

Facility Name: **Weyerhaeuser – Flint River Operations**

City: Oglethorpe

County: Macon

AIRS #: 04-13-193-00013

Application #: 15651

Date SIP Application Received: N/a

Date Title V Application Received: September 29, 2004

Permit No: 2631-193-0013-V-01-2

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## **Introduction**

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft operating permit amendment. 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) 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 draft permit and is presented in the same general order as the permit. 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 comment period and EPA review process will be described in an addendum to this narrative.

**I. Facility Description****A. Existing Permits**

Table 1 below lists the current Title V permit, and all administrative amendments, minor and significant modifications to that permit, and 502(b)(10) attachments. Comments are listed in Table 2 below.

**Table 1: Current Title V Permit and Amendments**

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
2631-193-0013-V-01-0	September 16, 2002	X	
2631-193-0013-V-01-1	May 28, 2003	X	

**Table 2: Comments on Specific Permits**

Permit Number	Comments
2631-193-0013-V-01-0	Initial Title V operating permit.
2631-193-0013-V-01-1	PSD amendment for the replacement of a calciner with a new lime kiln.

**B. Regulatory Status****1. PSD/NSR/RACT**

Weyerhaeuser – Flint River Operations is a major source under PSD. The first operating permit issued to the facility, Air Quality Permit No. 2631-094-8438 on October 28, 1982, was issued under the requirements of PSD. There were no limits set in the permit other than those required by 40 CFR Part 60 and Georgia State Rules. A second PSD review was conducted for Air Quality Permit No. 2631-094-9038 issued on July 24, 1985. The facility took two PSD limits in that permit:

1. TRS emissions from the smelt tank were limited to 0.0168 pounds per ton of black liquor solids (dry weight). This limit imposed the more stringent TRS limit found in Georgia State Rule 391-3-1-.02(gg) and is still in effect. It should be noted that this is a PSD limit and the facility is not directly subject to Rule (gg).
2. Particulate matter from the sodium sulfate recovery system was limited to 9.3 pounds per hour. This process had been discontinued by the time the initial Title V was prepared and was therefore not included in the permit.

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The facility avoided PSD review in 1995 by making steam offset reductions under permit No. 2631-094-11083 for modifications to the isothermal cooking system, post oxygen washer, bleach plant, and recovery boiler. The facility also avoided PSD review for its modified pulp unit under permit No. 2631-094-11084. The modified pulp unit has been decommissioned and does not appear in the facility’s Title V permit. The facility underwent PSD review in 1997 for an amendment to permit No. 2631-094-11083. The amendment was for the addition of the dual cap system under Project XL, which appears in the Title V permit. Refer to the narrative for Title V permit number 2631-193-0013-V-01-0 for a complete discussion of Project XL.

The facility underwent a PSD review in 2003 for the replacement of the existing calciner with a new lime kiln. The final permit for this action was issued on May 28, 2003. The facility took the following limits in permit amendment number 2631-193-0013-V-01-1 to avoid PSD review for the specified pollutants:

1. Emissions of carbon monoxide from the Lime Kiln are limited to 100 tons per 12 consecutive month period.
2. Emissions of volatile organic compounds from the Lime Kiln are limited to 40 tons per 12 consecutive month period.
3. Emissions of sulfur dioxide from the Lime Kiln are limited to 40 tons per 12 consecutive month period.

The permit amendment includes the following PSD BACT limit for nitrogen oxides:

1. Emissions of nitrogen oxides from the Lime Kiln are limited to 175 ppm at 10 percent oxygen.

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 <sub>10</sub>	✓	✓		
SO <sub>2</sub>	✓	✓		
VOC	✓	✓		
NO <sub>x</sub>	✓	✓		
CO	✓	✓		
TRS	✓	✓		
H <sub>2</sub> S	✓	✓		
Individual HAP	✓	✓		
Total HAPs	✓	✓		

## II. Proposed Modification

### A. Description of Modification

The modification request includes designating the power boiler as the primary combustion device for the strong NCG streams and the lime kiln as the backup combustion device. The request also included changes related to the permanent shutdown of the calciner and the October 2003 NSPS Subpart Kb promulgated amendment. The amendment will also incorporate the complete requirements of 40 CFR 63 Subpart MM and a general applicability statement for 40 CFR 63 Subpart DDDDD.

#### *Strong NCG Streams*

The facility is required by 40 CFR 60 Subpart BB and 40 CFR 63 Subpart S to combust strong NCG streams (digester system, evaporator system, condensate stripper system, turpentine recovery system, and foul oil recovery system) such that emissions to the atmosphere of TRS and HAP are controlled. Currently, the units designated to burn these gases are Lime Kiln U800 (primary) and Power Boiler U400 (backup). The facility wishes to switch this designation such that the Power Boiler is the primary destruction device. No physical modifications need to be made as a result of this change.

Emissions from the destruction of the gases include sulfur dioxide and sulfuric acid. The facility has proposed to cap emissions from the Power Boiler at 269.0 tpy to avoid PSD review. This would result in a potential increase of 39.0 tpy SO<sub>2</sub>. Because sulfur dioxide is limited, the emissions increase of sulfuric acid is concomitantly limited to 0.40 tpy.

#### *Calciner*

On May 28, 2003, Weyerhaeuser was issued a final permit for the replacement of a calciner with new Lime Kiln U800. The facility has decommissioned the calciner and started up the new unit. The facility is requesting that Conditions 6.2.20, 6.2.21, 7.14.1, and 7.14.2, which reference the calciner, be deleted. There are no emissions changes associated with the removal of these conditions.

#### *40 CFR 60 Subpart Kb*

On October 15, 2003, the U.S. EPA finalized an amendment to 40 CFR 60 Subpart Kb. Prior to the amendment, vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa were required to comply with the record keeping requirements of 40 CFR 60.116b(a) and (b). The amendment eliminated tanks meeting those criteria from Subpart Kb applicability completely. Also, the amendment increased the minimum applicability capacity from 40 m<sup>3</sup> to 75 m<sup>3</sup>. Based on this change the facility believes that it operates only one tank (P814) that is subject to 40 CFR 60 Subpart Kb and has requested that references to Subpart Kb be removed for Tanks U616, U617, U502, and U605.

As shown in the equipment list, tanks U616, U617, U502, and U605 are controlled through the incineration of the tank off-gases. However, applicability to Subpart Kb is based solely on the tank capacity and the maximum true vapor pressure of the material being stored regardless of how emissions from the tank are controlled. For this reason the reference to Subpart Kb cannot be removed for these tanks.

*40 CFR 63 Subpart MM*

40 CFR 63 Subpart MM, *National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills*, requires the reduction of HAP emissions from the combustion sources at pulp mills that are major HAP sources. Combustion sources include recovery boilers (including smelt tanks) and lime kilns. The rule uses particulate matter as a surrogate for HAP. It should be noted that Weyerhaeuser has been in compliance with the Subpart MM particulate matter limits since startup for Recovery Boiler U500 and Smelt Tank U508 (the first operating permit for this mill was issued under the requirements of PSD). The new lime kiln was required to be in compliance with the regulation upon startup.

The permit currently contains a general applicability statement for the subpart. Also, specific Subpart MM conditions were included in Air Quality Permit Amendment No. 2631-193-0013-V-01-1 because it involved the installation of a new lime kiln. Since that time the Division has drafted a set of standard Subpart MM conditions to be included in all pulp mill permits. These conditions have been added to the Weyerhaeuser permit with this permitting action. There are no emission changes associated with the addition/update of the Subpart MM requirements.

*40 CFR 63 Subpart DDDDD*

40 CFR 63 Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters*, was published as final on September 13, 2004. The compliance date for existing sources is September 13, 2007. Based on a preliminary review, it appears that Power Boiler U400 will be subject to a stringent particulate matter or total selected metal limit under the new regulation. General applicability conditions have been added to the permit for Subpart DDDDD. There are no emission changes associated with the addition of the Subpart DDDDD conditions.

*40 CFR 63 Subpart EEEE*

40 CFR 63 Subpart EEEE, *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, was published as final on February 3, 2004. The compliance date for existing sources is February 5, 2007. The facility has stated that Methanol Storage Tank P814 will be subject to this new regulation. General applicability conditions have been added to the permit for Subpart EEEE. There are no emission changes associated with the addition of the Subpart EEEE conditions.

*Continuous Digester Isothermal Cooking System*

The Weyerhaeuser facility operates an Isothermal Cooking System for the continuous digester as part of a Project XL Agreement (see the narrative for the initial Title V permit for an explanation of the Project XL Agreement). The facility made physical and operational changes to the system in 1996 that improved bleach plant wastewater performance, reduced solid waste generated by knots, reduced final effluent adsorbable organic halides, reduced raw water demands, and reduced HAP emissions due to improved woodchip delignification and pulpwashing. The Permit requires the facility to continuously monitor the digester dilution factor and the difference between the digester zone temperature and the digester extraction head temperature to demonstrate that the system is operating properly. The digester dilution factor must be greater than zero and the temperature difference must be less than 10 degrees Fahrenheit. These parameters are specified in the site-specific provisions of 40 CFR 63 Subpart S. The initial Title V permit requires the facility to report any time there is a deviation from the specified parameter ranges. The facility has requested that this deviation be based on a three-hour average rather than an instantaneous reading.

Although the site-specific provisions of 40 CFR 63 Subpart S describe the parameters that must be monitored, they do not explicitly state that monitoring data outside of the specific range is required to be reported. The site-specific MACT provisions do require the facility to certify that the cooking system is operational on an annual basis. The Stationary Source Permitting Program required the facility to report deviations in the initial Title V permit to provided data to support the annual certification and to comply with the requirements of Part 70.

The Stationary Source Permitting Program has reexamined the Project XL Agreement documents and the documents associated with the site-specific MACT provisions in light of the facility’s request. None of the literature contains any reference to averaging periods for these parameters. The Permitting Program consulted with the Compliance Program and requested that the facility submit data for review. The facility requested an 11-hour temperature averaging period based on statistical analysis. The Compliance Program determined that a 3-hour basis for reporting temperature deviations is acceptable, however a statistical analysis alone is not enough to justify an 11-hour average. Both Programs requested that the facility continue to examine the original Project XL Agreement documents and locate information to support the inclusion of a longer averaging period. The Division is willing to reexamine the averaging period issue once additional information is located. Also, a typographical error has also been corrected in Condition 6.1.7.a(xi). The phrase “less than” has been changed to “greater than”. The language for Condition 6.1.7.a(x) has not been changed. The facility should continue to report the dilution factor based on instantaneous data. According to the data submitted the dilution factor is rarely zero, therefore any averaging may cause dilution factor deviations to go unreported.

*Other*

Information in Attachment B of the permit has been updated to correctly reflect insignificant activities conducted at the facility. See the permit application for these updates.

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 <sub>10</sub>			
SO <sub>2</sub>	Yes	39.0	39.0
VOC			
NO <sub>x</sub>			
CO			
TRS			
H <sub>2</sub> S			
Individual HAP			
Total HAPs			

C. PSD/NSR Applicability

The modifications proposed in the application are not subject to review under PSD.

**III. Facility Wide Requirements**

A. Emission and Operating Caps:

There are no new or modified facility wide emission or operating caps associated with these modifications.

B. Applicable Rules and Regulations

There are no new or modified facility wide applicable rules and regulations operating caps associated with these modifications.

C. Compliance Status

The facility has indicated compliance with all applicable rules and regulations.

D. Operational Flexibility

The facility has not made any facility wide operational flexibility requests with this modification.

E. Permit Conditions

There are no new or modified facility wide permit conditions associated with this modification.

**IV. Regulated Equipment Requirements**

A. Brief Process Description

The Flint River Plant produces bleached communiton (fluff) pulp from cellulose fiber using the Kraft Process. The plant is organized into five main units encompassing several operational process areas. The five units include the woodyard unit, the pulping unit (chip digestion, oxygen delignification, and bleaching), the utilities unit (energy and water/power generation and chemical recovery), the finishing unit [product formation, drying (roll width and sizing), packaging, and weighing], and the plant maintenance unit.

Roundwood (logs), purchased wood chips, and woodwaste fuel (bark) are received and processed by the woodyard. Major woodyard operations include debarking, chipping, and screening for thickness and sizing. The pulping operation includes chip digesting with chemicals (liquors) and steam, brownstock diffusion washing and screening, and reaction with oxygen to dissolve lignin that holds the cellulose fibers of the wood chips together. Whitening of the delignified pulp is accomplished in the bleaching sequence. The bleached pulp is then formed, dried, cut into small rolls, wrapped, weighed, and then shipped off site.

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The primary functions of the utilities unit include cogeneration of electricity, generation of compressed air and chilled water for the plant, regeneration of white liquor, recovery of lime, and combustion of non-condensable (TRS laden) gases. The major emission units in the utilities units are the bark boiler, recovery boiler, smelt dissolving tank, and lime kiln. The facility also operates a chlorine dioxide generation unit to supply the bleach plant. Raw river water and well water are treated on site for use in the utilities unit and wastewater generated by the plant is treated prior to underwater effluent pipe discharge to the Flint River.

**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
U400	Power Boiler	40 CFR 63 Subpart DDDDD 40 CFR 60 Subpart BB 40 CFR 60 Subpart D 40 CFR 63 Subpart S 391-3-1-.02(2)(b) 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	2.2.1, 3.3.1, 3.3.5 through 3.3.9, 3.3.22, 3.3.23, 3.3.25, 3.3.27, 3.4.1, 4.2.1, 5.2.1 through 5.2.4, 5.2.6, 5.3.1, 6.1.7, 6.2.1 through 6.2.4, 6.2.7, 6.2.8, 6.2.11 through 6.2.13, and 6.2.23*	CDU2 CDU3	Multiclone Venturi Scrubber
U500	Recovery Boiler	40 CFR 60 Subpart BB 40 CFR 63 Subpart S 40 CFR 63 Subpart MM 391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g)	2.2.1, 3.3.2, 3.3.5 through 3.3.9, 3.3.22, 3.3.23, 3.3.24, 3.4.2, 3.4.3, 4.2.1, 5.2.1, 5.2.3, 5.2.6, 5.3.1, 6.1.7, 6.2.1 through 6.2.3, 6.2.5, 6.2.8, 6.2.11 through 6.2.13, and 6.2.24 through 6.2.29*	CDU1	Dry Plate Electrostatic Precipitator
U800	Lime Kiln	40 CFR 52.21 40 CFR 60 Subpart BB 40 CFR 63 Subpart S 40 CFR 63 Subpart MM 391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g)	2.2.1, 3.3.3, 3.3.5 through 3.3.8, 3.3.22, 3.3.23 through 3.3.26, 3.4.4 through 3.4.6, 4.2.1, 4.2.4, 4.2.5, 5.2.1, 5.2.3, 5.2.6, 5.3.1, 6.1.7, 6.2.1 through 6.2.3, 6.2.6, 6.2.7, 6.2.11 through 6.2.13, 6.2.17, 6.2.20 through 6.2.22, and 6.2.24 through 6.2.29*	CDU7	Dry Plate Electrostatic Precipitator
U508	Smelt Dissolving Tank	40 CFR 60 Subpart BB 40 CFR 63 Subpart MM 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.2.1, 3.3.4, 3.3.22, 3.3.23, 3.4.7, 3.4.8, 4.2.1, 5.2.2, 5.3.1, 6.1.7, 6.2.24 through 6.2.29*	CDU5	Venturi Scrubber
P814	Methanol Storage Tank	40 CFR 63 Subpart EEEEE 40 CFR 60 Subpart Kb	3.3.20, 3.3.22, 3.3.28, and 6.2.15*	None	None

\* Generally applicable requirements contained in this permit may also apply to emission units listed above.

**C. Equipment & Rule Applicability**

Power Boiler U400 was installed in 1980. It burns bark / woodwaste, No. 2 fuel oil, No. 6 fuel oil, and used oil. The unit is subject to the following rules and regulations:

- 40 CFR 52.21 Avoidance for SO<sub>2</sub>
- 40 CFR 60 Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971
- 40 CFR 60 Subpart BB - Standards of Performance for Kraft Pulp Mills
- 40 CFR 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters, was published

40 CFR 63 Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry  
Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions  
Georgia Rule 391-3-1-.02(2)(d) – Fuel – burning Equipment  
Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide

Recovery Boiler U500 was installed in 1980. It burns black liquor solids, No. 2 fuel oil, No. 6 fuel oil, and used oil. The unit is subject to the following rules and regulations:

40 CFR 60 Subpart BB - Standards of Performance for Kraft Pulp Mills  
40 CFR 63 Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry  
40 CFR 63 Subpart MM - National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfitite, and Stand-Alone Semichemical Pulp Mills  
Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions  
Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes  
Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide

Lime Kiln U800 was installed in 2004. It burns natural gas and No. 6 fuel oil. The unit is subject to the following rules and regulations:

40 CFR 52.21 Avoidance for VOC, CO, and SO<sub>2</sub>  
40 CFR 60 Subpart BB - Standards of Performance for Kraft Pulp Mills  
40 CFR 63 Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry  
40 CFR 63 Subpart MM - National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfitite, and Stand-Alone Semichemical Pulp Mills  
Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions  
Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes  
Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide

Smelt Dissolving Tank U508 was installed in 1980. It is subject to the following rules and regulations:

40 CFR 60 Subpart BB - Standards of Performance for Kraft Pulp Mills  
40 CFR 63 Subpart MM - National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfitite, and Stand-Alone Semichemical Pulp Mills  
Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions  
Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes

Methanol Storage Tank P814 was installed in 1989, has a capacity of 35,000 gallons, and stores methanol for use in the chlorine dioxide generation process. It is subject to the following regulations:

40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
40 CFR 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

D. Compliance Status

The facility has indicated compliance with all applicable rules and regulations.

E. Operational Flexibility

The facility has not made any operational flexibility requests with this modification.

F. Permit Conditions

Power Boiler U400

Condition 3.3.1.e has been added to the permit. The condition specifies the PSD Avoidance limit for sulfur dioxide from Power Boiler U400. The limit is necessary due to the combustion of strong NCG gases in the unit.

Recovery Boiler U500

The citation for Condition 3.3.2.b has been modified. The condition specifies the particulate matter limit for Recovery Boiler U500. Reference to 40 CFR 63 Subpart MM has been added to the citation.

Smelt Tank U508

The citation for Condition 3.3.4.a has been modified. The condition specifies the particulate matter limit for Smelt Tank U508. Reference to 40 CFR 63 Subpart MM has been added to the citation.

TRS System

Condition 3.3.5 has been modified. The condition specifies the devices to be used to control TRS gases from the pulping process. The condition has been modified to specify Power Boiler U400 as the primary combustion device for strong NCG gases and Lime Kiln U800 as the backup device for the strong NCG gases. The condition is a requirement of 40 CFR 60 Subpart BB.

General

Condition 3.3.22 has been added to the permit. The condition requires the facility to comply with all of the applicable provisions of 40 CFR 63 Subpart A, the general provisions for NESHAP regulations.

Condition 3.3.24 has been modified. The condition is a general applicability requirement for 40 CFR 63 Subpart MM. All references to compliance dates have been removed. The language is no longer necessary because the general compliance date of March 13, 2004 has passed and the Lime Kiln was required to be in compliance upon startup.

40 CFR 63 Subpart MM

Condition 3.3.27 has been added to the permit. The condition specifies when periods of excess emissions under the requirements of 40 CFR 63 Subpart MM will be considered violations of the permit. The language is a standard Subpart MM condition.

40 CFR 63 Subpart DDDDD

Condition 3.3.27 has been added to the permit. The condition is a general applicability statement for 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. Power Boiler U400 is subject to this regulation and must be in compliance no later than September 13, 2007.

40 CFR 63 Subpart EEEE

Condition 3.3.28 has been added to the permit. The condition is a general applicability statement for 40 CFR 63 Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline). Methanol Storage Tank P814 is subject to this regulation and must be in compliance no later than February 5, 2007.

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

A. Individual Equipment:

Conditions 4.1.3.z through 4.1.3.ee have been added to the permit for any testing that is conducted for limits under 40 CFR 63 Subpart MM.

B. Equipment Groups (all subject to the same test requirements):

There are no new or modified testing requirements for equipment groups associated with this modification.

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

A. Individual Equipment:

Condition 5.2.1.a is an existing requirement and has not been modified. The condition requires the facility to conduct continuous monitoring for sulfur dioxide, nitrogen oxides, and oxygen from Power Boiler U400. The facility will use the CEMs to demonstrate compliance with the new 40 CFR 52.21 Avoidance limit for SO<sub>2</sub>.

Condition 5.2.1.b has been modified. The condition requires the facility to conduct continuous monitoring for TRS (and oxygen), opacity, sulfur dioxide, nitrogen oxides, and carbon monoxide from Lime Kiln U800. A sentence has been added to the condition to specify the sampling, analysis, averaging, and recording requirements for opacity under 40 CFR 63 Subpart MM.

Condition 5.2.1.c has been modified. The condition requires the facility to conduct continuous monitoring for TRS (and oxygen), opacity, and sulfur dioxide from Recovery Boiler U500. A sentence has been added to the condition to specify the sampling, analysis, averaging, and recording requirements for opacity under 40 CFR 63 Subpart MM. The citation for the condition has also been updated to include reference to 40 CFR 63 Subpart MM.

Condition 5.2.2.c has been modified. The condition requires the facility to conduct continuous monitoring for pressure drop and the scrubbant flow rate for Smelt Tank Scrubber CDU5. Language has been added to the condition to specify the accuracy requirements of the monitoring devices under 40 CFR 63 Subpart MM. The citation for the condition has also been updated to include reference to 40 CFR 63 Subpart MM.

B. Equipment Groups (all subject to the same monitoring requirements):

There are no new or modified monitoring requirements for equipment groups associated with this modification.

**VII. Other Record Keeping and Reporting Requirements**

Condition 6.1.7.a(xi) has been modified to change the reporting basis for the Isothermal Cooking System temperature to a three-hour average rather than a single measurement. The facility must monitor and report deviations of the difference between the digester vapor zone temperature and the digester extraction temperature. These parameters are specified by 40 CFR 63 Subpart S. A typographical error has also been corrected. The phrase “less than” has been changed to “greater than”.

Condition 6.1.7.a(xvii) has been deleted. The condition previously referred to excess emissions conditions for opacity from Lime Kiln U800 under 40 CFR 63 Subpart MM. This language has been replaced by Condition 6.1.7.b(vi).

Condition 6.1.7.a(xix) has been added to the permit. The condition describes as an excess emission any 12-month rolling period during which sulfur dioxide emissions from Power Boiler U400 exceed 269.0 tons. This is a requirement of 40 CFR 52.21 Avoidance.

Condition 6.1.7.b(iv) has been modified. The condition describes the excess emission conditions for the units used to comply with 40 CFR 63 Subpart S. The condition has been modified to designate Power Boiler U400 as the primary control device for strong NCG gases.

Conditions 6.1.7.b(vi) and (vii) have been added to the permit. The conditions describe the opacity and scrubber parameter conditions for the recovery boiler ESP, smelt tank scrubber, and lime kiln ESP that are considered violations of 40 CFR 63 Subpart MM. The reporting is necessary to determine compliance with 40 CFR 63 Subpart MM.

Condition 6.1.7.c(iv) has been modified. The condition describes as an excursion any four hour period during which the average pressure drop or scrubbant flow rate for the Smelt Tank Scrubber CDU5 is outside of the specified range. The averaging period has been reduced to three hours to be consistent with the requirements of 40 CFR 63 Subpart MM.

Condition 6.1.7.d(vi) has been deleted. The condition previously referred to violations for Lime Kiln U800 under 40 CFR 63 Subpart MM. The condition has been replaced with Condition 6.1.7.b(vi).

Condition 6.2.4 has been modified. The condition requires the facility to maintain daily records of the amount of fuel oil combusted in Power Boiler U400 in addition to daily steam production records. The records are necessary to calculate the SO<sub>2</sub> emissions from the boiler.

Condition 6.2.16 has been deleted. The condition specified the notifications that were required for the MACT Hammer for boilers. The U.S. EPA has finalized the requirement for 40 CFR Part 63 DDDDD; therefore the language is no longer necessary.

Conditions 6.2.18 and 6.2.19 have been deleted. The conditions specified the SSM requirements and quarterly report requirement under 40 CFR 63 Subpart MM for Lime Kiln U800. These conditions have been replaced by standard conditions developed by the Division since the permitting of Lime Kiln U800. See Conditions 3.3.24, 6.1.7.b(vi) and (vii), and 6.2.24 through 6.2.29. These conditions now include the requirements for all units subject to the subpart.

Condition 6.2.20 and 6.2.21 have been deleted. The conditions refer to notification requirements for the installation and startup of the Lime Kiln and the requirement that the facility begin construction of the unit within 18 months of the effective date of the permit. The facility has fulfilled these requirements; therefore the conditions are no longer necessary.

Condition 6.2.23 has been added to the permit. The condition requires the facility to use CEMs data and fuel usage records to calculate sulfur dioxide emissions from Power Boiler U400. The facility is required to keep monthly and 12-month rolling totals for sulfur dioxide emissions. The calculations and records are necessary to demonstrate compliance with the PSD Avoidance limit in Condition 3.3.1.e.

Condition 6.2.24 has been added to the permit. The condition requires the facility to develop and implement an SSM Plan for units subject to 40 CFR 63 Subpart MM. The plan must specify corrective action measures, procedures to determine the cause of an operating parameter exceedance, and maintenance and inspection schedules.

Condition 6.2.25 has been added to the permit. The condition specifies the operating records that must be kept for units subject to 40 CFR 63 Subpart MM. The records are necessary to demonstrate ongoing compliance with particulate matter emission limits specified by the subpart.

Condition 6.2.26 has been added to the permit. The condition requires the facility to submit all notifications required by the General Provisions (40 CFR 63 Subpart A) for those units that are subject to 40 CFR 63 Subpart MM.

Condition 6.2.27 has been added to the permit. The condition requires the facility to implement the corrective actions specified in the 40 CFR 63 Subpart MM SSM Plan when opacity for the Recovery Boiler or Lime Kiln ESP or the parameters for the Smelt Tank scrubber are outside of specified ranges. This is a requirement of 40 CFR 63 Subpart MM.

Condition 6.2.28 has been added to the permit. The condition requires the facility to maintain records of occurrences when correction is required with respect to the Recovery Boiler/Lime Kiln opacity or the Smelt Tank scrubber parameters. These records are necessary to determine ongoing compliance with 40 CFR 63 Subpart MM.

Condition 6.2.29 has been added to the permit. The condition requires the facility to provide quarterly reports with respect to the Recovery Boiler/Lime Kiln opacity and the Smelt Tank scrubber parameters. These records will detail exceedances and instances of corrective action for these unit are necessary to determine ongoing compliance with 40 CFR 63 Subpart MM.

## **VIII. Specific Requirements**

### **A. Operational Flexibility**

Not Applicable.

### **B. Alternative Requirements**

Not Applicable.

C. Insignificant Activities

See Appendix B of the permit.

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. Prevention of Accidental Releases

This modification does not change the source's applicability.

J. Stratospheric Ozone Protection Requirements

This modification does not change the source's applicability.

K. Pollution Prevention

Not Applicable.

L. Specific Conditions

Conditions 7.14.1 and 7.14.2 have been deleted from the permit. The permit conditions referred to the requirements that the facility shutdown the calciner upon the startup of the lime kiln. The lime kiln is now installed and running and the calciner has been shutdown. The conditions are no longer necessary.

### **Addendum to Narrative**

The public notice for the Weyerhaeuser – Flint River Operations amendment appeared in The Citizen & Georgian on April 13, 2005. The 30-day comment period expired on May 13, 2005. No comments were received from U.S. EPA Region 4 or the facility. A public comment was received from Mr. Kevin Topping of LaGrange, Georgia on April 12, 2005.

### **Citizen Comment**

Mr. Topping's comment is as follows:

“This permit modification is a request for permission to use a power boiler as a primary treatment and in cause an increase in SO<sub>2</sub> emissions of 39 tons per year. Other than allowing this company to be more profitable, how does this increase of toxic emission benefit the people of the State of Georgia? I would think a decrease of such emissions should be the result. I do not believe that this permit modification should be granted without additional effective controls and significant penalties if these emissions escapes or the equipment is not maintained.”

**EPD Response:** The SO<sub>2</sub> emissions related to this modification are the direct result of the combustion of LVHC gases [also called strong NCGs (non-condensable gases)] that originate in the digester system, evaporator system, turpentine recovery system, and the steam stripper system. The gases must be destroyed to reduce the emissions of hazardous air pollutants, volatile organic compounds, and odorous sulfur compounds (TRS). The combustion process oxidizes the TRS and results in SO<sub>2</sub> emissions.

There are two regulations, set forth by the U.S. EPA, that require the facility to treat strong NCGs. These regulations include 40 CFR 60 Subpart BB, which specifically targets TRS, and 40 CFR 63 Subpart S, which specifically targets the hazardous air pollutants present in the strong NCGs. Weyerhaeuser complies with both of these rules by burning the gases in a combustion device. The current permit contains conditions that state how and in which combustion device the gases should be treated. The permit also lists emission limits for those combustion devices.

The permit application indicates that there is a potential 39.0 tpy increase of SO<sub>2</sub> from the power boiler due to the change. The potential increase is specific to the power boiler and allows the GA EPD to impose a federally enforceable cap of 269.0 tpy SO<sub>2</sub> from the unit. It should be noted that while there may be an increase at the power boiler, those same NCGs would not be directed to the lime kiln and result in SO<sub>2</sub> there. In effect, the SO<sub>2</sub> emissions are being moved from one combustion unit to another and there should be little change in overall SO<sub>2</sub> emissions. The change is beneficial from the standpoint that the power boiler is equipped with a venturi scrubber that removes SO<sub>2</sub>. The strong NCGs at the Weyerhaeuser plant will now be scrubbed prior to incineration and after incineration. It should also be noted that the new cap represents a significant reduction in potential emissions as allowed by the permit. Prior to the change the boiler could emit over 1,000 tpy of SO<sub>2</sub> under 40 CFR 60 Subpart D and Georgia Rule 391-3-1-.02(2)(g). Also, the change does not allow a production increase at the plant beyond what is already permitted.

Weyerhaeuser is required by the permit to operate an emissions monitor that continuously measures and records the emissions of SO<sub>2</sub> from the boiler. The facility must use this system to maintain daily records of SO<sub>2</sub> emissions. The facility is subject to enforcement from the Stationary Source Compliance Program if there is any exceedance of the 269.0 tpy SO<sub>2</sub> cap imposed by the amendment.

Finally, Weyerhaeuser has recently proposed modifications that require an ambient air quality review and extensive modeling of area SO<sub>2</sub> emissions. Preliminary results indicate that no national air quality standards for SO<sub>2</sub> are being violated in the area surrounding the mill. The GA EPD has determined that no changes to the permit are necessary in response to Mr. Topping's comment.