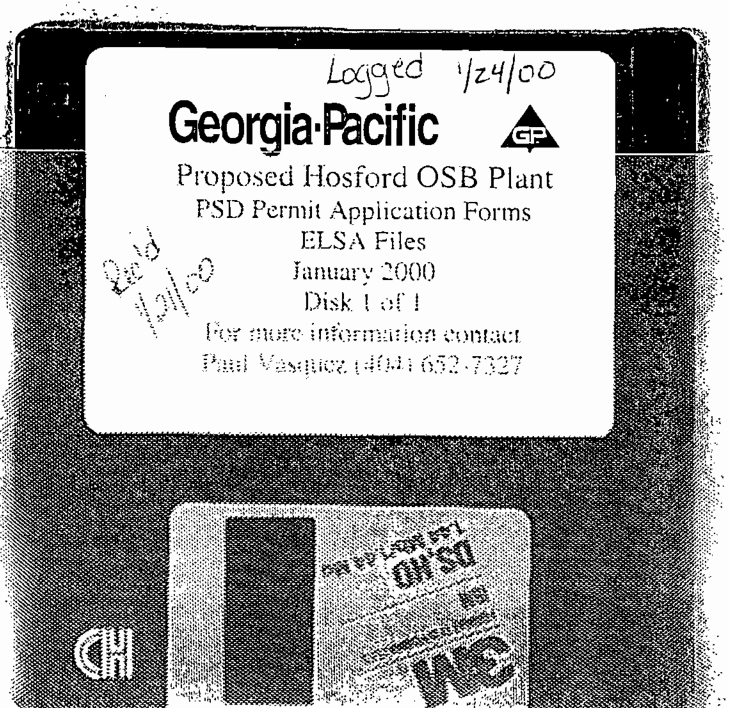

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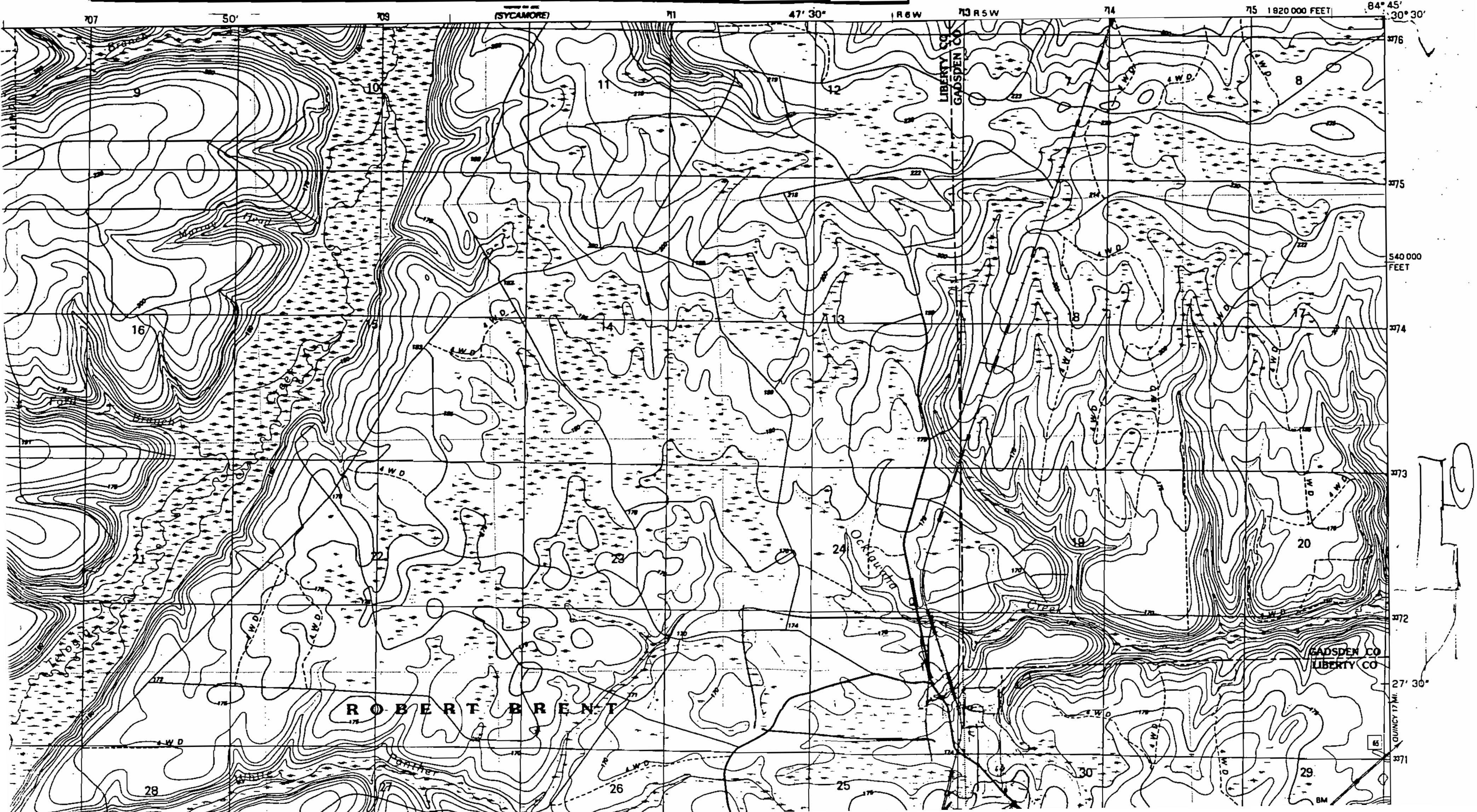
Figure 3-1. Area Map for Proposed G-P OSB Plant, Hosford, FL



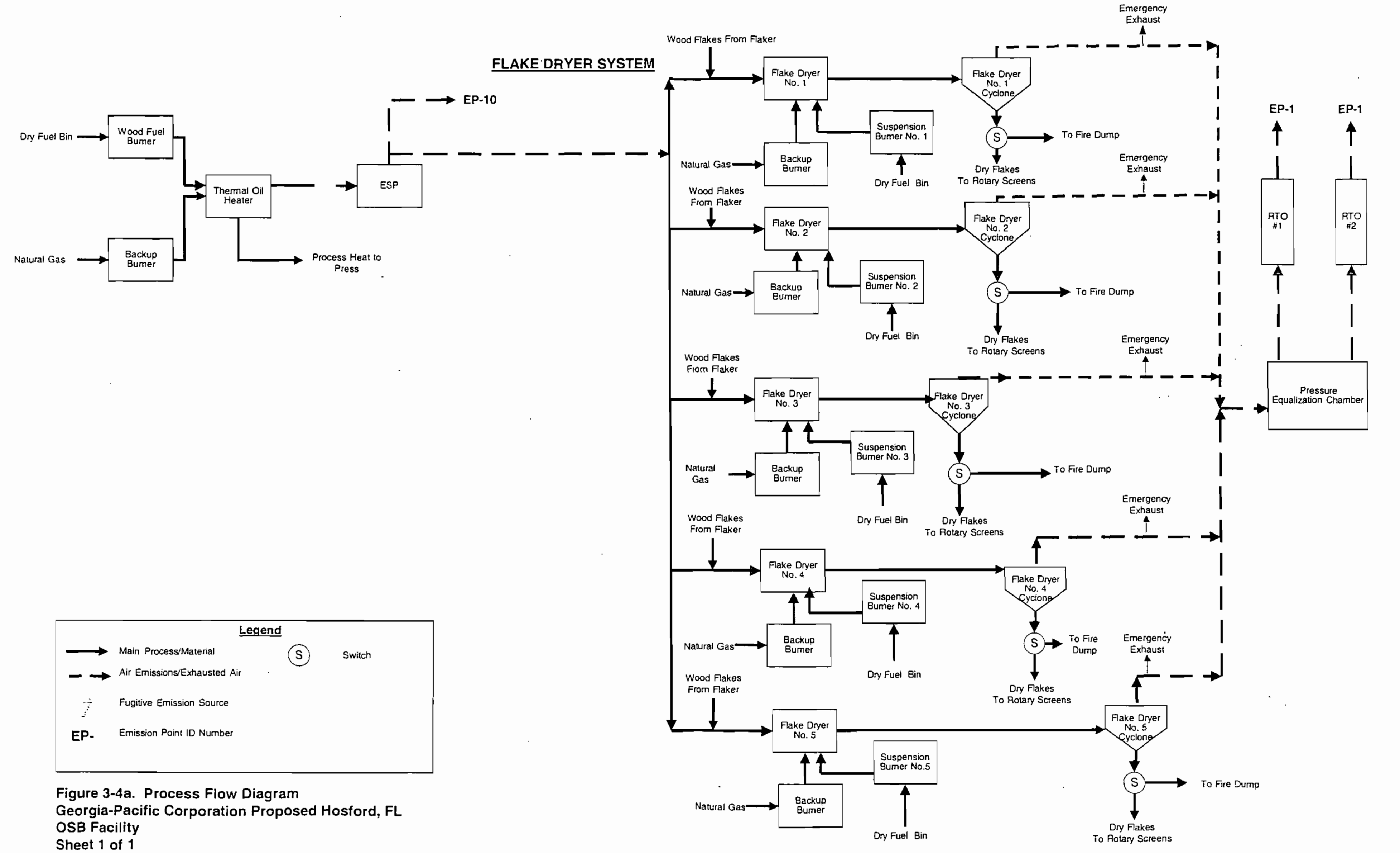


Figure 3-4a. Process Flow Diagram
Georgia-Pacific Corporation Proposed Hosford, FL
OSB Facility
Sheet 1 of 1

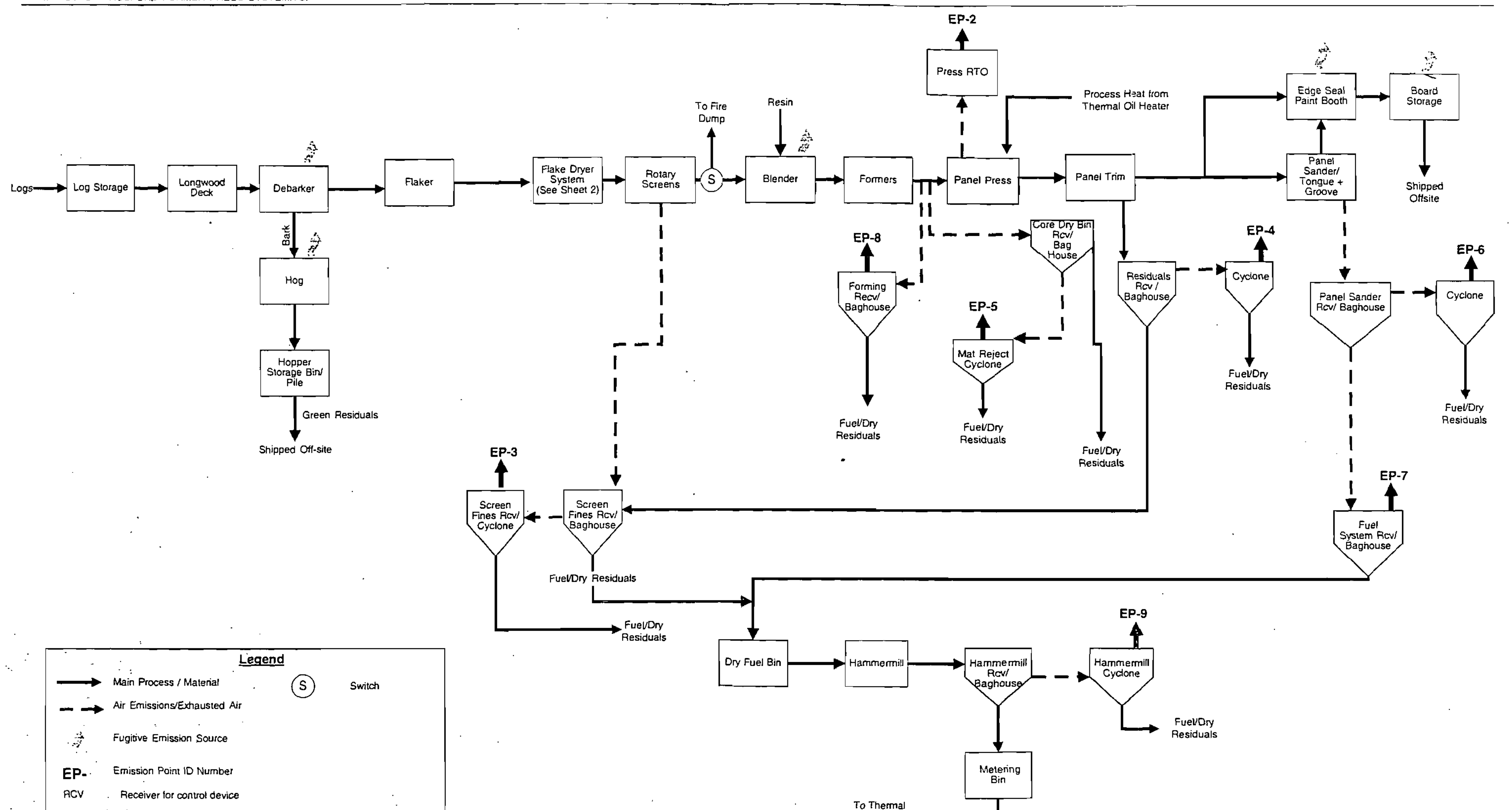


Figure 3-4b. Process Flow Diagram
Georgia-Pacific Corporation Proposed Hosford, FL
OSB Facility
Sheet 1 of 1

MAPS +

Diagrams ARE

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SUMMARIES OF INFORMATION COLLECTION REQUESTS DATA CONTROLS
7/29/99 AIR POLLUTION CONTROLS ON WOOD PRODUCTS, DRYERS & PRESSES.

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Table 27. Air pollution controls on all wood products dryers.

Control device	Number of dryers	Percent of dryers
Incineration-based controls:		
RTO, RCO, TCO, or TO only	56 RTO, 7 RCO, 4 TO	10
WESP/[RTO or RCO]	4 [RCO], 32 [RTO]	5
[PM control]/WESP/RTO	3 [BH], 12 [CYC], 12 [MC]	4
[PM control]/RTO	10 [RBP], 18 [MC]	4
Process incineration (PINC)[a]	6	<1
Semi-incineration (SINC)[b]	2	<1
PINC/[PM control]	4 [BH], 3 [DESP], 6 [MC/DESP], 5 [SCBR]	3
SINC/[PM control]	9 [SCBR], 1 [WESP], 1 [MC]	2
WESP's and wet scrubbers:		
Wet scrubber only	89	13
WESP only	71	11
SCBR/WESP	4 SCBR-WESP Combo, 8 SCBR/WESP	2
MC/SCBR/WESP	2	<1
MC/WESP	7	1
Dry scrubbers and other controls:		
BH, CYC, or MC	19 BH, 12 CYC, 28 MC	9
Sand filter	2	<1
EFB	12	2
EFB + PM control	1 CYC/EFB, 5 MC/EFB, 3 MC/EFB/BH	1
RBP	1	<1
None	209	31
Total[c]	668	

[a]Process incineration is incineration via a process unit, normally a boiler or large combustion unit. Process incineration includes combustion units in which 75 percent or more of gases are combusted.
[b]Semi-incineration includes units that are controlled by partial incineration in which less than 75 percent of gases are combusted (in either a process incinerator, RTO, RCO, TCO, or TO).
[c]There are 16 additional dryers in the CBI survey responses. Two of these dryers are controlled by baghouses, two are controlled by WESP's, and 12 are uncontrolled.

Table 28a. Air pollution controls on wood products dryers segregated by product type.

Control device	Hardboard dryers		Fiberboard dryers		Veneer dryers	
	No.	%	No.	%	No.	%
Incineration-based controls:						
RTO, RCO, TCO, or TO only	1 RCO, 4 RTO	7			6 RCO, 44 RTO, 3 TO	18
PINC only	1	1			5	2
SINC only			1	13		
PINC/[PM control]					5 [SCBR]	2
SINC/[PM control]			1 [SCBR]	13	1 [MC], 8 [SCBR]	3
WESP's and wet scrubbers:						
Wet scrubber only	19	27	1	13	47	16
WESP only					34	12
SCBR/WESP					4	1
Dry scrubbers and other controls:						
Baghouse, Cyclone, or Multiclone	3 BH, 4 CYC	10				
EFB					8	3
None	38	54	5	63	112	42
Total	70		8		277[a]	

[a]There are six additional veneer dryers in the CBI survey responses. Two of these dryers are controlled by WESP's. The remaining four veneer dryers are uncontrolled.

Table 28b. Air pollution controls on wood products dryers segregated by product type.

Control device	MDF dryers		OSB dryers[b]		Particleboard dryers	
	No.	%	No.	%	No.	%
Incineration-based controls:						
RTO, RCO, TCO, or TO only	8 RTO, 1 TO	23				
WESP/[RTO or RCO]			4 [RCO], 30 [RTO]	27	2 [RTO]	1
[PM control]/WESP/RTO	3 [BH]	8	12 [CYC], 9 [MC]	18	3 [MC]	2
[PM control]/RTO			14 [MC], 10 [RBP]	18	4 [MC]	3
SINC					1	1
PINC/[PM control]	2 [BH]	5	2 [BH], 3 [DESP], 6 [MC/DESP]	9		
SINC/[PM control]	1 [WESP]	3				
WESP's and wet scrubbers:						
Wet scrubbers only	2	5			20	14
WESP	3	8	19	15	15	11
SCBR/WESP					8	6
MC/SCBR/WESP			2	2		
MC/WESP			4	3	3	2
Dry scrubbers and other controls:						
BH, CYC, or MC	7 BH	18	1 CYC, 4 MC	4	9 BH, 7 CYC, 24 MC	28
Sand filter					2	1
EFB					4	3
EFB + PM control			5 MC/EFB	4	1 CYC/EFB, 3 MC/EFB/BH	3
RBP	1	3				
None	10	26			35	25
Total	38[a]		125		141[c]	

[a]There are seven additional MDF dryers in the CBI survey responses. Two of these dryers have baghouses and five are uncontrolled.
[b]Four of the OSB dryers are conveyor dryers. Three of the conveyor dryers have PINC/DESP control and one is controlled by a cyclone.
[c]The total includes one uncontrolled agricultural fiber dryer, two molded particleboard dryers (one uncontrolled and one with SINC), four tube dryers (three with baghouses and one uncontrolled), and two "other" uncontrolled particleboard dryers. There are three additional uncontrolled particleboard dryers in the CBI survey responses.

Table 29. Air pollution controls on wood products dryers segregated by dryer type.

Control device	Rotary dryers		Tube dryers		Other dryers[a]	
	No.	%	No.	%	No.	%
Incineration-based controls:						
RTO, RCO, TCO, or TO only			8 RTO, 1 TO	12	1 RCO, 4 RTO[d]	11
WESP/[RTO or RCO]	4 [RCO], 32 [RTO]	14				
[PM control]/WESP/RTO	12 [CYC], 12 [MC]	9	3 [BH]	4		
[PM control]/RTO	18 [MC], 10 [RBP]	11				
PINC					1	2
SINC	1	1			1	2
PINC/[PM control]	2 [BH], 6 [MC/DESP]	3	2[BH]	3	3 [DESP]	7
SINC/[PM control]			1 [WESP]	1	1 [SCBR]	2
WESP's and wet scrubbers:						
Wet scrubber only	20	8	18	23	4	9
WESP only	35	13	2	3		
SCBR/WESP	8	3				
MC/SCBR/WESP	2	1				
MC/WESP	7	3				
Dry scrubbers and other controls:						
Baghouse, Cyclone, or Multiclone	6 BH, 7 CYC, 28 MC	16	13 BH, 4 CYC	22	1 CYC	2
Sand filter	2	1				
EFB	4	2				
EFB + PM control	1 CYC/EFB, 5 MC/EFB, 3 MC/EFB/BH	3				
RBP			1	1		
None	35	13	24	31	29	64
Total	260[b]		77[c]		45	

[a]Includes OSB conveyor dryers, hardboard dryers, fiberboard dryers, and unconventional particleboard dryers.
[b]There are three additional uncontrolled rotary dryers in the CBI survey responses.
[c]There are seven additional tube dryers in the CBI survey responses. Two have baghouse control and the remainder are uncontrolled.
[d]These are all hardboard dryers.

Table 30a. Air pollution controls on wood products presses.

Control device	All presses		MDF presses		OSB presses	
	No.	%	No.	%	No.	%
Incineration-based controls:						
RTO, RCO, TCO, or TO	1 RCO, 23 RTO, 1 TCO	6	5 RTO	24	1 RCO, 14 RTO, 1 TCO	41
WESP/RTO	1	<1			1	3
Semi-incineration (SINC)[a]	2	1	1	5	1	3
PINC/baghouse	1	<1	1	5		
SINC/scrubber	2	1				
WESP's and wet scrubbers:						
Wet scrubbers	9	2				
WESP	1	<1				
SCBR/BH/WESP/RTO	1	<1	1	5		
Dry scrubbers and other controls:						
BH, CYC, or MC	4 BH, 1 CYC, 1 MC	2	2 BH	10		
Biofilter	5	1			2	5
None	345	87	11	52	19	49
Total	398[b]		21[c]		39	

[a]Semi-incineration includes units that are controlled by partial incineration in which less than 75 percent of gases are combusted (in either a process incinerator, RTO, RCO, TCO, or TO).

[b]There are 33 additional presses in the CBI survey responses. One of these presses is controlled by process incineration and 32 are uncontrolled.

[c]There are seven additional MDF presses in the CBI survey responses. One of these presses is controlled by process incineration and six are uncontrolled.

Table 30b. Air pollution controls on wood products presses.

Control device	Hardboard presses		Particleboard presses		Plywood presses	
	No.	%	No.	%	No.	%
Incineration-based controls:						
RTO, RCO, TCO, or TO	1 RTO	2	3 RTO	4		
SINC/Scrubber			2	3		
WESP's and wet scrubbers:						
Wet scrubbers	8	20	1	1		
WESP			1	1		
Dry scrubbers and other controls:						
BH, CYC, MC	1 CYC, 1 MC	5	2 BH	3		
Biofilter	2	5	1	1		
None	28	68	70	88	216	100
Total	41		80[a]		216[b]	

[a]There are 18 additional uncontrolled particleboard presses in the CBI survey responses.
[b]There are eight additional uncontrolled plywood presses in the CBI survey responses.

Description of Control Device Codes

Description of control device	Code
Air filter	FILTER
Baghouse	BH
Biofilter	BIO
Cyclone	CYC
Dry electrostatic precipitator	DESP
Electrified filter bed	EFB
Multiclone	MC
Process incineration (recirculation of 75 percent or more of process exhaust through a combustion unit)	PINC
Regenerative thermal oxidizer	RTO
Regenerative catalytic oxidizer	RCO
Rotary bed protector	RBP
Sand filter	SF
Semi-incineration (recirculation of less than 75 percent of process exhaust through a combustion unit)	SINC
Thermal oxidizer	TO
Thermal catalytic oxidizer	TCO
Uncontrolled	NONE
Wet electrostatic precipitator	WESP
Wet scrubber	SCBR

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Coun	Name	City	State	Products (codes defined below)
1	Advanced Wood Resources	Brownsville	OR	EWP
2	Celotex Corporation	Sunbury	PA	FB
3	Georgia-Pacific Softboard Sheathing, Jarratt, VA	Jarratt	VA	FB
4	Huebert Fiberboard Company	Boonville	MO	FB
5	International Bildrite, Incorporated	International Falls	MN	FB
6	Masonite - Lisbon Falls	Lisbon	ME	FB
7	Masonite - Pilot Rock	Pilot Rock	OR	FB
8	Temple-Inland - Diboll Fiber Products	Diboll	TX	FB, HB
9	Celotex Corporation - Marrero, LA	Marrero	LA	FBB
10	Alamco Wood Products, Incorporated	Albert Lea	MN	GLB
11	American Laminators	Swisshome	OR	GLB
12	Anthony Forest Products Company - El Dorado, AR	El Dorado	AR	GLB
13	Anthony Forest Products Company - Washington, GA	Washington	GA	GLB
14	Boise Cascade - Emmett, ID	Emmett	ID	GLB
15	Calvert Company, Incorporated - Vancouver, WA	Vancouver	WA	GLB
16	Calvert Company, Incorporated - Washougal, WA	Washougal	WA	GLB
17	Rigidply Rafters, Incorporated	Richland	PA	GLB
18	Rosboro Lumber Company, Laminating Plant	Springfield	OR	GLB
19	Stimson Lumber Company	Chehalis	WA	GLB
20	Western Structures, Incorporated	Eugene	OR	GLB
21	Willamette Industries, Incorporated - EWP Vaughn Laminating Com	Veneta	OR	GLB
22	G-P, Ocala Engineered Lumber	Ocala	FL	GLB, I-J
23	Standard Structures, Incorporated	Windsor	CA	GLB, I-J
24	Simsboro GLB (LamBeam)	Simsboro	LA	GLB, I-J, LVL
25	ABTCo, A Louisiana-Pacific Company	Alpena	MI	HB
26	ABTCo, Incorporated - Roaring River	Roaring River	NC	HB
27	Evanite Fiber Corporation, Hardboard Division	Corvallis	OR	HB
28	Georgia Pacific Hardboard Plant, Bemidji, MN	Bemidji	MN	HB
29	Georgia-Pacific Hardboard Plant	Phillips	WI	HB
30	Georgia-Pacific Hardboard Plant - Catawba, SC	Catawba	SC	HB
31	Georgia-Pacific Hardboard Plant - Conway, NC	Conway	NC	HB
32	Georgia-Pacific Hardboard Plant - Lebanon, OR	Lebanon	OR	HB
33	Georgia-Pacific Hardboard Plant, Duluth, MN	Duluth	MN	HB
34	Georgia-Pacific Hardboard Plant, North Little Rock, AR	North Little Rock	AR	HB
35	Georgia-Pacific Hardboard Plant, Superior, WI	Superior	WI	HB
36	Louisiana-Pacific Corporation - Oroville CA	Oroville	CA	HB
37	Masonite - Danville, VA	Danville	VA	HB
38	Masonite - Laurel Mill	Laurel	MS	HB
39	Masonite Corporation - Towanda Mill	Wysox	PA	HB
40	Masonite Ukiah	Ukiah	CA	HB
41	Stimson Lumber Company - Forest Grove, OR	Gaston	OR	HB
42	Collins Products, L.L.C.	Klamath Falls	OR	HB, PB, SPW
43	Architectural Forest Products	Two Rivers	WI	HPW
44	Architectural Plywood, Incorporated	North Hollywood	CA	HPW
45	Bill Kraemer Veneers, Incorporated	New Albany	IN	HPW
46	Bradford Veneer and Panel Company	Bradford	VT	HPW
47	Broyhill Furniture Industries - Harper Plant	Lenoir	NC	HPW

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Coun	Name	City	State	Products (codes defined below)
48	Broyhill Furniture Industries - Miller Hill Complex	Lenoir	NC	HPW
49	Broyhill Furniture Industries - Rutherford Plant	Rutherford	NC	HPW
50	Buffalo Veneer and Plywood	Buffalo	MN	HPW
51	Burkel, Incorporated	Oconto Falls	WI	HPW
52	Calley & Currier Company - Bristol, NH	New Hampton	NH	HPW
53	Calypso Panel Company, Incorporated	Calypso	NC	HPW
54	Carl F. Booth & Co., Inc.	New Albany	IN	HPW
55	Carolina Curves, Incorporated	Conover	NC	HPW
56	Chesapeake Hardwood Products, Incorporated	Hancock	VT	HPW
57	Columbia Forest Products - Chatham, VA	Chatham	VA	HPW
58	Columbia Forest Products - Trumann, AR	Trumann	AR	HPW
59	Columbia Forest Products/Cuthbert Division	Cuthbert	GA	HPW
60	Columbia Panel Manufacturing Company	High Point	NC	HPW
61	Columbia Wood Components	Corpus Christi	TX	HPW
62	Custom Plywood, Incorporated	New Albany	IN	HPW
63	DanPly	Danville	VA	HPW
64	Darlington Veneer Company, Incorporated	Darlington	SC	HPW
65	Davidson Plyforms, Incorporated	Grand Rapids	MI	HPW
66	Davis Wood Products of Mississippi	New Albany	MS	HPW
67	Davis Wood Products, Incorporated	Hudson	NC	HPW
68	Denny Plywood Company	Roseboro	NC	HPW
69	Eagle Plywood and Door Mfg.	South Plainfield	NJ	HPW
70	Eastern Panel Manufacturing, Incorporated	Chatham	VA	HPW
71	Eggers Industries - East Plant	Two Rivers	WI	HPW
72	Eggers Industries - West Plant	Two Rivers	WI	HPW
73	Flexible Materials Panel Plant	New Albany	IN	HPW
74	Formply Products, Inc.	South Boston	VA	HPW
75	General Veneer Manufactruing Company	South Gate	CA	HPW
76	Georgia Pacific Corporation - Savannah, GA	Savannah	GA	HPW
77	Georgia Pacific Panelboard Plant - Eugene, OR	Eugene	OR	HPW
78	Harris-Tarkett, Incorporated	Johnson City	TN	HPW
79	Hassell Plywood and Door Manufacturing	Marlboro	NJ	HPW
80	Hasty Plywood Company	Maxton	NC	HPW
81	Hayworth Roll & Panel Co.	High Point	NC	HPW
82	Henry County Plywood Corporation	Ridgeway	VA	HPW
83	International Paper	Oshkosh	WI	HPW
84	Jasper Laminates	Jasper	IN	HPW
85	Jasper Wood Products Company, Incorporated	Jasper	IN	HPW
86	Mannington Wood Floors	High Point	NC	HPW
87	McKnight Plywood, Inc.	West Helena	AR	HPW
88	Memphis Plywood Corporation	Memphis	TN	HPW
89	Midwest Veneer and Pressing, Incorporated	Wyoming	MN	HPW
90	MultiPly	Danville	VA	HPW
91	Panoply Corporation	Lexington	TN	HPW
92	Paramount Plywood Products, Incorporated	New Albany	IN	HPW
93	Plycurves, Inc.	Grand Rapids	MI	HPW
94	Plyforms, Incorporated	Bay City	MI	HPW

Coun	Name	City	State	Products (codes defined below)
95	Ply-Tech Corporation	Glasgow	KY	HPW
96	Quality Plywood, Incorporated	Waynesboro	MS	HPW
97	Rankin Brothers Company	Fayetteville	NC	HPW
98	Saunders Wood Specialties	Park Falls	WI	HPW
99	Sieling and Jones, Incorporated	New Freedom	PA	HPW
100	Southern Laminating Company	Memphis	TN	HPW
101	Southwest Panel Products	Katy	TX	HPW
102	Sterling and Adams, Bentwood, Incorporated	Thomasville	NC	HPW
103	Superior Hardwoods	Corvallis	OR	HPW
104	The Wood Gallery, Incorporated	Dallas	TX	HPW
105	Timber Products - Medford Hardwoods	Medford	OR	HPW
106	Timber Products Company	Grants Pass	OR	HPW
107	Timber Products Company - Corinth, MS	Corinth	MS	HPW
108	Tri-State Veneer and Plywood	Memphis	TN	HPW
109	Unique Woods Incorporated	White City	OR	HPW
110	United Plywood Industries	Mocksville	NC	HPW
111	Western Panel Manufacturing, Incorporated	Eugene	OR	HPW
112	Whiteville Plywood Co, Incorporated	Whiteville	NC	HPW
113	Willamette Industries, Incorporated - Moncure Division	Moncure	NC	HPW
114	Winnsboro Plywood Company, Inc.	Winnsboro	SC	HPW
115	Wisconsin Laminates, Inc./TADCO	Pewaukee	WI	HPW
116	Yonkers Plywood Manufacturing Corporation	Old Bridge	NJ	HPW
117	Algoma Hardwoods, Incorporated	Algoma	WI	HPW or HV
118	Bassett Chair Company	Bassett	VA	HPW or HV
119	Bassett Furniture	Dublin	GA	HPW or HV
120	Bassett Furniture - Mt. Airy	Mt. Airy	NC	HPW or HV
121	Bassett Furniture Industries of NC - Macon Plant	Macon	GA	HPW or HV
122	Bassett Superior Lines	Bassett	VA	HPW or HV
123	Bassett Table Company	Bassett	VA	HPW or HV
124	Benton Doors, Incorporated	Baton Rouge	LA	HPW or HV
125	Besse Veneers, Incorporated	Trafalgar	IN	HPW or HV
126	Bruce Hardwood Flooring, LP	Center	TX	HPW or HV
127	Columbia Flooring	Thomasville	NC	HPW or HV
128	Eggers Industries	Neenah	WI	HPW or HV
129	Hartco Flooring Company - TN	Oneida	TN	HPW or HV
130	Heritage Veneered Products	Shawano	WI	HPW or HV
131	J.D. Bassett # 1 & 2	Bassett	VA	HPW or HV
132	Mannington Wood Floors - Epes Facility	Epes	AL	HPW or HV
133	Ohio Valley Door Corporation	New Albany	IN	HPW or HV
134	Pavco Industries, Incorporated	Pascagoula	MS	HPW or HV
135	Standard Plywoods, Incorporated	Clinton	SC	HPW or HV
136	Atlantic Veneer Corporation	Beaufort	NC	HPW, HV
137	Birchwood Lumber and Veneer Company	Birchwood	WI	HPW, HV
138	Birchwood Manufacturing Co.	Rice Lake	WI	HPW, HV
139	Broyhill Furniture Industries - Virginia Street Complex	Lenoir	NC	HPW, HV
140	Columbia Carolina	Old Fort	NC	HPW, HV
141	Columbia Plywood	Klamath Falls	OR	HPW, HV

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Coun	Name	City	State	Products (codes defined below)
142	Florida Plywoods, Incorporated	Greenville	FL	HPW, HV
143	GN Plywood, Inc. dba Mt. Baker Plywood	Bellingham	WA	HPW, HV
144	Hartco Flooring Company - KY	Somerset	KY	HPW, HV
145	Howell Plywood Corporation	Dothan	AL	HPW, HV
146	Indiana Architectural Plywood	Trafalgar	IN	HPW, HV
147	Indiana Veneer Products	Montpelier	IN	HPW, HV
148	International Veneer Company, Incorporated	South Hill	VA	HPW, HV
149	Lea Lumber & Plywood, LLC	Windsor	NC	HPW, HV
150	Marion Plywood Corporation	Marion	WI	HPW, HV
151	Robbins Hardwood Flooring, Incorporated-Sykes	Warren	AR	HPW, HV
152	Rutland Plywood Corporation - Ripley Mill	Rutland	VT	HPW, HV
153	States Industries, Incorporated - Plant #1	Eugene	OR	HPW, HV
154	States Industries, Incorporated - Plant #2	Eugene	OR	HPW, HV
155	Tyler Plywood Corporation	Florence	SC	HPW, HV
156	Wallace Wood Products	Demopolis	AL	HPW, HV
157	Weber Veneer and Plywood	Shawano	WI	HPW, HV
158	Weldon Veneer Company, Incorporated	Weldon	NC	HPW, HV
159	Wisconsin Veneer and Plywood Incorporated	Mattoon	WI	HPW, HV
160	Amos-Hill Associates, Inc.	Edinburgh	IN	HV
161	Anderson-Tully	Vicksburg	MS	HV
162	Anderson-Tully	Memphis	TN	HV
163	B.L. Curry and Sons, Incorporated	New Albany	IN	HV
164	Benson Veneer Company, Incorporated	Benson	NC	HV
165	Birds Eye Veneer Company	Butternut	WI	HV
166	C.A. Garner Veneer, Incorporated	Smithfield	KY	HV
167	Cahaba Veneer, Incorporated	Centerville	AL	HV
168	Calley & Currier Company - Patten, ME	Patten	ME	HV
169	Can American Veneers	Seymour	IN	HV
170	Capital Veneer Works, Incorporated	Montgomery	AL	HV
171	Carolina Veneer	Thomasville	NC	HV
172	Coldwater Veneer, Inc.	Coldwater	MI	HV
173	Columbia Forest Products - Indian Head Division (ME)	Presque Isle	ME	HV
174	Columbia Forest Products - Indian Head Division (VT)	Newport	VT	HV
175	Columbia Forest Products - New Freedom Division	New Freedom	PA	HV
176	Columbia Kentucky	Manchester	KY	HV
177	Columbia West Virginia	Craigsville	WV	HV
178	Corbett Package Company	Wilmington	NC	HV
179	Corbett Plywood	Fairfax	SC	HV
180	David R. Webb Company, Incorporated	Edinburgh	IN	HV
181	Dimension Veneers, Incorporated	Edon	OH	HV
182	Elloree Veneer, Inc.	Elloree	SC	HV
183	Evansville Veneer and Lumber Company	Evansville	IN	HV
184	Franklin Hardwood, Incorporated	Abbeville	AL	HV
185	Franklin Veneers, Incorporated	Franklinton	NC	HV
186	Goodman Forest Industries, Ltd.	Goodman	WI	HV
187	H. R. Jones Veneer, Incorporated	Grande Ronde	OR	HV
188	H.E. Browder Veneer, Incorporated	Bradleyton	AL	HV

Coun	Name	City	State	Products (codes defined below)
189	Hamilton Woods Veneer Company	Grovehill	AL	HV
190	Hatley Veneer, Incorporated	Hatley	WI	HV
191	Indiana Veneer	Indianapolis	IN	HV
192	Interforest Corporation	Darlington	PA	HV
193	Kearse Manufacturing Company	Olar	SC	HV
194	Keystone Veneers Incorporated	Williamsport	PA	HV
195	Louisiana-Pacific Corporation - Mellen Veneer	Mellen	WI	HV
196	Manthei, Incorporated	Petoskey	MI	HV
197	Miller Veneers, Inc.	Indianapolis	IN	HV
198	Oak Hill Veneer, Incorporated	Troy	PA	HV
199	Rownd and Son, Incorporated	Dillon	SC	HV
200	Southern Veneer Company, Incorporated	Thomasville	NC	HV
201	Swords Veneer and Lumber Company	Rock Island	IL	HV
202	Talley-Corbett Box Company	Springfield	SC	HV
203	The Freeman Corporation	Winchester	KY	HV
204	Thiesing Veneer Company, Incorporated	Mooresville	IN	HV
205	Thomasville Veneer Company	Thomasville	NC	HV
206	Timber Products Michigan	Munising	MI	HV
207	Truax Veneer	Lyons	GA	HV
208	Universal Production Corporation (Universal Veneer Mill Corporatio	Newark	OH	HV
209	Walterboro Veneer Company	Walterboro	SC	HV
210	Winnfield Veneer Company	Winnfield	LA	HV
211	Erath Veneer Corporation of Virginia	Rocky Mount	VA	HV, SV
212	Genwove U.S. Ltd	Indian Trail	NC	HV, SV
213	M. Bohlke Veneer Corp.	Fairfield	OH	HV, SV
214	The Dean Company	Princeton	WV	HV, SV
215	G.E. Fabricators, Incorporated	Salem	NJ	I-J
216	Louisiana Pacific Corporation - Red Bluff I-Joist	Red Bluff	CA	I-J
217	Web Joist Northwest Corporation	Chehalis	WA	I-J
218	Willamette Industries, Incorporated - EWP Woodburn, I-Joist	Woodburn	OR	I-J
219	Boise Cascade Corporation - White City LVL	White City	OR	I-J, EWP
220	Starwood Rafters	Independence	WI	I-J, EWP
221	Trus Joist MacMillan - East Kentucky Plant	Chavies	KY	I-J, LSL
222	Boise Cascade - Timber and Wood Products Division	Lena	LA	I-J, LVL
223	Georgia-Pacific Engineered Lumber Plant - Roxboro, NC	Roxboro	NC	I-J, LVL
224	Louisiana Pacific Corporation - Wilmington LVL/I-joist	Wilmington	NC	I-J, LVL
225	Lousisana Pacific Corporation - Fernley LVL/I-joist	Fernley	NV	I-J, LVL
226	Trus Joist MacMillan - Eugene Plant	Eugene	OR	I-J, LVL
227	Trus Joist MacMillan - Lowndes County Plant	Valdosta	GA	I-J, LVL
228	Trus Joist MacMillan -Natchitoches Plant	Natchitoches	LA	I-J, LVL
229	Louisiana Pacific Corporation - Hines LVL/I-joist	Hines	OR	I-J, LVL, EWP
230	Trus Joist MacMillan - Stayton Plant	Stayton	OR	I-J, LVL, EWP
231	Trus Joist MacMillan - Deerwood, MN Plant	Deerwood	MN	LSL
232	Trus Joist MacMillan - Junction City Plant	Junction City	OR	LVL
233	Willamette Industries, Incorporated - Custom Products/LVL	Millersberg	OR	LVL
234	Willamette Industries, Incorporated - EWP, Winston LVL	Winston	OR	LVL
235	Woodtech, Incorporated	Bluefield	VA	LVL

Coun	Name	City	State	Products (codes defined below)
236	Trus Joist MacMillan - Buckhannon Plant	Buckhannon	WV	LVL, PSL
237	Allegheny MDF Limited Partnership	Mt. Jewett	PA	MDF
238	Bassett Fiberboard	Bassett	VA	MDF
239	Del-Tin Fiber, L.L.C. (Temple-Inland FPC Joint Venture)	El Dorado	AR	MDF
240	Dominance Industries, Incorporated (dba Pan-Pacific Products)	Broken Bow	OK	MDF
241	Georgia-Pacific MDF Plant, Holly Hill, SC	Holly Hill	SC	MDF
242	Jeld-Wen Fiber of Iowa	Dubuque	IA	MDF
243	Jeld-Wen Fiber of North Carolina	Marion	NC	MDF
244	Jeld-Wen Fiber of Oregon	Klamath Falls	OR	MDF
245	Jeld-Wen Fiber of White Swan	White Swan	WA	MDF
246	Louisiana-Pacific - Urania MDF	Urania	LA	MDF
247	Louisiana-Pacific Corporation - Oroville CA	Oroville	CA	MDF
248	Louisiana-Pacific Corporation, Clayton MDF Mill	Clayton	AL	MDF
249	Medite Division of Sierra Pine Limited	Medford	OR	MDF
250	Norbord Industries, Incorporated - Deposit, NY	Deposit	NY	MDF
251	SierraPine Limited, Rocklin MDF	Rocklin	CA	MDF
252	Temple-Inland	Shippenville	PA	MDF
253	Willamette Industries, Inc - Bennettsville Division	Bennettsville	SC	MDF
254	Willamette Industries, Inc - Eugene MDF	Eugene	OR	MDF
255	Willamette Industries, Inc - Malvern Division	Malvern	AR	MDF
256	Georgia-Pacific Panelboard/MDF - Monticello, GA	Monticello	GA	MDF, PB
257	Weyerhaeuser Company - Moncure, NC	Moncure	NC	MDF, PB
258	Plum Creek Manufacturing, LP - Columbia Falls, MT	Columbia Falls	MT	MDF, SPW
259	Georgia-Pacific Corporation Brookneal OSB Plant	Gladys	VA	OSB
260	Georgia-Pacific Corporation OSB Plant	Mt. Hope	WV	OSB
261	Georgia-Pacific OSB Plant - Dudley, NC	Dudley	NC	OSB
262	Georgia-Pacific OSB Plant - Grenada, MS	Grenada	MS	OSB
263	Georgia-Pacific OSB Plant - Woodland, ME	Baileyville	ME	OSB
264	Georgia-Pacific OSB Plant, Skippers, VA	Skippers	VA	OSB
265	International Paper - Jefferson OSB	Jefferson	TX	OSB
266	International Paper Cordele Mill	Cordele	GA	OSB
267	International Paper, Nacogdoches OSB	Nacogdoches	TX	OSB
268	J.M. Huber Corporation - Commerce, GA	Commerce	GA	OSB
269	J.M. Huber Corporation - Crystal Hill	Crystal Hill	VA	OSB
270	J.M. Huber Corporation - Spring City, TN	Spring City	TN	OSB
271	J.M. Huber Corporation Easton	Easton	ME	OSB
272	Langboard OSB	Quitman	GA	OSB
273	Louisiana-Pacific - Athens OSB	Athens	GA	OSB
274	Louisiana-Pacific - Hanceville OSB	Hanceville	AL	OSB
275	Louisiana-Pacific - Montrose OSB	Olathe	CO	OSB
276	Louisiana-Pacific - Newberry Siding Plant	Newberry	MI	OSB
277	Louisiana-Pacific - Roxboro, NC	Roxboro	NC	OSB
278	Louisiana-Pacific - Sagola, MI	Sagola	MI	OSB
279	Louisiana-Pacific - Two Harbors siding plant	Two Harbors	MN	OSB
280	Louisiana-Pacific Corporation - Houlton, ME	New Limerick	ME	OSB
281	Louisiana-Pacific Corporation, Carthage OSB Plant	Carthage	TX	OSB
282	Louisiana-Pacific Corporation, Hayward, WI	Hayward	WI	OSB

Coun	Name	City	State	Products (codes defined below)
283	Louisiana-Pacific Corporation, Jasper OSB Plant	Jasper	TX	OSB
284	Louisiana-Pacific Corporation, Silsbee OSB Plant	Silsbee	TX	OSB
285	Louisiana-Pacific Corporation, Tomahawk Siding Plant	Tomahawk	WI	OSB
286	Martco Partnership - LeMoyen OSB Plant	Morrow	LA	OSB
287	Norbord Mississippi, Incorporated	Guntown	MS	OSB
288	Northwood Panelboard Company	Solway	MN	OSB
289	Potlatch Corporation	Grand Rapids	MN	OSB
290	Potlatch Corporation - Bemidji OSB Plant	Bemidji	MN	OSB
291	Potlatch Corporation - Cook	Cook	MN	OSB
292	Weyerhaeuser - Heaters Facility, Sutton OSB Mill	Sutton	WV	OSB
293	Weyerhaeuser Company - Elkin, NC	Elkin	NC	OSB
294	Weyerhaeuser Company - Grayling OSB	Grayling	MI	OSB
295	Willamette Industries, Inc - Arcadia Division	Simsboro	LA	OSB
296	Allegheny Particleboard, LP	Mt. Jewett	PA	PB
297	Boise Cascade - LaGrande Particleboard Plant	LaGrande	OR	PB
298	Broyhill Furniture Industries - Miller Hill Complex	Lenoir	NC	PB
299	California Pacific Corporation	Evanston	IN	PB
300	Florida Plywoods, Incorporated	Greenville	FL	PB
301	Georgia-Pacific Particleboard - Oxford, MS	Oxford	MS	PB
302	Georgia-Pacific Particleboard - Russellville, SC	St. Stephen	SC	PB
303	Georgia-Pacific Particleboard - Vienna, GA	Vienna	GA	PB
304	Georgia-Pacific Particleboard Plant - Gaylord, MI	Gaylord	MI	PB
305	Georgia-Pacific Particleboard Plant - Louisville, MS	Louisville	MS	PB
306	Georgia-Pacific Particleboard Plant - Taylorsville, MS	Taylorsville	MS	PB
307	Giles and Kendall, Incorporated	Huntsville	AL	PB
308	Hambro Forest Products, Incorporated	Crescent City	CA	PB
309	International Paper - Stuart Facility	Stuart	VA	PB
310	International Paper/Masonite Corporation, Waverly Facility	Waverly	VA	PB
311	Louisiana-Pacific - Arcata Particleboard	Arcata	CA	PB
312	Louisiana-Pacific - Missoula Particleboard	Missoula	MT	PB
313	Louisiana-Pacific Corporation, Silsbee Particleboard Mill	Silsbee	TX	PB
314	Merillat Corporation	Rapid City	SD	PB
315	Nu-Woods, Incorporated	Lenoir	NC	PB
316	Ponderosa Products, Incorporated	Albuquerque	NM	PB
317	Potlatch Corporation - Post Falls Particleboard	Post Falls	ID	PB
318	Rodman Industries	Marinette	WI	PB
319	SierraPine, Ltd, Ampine Division	Martell	CA	PB
320	Smurfit Newsprint Corporation	Sweet Home	OR	PB
321	Smurfit Newsprint Corporation - Philomath, OR	Philomath	OR	PB
322	Temple-Inland - Diboll Particleboard	Diboll	TX	PB
323	Temple-Inland - Hope Particleboard	Hope	AR	PB
324	Temple-Inland - Monroeville Particleboard	Monroeville	AL	PB
325	Temple-Inland - Thomson Particleboard	Thomson	GA	PB
326	Timber Products Company - Particleboard	Medford	OR	PB
327	Union Camp Franklin Particleboard Plant	Franklin	VA	PB
328	Webb Furniture Enterprises, Inc - Particleboard Plant	Galax	VA	PB
329	Weyerhaeuser - Marshfield. WI	Marshfield	WI	PB

Coun	Name	City	State	Products (codes defined below)
330	Weyerhaeuser Company- Adel, GA	Adel	GA	PB
331	Willamette Industries - Duraflake Division	Millersburg	OR	PB
332	Willamette Industries, Inc - KorPine Division	Bend	OR	PB
333	Willamette Industries, Inc - Lillie Division	Lillie	LA	PB
334	Willamette Industries, Inc - SurePine Division	Simsboro	LA	PB
335	The Lane Company, Incorporated	Altavista	VA	PB, PLY
336	Weyerhaeuser Company - Springfield, OR	Springfield	OR	PB, PLY
337	Roseburg Forest Products Company - Dillard Facility	Roseburg	OR	PB, PLY, SPW
338	Broyhill Furniture Industries, Incorporated - Virginia Street Complex	Lenoir	NC	PBM
339	Inca Presswood Pallets, Limited	Dover	OH	PBM
340	Inca Presswood Pallets, Limited - Sardis, MS	Sardis	MS	PBM
341	Moldwood Products Company	York	AL	PBM
342	Southern Plug & Manufacturing	Bastrop	LA	PBM
343	Werzalit of America, Incorporated	Bradford	PA	PBM
344	Hutchinson Strawboard, L.L.C.	Hutchinson	KS	PBS
345	Primeboard Incorporated	Wahpeton	ND	PBS
346	Bessemer Plywood Corporation	Bessemer	MI	PLY
347	Georgia-Pacific Plywood Plant - Warm Springs, GA	Warm Springs	GA	PLY
348	K Ply, Incorporated	Port Angeles	WA	PLY
349	Roseburg Forest Products Plywood - Riddle	Riddle	OR	PLY
350	Simpson Timber Company - Shelton Mill	Shelton	WA	PLY
351	Union Camp Corporation - Chapman, AL Facility	Chapman	AL	PLY
352	Weyerhaeuser Company- Millport Wood Products Facility	Millport	AL	PLY
353	Trus Joist MacMillan - Colbert, GA	Colbert	GA	PSL
354	Boise Cascade Corporation - Elgin Complex	Elgin	OR	SPW
355	Boise Cascade Corporation - Florien Plywood	Florien	LA	SPW
356	Boise Cascade Corporation - Kettle Falls Plywood Plant	Kettle Falls	WA	SPW
357	Boise Cascade Corporation - Medford Operations	Medford	OR	SPW
358	Boise Cascade Corporation - Oakdale Plywood	Oakdale	LA	SPW
359	Boise Cascade Corporation - Rogue Valley Plywood	White City	OR	SPW
360	Boise Cascade Corporation - Yakima Complex	Yakima	WA	SPW
361	Boise Cascade Plywood Plant - Emmett, ID	Emmett	ID	SPW
362	C.O.T. Plywood Corporation	Whitehall	NY	SPW
363	Champion International Corporation, Camden Complex	Camden	TX	SPW
363	Champion International Corporation, Corrigan Complex	Corrigan	TX	SPW
365	Coastal Lumber Company, Havana Plywood	Havana	FL	SPW
366	Eagle Veneer, Incorporated	Harrisburg	OR	SPW
367	Emerald Forest Products - Plant #1	Eugene	OR	SPW
368	Fourply, Incorporated	Grants Pass	OR	SPW
369	Freres Lumber Company, Incorporated	Mill City	OR	SPW
370	Georgia-Pacific - Hawthorne Plywood Mill	Hawthorne	FL	SPW
371	Georgia-Pacific - Monticello Plywood Plant	Monticello	GA	SPW
372	Georgia-Pacific Corp Plywood Plant - Whiteville, NC	Whiteville	NC	SPW
373	Georgia-Pacific Corporation - Madison Plywood Plant	Madison	GA	SPW
374	Georgia-Pacific Plywood Mill - Fordyce, AR	Fordyce	AR	SPW
375	Georgia-Pacific Plywood Plant - Crossett, AR	Crossett	AR	SPW
376	Georgia-Pacific Plywood Plant - Gloster, MS	Gloster	MS	SPW

Coun	Name	City	State	Products (codes defined below)
377	Georgia-Pacific Plywood Plant - Louisville, MS	Louisville	MS	SPW
378	Georgia-Pacific Plywood Plant - Talladaga, AL	Talladega	AL	SPW
379	Georgia-Pacific Plywood Plant - Taylorsville, MS	Taylorsville	MS	SPW
380	Georgia-Pacific Plywood Plant- Peterman, AL	Monroeville	AL	SPW
381	Georgia-Pacific Plywood Plant, Emporia, VA	Emporia	VA	SPW
382	Georgia-Pacific Plywood Plant, Prosperity, SC	Prosperity	SC	SPW
383	Georgia-Pacific Russellville Plywood	Russellville	SC	SPW
384	Great Lakes Plywood	Kinchelde	MI	SPW
385	Hardel Mutual Plywood Corporation	Chehalis	WA	SPW
386	Hood Industries, Incorporated	Wiggins	MS	SPW
387	Hood Industries, Incorporated - Beaumont, MS	Beaumont	MS	SPW
388	Hoquiam Plywood Company, Incorporated	Hoquiam	WA	SPW
389	International Paper Company - Gurdon Wood Products	Gurdon	AR	SPW
390	Linnton Plywood Association	Portland	OR	SPW
391	Louisiana-Pacific - Bon Wier Plywood	Bon Wier	TX	SPW
392	Louisiana-Pacific - Cleveland TX	Cleveland	TX	SPW
393	Louisiana-Pacific - Logansport Plywood	Logansport	LA	SPW
394	Louisiana-Pacific - Urania Plywood	Urania	LA	SPW
395	Louisiana-Pacific Corporation, New Waverly, TX Complex	New Waverly	TX	SPW
396	MacMillan Bloedel Packaging Inc. - Wood Products Division	Pine Hill	AL	SPW
397	Martco Partnership - Chopin Plywood Plant	Chopin	LA	SPW
398	Medply	White City	OR	SPW
399	Murphy Plywood Company	Sutherlin	OR	SPW
400	Plum Creek Manufacturing, LP - Joyce, LA	Joyce	LA	SPW
401	Plum Creek Manufacturing, LP - Kalispell, MT	Kalispell	MT	SPW
402	Potlatch Corporation - Jaype Plywood	Pierce	ID	SPW
403	Potlatch Corporation - St. Maries Plywood	St. Maries	ID	SPW
404	Roseburg Forest Products - Roseburg, OR	Roseburg	OR	SPW
405	Roseburg Forest Products Company - Coquille Plywood	Coquille	OR	SPW
406	Scotch Plywood Company of Alabama	Fulton	AL	SPW
407	SDS Lumber Company	Bingen	WA	SPW
408	Simpson Lumber Company	Hamilton	OH	SPW
409	South Coast Lumber Company	Brookings	OR	SPW
410	Southern Veneer Products	Fitzgerald	GA	SPW
411	Springhill Wood Products	Springhill	LA	SPW
412	Stimson Lumber Company - Bonner, MT	Bonner	MT	SPW
413	Stimson Lumber Company - Libby, MT	Libby	MT	SPW
414	Superior Lumber Company	Glendale	OR	SPW
415	Temple-Inland - Pineland Operation	Pineland	TX	SPW
416	Timber Products Company (White City Plywood)	White City	OR	SPW
417	US Forest Industries, Incorporated	Grants Pass	OR	SPW
418	Washington Veneer, Incorporated	Omak	WA	SPW
419	Westbrook Wood Products	Coquille	OR	SPW
420	Weyerhaeuser Company - Dierks, AR	Dierks	AR	SPW
421	Weyerhaeuser Company - Mountain Pine, AR	Mountain Pine	AR	SPW
422	Weyerhaeuser Company - Wright City, OK	Wright City	OK	SPW
423	Willamette Industries, Inc - Chester Division	Chester	SC	SPW

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7/15/99

Coun	Name	City	State	Products (codes defined below)
424	Willamette Industries, Inc - Dallas Plywood	Dallas	OR	SPW
425	Willamette Industries, Inc - Dodson Division	Dodson	LA	SPW
426	Willamette Industries, Inc - Emerson Division	Emerson	LA	SPW
427	Willamette Industries, Inc - Ruston Division	Ruston	LA	SPW
428	Willamette Industries, Inc - Springfield Plywood	Springfield	OR	SPW
429	Willamette Industries, Inc - Zwolle Division	Zwolle	LA	SPW
430	Champion International Corporation	Waycross	GA	SPW, SV
431	Georgia-Pacific Plywood Plant - Dudley, NC	Dudley	NC	SPW, SV
432	Hunt Forest Products, Incorporated - Natalbany Plywood Mill	Natalbany	LA	SPW, SV
433	Hunt Forest Products, Incorporated - Pollock Plywood Mill	Pollock	LA	SPW, SV
434	Rosboro Lumber Company, Plywood Plant	Springfield	OR	SPW, SV
435	Willamette Industries, Inc - Foster Plywood	Sweet Home	OR	SPW, SV
436	Ceda-Pine Veneer Company	Sandpoint	ID	SV
437	Eagle Veneer, Incorporated	Junction City	OR	SV
438	Emerald Forest Products - Cresswell Plant #3	Cresswell	OR	SV
439	Emerald Forest Products, Incorporated - Drain, OR	Drain	OR	SV
440	Idaho Veneer Company, Incorporated	Post Falls	ID	SV
441	Louisiana-Pacific - Rogue River	Rogue River	OR	SV
442	Mt. Shasta Veneer	Weed	CA	SV
443	Pacific Veneer Limited	Aberdeen	WA	SV
444	Roseburg Forest Products - Weed Facility	Weed	CA	SV
445	Trus Joist MacMillan - Elma Plant	Elma	WA	SV
446	Union Camp Corporation - Thorsby, AL Facility	Thorsby	AL	SV
447	US Forest Industries, Incorporated - White City	White City	OR	SV
448	Virginia Log LLC	West Point	VA	SV
449	Western Veneer & Slicing Company, Corporation	White City	OR	SV
450	Willamette Industries, Inc - Coburg Mill	Eugene	OR	SV

PRODUCT CODES:

Product	Code
Engineered wood products (miscellaneous)	EWP
Fiberboard	FB
Fiberboard (bagasse)	FBB
Glue-laminated beams	GLB
Hardboard	HB
Hardwood plywood	HPW
Hardwood veneer	HV
I-joists	I-J
Laminated strand lumber	LSL
Laminated veneer lumber	LVL
Medium density fiberboard	MDF
Oriented strandboard	OSB
Particleboard	PB

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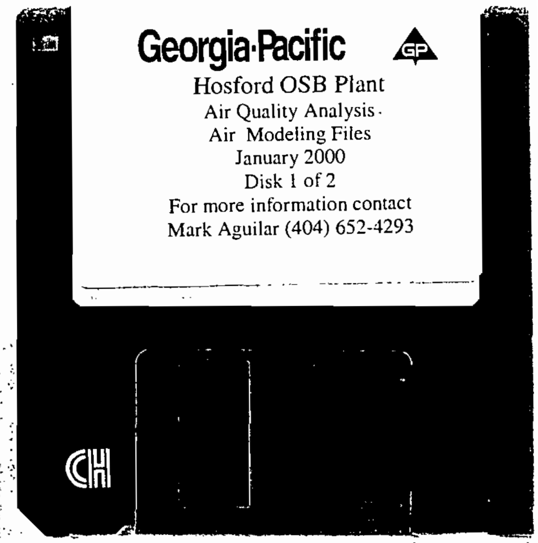
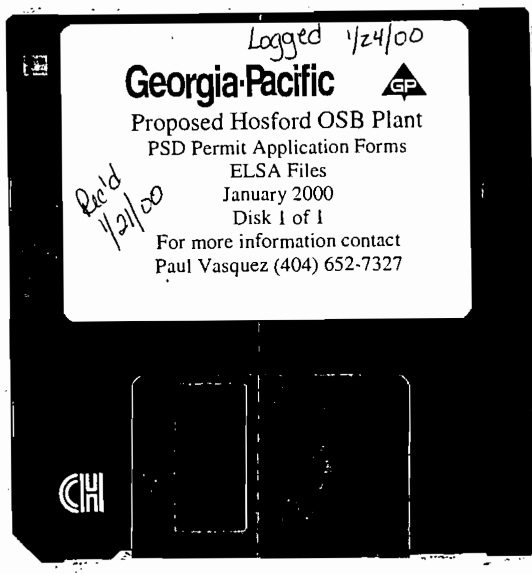
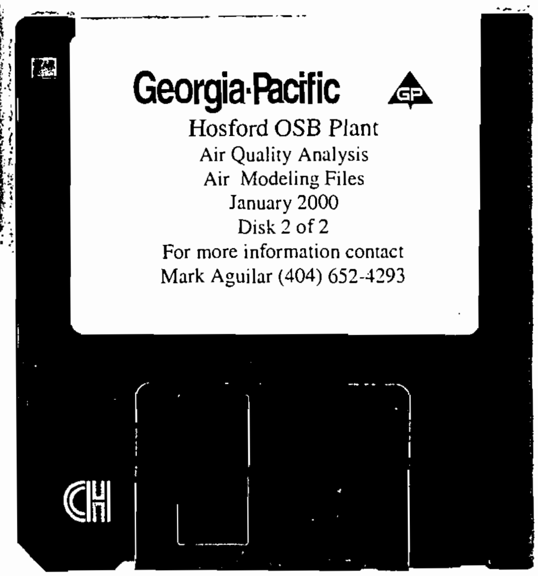
7/15/99

Coun	Name	City	State	Products (codes defined below)
	Particleboard (molded or extruded)	PBM		
	Particleboard (straw)	PBS		
	Plywood (mixed species)	PLY		
	Parallel strand lumber	PSL		
	Softwood plywood	SPW		
	Softwood veneer	SV		


Georgia-Pacific
Hosford OSB Plant
Air Quality Analysis
Air Modeling Files
January 2000
Disk 1 of 2
For more information contact
Mark Aguilar (404) 652-4293


Logged 1/24/00
Georgia-Pacific
Proposed Hosford OSB Plant
PSD Permit Application Forms
ELSA Files
January 2000
Disk 1 of 1
Rec'd 1/21/00
For more information contact
Paul Vasquez (404) 652-7327


Georgia-Pacific
Hosford OSB Plant
Air Quality Analysis
Air Modeling Files
January 2000
Disk 2 of 2
For more information contact
Mark Aguilar (404) 652-4293

0770010
Doc #9
(D)

TOTAL BUILDING AREA 388,400 SQ.FT.

PLAN

EMISSION POINT (EP)

EP-1 EMISSION UNIT ID 001: FLAKE DRYERS EXHAUST (2 STACKS)
EP-2 EMISSION UNIT ID 002: PANEL PRESS EXHAUST STACK
EP-3 EMISSION UNIT ID 003: SCREEN FINES W/SAW TRIM TRANSFER BAG FILTER EXHAUST
EP-4 EMISSION UNIT ID 004: SAW TRIM/FINISHING LINE BAG FILTER EXHAUST
EP-5 EMISSION UNIT ID 005: MAT REJECT/FLYING SAW BAG FILTER EXHAUST
EP-6 EMISSION UNIT ID 006: SPECIALTY SAW/SANDER BAG FILTER EXHAUST
EP-7 EMISSION UNIT ID 007: FUEL SYSTEM PNEUMATICS BAG FILTER EXHAUST
EP-8 EMISSION UNIT ID 008: FORMING BINS BAG FILTER EXHAUST
EP-9 EMISSION UNIT ID 009: HAMMER MILL SYSTEM BAG FILTER EXHAUST
EP-10 EMISSION UNIT ID 010: HOT OIL HEATER ESP EXHAUST STACK

NO.	REVISIONS	BY	DATE	APP'D. BY
A	RELEASED FOR APPROVAL	RPS	12/14/99	
B	REVISED BUILDING AREA WAS 359,200	RPS	1/4/00	

GEORGIA-PACIFIC CORPORATION
BUILDING PRODUCTS ENGINEERING DIVISION
133 Peachtree St. 18th Floor
ATLANTA, GEORGIA 30303
"Safety in Engineering, We Take It Seriously"

PLANT LOCATION: Hosford, Fl — OSB

SITE PLAN LAYOUT
AIR EMISSION POINTS

Fig 3-3

SCALE: 1"=50'	DRAWN BY: RPS	DRAWING NUMBER	REV. NO.
DATE: 21/14/99	CHECKED BY:	342-165-G-001-04	B
LOCATION: 342-165	APPROVED BY:	SHEET: 4 of 5	

G:\342\165 Hosford, Fl OSB\342-165-G-001-04.dwg Tue Jan 04 13:20:03 2000 PLOTTED BY RPS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Figure 3-1. Area Map for Proposed G-P OSB Plant, Hosford, FL

HOSFORD QUADRANGLE
FLORIDA
7.5 MINUTE SERIES (TOPOGRAPHIC)

Produced by the United States Geological Survey
in cooperation with State of Florida agencies
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs taken 1975. Revised from aerial photographs taken 1983
Field checked 1989. Map edited 1990
Supersedes map dated 1945
Projection and 10,000-foot grid ticks: Florida coordinate system, north zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 16
1927 North American Datum
To place on the predicted North American Datum 1983, move the projection lines 18 meters south and 8 meters west as shown by dashed corner ticks
There may be private inholdings within the boundaries of the National or State reservations shown on this map
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked
Dotted land lines established by private subdivision of

MN
GN
1½°
27 MILS
1° 06'
20 MILS

UTM GRID AND 1990 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

KILOMETERS
METERS
MILES
FEET

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

FLORIDA
QUADRANGLE LOCATION

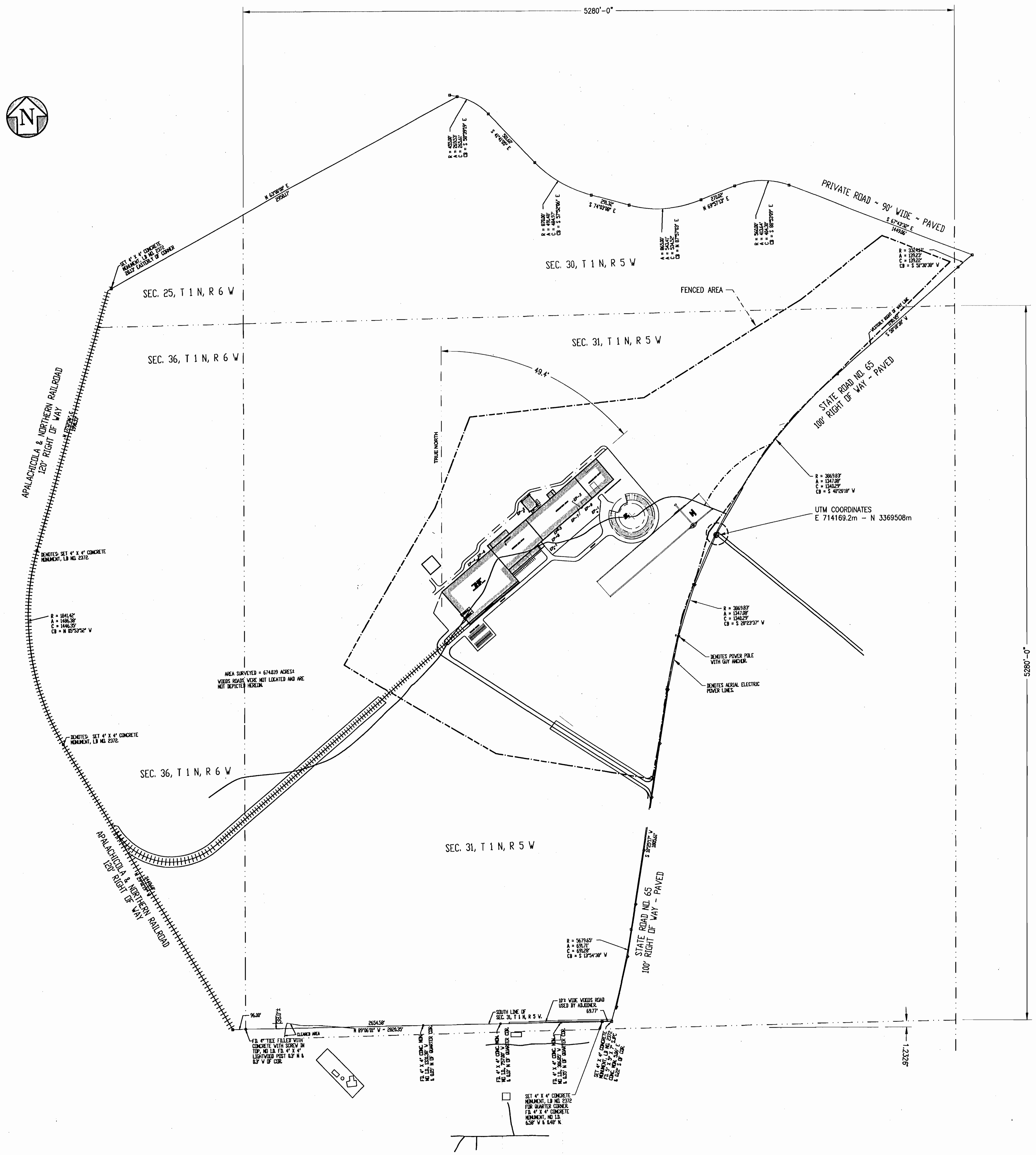
FOR GEORGIA PACIFIC TO KEEP

ROAD CLASSIFICATION

Primary highway, hard surface .... Light-duty road, hard or improved surface ...
Secondary highway, hard surface .... Unimproved road ...
Interstate Route U. S. Route State Route
County Route

HOSFORD, FLA.
30084-D7-TF-024
1990
DMA 4044 IV NE-SERIES V847

(3)



EMISSION POINT (EP)

EP-1 EMISSION UNIT ID 001: FLAKE DRYERS EXHAUST (2 STACKS)
EP-2 EMISSION UNIT ID 002: PANEL PRESS EXHAUST STACK
EP-3 EMISSION UNIT ID 003: SCREEN FINES W/SAW TRIM TRANSFER BAG FILTER EXHAUST
EP-4 EMISSION UNIT ID 004: SAW TRIM/FINISHING LINE BAG FILTER EXHAUST
EP-5 EMISSION UNIT ID 005: MAT REJECT/FLYING SAW BAG FILTER EXHAUST
EP-6 EMISSION UNIT ID 006: SPECIALTY SAW/SANDER BAG FILTER EXHAUST
EP-7 EMISSION UNIT ID 007: FUEL SYSTEM PNEUMATICS BAG FILTER EXHAUST
EP-8 EMISSION UNIT ID 008: FORMING BINS BAG FILTER EXHAUST
EP-9 EMISSION UNIT ID 009: HAMMER MILL SYSTEM BAG FILTER EXHAUST
EP-10 EMISSION UNIT ID 010: HOT OIL HEATER ESP EXHAUST STACK

NO.	REVISIONS	BY	DATE	APP'D. BY
A	RELEASED FOR APPROVAL	RPS	11/30/99	

GEORGIA-PACIFIC CORPORATION
BUILDING PRODUCTS ENGINEERING DIVISION
133 Peachtree St. 18th Floor
ATLANTA, GEORGIA 30303
"Safety in Engineering, We Take It Seriously"

PLANT LOCATION: LIBERTY, CO. FL. OSB

SITE PLAN LAYOUT
AIR EMISSION POINTS

Fig 3-2

SCALE: 1"=400'	DRAWN BY: RPS	DRAWING NUMBER	REV. NO.
DATE: 11/30/99	CHECKED BY:	342-165-G-001-05	A
LOCATION: 342-165	APPROVED BY:	SHEET: 5 of 5	

PSD PERMIT APPLICATION

GEORGIA-PACIFIC CORPORATION

Proposed Oriented Strandboard Facility
Hosford, Florida

January 2000

7099 3400 0000 1453 1705

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:
Mr. Ronald L. Paul, Exec. VP

Postage	$	Georgia-Pacific Horsford
Certified Fee		Postmark Here
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	$	

Name (Please Print Clearly) (to be completed by mailer)
Ronald L. Paul, Exec. VP
Street, Apt. No.; or PO Box No.
133 Peachtree St.
City, State, ZIP+4
Atlanta, GA 30303

PS Form 3800, July 1999 — See Reverse for Instructions

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

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

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*
B. Date of Delivery 10/17/00

C. Signature
X G. ANLEY
☐ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

OCT 17 2000

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7099 3400 0000 1453 1705

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

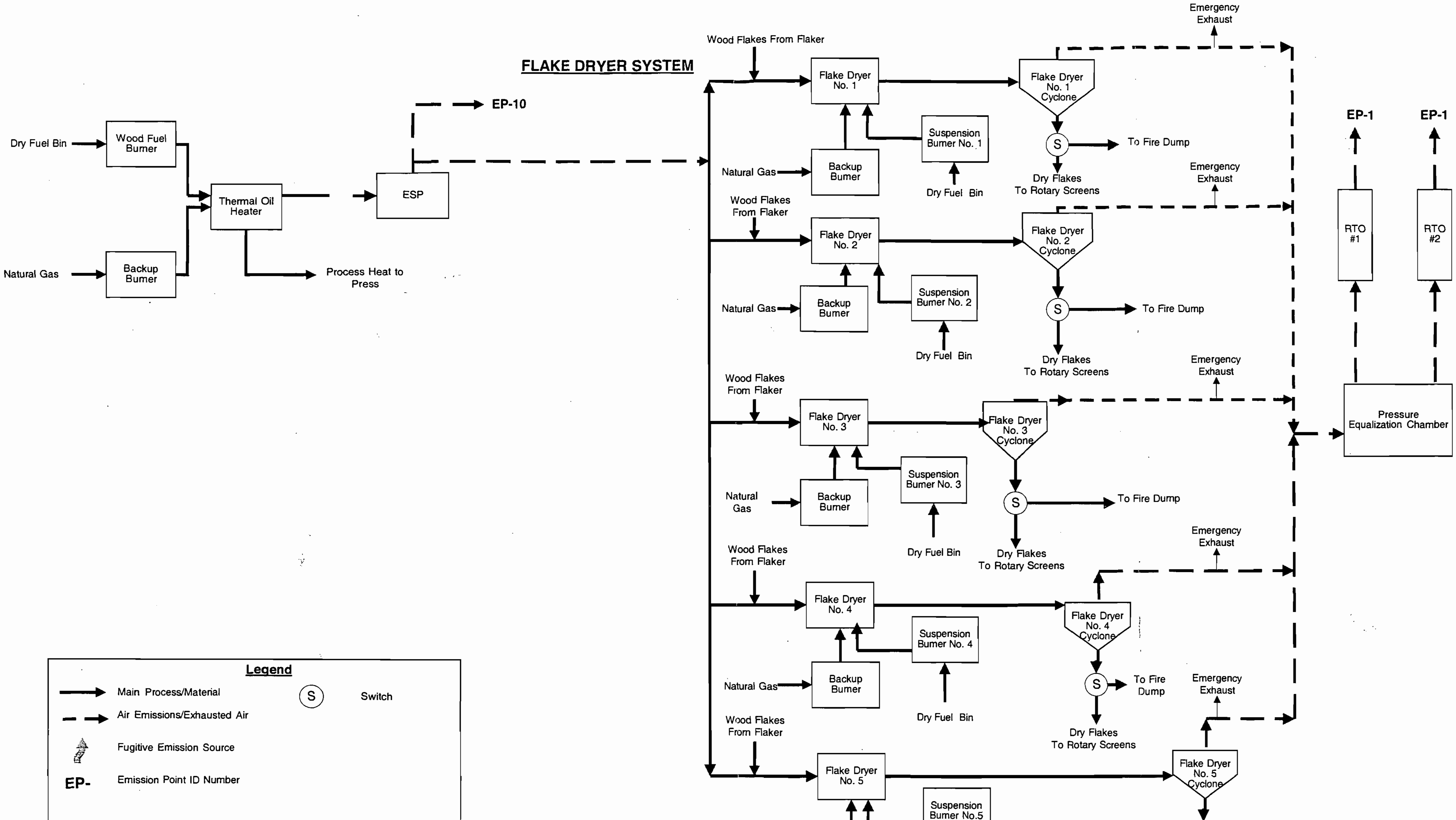


Figure 3-4a. Process Flow Diagram
Georgia-Pacific Corporation Proposed Hosford, FL OSB Facility
Sheet 1 of 1

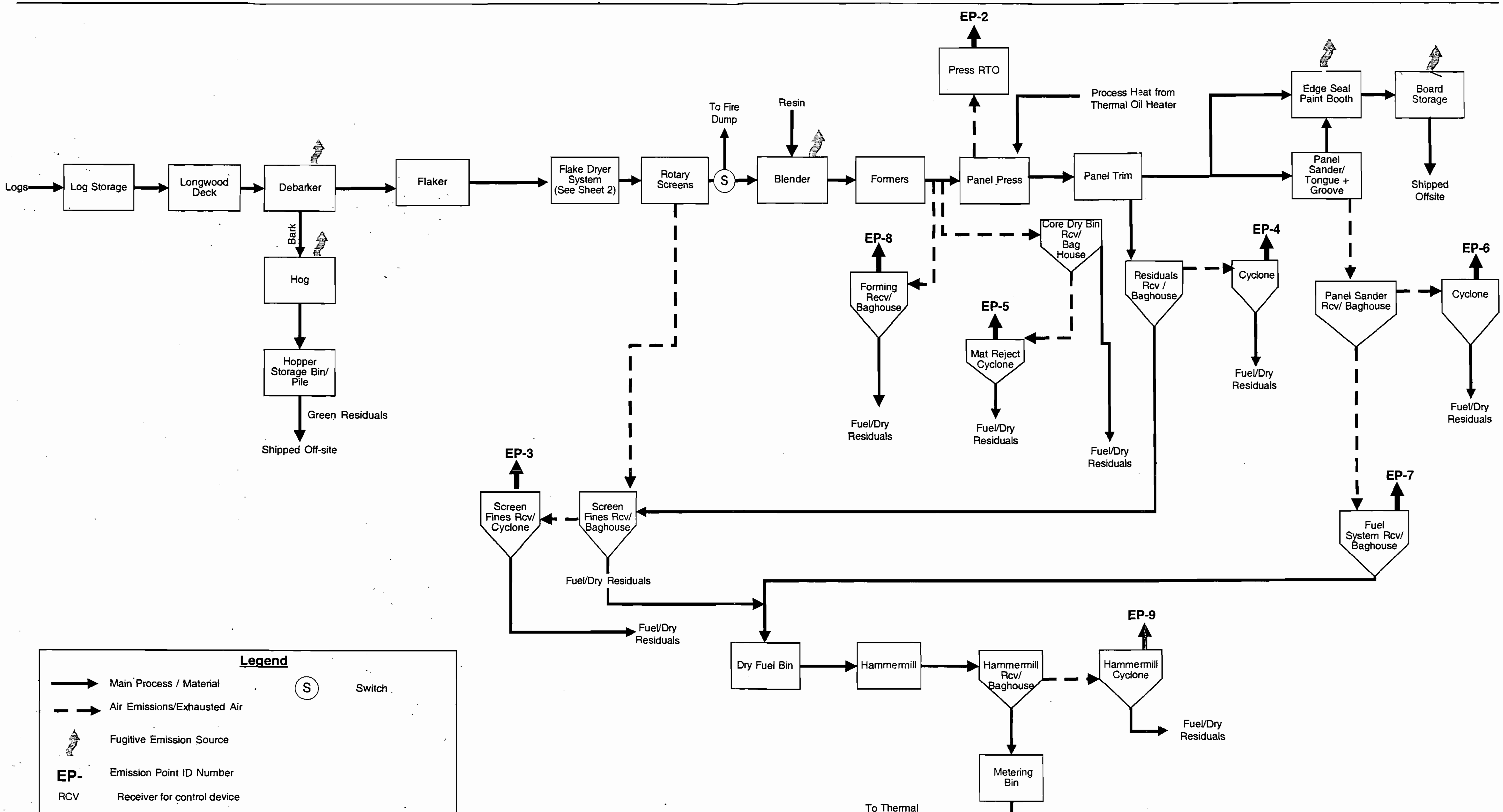


Figure 3-4b. Process Flow Diagram
Georgia-Pacific Corporation Proposed Hosford, FL
OSB Facility
Sheet 1 of 1

Georgia-Pacific

133 Peachtree Street N.E. (30303)
P. O. Box 105605
Atlanta, Georgia 30348-5605

ope to
of the return address

CERTIFIED

Z 452 232 791

MAIL

REASON CHECKED
Unclaimed
Refused
Attempted Not Known
Insufficient Address
No Such Street
No Such Number
No Such Office In State
Do not remail in this envelope

TALLAHASSEE FL 323
OCT 27 '00
2000

PB METER 7023831
U.S. POSTAGE
3 20

FIRST CLASS MAIL

NMR 10/27/00 18

Please Fed Ex to: Mr. Joe Kahn

~~Mr. C. H. Fancy, Chief~~
Florida Department of Environmental Protection
Bureau of Air Regulation
Suite 4, 111 S. Magnolia Drive
Tallahassee, FL 32301

FIRST-CLASS FIRST-CLASS
FIRST-CLASS FIRST-CLASS
FIRST-CLASS FIRST-CLASS
FIRST-CLASS FIRST-CLASS
FIRST-CLASS FIRST-CLASS

Internal ID Number

Location: GA030-17

Georgia-Pacific Corp.
Mail Services

To: Vasquez, Paul J.
Date Received: 10/09/00
Employee Ext: (404)652-7327

7099 3400 0000 1453 2481

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Mr. Ronald L. Paul, Georgia-Pacific

Postage	$	8/31/00
Certified Fee		Postmark Here
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	$	

Name (Please Print Clearly) (to be completed by mailer)
Mr. Ronald L. Paul

Street, Apt. No.; or PO Box No.
133 Peachtree St.

City, State, ZIP+4
Atlanta, GA 30303

PS Form 3800, July 1999 | See Reverse for Instructions

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

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

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*

B. Date of Delivery 9/6/00

C. Signature

X G. Angel ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

SEP 06 2000

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7099 3400 0000 1453 2481

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

Z 031 391 886

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Ronald Paul	
Street & Number GA - Pacific	
Post Office, State, & ZIP Code Atlanta GA	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0770010-001-AC P50-F1-282	3-22-00

PS Form **3800**, April 1995

Is your **RETURN ADDRESS** completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Ronald L. Paul
Ga-Pacific Corp
133 Peachtree St.
Atlanta, GA 30303

4a. Article Number
Z 031 391 886

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
3/25/00

5. Received By: *(Print Name)*

6. Signature: *(Addressee or Agent)*
X R Freeman

8. Addressee's Address *(Only if requested and fee is paid)*

Thank you for using Return Receipt Service.

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Z 031 391 866

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Ronald Paul	
Street & Number GA-Pacific	
Post Office, State, & ZIP Code Atlanta GA	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 2-18-00 0770010-001-AC P50-F1-282	

PS Form **3800**, April 1995

Fold at line

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Ronald Paul, Ex. V.P.
Wood Products & Distribution
Ga-Pacific Corp
133 Peachtree St.
Atlanta, GA 30303

4a. Article Number
Z 031 391 866

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X [signature]

Is your **RETURN ADDRESS** completed on the reverse side?

Thank you for using Return Receipt Service.

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt