

Facility Name: **Temple-Inland (Rome Linerboard Mill)**

City: Rome

County: Floyd

AIRS #: 04-13-115-00021

Application #: 16422

Date SIP Application Received: N/a

Date Title V Application Received: October 16, 2005

Permit No: 2631-115-0021-V-01-6

Program	Review Engineers	Review Managers
SSPP	Heather Cottrell	David M. Matos
SSCP	John Harrison	Douglas Waldron
ISMP	Bob Scott	Richard Taylor / James Capp
TOXICS	Sherry Waldron	Karen Hays

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
2631-115-0021-V-01-0	5/22/02	X	
2631-115-0021-V-01-1	10/17/02	X	
2631-115-0021-V-01-2	2/17/03	X	
2631-115-0021-V-01-3	1/7/04	X	
2631-115-0021-V-01-4	10/13/04	X	
2631-115-0021-V-01-5	5/20/05	X	

Table 2: Comments on Specific Permits

Permit Number	Comments
2631-115-0021-V-01-0	Initial Title V operating permit.
2631-115-0021-V-01-1	Amendment for the installation and operation of backup Package Boiler 2.
2631-115-0021-V-01-2	Amendment for the replacement of digesters 1, 5, 8, and 15.
2631-115-0021-V-01-3	Amendment for the revision of various monitoring / excursion requirements.
2631-115-0021-V-01-4	Amendment for the conversion of Recovery Furnace 3 to Waste Fuel Boiler WF; the modification of Recovery Furnace 5 including improvements to the liquor firing and over fired air systems; the addition of fuel oil burners to Recovery Furnace 5 and Package Boiler 2; modifications to Power Boiler 4; modification of the F Evaporator set steam configuration; collection of off gases from the washer systems with combustion in Waste Fuel Boiler WF (or utilization of the clean condensate alternative), replacement of inlet piping to the primary headbox on Linerboard Machine P1; replacement of the primary headbox on Linerboard Machine P2; and the decommissioning of Power Boilers 1, 2, and 3, Lime Kiln 3A, Recovery Furnace 4, Smelt Dissolving Tanks 3 and 4, and the H-washer. The Power Boiler 4 modification includes the installation of larger, low NO _x burners, the replacement of the steam generating bank, and other steam tube replacements. Approval of the installation and operation of Diesel Tank FT1 is also included. The amendment is also for the removal of requirements under 40 CFR 279.11, the update of the steam stripper process wastewater column feed excursion temperature, and the inclusion of approval for the installation and operation of the Recycle Fiber Plant.
2631-115-0021-V-01-5	Amendment for a name change from Inland Paperboard and Packaging, Inc. – Rome Linerboard Mill as owned by Temple Inland, Inc. to Temple-Inland (Rome Linerboard Mill) as owned by TIN, Inc. dba Temple-Inland.

B. Regulatory Status

1. PSD/NSR/RACT

The facility is classified as a major source under the PSD permitting program because it emits more than 100 tpy of a regulated pollutant. Pulp and paper mills are on the list of 28 industry categories subject to the 100 tpy major source thresholds.

The following are existing PSD limits for this facility:

- a. Lime Kiln 1A is limited to 9.79 pounds per hour of SO₂.
- b. Lime Kiln 2A is limited to 9.04 pounds per hour of SO₂.
- c. Recovery Furnace 5 is limited to 486 pounds per hour of SO₂.
- d. Recovery Furnace 5 is limited to 0.021 grains PM per dscf, corrected to 8% oxygen.
- e. Recovery Furnace 5 is limited to 5 ppm TRS, corrected to 8% oxygen.
- f. Recovery Furnace 5 is limited to 650 ppm CO, corrected to 8% oxygen while burning black liquor solids.
- g. Recovery Furnace 5 is limited to 4 ppm H₂S, corrected to 8% oxygen.
- h. Recovery Furnace 5 is limited to 0.040 pound VOC per million BTU of black liquor solids burned.
- i. Recovery Furnace 5 is limited to 0.20 pound per million BTU of CO while burning fuel oil alone.
- j. Recovery Furnace 5 is limited to 0.02 pound per million BTU of VOC while burning fuel oil alone.
- k. Smelt Tank 5 is limited to 1.77 pounds per hour of SO₂.
- l. Smelt Tank 5 is limited to 0.14 pounds of PM per ton of black liquor solids (on a dry basis).
- m. The production of linerboard is limited to 949,000 scaled tons during any 12 consecutive months.
- n. Power Boiler 4 is limited to 1130.0 pounds per hour of SO₂.
- o. Power Boiler 4 is limited to 0.070 pound per million BTU of PM.
- p. Power Boiler 4 is limited to 300 ppm CO, corrected to 3% oxygen.
- q. Power Boiler 4 is limited to 0.010 pounds per million BTU of VOC.
- r. Package Boiler 2 is limited to 0.050 pounds per million BTU of PM.
- s. Package Boiler 2 is limited to 0.20 pounds per million BTU of CO.
- t. Package Boiler 2 is limited to 0.020 pounds per million BTU of VOC.
- u. Waste Fuel Boiler WF is limited to 0.025 pound per million BTU of PM.
- v. Waste Fuel Boiler WF is required to meet a 99.0% TRS destruction efficiency limit when TRS gases are combusted in the source.
- w. Waste Fuel Boiler WF is limited to 368 ppm CO, corrected to 3% oxygen.
- x. Waste Fuel Boiler WF is limited to 0.050 pound per million BTU of VOC.

The following are PSD Avoidance limits for this facility:

- a. Recovery Furnace 5 is limited to 1.3 million gallons of fuel oil during any 12 consecutive months.
- b. Recovery Furnace 5 is limited to 5.3 million pounds BLS per day.

- c. Power Boiler 4 is limited to 0.50 pounds NO_x per million BTU heat input.
- d. Power Boiler 4 is limited to 3,837 tons of SO₂ during any 12 consecutive months.
- e. Power Boiler 4 is permitted to burn only fuel oil or coal.
- f. Power Boiler 4 is limited to 35,352,857 gallons of fuel oil during any 12 consecutive months.
- g. Power Boiler 4 is limited to burning coal with a sulfur content of 1.29% by weight or less.
- h. Power Boiler 4 is limited to burning fuel oil with a sulfur content of 0.5 % by weight or less.
- i. Package Boiler 2 is permitted to burn only natural gas or very low sulfur fuel oil.
- j. Package Boiler 2 is limited to 267 pounds of SO₂ per hour.
- k. Package Boiler 2 is limited to 30 million gallons of fuel oil during any 12 consecutive months.
- l. Waste Fuel Boiler WF is permitted to burn only wood, very low sulfur fuel oil, HVLC NCGs, tire derived fuel, wastewater sludge, recovered boiler ash, and recycle fiber waste.
- m. Waste Fuel Boiler WF is permitted to burn only 80 tpd of tire-derived fuel.
- n. Waste Fuel Boiler WF is permitted to burn on 30 tpd of waste waster sludge.
- o. Waste Fuel Boiler WF is limited to 1.1 million gallons of fuel oil during any 12 consecutive months.
- p. Waste Fuel Boiler WF is limited to 267 pounds per hour of sulfur dioxide.

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

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

II. Proposed Modification

A. Description of Modification

On October 13, 2004, the Rome Linerboard Mill was issued a permit for a mill optimization project. One of the modifications associated with the project was in the installation of No. 2 fuel oil burners in existing natural gas fired Package Boiler 2 (Source Code PK2) and the designation of the boiler as a full time steam source rather than a backup unit. The limits for the Package Boiler included a 3.0 million gallon per year fuel oil limit for the purpose of avoiding PSD for SO₂. This amendment is for the transfer of the 3.0 million gallon per year No. 2 fuel oil allotment from Package Boiler 2 (Source Code PK2) to the Waste Fuel Boiler (Source Code WF). The Waste Fuel Boiler currently has an allotment of 1.1 million gallons of No. 2 fuel oil.

The primary fuels for the Waste Fuel Boiler are wood, tire derived fuel, and wastewater sludge. Due to startup issues, the facility will need to burn additional oil in the Waste Fuel Boiler until the wood feed is permanently established. In addition, the facility is no longer going forward with the permitted installation of oil guns in Package Boiler 2. The current allotment of fuel oil for the Package Boiler will be added to the allotment for the Waste Fuel Boiler for a total limit of 4.1 million gallons of fuel oil per year. The increase in allotment will not cause a violation of any emission limit and the PSD avoidance status for the project is preserved.

B. Emissions Change

There will be no emissions increase from the plant due to this change. The emissions due to burning fuel oil in the Package Boiler are transferred to the Waste Fuel Boiler, which is already permitted to burn oil. Also, the modeling conducted for the PSD will not be affected. Emissions due to the combustion of natural gas in Package Boiler 2 were previously accounted for. Also, the stack for the Waste Fuel Boiler provides better dispersion for emissions, so the impact from the burning the fuel oil is reduced in moving from the Package Boiler to the Waste Fuel Boiler.

C. PSD/NSR Applicability

This modification is 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.

B. Applicable Rules and Regulations

There are no new or modified facility wide applicable rules and regulations.

C. Compliance Status

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

D. Operational Flexibility

The facility has not made any requests for operational flexibility.

E. Permit Conditions

There are no new or modified facility wide permit conditions.

IV. Regulated Equipment Requirements

A. Brief Process Description

Please see the narrative for the initial Title V operating permit.

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
PK2	Package Boiler 2	40 CFR 52.21, 40 CFR 60 Subpart Db, 391-3-1-.02(2)(d), 391-3-1-.02(2)(g), 391-3-1-.02(2)(lll)	3.3.52, 3.3.55 through 3.3.57, 3.4.29 through 3.4.31, 4.2.16, 4.2.17, 5.2.1, 5.2.2, 5.2.16, 5.2.17, 5.3.1, 5.3.4, 6.1.7, 6.2.42, 6.2.44, and 6.2.45*	None	None

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

C. Equipment & Rule Applicability

There are no equipment/rule applicability changes for this modification.

D. Compliance Status

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

E. Operational Flexibility

The facility has not made any requests for operational flexibility.

F. Permit Conditions

Condition 3.3.57 has been modified. The condition lists the fuels that are permitted to be burned in Package Boiler 2 (Source Code PK2). Reference to No. 2 fuel oil has been removed from the condition. The facility will not install oil guns in the unit. The boiler will continue to burn natural gas as previously permitted.

Condition 3.3.68 has been deleted. The condition listed PSD BACT limits and an opacity limit for fuel oil combustion under 40 CFR 60 Subpart Db. The condition has been deleted because the boiler will not be modified and the Subpart Db opacity limit does not apply to the combustion of natural gas.

Condition 3.3.69 has been deleted. The condition allowed the facility to burn 3.0 million gallons of fuel oil in Package Boiler 2 (Source Code PK2). The facility will not modify the boiler to burn fuel oil.

Condition 3.3.76 has been modified. The condition specifies the amount of fuel oil that can be burned in the Waste Fuel Boiler (Source Code WF). The allowable has been increased from 1.1 million gallons to 4.1 million gallons per any twelve-month period.

Conditions 3.4.29 and 3.4.30, which were previously removed from the permit due to the planned addition of fuel oil gun to Package Boiler 2 (Source Code PK2), have been added back to the permit. The conditions specify the opacity and particulate matter limits under Georgia Rule (d).

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

A. Individual Equipment:

The permit currently contains all of the testing requirements necessary for the burning of No. 2 fuel oil in the Waste Fuel Boiler.

Conditions 4.2.1 and 4.2.2 have been modified. Reference to Package Boiler 2 (Source Code PK2) has been removed from the conditions because the ongoing performance testing for this unit was based on the proposed modifications to the boiler. The requirements are no longer necessary.

Condition 4.2.15 has been deleted. The condition referred to initial performance testing for the firing of fuel oil in Package Boiler 2 (Source Code PK2). Because the oil burners will not be installed the testing condition is no longer necessary.

Condition 4.2.22 has been deleted. The condition referred to post-modification performance testing requirements for Package Boiler 2 (Source Code PK2). The boiler will not be modified; therefore the condition is no longer necessary.

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:

The permit currently contains all of the monitoring requirements necessary for the burning of No. 2 fuel oil in the Waste Fuel Boiler.

Condition 5.2.1.i has been deleted. The condition referred to an oxygen CEMS and a COMS for the modified Package Boiler (Source Code PK2). The boiler will not be modified; therefore, the condition is no longer necessary.

Condition 5.2.2.h has been modified. The condition requires the facility to monitor the amount of fuel burned in Package Boiler 2 (Source Code PK2). Reference to fuel oil has been removed from the condition.

Condition 5.3.4 has been modified. The condition requires the facility to maintain records for each steam-generating unit operating day for Package Boiler 2 (Source Code PK2). The condition has been modified to match the requirements under 40 CFR 60 Subpart Db for the firing of natural gas only.

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

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

VII. Other Record Keeping and Reporting Requirements

Condition 6.1.7.a(xxix) has been deleted. The condition referred to excess emissions based on COMS data for Package Boiler 2 (Source Code PK2). The COMS is no longer necessary because the facility will not burn fuel oil in this unit.

Condition 6.1.7.b(xvii) has been modified. The condition referred to exceedances for burning fuel in Package Boiler 2 (Source Code PK2). Reference to fuel oil has been removed from the condition.

Conditions 6.1.7.b(xviii) and (xix) have been deleted. The conditions referred to exceedances for fuel oil usage in Package Boiler 2 (Source Code PK2). The conditions are no longer necessary because the facility will not burn fuel oil in this unit.

Condition 6.1.7.b(xxix) has been modified. The condition refers to the exceedance for the amount of fuel oil burned in the Waste Fuel Boiler (Source Code WF). The fuel oil allotment has been increased from 1.1 million gallons per year to 4.1 million gallons per year.

Condition 6.1.7.c(xviii) has been deleted. The condition referred to the excursion requirements for the modified Package Boiler (Source Code PK2). The boiler will not be modified; therefore the condition is no longer necessary.

Condition 6.1.7.d(iii) has been modified. The condition refers to fuel oil supplier certifications that the facility must obtain. Reference to Package Boiler 2 (Source Code PK2) has been removed from the condition because fuel oil will not be burned in the unit.

Conditions 6.2.55 through 6.2.57 have been deleted from the permit. The conditions referred to record keeping requirements for the burning of fuel oil in Package Boiler 2 (Source Code PK2). The conditions are no longer necessary.

VIII. Specific Requirements

A. Operational Flexibility

Not Applicable.

B. Alternative Requirements

Not Applicable.

C. Insignificant Activities

Not Applicable.

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

Condition 7.14.1 through 7.14.3 have been modified. The conditions require the facility to shut down the equipment to be decommissioned upon startup of the new and modified equipment. The conditions also clarify which conditions become effective upon startup of the new and modified equipment and directs the facility to comply with all applicable rules and regulations until units to be decommissioned are permanently shutdown. The conditions have been modified to clarify that Package Boiler 2 (Source Code PK2) is being removed from backup unit status, but that it will not be modified through the installation of oil burners.

Addendum to Narrative

The 30-day public review started on Wednesday, November 9, 2005 and ended on Friday, December 9, 2005. Comments were received from Annette White, Assistant Technical Manager/Environmental, Temple-Inland (Rome Linerboard Mill).

Comment 1 - Cover Page

Change the "for" line which currently reads "The transfer of the Package Boiler No. 2 fuel oil allotment to Waste Fuel Boiler WF" to read "The transfer of the Package Boiler PK2 fuel oil allotment to Waste Fuel Boiler WF." (This is intended to clarify that the fuel oil allotment for PK2 is being transferred, not a transfer of a No. 2 fuel oil allotment. As you know, our oil must be very low sulfur oil, but it is a recycled oil, not necessarily a virgin No. 2 oil.)

EPD Response: The change has been made as requested. Provided that the oil meets the specifications of 40 CFR 60.49b(r) of 40 CFR 60 Subpart Db the facility is in compliance with the applicable regulation.

Comment 2 - Cover Page, Last Paragraph, Line 2

Change ". . . on the attached 10, which pages are a part of this Permit Amendment . . ." to read ". . . on the attached 10 pages, which are a part of this Permit Amendment . . . "

EPD Response: The word "pages" has been added after the phrase "on the attached 10." The remainder of the language in the paragraph is part of the permit template and will not be changed.

Comment 3 – Page 1 of 10

Change Section 1.3 to read : This modification is for the transfer of the Package Boiler PK2 fuel oil allotment to Waste Fuel Boiler WF. (See explanation under Item 1 above.)

EPD Response: The change has been made as requested.

Comment 4 – Page 2 of 10, Section 3.4.29

Change to read: "The Permittee shall not cause, let, suffer, permit, or allow ~~the emissions~~, from Package Boiler 2, visible emissions, the opacity of which is equal to or greater than twenty (20)"

EPD Response: The punctuation has been added to the condition as requested. It does not change the meaning of the condition. The phrase "the emission" will not be deleted. The current language is consistent with the language found in Georgia Rule 391-3-1-.02(2)(d)(3). It should be noted that there was no "s" in the phrase "allow the emission" in the draft permit.