

Facility Name: **Hood Industries, Inc.**
 City: Metcalf
 County: Thomas
 AIRS #: 04-13-275-00008

Application Nos.: TV-16106 & 16211
 Date Application Received: March 21, 2005 and May 11, 2005, respectively
 Permit No: 2421-275-0008-V-02-0

Program	Review Engineers	Review Managers
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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 **Hood Industries, Inc.** 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:

Hood Industries, Inc.

2. Parent/Holding Company Name

Hood Industries, Inc.

3. Previous and/or Other Name(s)

Metcalf Lumber Company, Inc. Hood Industries acquired the facility on December 1, 2005. The Division had already mailed Metcalf the draft renewal Title V permit when Hood informed us of the ownership change. Hood Industries produces different dimension and grade lumber than Metcalf Lumber did; this results in a change in production capacity.

4. Facility Location

1033 South Reynolds Street
Metcalf, Georgia 31792
Thomas County

5. Attainment, Non-attainment Area Location, or Contributing Area

Hood Industries, Inc. is located in an area considered to be in attainment with the National Ambient Air Quality Standards (NAAQS).

6. Class I Area Impacts

Hood Industries, Inc. is located within 200-km of the Okefenokee and St. Mark 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 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
2421-275-0008-V-01-0	September 18, 2000	Initial Title V Permit

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)

Hood Industries, Inc. produces dimensional lumber out of southern yellow pine.

3. Overall Facility Process Description

Log Preparation:

Southern yellow pine logs of tree length are received by trucks. The logs are stored on 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. The emissions from this operation are not controlled.

Sawmill:

Sawmills cut the logs into dimensional lumber or timbers. The sawmill equipment includes sets of twin bandsaws, a saw edger and a saw trimmer. Lumber is trimmed, sorted by length and dimension, and stacked on sticks. Trim blocks and edger strips are chipped and transferred to the paper mill as a fiber source. The emissions from this operation are not controlled.

Lumber Drying Kilns:

The lumber and timbers are dried in one of the three indirect-fired kilns from 50 percent moisture to approximately 15 percent moisture content. Each kiln has an estimated production capacity of 47,800 million board-feet per year (MMBF/year). Prior to Hood's purchase of the facility on December 1, 2005 and subsequent change in product size, each kiln was only able to process 29,784 MMBF/year.

Planer Mill:

The dried lumber and timbers are planed in one of two planer mills, and then sorted by length, size, and grade, and transported by truck or rail for delivery to the customer. Each mill is controlled by a cyclone (Air Pollution Control Device ID Nos. PM1C1 and PM2C2).

Boilers:

The facility has three boilers that burn wood waste and provide steam to the three drying kilns. Boiler No. 3 was installed in March 1997 with a 28.8-MMBtu/hr heat input capacity. Boiler No. 2 was installed in April 1993 with a 29.6-MMBtu/hr heat input capacity. Boiler No. 4 was constructed in 1991 and installed in 2004 and has a 29-MMBtu/hr heat input capacity. A multiclone controls each boiler (Air Pollution Control Device ID Nos. WBC2, WBC3, and WBC4).

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 source is now considered to be a major source under PSD regulations. Prior to Hood's purchase of the facility on December 1, 2005, this facility, including new Boiler B4, was considered a true minor source under PSD regulations.

Under the operation of Metcalf Lumber, the facility produced 1-inch lumber. At this lumber dimension, the site-wide annual production capacity was 90,000 MMBF. On May 11, 2005, Metcalf submitted a "502b10-change" letter and updated Title V renewal application no. 16106 in response to an enforcement action for the unpermitted installation and operation of a third 29-MMBtu/hr wood-fired Boiler B4 in 2004. Boiler B4 was originally constructed at the Del Cook Lumber facility in 1991.

The potential emissions of Boiler B4 were calculated using the AP-42 Section 1.6 emission factors for wood residue combustion in boilers assuming that the fuel used in the boiler is a combination of wet wood and bark, and no control device is present. The particulate matter emissions from Boiler B4 are controlled by a multiclone; however, the assumptions described above provide a conservative estimate of the potential emissions from Boiler B4.

The table below summarizes the potential emissions from Boiler B4.

Potential Emissions from Boiler B4

Pollutant	Emission Factor	Emissions (lb/hr)	PTE (tpy)	Notes
CO	0.60 lb/MMBtu	17.40	76.21	AP-42 Section 1.6 wood combustion
NOx	0.22 lb/MMBtu	6.38	27.94	AP-42 Section 1.6 wood combustion
PM	0.56 lb/MMBtu	16.24	71.13	AP-42 Section 1.6 wood combustion
VOC	0.017 lb/MMBtu	0.49	2.16	AP-42 Section 1.6 wood combustion
SO2	0.025 lb/MMBtu	0.73	3.18	AP-42 Section 1.6 wood combustion

Plantwide potential emissions are estimated by adding the total emissions from all three boilers, the VOC and HAP emissions from the kilns, and the PM emissions from the ancillary equipment (sawing, planing, etc.). For the kilns, a VOC emission factor of 4.0 lb/MBF and a production capacity of 90,000 MMBF were used. As shown in the table below, the facility was a PSD minor source at the time Boiler 4 was installed in 2004.

Plantwide Potential Emissions prior to December 1, 2005

Pollutant	Potential Emissions (tpy)
VOC	182
CO	229
NOx	84
PM ¹	220
SO2	10
Formaldehyde ²	0.7
Methanol ²	9.4

1. PM emissions from ancillary equipment estimated to be 7.1 tpy based on estimates from Jordan lumber mill in Lamar County.

2. Methanol and Formaldehyde emission factors from NCASI of 0.21 lb MeOH/MBF and 0.016 lb HCOH/MBF.

On December 1, 2005 Hood Industries acquired the Metcalf facility. Under the new ownership, the facility will produce predominately No. 2 and better two-inch lumber. The Metcalf facility previously produced one-inch lumber. When producing two-inch lumber, each kiln is able to dry approximately 120,000 board feet per charge. Hood Industries indicates that the drying cycle time will approach 22 hours per charge. This results in the ability to dry 143,345 MBF/year among all three kilns. Plantwide potential emissions are estimated by adding the total emissions from all three boilers, the VOC and HAP emissions from the kilns, and the PM emissions from the ancillary equipment (sawing, planing, etc.). For the kilns, a VOC emission factor of 4.0 lb/MBF and a production capacity of 144,000 MMBF were used.

Plantwide Potential Emissions after December 1, 2005 Purchase

Pollutant	Potential Emissions (tpy)
VOC	287
CO	229
NO _x	84
PM ¹	224
SO ₂	10
Formaldehyde	1.2
Methanol	15

1. PM emissions from ancillary equipment estimated to be 11.4 tpy based on estimates from Jordan lumber mill in Lamar County.
2. Methanol and Formaldehyde emission factors from NCASI of 0.21 lb MeOH/MBF and 0.016 lb HCOH/MBF.

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

3. MACT Standards

With the acquisition of Metcalf Lumber by Hood Industries and the subsequent operational change from one-inch lumber to two-inch lumber, the facility is now a major source with respect to hazardous air pollutants. Using NCASI emission factors, potential methanol emissions are approximately 15 tons per year at the updated production capacity of 144,000 MBF/year. Prior to the change in ownership and lumber dimension change, the facility was considered minor for HAP, with a methanol PTE of 9.4 tpy. Therefore, as of the purchase date of December 1, 2005, 40 CFR 63 Subpart DDDD, "NESHAP for Plywood and Composite Wood Products," and 40 CFR 63 Subpart DDDDD, "NESHAP for Industrial-Commercial-Institutional Boilers and Process Heaters," are applicable.

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	Yes
Program Code M – Part 63 NESHAP	Yes
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None applicable.

B. Applicable Rules and Regulations

40 CFR 63 Subpart DDDD, “NESHAP for Plywood and Composite Wood Products.” This rule applies to any plywood or composite wood manufacturing facility, or any sawmill with lumber drying kilns located at a major source for hazardous air pollutants. This rule is applicable to the Hood facility because it is a major source for HAPs and operates at least one lumber-drying kiln. While the rule is applicable to the facility, there are no specific standards by which the facility must comply.

40 CFR 63 Subpart DDDDD, “NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters.” The facility currently operates three 29 MMBtu/hour hybrid boilers that provide heat to three lumber drying kilns. All three boilers are considered “existing” under the MACT because they were constructed prior to 2003. Hybrid boilers utilize both a water tube and a fire tube section, but typically most heat transfer takes place in the water tube portion. The NESHAP specifies that all fire tube boilers are to be deemed “small boilers” regardless of the heat input capacity. EPA has not made a determination if hybrid boilers are considered fire tube boilers or not; it is the Division’s expectation that EPA will rule that hybrid boilers are not fire tube boilers. To account for this uncertainty (fire tube boilers, and thus “small” with limited requirements, or not fire tube and thus “large” with more requirements), the permit will specify only the general applicability of the NESHAP DDDDD. Since this facility did not become a major source of HAP until the ownership change on December 1, 2005, the compliance date will be three years after the change (12/1/08).

C. Compliance Status

Metcalf Lumber Company, Inc. (now Hood) is operating under an NOV and has been issued a consent order for constructing and operating Boiler B4 without a permit.

D. Operational Flexibility

Refer to Section VII.A.

E. Permit Conditions

Condition 2.2.1 subjects the facility to the General Provisions of 40 CFR 63 as described in Table 10 for Subpart DDDD and Subpart DDDDD.

Conditions 2.2.2 and 2.2.3 is a general applicability statement that subjects the facility to all applicable requirements of 40 CFR 63 Subpart DDDD and DDDDD.

III. Regulated Equipment Requirements

A. Brief Process Description

A brief process description is specified in the narrative for Title V Permit No. 2421-275-0008-V-01-0. Please refer to this narrative.

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
B2	Boiler 2	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 60 Subpart Dc 40 CFR 63 Subpart DDDD 40 CFR 63 Subpart DDDDD	2.2.1, 2.2.2, 2.2.3, 3.3.1, 3.4.3, 3.4.4, 3.4.5, 4.2.1, 4.2.2, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 6.2.1, 6.2.3, 6.2.4, 6.2.5, 6.2.6	WBC2	Multiclone.
B3	Boiler 3	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 60 Subpart Dc 40 CFR 63 Subpart DDDD 40 CFR 63 Subpart DDDDD	2.2.1, 2.2.2, 2.2.3, 3.3.1, 3.4.3, 3.4.4, 3.4.5, 4.2.1, 4.2.2, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 6.2.1, 6.2.3, 6.2.4, 6.2.5, 6.2.6	WBC3	Multiclone.
B4	Boiler 4	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 60 Subpart Dc 40 CFR 63 Subpart DDDD 40 CFR 63 Subpart DDDDD	2.2.1, 2.2.2, 2.2.3, 3.3.1, 3.4.3, 3.4.4, 3.4.5, 4.2.1, 4.2.2, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 6.2.1, 6.2.3, 6.2.4, 6.2.5, 6.2.6	WBC4	Multiclone.
PM1	Planing Mill 1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(n)	3.4.1, 3.4.2, 5.2.1, 6.2.2, 6.2.3	PM1C1	Cyclone.
PM2	Planing Mill 2	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(n)	3.4.1, 3.4.2, 5.2.1, 6.2.2, 6.2.3	PM2C2	Cyclone.
DK1	Drying Kiln 1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	None.
DK2	Drying Kiln 2	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	None.
DK3	Drying Kiln 3	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	None.

C. Equipment & Rule Applicability

The operations at this facility are not subject to any emissions or operating caps.

Applicable Rules and Regulations -

Units B2, B3, and B4:

Since they were constructed after Jan 1, 1972, these boilers are subject to the particulate matter limit outlined in Georgia Rule (d) "Fuel Burning Equipment" based on the following equation: $E = 0.5(10/R)^{0.5}$, where "E" is the allowable PM emission rate in pounds per million Btu, and "R" is heat input rate in million Btu per hour for the boiler. Georgia Rule (d) also limits the opacity to 20 percent except for one six-minute period per hour of not more than 27 percent opacity. Boilers B2, B3, and B4 each have a heat input capacity of less than 30-MMBtu/hr and the fuel used is

bark wood waste. Boilers 2 and 3 were installed in 1993 and 1997, respectively. Boiler 4 was constructed at the Del Cook facility in 1991 and installed at Metcalf without a permit in 2004. A multiclone controls the particulate matter emissions from each boiler.

Because of the size and construction date, these boilers are subject to the New Source Performance Standards (NSPS) found in 40 CFR 60, Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." Subpart Dc requires fuel-usage record keeping. Because the boilers each have an input heat capacity that is less than 30-MMBtu/hour, they are not subject to Subpart Dc PM limits nor Subpart Dc opacity limits. They are also not subject to any Subpart Dc sulfur dioxide limit because the boilers do not burn any fossil fuel.

These boilers are also subject to Georgia Rule (g), "Sulfur Dioxide." This rule limits the fuel sulfur content to 2.5%. Wood is a low-sulfur fuel, so the likelihood of violation Rule (g) is minimal. Using AP-42 emission factors, the typical sulfur content of wood is 0.005%.

Units DK1, DK2, and DK3 and Planing Mills 1 and 2:

Georgia Rule (e), "Particulate Emission from Manufacturing Processes". A particulate matter limit must be calculated using the production rate and the following equation: $E = 4.1P^{0.67}$, where "E" is the allowable PM emission rate in pounds per hour and "P" is the total dry process weight input rate in tons per hour.

The planing mills and the kilns are also subject to Georgia Rule (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 40 percent opacity.

D. Compliance Status

Metcalf Lumber Company, Inc. is operating under an NOV and has been issued a consent order for constructing and operating Boiler B4 without a permit.

E. Operational Flexibility

Refer to Section VII.A.

F. Permit Conditions

Condition 3.3.1 subjects Boilers B2, B3, and B4 to NSPS 40 CFR 60 Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units".

Condition 3.4.1 limits the PM emissions from the planing mills and the kilns (Emission Unit ID Nos. PM1, PM2, DK1, DK2, and DK3) based on Georgia Rule (e).

Condition 3.4.2 limits the visible emissions from the planing mills and the kilns (Emission Unit ID Nos. PM1, PM2, DK1, DK2, and DK3) based on Georgia Rule (b) to 40 percent opacity.

Condition 3.4.3 limits the PM emissions from the boilers (Emission Unit ID Nos. B2, B3, and B4) based on Georgia Rule (d).

Condition 3.4.4 limits the sulfur fuel content to the boilers (Emission Unit ID Nos. B2, B3, and B4) based on Georgia Rule (g).

Condition 3.4.5 limits the visible emissions from the boilers (Emission Unit ID Nos. B2, B3, and B4) based on Georgia Rule (d) to 20 percent opacity.

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

As discussed in Section III.C Boilers B2, B3, and B4 are subject to the particulate matter limit outlined in Georgia Rule 391-3-1-.02(2)(d) "Fuel Burning Equipment" based on the following equation: $E = 0.5(10/R)^{0.5}$, where "E" is the allowable PM emission rate in pounds per million Btu, and "R" is heat input rate in million Btu per hour for the boiler. The allowable PM emission rate and potential PM emissions for each boiler is presented below:

$$E_{\text{Boiler 2}} = 0.5(10/29)^{0.5} = 0.29 \text{ lb/MMBtu} \quad PTE_{\text{Boiler 2}} = (0.56 \text{ lb/MMBtu})(29 \text{ MMBtu/hr}) = 16.24 \text{ lb/hr}$$

$$E_{\text{Boiler 2}} = (0.29)(29) = 8.51 \text{ lb/hr}$$

$$E_{\text{Boiler 2}} = E_{\text{Boiler 3}} = E_{\text{Boiler 4}} \quad PTE_{\text{Boiler 2}} = PTE_{\text{Boiler 3}} = PTE_{\text{Boiler 4}}$$

Based on the uncontrolled potential PM emissions shown above, the boilers will not be able to comply with the allowable PM emission rate specified in Georgia Rule (d). Previous testing has shown that the emission rate of Boilers B2, B3, and B4 are within their respective allowable PM emission rate at 7.42 lb/hr and 7.34 lb/hr, respectively. However several factors can influence the outcome of the tests (i.e. temperature, heat input rate during testing, velocity pressure, etc.). As a result, Condition 4.2.1 requires the facility to conduct particulate matter and visible emissions performance testing on Boilers B2, B3, and B4 by December 15, 2006, 24 months from the most recent test date, in order to determine compliance with the emission limit in Condition 3.4.3. Condition 4.2.1 also requires additional testing on Boilers B2, B3, and B4 at regular intervals.

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

The Wood Waste Boilers (Emission Unit ID Nos. B2, B3, and B4) are subject to Georgia Rule 391-3-1-.02(2)(d) for particulate matter and opacity. Particulate matter (PM) emissions are controlled using multiclones. Proper operation and maintenance of the PM control equipment will ensure that emissions are within allowable limits. To make certain that the multiclones are operating properly, pressure drop readings must be recorded at least once per shift, any malfunctions must be corrected in an expedient manner, and any adverse condition(s) discovered are required to be reported, according to 6.1.7(c), as excursions. The facility must also check the multiclones for visible emissions at least once per day of operation. Any two visible emissions checks indicating greater than ten percent opacity action level require action and reporting.

The Wood Waste Boilers (Emission Unit ID Nos. B2, B3, and B4) are subject to Georgia Rule 391-3-1-.02(2)(g) "Sulfur Dioxide". As indicated in the "Regulated Equipment Requirements" section of this narrative, wood (the fuel) has a sulfur content much lower than the Rule(g) limit of 2.5%. Since the Permittee cannot violate Rule(g) when burning wood, there is no need to monitor the sulfur content of this fuel.

The Planing Mills (Emission Unit ID Nos. PM1 and PM2) are subject to Georgia Rules 391-3-1-.02(b) and (e) for Visible Emissions and Particulate Matter (PM), respectively. The planing mills use cyclones to control PM emissions. The cyclones are subject to inspection monitoring and record keeping. To make certain that the cyclones are operating properly, weekly visual inspections will be conducted, any malfunctions will be corrected in a most expedient matter, any adverse condition(s) discovered by the weekly inspections are required to be reported according to 6.1.7(c), as excursions.

The drying kilns (Emission Unit ID Nos. DK1, DK2, and DK3) are subject to Georgia Rules 391-3-1-.02(b) and (e) for Visible Emissions and Particulate Matter (PM), respectively. These dryers use steam from the Wood Waste Boilers for drying the wood. There is no equipment for the control of PM emissions on the dryers. However, based on available technical literature, potential PM emissions are less than 40 percent of the allowable PM limitation. A determination was made that PM emissions from the dryers are not likely to exceed the allowable limits under almost any operating scenario and, for this reason, no monitoring is prescribed by the permit.

C. Compliance Assurance Monitoring (CAM)

Not applicable.

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 is an existing condition that has been modified to include Boiler 4 and requires the facility to retain operational records that include the type and quantity of wood waste or other fuel burned.

Condition 6.2.2 is an existing condition that requires the facility to maintain a record of all actions used to limit the fugitive dust from any source.

Condition 6.2.3 is an existing condition that requires the facility to maintain a log indicating the date and time of the cyclone inspections along with any malfunctions discovered.

Condition 6.2.4 is an existing condition that requires the facility to record the pressure readings at each multiclone.

Condition 6.2.5 requires the facility to maintain a log indicating the date and time of the visible emissions inspections required by Condition 5.2.3.

Condition 6.2.6 requires a written plan to comply with the Boiler MACT 40 CFR 63 DDDDD by May 1, 2008. This will allow the Division enough time to incorporate the specific requirements of the MACT before the compliance date of December 1, 2008.

VII. Specific Requirements**A. Operational Flexibility**

The facility did not include any alternative operating scenarios in their Title V permit application. However, this Title V permit allows operational flexibility that is generally afforded most sawmills. For example, the facility has the flexibility to use various kinds of wood waste as fuel for the boilers; different species of wood may be dried in the kilns; and the kilns may dry lumber with various dimensions.

B. Alternative Requirements

The facility has not indicated a need for any new alternative requirements under Rule 391-3-1-.03(10)(d)8 in order to combine multiple overlapping of state and federal requirements.

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

None applicable.

E. Short-Term Activities

None applicable.

F. Compliance Schedule/Progress Reports

Metcalf Lumber Company, Inc. is operating under an NOV and has been issued a consent order for constructing and operating Boiler B4 without a permit.

G. Emissions Trading

Not applicable.

H. Acid Rain Requirements

Not applicability

I. Stratospheric Ozone Protection Requirements

The facility has not indicated that they are subject to Title VI.

J. Pollution Prevention

None applicable.

K. Specific Conditions

None applicable.

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 public notice was published on June 27, 2006 and expired on July 27, 2006. Comments from the company were received by the Division. The company comments are the Division response are below:

- 1) Section 1.3, Boilers: We believe that the first sentence should cite three boilers. Also, please note that the permit application shows the rated capacities of each boiler as 28.8 MMBtu/hr for Boiler #2, 29.6 MMBtu/hr for Boiler #3, and 28.8 MMBtu/hr for Boiler #4.

Division Response:

The Division agrees and the permit changed accordingly; there are three boilers at the facility.

- 2) Section 1.3, Boilers: We continue to believe that the multiclones attached to our three boilers are not air pollution control devices. As stated in our earlier comment letter, we have received guidance from the U.S. EPA stating that multiclones of this type are inherent to the design of a boiler and not air pollution control devices. There are several reasons that they arrived at this determination.

The boilers are equipped with multiclone mechanical collectors. These mechanical collectors are located immediately behind the boiler and the air pre-heater, in front of the induced draft fan and the boiler exhaust stack. The multiclones were installed at the time the boilers were constructed. All combustion gases must pass through the multiclones; they may not be bypassed. These multiclones are not “add-on controls” that are the focus of Part 64 (see FR, Vol. 62, No. 204, Wednesday, October 22, 1997, II.B.b.ii, page 54912).

As further stated in the above reference, the definition of control devices “does not encompass all conceivable control devices but rather those types of control devices that may be prone to upset or malfunction, and that are most likely to benefit from monitoring of control parameters to assure that they continue to function properly. In addition, a regulatory obligation to monitor control devices is appropriate because these devices generally are not an inherent part of the source’s process and may not be watched as closely as devices that have a direct bearing on the efficiency or productivity of the source.” The multiclones on these boilers are not subject to upset or malfunction. There are no controls available for these units. The multiclones on these boilers are an inherent part of each boiler’s process. The gas flow through each boiler system (therefore through the multiclones) is controlled only by the need to maintain safe and efficient combustion in the boiler fire box. The multiclones were designed to operate with gas flows varying from low-fire to high-fire conditions. There are no movable or adjustable components in the multiclones.

As further stated in the above reference, same paragraph, page 54913, the EPA discusses why low NOX burners and certain other types of combustion control measures are not included in the definition of “control device” in the final rule. In that discussion, they say, “The technology used for many units with automatic combustion control does not provide significant operational flexibility that could afford the owner or operator with an opportunity or incentive to manipulate NOX control levels.” Clearly, the rationale of this statement can be paraphrased as, The technology used in wood fired boilers with multiclones installed as an inherent part of the boiler system does not provide significant operational flexibility that could afford the owner or operator with an opportunity or incentive to manipulate PM control levels.

The material recovered from the multiclones is reinjected into the boiler fire box to complete combustion of the unburned wood particles, and this procedure is expected to increase the thermal efficiency of the boiler between 1% and 4% (Wood Waste as Fuel and Related Air Pollution Control, R. L. Bump, Proceedings, Energy Generation and Cogeneration from Wood, Forest Products Research Society, Madison, WI, 1980). The multiclones are installed as an inherent part of the process (i.e., ahead of the induced draft fan) to remove abrasive material from the exhaust stream to protect the induced draft fan blade and housing from erosion by these products.

As previously stated, the multiclones can not be bypassed. The only upset or malfunction that could occur to the multiclones is plugging of the multiclone tubes. If this were to occur, the fan system would no longer be able to maintain a negative pressure in the boiler and in the fire box. This would necessitate an immediate shut down of the boiler. The boilers can not be operated with a plugged multiclone which prevents the ability to maintain negative air pressure in the fire box.

As additional support of this position, in U.S. EPA AP-42, Chapter 1.6, Wood Residue Combustion in Boilers, September 2003, Table 1.6-1 presents emission factors for PM from wood residue combustion. For all three categories of fuel (Bark/Bark and Wet Wood, Dry Wood, Wet Wood), emission factors are listed with the PM Control Device listed as "No Control". In the footnote "c" to that table, it says, "Factor represents boilers with no controls, Breslove separators, Breslove separators with reinjection, and mechanical separators with reinjection. Mechanical collectors include cyclones and multiclones." In other words, EPA states that a boiler with a multiclone and fly ash reinjection, such as these boilers, is expected to emit PM at the same rate as an uncontrolled boiler. Therefore, a multiclone with fly ash reinjection is not assumed to assist the unit in complying with any emission limitation or standard.

For these reasons, Hood believes that the multiclones on these boilers do not meet the definition of a control device used to achieve compliance with a limitation or standard under Part 64. Therefore, we are again requesting the removal of the designations WBC2, WBC3, and WBC4, and all requirements included in the permit related to these devices. We will identify each reference currently in the draft permit in the comments that follow.

Division Response:

The Division agrees. According to the EPA determination, the multiclones integral to the boiler design are not "control devices" and thus would not be subject to CAM. However, as EPA noted in their determination, exclusion from CAM applicability does not exempt the boiler or multiclones from other monitoring necessary to ensure compliance with state and federal standards. In the case of these boilers with integrated multiclone, it appears that correct burner tuning and air flow are more crucial to air emissions than pressure drop across the multiclone. Multiclones are generally low-pressure drop devices. Compliance monitoring will be carried out using daily visible emissions checks instead of using a pressure drop across the integrated multiclone. The Permit will be revised to address the boilers as if they are "uncontrolled." Table 3.1 is revised accordingly. The requirement to conduct pressure drop readings (condition 5.2.2) has also been removed.

3) Section 3.1, Boilers 2, 3 & 4: We request that for the Air Pollution Control Devices, ID No. be changed to "N/A" and Description to "None".

Division Response:

The Division agrees, see response to comment 2. Table 3.1 is revised accordingly.

4) Section 3.1, Planing Mills 1 and 2: In the permit application, we listed one cyclone attached to Planer Mill #1, and re-designated it as P1C1. This re-designation was made because the permit application software only allowed the entry of four characters. We also re-designated the Planer Mill #2 cyclone as P2C1, and added the hog cyclone which is also attached to Planer Mill #2 as P2C2. We would request that these designations be adopted for future reporting purposes, and that the hog cyclone be added to the permit.

Division Response:

The Division agrees, the permit has been changed to address this.

5) Section 3.1, Drying Kilns 1, 2 & 3: 40 CFR 63 Subpart DDDD should be added to the Applicable Requirements/Standards column.

Division Response:

The Division agrees, the permit has been changed to address this. It should be noted that DDDD contains no standards that apply to stand-alone lumber kilns, but they are subject to DDDD as an affected source.

6) Section 4.2.1: We request that the requirements related to recording pressure drop across the boiler multiclones during emissions testing, and Conditions 4.2.1.a through c, be removed per the earlier discussion of EPA's position on boiler multiclones. We understand that this requirement was added to the past permit as a means of proving compliance with the emissions limitations on the boilers during the periods in between boiler stack tests, based on the belief that the multiclones were air pollution control devices. If these multiclones were air pollution control devices, able to be adjusted to desired efficiencies, then this monitoring would be valuable. However, since the multiclones are not control devices, and are not adjustable in any fashion, the monitoring of these parameters is meaningless and unnecessary for the purposes of proving compliance with emission limits.

Division Response:

The Division agrees, as a daily visible emissions check is the chosen compliance monitoring method, pressure drop across the integral multiclones during the test is not crucial information.

7) Section 5.2.1: We request that reference to the boilers and to weekly inspections of the multiclone exteriors be removed.

Division Response:

The Division agrees, these multiclones are integral to the boiler design and are not add-on control equipment that can easily be inspected. Visible emissions checks will be the compliance monitoring method.

8) Section 5.2.2.a: We request the removal of this condition.

Division Response:

The Division agrees, these multiclones are integral to the boiler design and are not add-on control equipment that can easily be inspected. Visible emissions checks will be the compliance monitoring method.

9) Section 5.2.3: We request that the reference to the multiclones be replaced with a reference to the individual boiler stacks, since this is where the boilers emit their gases.

Division Response:

The Division agrees, the emissions exit from the stack, as the multiclones are integral to the boiler design and are not located at immediately prior to discharge.

10) Section 5.2.3.a & b: We again request that the following changes be made to these sections to prevent the permit as written from creating a false impression of facility non-compliance. In particular, the permit sets an opacity action level of 10%, and requires the facility to determine the cause for any 3-minute exceedance and to correct the problem in the most expedient manner. Hood envisions that there may be many occasions where the boiler emissions will exceed 10%, but still be below the actual permit limit of 20%. Therefore, we propose that language be used which requires a daily observation of opacity at each boiler stack. If, during that observation, opacity is found to be above 10%, then a full 6-minute Method 9 opacity determination (visible emissions evaluation, VEE) would be required. If the average opacity was found to be below 20%, no further action would be necessary other than logging in the VEE results. In the event that the average opacity was found to be greater than 20% but less than 27% (an allowable occurrence under State regulations), then a second 6-minute VEE determination would be required. If the second 6-minute reading was greater than 20%, or if any 6-minute reading was greater than 27%, this would constitute a permit exceedance, and would require the facility to take immediate measures to find the cause of the exceedance and correct it.

Division Response:

The Division disagrees, there is no evidence that the boilers could comply with the PM standard of Rule (d) if the opacity exceeded 10%. To the contrary, stack test data has shown that compliance with Rule (d) becomes questionable at opacities exceeding 10%. Furthermore, opacities exceeding 10% would indicate that the boiler is not properly tuned, resulting in dramatically increased emissions of CO and HAP.

11) Section 5.2.4: We request that this condition be removed, for the reasons discussed above.

Division Response:

The Division agrees, pressure drop across the multiclones will not be used to indicate compliance.

12) Section 6.1.7.b: We believe that the finding of an opacity greater than 27% or two periods of greater than 20% in one hour would constitute an exceedance and should therefore be referenced in Condition 6.1.7.b.i.

Division Response:

The Division disagrees, see the response to comment 10.

13) Section 6.1.7.c.ii: We request the removal of this condition.

Division Response:

The Division agrees, pressure drop across the multiclones will not be used to indicate compliance.

14) Section 6.1.7.c.iii: We request either the removal of this condition or the modification of this condition to define an excursion as any single opacity reading of greater than 20%.

Division Response:

The Division disagrees, see the response to comment 10.

15) Section 6.2.4: We request the removal of this condition.

Division Response:

The Division agrees, pressure drop across the multiclones will not be used to indicate compliance.