

Facility Name: **International Paper-Folkston Lumber**

City: Folkston

County: Charlton

AIRS #: 04-13-049-00004

Application #: 16016

Date SIP Application Received: N/A

Date Title V Application Received: February 3, 2005

Permit No: 2421-049-0004-V-01-3

Program	Review Engineers	Review Managers
SSPP	Hem R. Sharma	John Yntema
SSCP	N/A	N/A
ISMP	N/A	N/A
TOXICS	N/A	N/A

Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and operate and Section 502(b)(10) change to the Part 70 source. 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 issued pursuant to: (1) Sections 391-3-1-.03(1), 391-3-1-.03(2), and 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 following narrative is designed to accompany the permit and is presented in the same general order as the permit amendment. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

I. Facility Description

A. Existing Permits

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
2421-049-0004-V-01-0	September 30, 1999	✓	
2421-049-0004-V-01-1	August 14, 2000	✓	
Off-Permit Change	August 18, 2003	✓	
2421-049-0004-V-01-2	November 12, 2003	✓	

Table 2: Comments on Specific Permits

Permit Number	Comments
2421-049-0004-V-01-0	Initial Title V Permit
2421-049-0004-V-01-1	502(b)(10) Change for kiln extension, boiler modification, debarker replacement, and short log infeed deck installation.
Off-Permit Change	For modification of CNS and chip head upgrade.
2421-049-0004-V-01-2	Amendment to change the range of pressure drop.

B. Regulatory Status

1. PSD/NSR/RACT

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

2. Title V Major Source Status by Pollutant

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	✓			✓

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
H ₂ S	✓			✓
Individual	✓			✓
Total HAPs	✓			✓

II. Proposed Modification

A. Description of Modification

The facility has two wood waste fired boilers (Source Codes FB01 and FB02), which provide steam to the dry kilns. The facility has proposed to install orifice traps and to upgrade steam piping and kiln vents. The proposed modifications will improve the lumber drying capacity of the kilns by 15 percent. Also, this permit incorporates modifications in April 2003 for CNS and chip head upgrade, which had been allowed as an off-permit change.

It has been indicated by the Permittee that the existing condensate lines returning to the boiler are too small, so that they get water logged and drying efficiency is reduced. It also causes backpressure on the fin tubes within the kilns. The orifice traps to be installed will be used to drop water out of the system prior to the steam reaching the kilns, thereby reducing the amount of water entering the fin tubes. The kiln vents pre-heat incoming air, thus requiring less steam for the same amount of production. It is estimated that proposed modification would improve the drying capacity by 15 percent.

B. Emissions Change

Table 4: Emissions Change Due to Modification

Pollutant	Is the Pollutant Emitted?	Net Actual Emissions Increase (Decrease) (tpy)	Net Potential Emissions Increase (Decrease) (tpy)
PM			
PM ₁₀			
SO ₂			
VOC	✓	21.7	21.7
NO _x			
CO			
TRS			
H ₂ S			
Individual			
Total HAPs			

As indicated in the narrative for the initial Tilt V permit, the annual throughput capacity for kiln FOK5 is 41,000 MBF/yr, and for kiln FOK6 is 51,000 MBF/yr, with total throughput capacity of 92,000 MBF/yr. The emission factor for VOC calculations is 3.68 lbs VOC per MBF. The application indicates that the capacity will now be 102,000 MBF/yr. Thus the expected increase in lumber drying capacity is estimated to be 10,000 MBF/yr (102,000-92,000 MBF/yr). By using the emission factor of 3.68 lb of VOC/MBF, the estimated increase in total PTE VOC from this modification is 18.4 tpy $[(10,000\text{MBF/yr}) \times (3.68 \text{ lb of VOC/MBF}) \times (1\text{Ton}/2000 \text{ lb})]$. Previous increases in VOC emissions allowed as off-permit changes, were 3.3 tpy; thus the total increase in emissions is 21.7 tpy (18.4+3.3=21.7 tpy). The increase in PM and other emissions from the kilns are negligible.

The facility's total PTE VOC emissions will now be 187.68 tons per year $[(102,000\text{MBF/yr}) \times (3.68 \text{ lb of VOC/MBF}) \times (1\text{Ton}/2000)]$; the plant remains minor source for PSD, with VOC emissions less than 250 tpy.

The facility was requested to provide the details of the VOC emission calculations and the production capacity of the kilns. The following information was submitted by the facility by e-mail dated 4-26-05, for estimating VOC emissions:

1. 2003 data was used to calculate the potential to emit.
2. Kiln production = 82,261 MMBF and kiln hours =13,350
3. 15% increase in production= 82,261 x 1.15 =94,600 MMBF
4. VOC= 170-148 =22 tpy (25.3 tpy if the previous off permit modification is included), estimated for above productions using a factor of with 3.6 lb/MBF
5. The production capacity of 102,000 mbf as provided in the renewal application is the final capacity after the modification.

The Permittee has indicated that the benefit of the project is to reclaim energy that is currently exhausted from the kiln vents. No additional boiler fuel will be consumed and no additional steam will be produced. This system uses hot, wet exhaust air to heat the intake air, thereby reducing the amount of steam required to get the same BTU rate. Therefore, there will not be any increase in PM, CO, and NOx emissions from the boilers due to this modification.

C. Title I Modification

- PSD/NSR Applicability

The potential to emit (PTE), each PSD regulated pollutant does not exceed the 250 ton per year PSD major source threshold. The facility is, therefore, an existing minor source with regard to PSD/NSR regulations. Note that sawmills are not one of the 28-named source categories whose PSD major source threshold is 100 tons per year.

Since the facility is a non-major source under PSD/NSR regulations and this permit amendment is not major itself, the modification is not subject to PSD review and the source will not become major for PSD.

NSPS Modification

The proposed modification is not an NSPS modification.

NESHAP Modification

The change is not a modification under Part 61.

III. Facility Wide Requirements

- A. Emission and Operating Caps: None
- B. Applicable Rules and Regulations: None
- C. Compliance Status: No noncompliance issues exist.
- D. Operational Flexibility: None requested by the facility.
- E. Permit Conditions: None

IV. Regulated Equipment Requirements

A. Brief Process Description

The facility has two wood waste fired boilers (Source Codes FB01 and FB02), which provide steam to the dry kilns. The facility has proposed to install orifice traps and to upgrade steam piping and kiln vents. The proposed modifications will improve the lumber drying capacity of the kilns by 15 percent, with no additional fuel needed.

B. Equipment List for the New or Modified Process (es)

No additional emission unit is to be constructed by the facility. There is no change in the list of emission units in Table 3.1. [The CNS and other previous off-permit changes did not affect Table 3.1.]

C. Equipment & Rule Applicability

- Emission and Operating Caps –None applicable.
- Rules and Regulations Assessment: There is no change in applicability of rules and regulations. The kilns (FOK5 and FOK6) will continue to be subjected to Georgia Rule (b) and Rule (e).

The Off Permit Change Notification Dated April 18, 2003 (Application No. 14474) was received from the facility and an off-permit change letter was issued on 7/7/03 for the CNS and chip head upgrades. These changes resulted in an increase in production of logs by 1816 MBF/year, which in turn increased the facility wide potential to emit VOC by 3.3 tpy [(1,816 MBF)*(3.68 lb of VOC/MBF)*(1Ton/2000 lb=3.3 tpy)]. These changes were exempt under “cumulative modifications” in accordance with Georgia Rule 391-3-1-.03(6)(i)3.(iv), which exempts a VOC emissions increases up to 10 tpy. The current modifications will result in a VOC emissions increase of 22.0 tons and so would require permitting, since the 10-ton threshold will be exceeded. Thus the total increase in VOC emissions is 25.3 tpy. With this total increase in VOC emissions, the modification is minor and thus not subject to PSD/NSR regulations.

- Emission and Operating Standards: None applicable.

D. Compliance Status

The facility is operating in compliance with the rules or regulations described above.

E. Operational Flexibility

None applicable.

F. Permit Conditions

No new condition is added in Section 3.0.

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

- A. Individual Equipment: None applicable.
- B. Equipment Groups (all subject to the same test requirements): None applicable.

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

- A. Individual Equipment: None applicable.
- B. Equipment Groups (all subject to the same monitoring requirements): None applicable.

VII. Other Record Keeping and Reporting Requirements

None applicable.

VIII. Specific Requirements

A. Operational Flexibility: None applicable.

B. Alternative Requirements: None applicable.

C. Insignificant Activities

There are no changes in the insignificant activities list.

D. Temporary Sources: None applicable.

E. Short-Term Activities: None applicable.

F. Compliance Schedule/Progress Reports: None applicable.

G. Emissions Trading: None applicable.

H. Acid Rain Requirements: None applicable.

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

I. Prevention of Accidental Releases: None applicable.

J. Stratospheric Ozone Protection Requirements: None applicable.

K. Pollution Prevention: None applicable.

L. Specific Conditions: None applicable.