

Facility Name: **Telfair Forest Products LLC -Lumber City**
(previously permitted under the name Rayonier Wood Products, LLC)
City: Lumber City
County: Telfair County
AIRS #: 04-13-271-00004

Application #: TV-16830 (updated/replaced TV-15807)
Date Application Received: July 20, 2006
Permit No: 2421-271-0004-V-02-0

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Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Part 70 operating permit. Complex issues and unusual items are explained herein simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to **Telfair Forest Products LLC – Lumber City** 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, the applicable requirements and their significance, and the methods for determining compliance with those applicable requirements. This narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Facility Identification

1. Facility Name: Telfair Forest Products LLC – Lumber City
2. Parent/Holding Company Name: Telfair Forest Products LLC
3. Previous and/or Other Name(s):

Rayonier Wood Products, LLC – Lumber City Planer Mill
Rayonier Inc. – Lumber City Planer Mill
4. Facility Location: Corner of Central Avenue and Industrial Blvd.
Lumber City, GA 31549
5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in an attainment area.
6. Class I Area Impacts

The facility is located within 200 km of a Class I area.

B. Site Determination

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

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
2421-271-0004-V-01-0	May 17, 2000	Initial Title V Permit
2421-271-0004-V-01-1	July 31, 2002	The Amendment removed drying kiln no. 5 (DK05) from the permit; removed CO limit from boiler; placed a production cap on drying kiln no. 1 (DK01); removed the upper limit on the scrubber pressure drop; increased the upper limit on the scrubbant flow rate; required periodic PM testing for the boiler; required monitoring of the pressure drop of the boiler muticlone system.
2421-271-0004-V-01-2	March 11, 2004	Changed the facility name from Rayonier Inc. to Rayonier Wood Products, LLC

D. Process Description

1. SIC Codes(s): 2421

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

The facility produces dimensional dried lumber.

3. Overall Facility Process Description

The facility receives green lumber as raw material. The lumber is dried in one of four indirect steam heated kilns, shaped in one of two planer mills, and then bundled for shipment. Shavings from the planer mills are either sold or used as fuel for the boiler that produces the steam.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

This facility is a major source under PSD regulations because it has potential to emit more than 250 tons per year of VOC, which exceeds the PSD avoidance threshold for an attainment area. In the past, the facility has taken production limits to avoid PSD review. This new permit contains limits to assure the facility is a PSD minor source for PSD regulations.

2. Title V Major Source Status by Pollutant

Table 2: 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	Yes			✓
PM ₁₀	Yes			✓
SO ₂	Yes			✓
VOC	Yes	✓		
NO _x	Yes			✓
CO	Yes	✓		
TRS	Yes			✓
H ₂ S	Yes			✓
Individual HAP	Yes	✓		
Total HAPs	Yes	✓		

3. MACT Standards

The facility is potentially a major source for HAPs, but the Permittee has accepted production limits to avoid MACT standards. If not, the facility would be subject to the Plywood and Boiler MACTs, as an existing source.

4. Program Applicability (AIRS Program Codes)

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

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None applicable.

B. Applicable Rules and Regulations

None applicable.

C. Compliance Status

None applicable.

D. Operational Flexibility

None applicable.

E. Permit Conditions

Not applicable.

III. Regulated Equipment Requirements

A. Brief Process Description

The facility receives green lumber as raw material. The lumber is dried in one of four indirect steam heated kilns, shaped in the planer mill then bundled for shipment. Shavings from the planer mill are either sold or used as fuel for the boiler. A wood fired boiler provides the steam.

B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
PB01	Wood-fired Boiler	GA Rule 391-3-1-.02(2)(d) GA Rule 391-3-1-.02(2)(g)	3.4.3, 3.4.4, 3.4.5, 4.2.1, 4.2.2, 5.2.3	MC01	Multiclone
				SC01	Wet Scrubber
PMGP	Planer Mill Group (PM01, PM02 and PM03)	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.4.1 and 3.4.2	BH01	Baghouse
DKGP	Indirect Steam Heated Kilns Group (DK01, DK02, DK03, and DK04)	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.2.1, 3.2.2, 3.4.1, 3.4.2, 6.2.2, 6.2.3, 6.2.4	None	None

C. Equipment & Rule Applicability

Wood-fired Boiler (PB01)

Telfair Forest Products LLC - Lumber City Wood Products has one boiler that is controlled by a multiclone (MC01) and a wet scrubber (SC01), which provides steam to the four indirect steam heated lumber drying kilns. The boiler's maximum heat capacity is 75 mmBtu per hour. The maximum allowable particulate matter (PM) emissions and opacity limit are established by Georgia Rule 391-3-1-.02(2)(d), "Fuel-burning Equipment" for units constructed after January 1, 1972. The PM limit is determined as follows:

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

where P is the allowable PM emission rate in pounds per million Btu and R is the heat input capacity in million Btu per hour.

Georgia Rule 391-3-1-.02(2)(d) also establishes an opacity limit of twenty (20) percent, except for one six minute period per hour of not more than twenty-seven (27) percent.

In accordance with Georgia Rule 391-3-1-.02(2)(g), "Sulfur Dioxide", the sulfur content of fuel burned in the boiler may not exceed 2.5 percent by weight.

The wood-fired boiler is also subject to the provisions of 40 CFR Part 64, "Compliance Assurance Monitoring" (CAM) because:

- It is located at a major source that is required to obtain a Title V Permit. [§64.2(a)]
- It is subject to an emission limitation or standard (Georgia Air Quality Rule (d) emission standard) for the applicable pollutant (particulate matter). [§64.2(a)(1)]
- It uses a control device (Wet Scrubber SC01) to achieve compliance with a state enforceable rule. [§64.2(a)(2)]
- Potential pre-controlled emissions of the applicable pollutant (particulate matter) from Boiler PB01 (with a major source threshold of 100 tpy) are at least 100 percent of a major source threshold. [§64.2(a)(3)]

Planer Mill Group

Telfair Forest Products LLC – Lumber City has two planer mills (PM01 and PM02) and a hog (PM03), which comprise the Planer Mill Group (PMGP). The emissions from this group are controlled by a baghouse. This group constitutes one process in regards to Georgia Rule 391-3-1-.02(2)(e), "Particulate Emission from Manufacturing Process". The allowable PM emission rate from this group is specified as follows:

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

where:

E = emission rate in pounds per hour
 P = process input weight rate in tons per hour

PMGP is also subject to Georgia Rule 391-3-1-.02(2)(b), “Visible Emissions”. 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 forty (40) percent opacity.

Indirect Steam Heated Kilns Group (DKGP)

Telfair Forest Products LLC – Lumber City operates four indirect steam heated lumber kilns and these kilns comprise Equipment Group DKGP. This Title V permit considers the four kilns as one process, as has historically been done. The allowable PM emission rate from this Equipment Group is established by Georgia Rule 391-3-1-.02(2)(e) and is specified as follows:

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

where:

E = emission rate in pounds per hour
 P = maximum dry process weight input rate for the five kilns combined in tons per hour

Equipment Group DKGP 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 forty (40) percent opacity.

Emission and Operating Caps:

The facility is currently closed but wants to renew the Title V permit in order to keep all permits for the facility current. The Boiler and Plywood MACTs are currently potentially applicable to this facility because it has potential to emit more than 10 tons per year of at least one individual HAP (methanol). The facility has indicated that they will accept a production limit of 95 million board feet of lumber per year through all four drying kilns. This production limit will reduce the potential methanol emissions to 9.45 tons per year, so the facility will no longer be a major source for HAPs. Note that the National Council of the Paper Industry for Air and Stream Improvement Inc. (NCASI) emission factors for VOC (3.8 lb VOC/MBF) and methanol (0.21 lb methanol/MBF) were used to calculate the emission rates of these pollutants.

D. Compliance Status

Not applicable.

E. Operational Flexibility

Not applicable.

F. Permit Conditions

Condition 3.2.1, which contained CO limits for the wood fired boiler, was deleted in amendment no. 2421-271-0004-V-01-1. This condition was removed as explained in that narrative.

New Condition 3.2.1 is included in the proposed permit. This condition limits the throughput of all four lumber drying kilns to 95 million board feet per year. The reason for this limitation was discussed in Section III.C of this narrative.

Condition 3.2.2 in amendment no. 2421-271-0004-V-01-1 established a throughput limit of 35.6 million board feet per year for kiln no. 1, to avoid PSD review. This condition is unchanged from the amendment.

Sections 3.3 and 3.4 of the proposed permit are unchanged from the existing permit.

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

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements

Condition 4.2.1 was added in Amendment No. 2421-271-0004-V-01-1 to require periodic testing of the wood-fired boiler to ensure compliance with Georgia Rule (d). This condition is unchanged from the amendment.

Condition 4.2.2 was added in Amendment No. 2421-271-0004-V-01-1 to require a performance test be conducted if the Permittee changes the fuel burned in the boiler. The test is to ensure compliance with Georgia Rule (d). This condition is unchanged from the amendment.

V. Monitoring Requirements**A. General Monitoring Requirements**

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

Condition 5.2.1(a) is changed in the proposed permit. The third sentence was removed; it stated when the requirement was to be first implemented; this is no longer relevant to the permit.

Condition 5.2.2 is removed from the proposed permit since this condition was a one-time requirement, which has been carried out; it is no longer relevant to the Permittee.

Conditions 5.2.3 and 5.2.4 were removed from the initial Title V Permit in Amendment No. 2421-271-0004-V-01-1 since the CO emission limit for the boiler became irrelevant, as explained above. In this same amendment, new Condition 5.2.3 began to require daily monitoring of the pressure drop across the boiler's multiclone. This condition is re-numbered as Condition 5.2.2 in the proposed Title V Renewal Permit.

Condition 5.2.5 in the initial Title V Permit is now Condition 5.2.3 in the proposed Title V Renewal Permit.

Condition 5.2.6 in the initial Title V Permit is now condition 6.1.7 in the proposed Title V Renewal Permit, due to a change in the Title V Permit template.

Condition 5.2.7, which requires an inventory of filter bags for the baghouse, is now Condition 5.2.4 in the proposed Title V Renewal Permit.

Conditions 5.3.1 through 5.3.3 in the existing Title V permit are now Conditions 6.1.4 through 6.1.6 in the proposed Title V Renewal Permit, respectively, due to a change in the Title V Permit template.

Condition 5.3.4 is removed from the existing permit and is now a part of Condition 8.22 in the proposed renewal permit.

C. Compliance Assurance Monitoring (CAM)

As discussed in Section III.C. of this permit narrative, the Title V application indicated that the boiler is subject to the provisions of 40 CFR Part 64, "Compliance Assurance Monitoring" (CAM). The facility attached CAM plans to their TV renewal application no. 15807.

The facility is proposing to monitor the scrubber's liquid media flow rate and gas pressure drop as recommended by the EPA's CAM Rule Guidance on wet scrubbers and the *Air Pollution Engineering Manual*.

Conditions 5.2.5 and 5.2.6 have been added to this Title V Permit to specify these CAM requirements.

VI. 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 information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

B. Specific Record Keeping and Reporting Requirements

Condition 6.2.1 in the existing permit is removed since permit conditions in Section 5 are sufficient in requiring the maintenance of air pollution control equipment.

Conditions 6.2.2, 6.2.3, and 6.2.4 were modified in Amendment No. 2421-271-0004-V-01-1 to change the sources for which record keeping is required from “DK04 and DK05” to “DK01 through DK04 and DK01”. In the proposed Title V Renewal Permit, some conditions (6.2.1, 6.2.2, and 6.2.3 respectively) are modified again to read “DK01 through DK04 and DK01”. The conditions remain unchanged from the amendment. Note that these requirements were already contained in the permit and amendment.

VII. Specific Requirements

A. Operational Flexibility

Not applicable.

B. Alternative Requirements

Not applicable.

C. Insignificant Activities

Refer to <http://airpermit.dnr.state.ga.us/GATV/default.asp> for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

D. Temporary Sources

Not applicable.

E. Short-Term Activities

Not applicable.

F. Compliance Schedule/Progress Reports

Not applicable.

G. Emissions Trading

Not applicable.

H. Acid Rain Requirements

Not applicable.

I. Stratospheric Ozone Protection Requirements

Not applicable.

J. Pollution Prevention

Not applicable.

K. 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.

Addendum to Narrative

The 30-day public review period started on September 6, 2006 and ended on October 6, 2006. No comments were received.