

TITLE V APPLICATION REVIEW

Facility Name: International Paper-Folkston Lumber

City: Folkston

County: Charlton

AIRS #: 04-13-049-00004

Application #: TV- 9440

Date Application Received: October 26, 1996

Date Application Deemed

Administratively Complete: June 4, 1997

Date of Draft Permit: June 7, 1999

Permit No: 2421-049-0004-V-01-0

Program	Review Engineers	Review Managers
SSPP/ASU	Gabriel Kotsis	John Yntema
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TOXICS	NA	NA

Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Title V operating permit. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being proposed pursuant to: (1) Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to International Paper-Folkston Lumber and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the methods for determining compliance with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

I. Facility Description

The Facility Description may be presented in outline or narrative form. It must contain the information contained in each of the following subsections, preferably in a similar order.

A. Facility Identification

1. Facility Name: International Paper-Folkston Lumber
2. Parent/Holding Company Name: International Paper
3. Previous and/or Other Name(s): Union Camp Corporation until recently
4. Facility Location: 103 Mays Blvd, Folkston, GA 31537
5. Attainment or Non-attainment Area Location

The facility is located in an attainment area.

6. Class I Area Impacts

The facility is located within 100 km of the Wolf Island and Okefenokee Class I areas.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1: List of Current Permits, as Amended

Permit Number and/or Purpose of Issuance	Date of Issuance and Date of Amendments (if any)	Comments	
		Yes	No
2421-024-11244	Issued on August 13, 1993 Amended on July 8, 1994 Amended on March 16, 1998		X

D. Process Description

1. SIC Code(s)

Major - 2421
Other - None

2. Description of Product(s)

This facility produces southern yellow pine dimensional lumber.

3. Overall Facility Process Description

Log Preparation:

Southern yellow pine logs of tree length are received by trucks. The logs are stored on ten concrete log pads. The logs are sawn to desired length, debarked and scanned for metal.

Bark from the debarker is dropped into a chain conveyor and conveyed to a bark holding bin to be sold off site as fuel.

Poor quality log parts are chipped and used as a paper mill fiber source.

Sawmill:

Sawmills cut the logs into dimensional lumber or timbers. The sawmill equipment includes three sets of twin bandsaws, a two-saw edger and an 11-saw trimmer. Lumber is trimmed, is sorted by length and dimension, and stacked on sticks.

Trim blocks and edger strips are chipped and transferred to their own paper mill in a different location to be used as a fiber source in the paper making process.

Lumber Drying Kilns:

The lumber and timbers are dried in one of two kilns to approximately 19 percent moisture content.

Planer Mill:

The dried lumber and timbers are planed in the planer mill, and then sorted by length, size, and grade, and transported by truck or rail for delivery to the customer.

General:

By-products produced at the facility are wood chips, sawdust, bark, and shavings. Wood chips are transported to their paper mill. Sawdust is used to fire the two boilers.

4. Overall Process Flow Diagram (optional)

There are process flow diagrams in the application file.

E. Regulatory Status

1. PSD/NSR

The facility is a non-major source under PSD/NSR regulations.

2. Title V Major Source Status by Pollutant

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Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	✓			✓
PM ₁₀	✓			✓
SO ₂	✓			✓
VOC	✓	✓		
NO _x	✓			✓
CO	✓			✓
TRS	✓			✓
H ₂ S	✓			✓
Individual HAP	✓			✓
Total HAPs	✓			✓

3. MACT Standards

This facility is not subject to a current MACT standard.

4. Program Applicability

Program Code	Applicable (Yes/No)
Program Code 6 - PSD	No
Program Code 8 - Part 61 NESHAP	No
Program Code 9 - NSPS	Yes
Program Code M - Part 63 NESHAP	No
Program Code V - Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

The facility has no facility-wide emissions or operating caps.

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B. Applicable Rules and Regulations

- Rules and Regulations Assessment - Georgia Rule for Air Quality Control 391-3-1-.02(2)(n), "Fugitive Dust" (referred to as "Georgia Rule (n)") is an applicable requirement. This rule requires that reasonable precautions must be used to prevent fugitive dust. The maximum limit of fugitive dust is 20% opacity. It is applicable to the log storage piles, log debarking and bucking, fuel house, unpaved roads and others. This is cited as a facility-wide condition because it applies to a variety of fugitive emission points at the plant; too numerous to list in Section III of this permit narrative and in Part 3.1 of their Title V permit.
- Emission and Operating Standards - Not applicable.

C. Compliance Status

See Section VII.F.

D. Operational Flexibility

See Section VII.A.

E. Permit Conditions

Fugitive dust emissions must be controlled by all reasonable means and limited to not exceed 20 percent opacity.

III. Regulated Equipment Requirements

A. Brief Process Description

This facility produces southern yellow pine dimensional lumber. It receives tree long logs that are debarked and processed through the sawmills. Saw dust and bark are by-products.

B. Equipment List for the Process

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Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements / Standards	Corresponding Permit Conditions	ID No.	Description
FOB1	Wood Waste Fired Boiler No. 1	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(d)	3.4.1; 3.4.4	B1MU	Multiclone
FOB2	Wood Waste Fired Boiler No. 2	GA Rule 391-3-1-.02(2)(d) 40 CFR 60, Subpart Dc	3.3.1; 3.4.2; 3.4.3	B2MU	Multiclone
FOK5	Drying Kiln No. 5	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.4.4; 3.4.5	None	
FOK6	Drying Kiln No. 6	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.4.4; 3.4.5	None	
FOPM	Planer Mill	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.4.4; 3.4.6	PMCY	Planer Mill Shavings Cyclone
				TBCY	Planer Shavings Truck Bin Cyclone
				PMBH	Planer Shavings Truck Bin Baghouse

* Generally Applicable Requirements contained in this permit may apply also to emission units listed above.

C. Equipment & Rule Applicability

FOB1:

This wood waste fired boiler provides steam to the dry kilns. This boiler was erected in 1970 with maximum heat input capacity of 30.8 million Btu per hour. The FOB1 is subject to the particulate matter limit outlined in Georgia Rule 391-3-1-.02(2)(d) "Fuel Burning Equipment" based on the following equation:

$$E=0.7\left(\frac{10}{R}\right)^{0.202}$$

where: E = the allowable PM or fly ash emission weight in pounds per million Btu heat input,
R = heat input rate in million Btu per hour for the boiler (Source Code FOB1)

This boiler is also subject to Georgia Rule for Air Quality Control 391-3-1-.02(2)(b). Georgia Rule (b) limits the opacity to 40 percent.

At 30.8 MMBtu/hr, the allowable PM is 0.5577 lbs/ MMBtu heat input. Compliance is expected with the pre-1972 standard.

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FOB2:

This wood waste fired boiler also provides steam to the dry kilns. This boiler was erected in 1994 with maximum heat input capacity of 28.5 million Btu per hour. The FOB2 is subject to the particulate matter limit outlined in Georgia Rule 391-3-1-.02(2)(d) "Fuel Burning Equipment" based on the following equation:

$$E=0.5\left(\frac{10}{R}\right)^{0.7}$$

where: E =the allowable PM or fly ash emission weight in pounds per million Btu heat input,
R = heat input rate in million Btu per hour for the boiler (Source Code FOB2)

At 28.5 MMBtu/hr, the allowable PM is 0.2962 lbs/ MMBtu heat input.

This boiler is also subject to Georgia Rule for Air Quality Control 391-3-1-.02(2)(d)3 because it was constructed after January 1, 1972. Georgia Rule (d)3 limits the opacity to 20 percent except for one six minute period per hour of not more than 27 percent opacity.

This boiler is also subject to 40 CFR 60, Subpart Dc, but only to record keeping under 60.48(c)(g), because the heat input is less than 30 million Btu per hour. This NSPS requires record keeping of the quantity of combusted material burned daily.

When this boiler was originally tested after being constructed, it initially failed to demonstrate compliance with Rule(d). After evaluating the test results and inspecting the equipment, the company determined that the control equipment (multiclones) had been improperly shipped which caused it to not operate as efficiently as designed. After some corrective maintenance was done on this equipment, a re-test was done which, once again, showed non-compliance, though only by a small margin. After further work on the boiler and multiclone, compliance tests were conducted which showed that (by a small margin) the boiler was operating in compliance with Rule(d) when using ash re-injection; interestingly, it also showed that the boiler would operate well in compliance with Rule(d) if not using ash re-injection.

The company insisted that they must be allowed to operate with ash re-injection in order to obtain the full Btu value from the fuel. If not, the boiler would not be economical to run. Reluctantly, the Division agreed, retaining (as is always the case) the right to require additional testing if there is evidence that there is non-compliance.

There has been no evidence of non-compliance, so no re-testing has been required up until now. However, it has now been some years since the successful test was done and the plant now has a new owner. It seems reasonable to require that the boiler be re-tested to demonstrate compliance with Rule(d). Therefore, a new compliance test will be required by this Title V permit.

FOK5, and FOK6:

The two drying kilns dry dimensional lumber from approximately 50 percent moisture content to 19 percent moisture content. The annual throughput for FOK5 kiln is 41,000 MBF/yr, and for FOK6 kiln is 51,000 MBF/yr. The emission factor for VOCs used for the calculations is 3.68 lbs VOC per MBF. This emission factor is acceptable by the Division and indicates that the facility's total PTE for VOC emissions is 168 tons, so that this plant is not a major source for PSD with VOC emissions less than 250 tpy.

AP-42 has not published a final emission factor for this process. However it is not anticipated that the final factor could cause PTE to exceed 250 tpy of VOCs at the facility.

These kilns are subject to the particulate matter limit found in Georgia Rule 391-3-1-.02(2)(e) "Particulate Emission from Manufacturing Processes". The limit must be calculated using the production rate and the following equation:

$$E = 4.1P^{0.67}$$

where E = the allowable PM emission rate in pounds per hour
P = the total dry process weight input rate in tons per hour

The two drying kilns are also subject to Georgia Rule for Air Quality Control 391-3-1-.02(2)(b). Georgia Rule (b) applies to all sources that are subject to at least one other state emission limitation and are not subject to any other, more stringent, opacity standard. Georgia Rule (b) limits visible emissions to 40 percent opacity.

FOPM:

The planer mill levels and smooths the lumber surface. This planer mill is subject to the particulate matter limit found in Georgia Rule 391-3-1-.02(2)(e) "Particulate Emission from Manufacturing Processes". The limit must be calculated using the production rate and the following equation:

$$E = 4.1P^{0.67}$$

where E = the allowable PM emission rate in pounds per hour
P = the total dry process weight input rate in ton per hour

The planer mill is also subject to Georgia Rule for Air Quality Control 391-3-1-.02(2)(b). Georgia Rule (b) applies to all sources that are subject to at least one other emission limitation and are not subject to any other, more stringent, opacity standard. Georgia Rule (b) limits visible emissions to 40 percent opacity.

The maximum throughput of the planer mill will not exceed the capacity of the kilns, approximately 92,000 MBF/yr. The particulate emissions at this planer mill are controlled by a cyclone and a baghouse in series. By this means, PM emissions will be a fraction of the GA Rule (e) allowable and opacity will be normally 0%.

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D. Compliance Status

See Section VII.F

E. Operational Flexibility

See Section VII.A

F. Permit Conditions

Condition 3.3.1 requires records on boiler (Source Code FOB2) of hours of operation and fuel usage based on 40 CFR 60, Subpart Dc.

Condition 3.4.1 limits the PM emissions from the boiler (Source Code FOB1) based on Georgia Rule (d).

Condition 3.4.2 limits the PM emissions from the boiler (Source Code FOB2) based on Georgia Rule (d).

Condition 3.4.3 limits the visible emissions from the boiler (Source Code FOB2) to 20 percent opacity.

Condition 3.4.4 limits the visible emissions from the old boiler, the dry kilns and the planer mill (Source Codes FOB1, FOK5, FOK6, and FOPM) each to 40 percent opacity.

Condition 3.4.5 limits the PM emissions from the drying kilns (Source Codes FOK5, and FOK6) based on Georgia Rule (e).

Condition 3.4.6 limits the PM emissions from the planer mill (Source Code FOPM) based on Georgia Rule (e).

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements:

A requirement for performance testing on any specified emissions unit, when directed by the Division, is included. Requirements for a 30 day notification of testing and the submission of a test plan are also included. Tests methods and procedures to be used are specified.

B. Specific Testing Requirements:

The Permit requires that performance tests for Particulate Matter (PM) emissions be conducted on wood-fired boiler FOB2 within 120 days of the date of permit issuance to determine compliance with the emissions limitations in Part 3.0.

V. Monitoring Requirements (with Associated Record Keeping and Reporting)

General Monitoring Requirements:

This permit specifies that any monitoring systems installed should be in continuous operation and that downtime due to maintenance should be minimized.

Specific Monitoring Requirements:

The two wood-fired boilers (Source Codes FOB1 and FOB2) are subject to Georgia Rule 391-3-1-.02(2)(d) for Particulate Matter (PM) emissions. Each boiler utilizes multiclronic control systems (Source Codes B1MU and B2MU) for control of PM emissions. To assure compliance with the applicable limitations, a daily check of visible emissions is required. Visible emissions checks which indicate opacity 30 percent or greater for Boiler FOB1 and 20 percent or greater for Boiler FOB2 are designated as excursions and are required to be reported as such. Additionally, a weekly inspection of the multiclronics is required to ensure that they are properly maintained and operated. Any adverse condition, discovered by the inspections, also is required to be recorded as an excursion.

The Planer Mill (Source Code FOPM) is subject to Georgia Rules 391-3-1-.02(2)(b) for Visible Emissions and (e) for Particulate Matter (PM). Shavings from the Planer Mill are transferred to the truck bin (for sale) and hammer mill through Cyclones PMCY and TBCY. Cyclone PMCY is uncontrolled and Cyclone TBCY has a baghouse (Source Code PMBH) for PM control. Proper operation and maintenance of the cyclones will ensure that emissions are below the allowable limitations for PM and visible emissions. Weekly inspections of the cyclones and the baghouse are required to assure that proper operation and maintenance are taking place. A pressure drop device is required at the baghouse and daily pressure drop readings are required to be recorded. Any adverse condition revealed by the inspections of the cyclones and the baghouse is required to be recorded as an excursion.

The lumber kilns (Source Codes FOK5 and FOK6) are subject to Georgia Rules 391-3-1-.02(b) for Visible Emissions and (e) for Particulate Matter (PM). The kilns use steam from Boilers FOB1 and FOB2 for drying and there is no equipment for control of PM emissions on the kilns. However, based on available technical literature, potential PM emissions are less than 10 percent of the allowable PM limitation. A determination was made that PM emissions from the kilns are not likely to exceed the allowable limits under almost any operational scenario and, for this reason, no monitoring for Particulate Matter is prescribed by the permit.

Record Keeping and Reporting Requirements:

Records, including identification of excursions from applicable monitoring triggers, the cause of such occurrence, and the corrective action taken are required to be kept and reported semiannually.

A requirement is included to maintain a record of all actions taken to suppress fugitive dust from the sawmill, roads, storage piles, and any other source to show compliance with Georgia Rules 391-3-1-.02(2)(n).

VI. Other Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all related information to deviations from applicable requirements.

B. Specific Record Keeping and Reporting Requirements

The Permit requires records of the daily quantity of fuel burned be retained for Boiler FOB2, in accordance with 40 CFR 60, Subpart Dc.

VII. Specific Requirements

A. Operational Flexibility

- Operational flexibility does not need to be incorporated into this Title V Permit. The applicant did not include any alternative operating scenarios in their Title V permit application.

B. Alternative Requirements

- There are no alternative requirements that need to be incorporated into the Title V Permit.

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C. Insignificant Activities

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	1
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	1
Pollution Control	1. Sanitary waste water collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act..	1
Industrial Operations	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that: i) Activity is performed indoors; & ii) No significant fugitive particulate emissions enter the environment; & iii) No visible emissions enter the outdoor atmosphere.	12
Storage Tanks and Equipment	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	5
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	1
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	1

D. Temporary Sources

- There is no request to operate any temporary sources.

E. Short-Term Activities

- The facility did not report any short-term activities.

F. Compliance Schedule/Progress Reports

- The facility is in compliance with all Air Quality Regulations.

G. Emissions Trading

- This facility is not involved in any emission trading programs.

H. Acid Rain Requirements

- This facility is not subject to any requirements in Title IV of the Clean Air Act.

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I. Prevention of Accidental Releases

- The facility is subject to the requirements of 40 CFR 68.

J. Stratospheric Ozone Protection Requirements

- The standard permit condition pursuant to 40 CFR 82 Subpart F has been included in the Title V Permit. These Title VI requirements apply to all air conditioning and refrigeration units containing ozone-depleting substances regardless of the size of the unit or of the source. The facility has at least some air conditioners, chillers and refrigerators. Subpart F is an applicable requirement.

K. Pollution Prevention

- There are no pollution prevention provisions incorporated into this Title V Permit.

L. Specific Conditions

- None

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

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Closing Block: We have reviewed and recommend issuance of draft Permit No. 2421-049-0004-V-01-0

Program	Review Engineers	Dates	Review Managers	Dates
SSPP/ASU				
SSCP/ASU				
ISMP				
TOXICS				

Stationary Source Permitting Program Manager

Date

Addendum to Narrative

On August 16, 1999, we received comments from the company which are outlined below, along with the Division response:

1. The company commented that the name of the facility had changed from Union Camp Corporation to International Paper, because of a recent ownership change. The final Title V permit reflects the new ownership and name.
2. The company commented that there was a minor discrepancy in the process description in Condition 1.3. The final Title V permit reflects this.
3. The company commented on Condition 5.2.2, which required that daily visible emission readings be done of the emissions from the boiler stacks, that excursions over 30% (6 minute average) be recorded, and that excursions over 20% be reported. They complained that the VE readings would be overly time consuming for the boiler operators which could create a potentially dangerous situation when they were away from the controls during such readings. After consulting with the Air Branch Monitoring Program, it was determined that pressure drop across the multiclones (B1CY and B2CY, which control PM emissions from the boilers) could adequately indicate the performance of the multiclones and monitor compliance of the boilers with the PM standard. Therefore, the final Title V permit has no opacity monitoring requirement for these boilers, but requires the installation of pressure drop monitors across each, the determination of the normal range of pressure drop during proper operation of each multiclone, the recording of the pressure drop across each multiclone at least once during each shift its boiler operates, and notification of excursions.
4. The company commented on Condition 5.2.7, regarding requirements for taking pressure drop readings across the baghouse. This condition required that it be reported to the Division when a reading was outside of the range from 2 to 5 inches of water column. The company stated that, for this baghouse, 1 to 8 inches of pressure drop is within the baghouse's normal operating range. After consulting with the Air Branch Monitoring Program, the final Title V permit now requires reporting of readings that are outside the 1 to 8 inches of water range.
5. The company commented on Section 7.7, regarding "Compliance Schedule/Progress Reports", saying that this should not apply to them. The final Title V permit reflects this.
6. The company commented on Section 7.10, regarding "Prevention of Accidental Releases", saying that this does not apply to them. The final Title V permit reflects this.