

INTERNATIONAL  PAPER

RIEGELWOOD MILL
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March 30, 1998

Mr. Terry Dover
North Carolina Department of
Environment and Natural Resources
Solid Waste Division
225 Green St.
Wachovia Bldg., Suite 601
Fayetteville, NC 28301

RECEIVED

MAR 31 1998

DIVISION OF WASTE MANAGEMENT
FAYETTEVILLE REGIONAL OFFICE

SUBJECT: Solid Waste Management Plan
Permit No. 24-02

Dear Mr. Dover:

Please find enclosed two (2) copies of International Paper's Riegelwood Mill Solid Waste Management Plan which you requested in your phone conversation with Patrick Wynne on March 24, 1998. Please note that the original plan was developed before the merger with International Paper and still depicts the name Federal Paper Board.

Also enclosed are two (2) copies of the revised Solid Waste Management Plan which is required every three (3) years.

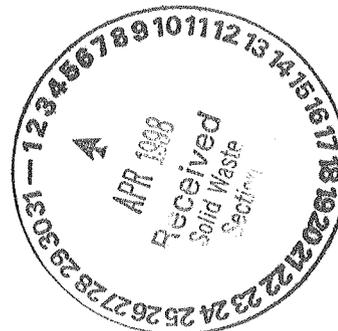
Should you have any questions or comments regarding this submittal, please contact Patrick at (910) 655-6662, or call me directly at (910) 655-6415.

Sincerely,

INTERNATIONAL PAPER
Riegelwood Mill


W. A. Soders

Manager, Environment, Health & Safety



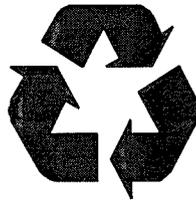
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DIVISION OF WASTE MANAGEMENT
FAYETTEVILLE REGIONAL OFFICE

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SOLID WASTE MANAGEMENT PLAN

INTERNATIONAL PAPER COMPANY
RIEGELWOOD MILL
RIEGELWOOD, NC. 28456

Issue Date: March 27, 1998

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I. RIEGELWOOD MILL SOLID WASTE MANAGEMENT PLAN

A. Riegelwood Mill Pollution Prevention Policy

The Riegelwood Mill is committed to maintaining a clean and safe environment by complying fully with all applicable laws and regulations and corporate environmental policies under the responsibility of the facility manager. In addition, the Riegelwood Mill will also strive to minimize adverse impacts to public health or the environment through the reduced generation of hazardous and industrial wastes, through voluntary recycling programs, and natural resource and energy conservation measures.

A Pollution Prevention Team will be maintained to ensure that incentives and encouragement are given to promote involvement of all employees in pollution prevention efforts. The Team will consist of employees representative of all mill areas. The purpose of the Team is to establish priorities and set reduction strategies for pollution prevention that are consistent with the mill goals for hazardous and solid waste generation, total energy consumption, and water conservation. The team will utilize all current programs to help develop reduction strategies such as the Storm Water Pollution Prevention Plan (SWPPP), the Spill Prevention Control and Countermeasure Plan (SPCC), the Wastewater Treatment System Best Management Plan (BMP), and the Environmental Manual.

The responsibility of complying with the plan lies with each employee at the Riegelwood Mill. Each employee should be aware of the plan and the pollution prevention goals established by International Paper and this facility. The ultimate responsibility of training employees, providing incentives for involvement, and assuring compliance with the plan rests with the department manager or supervisor.

The primary emphasis of this Plan is to reduce waste and prevent pollution at its source. Secondly, we promote sound recycling, reuse, and reclamation of all waste streams. By successfully preventing pollution at its source and through the use of sound secondary measures in handling our waste streams, we can achieve a cost savings; increase operational efficiencies, and maintain a safe and healthy work place for our employees. The waste minimization goals established in this plan will be revised each year to reflect changes in mill processes, policies and procedures and to demonstrate the Riegelwood Mill's commitment to the environment.

L. O. Grissom

B. Facility Description and Manager Approval

Facility Name:	Riegelwood Mill
Type of Facility:	Pulp & Paperboard
Facility Location:	John L. Riegel Road Riegelwood, NC 28456
Facility Owner:	International Paper Two Manhattanville Road Purchase, NY 10577

C. Pollution Prevention Team

The Pollution Prevention Team is an extension of the Solid Waste Minimization Team, first developed in January, 1997. Members of the team include the following Riegelwood Mill Employees:

<u>NAME</u>	<u>DEPARTMENT</u>	<u>NAME</u>	<u>DEPARTM ENT</u>
• B. Birch	Power & Recovery	• W. J. Leonard	PSD&E
• G. C. Davis	Maintenance	• J. M. Cooke	Technical
• W. S. Avant	Woodyard	• M. C. Medlock	Paper Mill
• R. Rabon	Storeroom	• J. L. Zuncich	EHS
• J. M. Floyd	Pulp Mill	• S. M. Najim	EHS
• R. R. Knowles	Engineering	• F. P. Wynne	EHS
• W. H. Huggins	Task Force	• D. B. Stevenson	EHS

The Pollution Prevention Team is made up of individuals in leadership capacities representing all departments in the mill. These individuals will participate in the ongoing and future efforts of pollution prevention at the mill site through *quarterly Pollution Prevention Team discussions* and the training of their respective departments in pollution prevention measures.

To maintain a proactive pollution prevention program for the facility, the pollution prevention team must champion the recycling and waste minimization efforts in each of their respective areas. To measure the effectiveness of the program, documentation of environmental performance will be made on an annual basis through a *Pollution Prevention Plan Annual Report*. This report will be distributed throughout the mill and a Solid Waste Management Report will be filed with the state annually. These efforts will support the Riegelwood Mill's Pollution Prevention Policy by enhancing awareness of environmental performance and creating a medium for active participation in the pollution prevention program by all mill employees.

D. Analysis of Recycling Efforts

The mill's recycling efforts for 1995 and 1996 are contained in Table 1. This analysis represents the first comprehensive compilation of the mill's recycling efforts to date. Some of the efforts made by the mill have yet to be quantified.

TABLE 1: Riegelwood Mill's Recycling Efforts

Material Recycled	Year 1995	Year 1996
Aluminum Cans (lbs.)	15,000	15,000
Scrap Metal (tons)	2,638	2,281
Used Oil (gal.)	11,000	14,000
Soap (tons per year)	24,219	16,600
Solvent for Parts Washers (lbs.)	12,826	25,079
Turpentine (tons per year)	1,653	1,550
Lights Containing Mercury (lbs.)	0	739
Concrete	unknown ¹	unknown
Lead-acid Batteries	unknown	unknown
Used Tires	unknown	unknown
Office Paper	unknown	unknown
Paper Cores, Wrappers, and Plugs	unknown	unknown
Wooden Pallets	unknown	unknown
Cable Reels	unknown	unknown
Cardboard	unknown	unknown
Scrap Tires	unknown	unknown

E. Pollution Prevention Goals

The mill's Solid Waste Minimization Goals (10-year Waste Management Plan) are found on the following page. Much of the reductions expected in the 10-year plan result from the beneficial use of certain wastes the mill generates (i.e. boiler ash, sludge, slaker grits, and dregs). In addition to these goals, other long term pollution prevention objectives are to:

Long Term Goals

- Become Elemental Chlorine-Free bleaching process by 11/98,
- Implement a beneficial use program to land apply slaker grits, lime mud dregs, sludge, and boiler ash,
- Eliminate hazardous waste generation to become a conditionally exempt small quantity generator by 12/98, and
- Become PCB-free by 12/98.

¹Quantity recycled has not been determined

Riegelwood Mill's Solid Waste Minimization Goals

10 Year Waste Management Plan

Solid Waste	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	% Reduction
	Actual	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	
Wood Ash	9172	4500	3500	3000	2500	2000	1500	1000	500	500	500	95%
Slaker Grits	3474	3400	1700	500	500	500	500	500	500	500	500	86%
Green Liquor Dregs	16215	16000	8000	500	500	500	500	500	500	500	500	97%
Process Sludge	114607	114000	80000	50000	45000	40000	35000	35000	35000	35000	35000	69%
Woodyard												
Logs/chips	5,318	5,300	5,300	5,300	2,659	2,659	2,659	2,659	2,659	2,659	2,659	50%
Bark	15,645	15,600	15,600	15,600	7,823	7,823	7,823	7,823	7,823	7,823	7,823	50%
Chips	5,692	5,690	5,690	5,690	2,846	2,846	2,846	2,846	2,846	2,846	2,846	50%
Wood	839	840	840	840	420	420	420	420	420	420	420	50%
Rejects, Sludge & Bio	426	426	426	426	426	426	426	426	426	426	426	0%
Dirt or Woodyd Ditch	6254	6254	6254	6254	6254	6254	6254	6254	6254	6254	6254	0%
General Trash												
8 yds. (compactor)	158	158	158	158	158	158	158	158	158	158	158	0%
40 yds. (landfill)	640	640	640	640	640	640	640	640	640	640	640	0%
Total*	178,440	172,808	128,108	88,908	69,725	64,225	58,725	58,225	57,725	57,725	57,725	68%

* The annual cycle for tracking Solid Waste is June 1 - May 31 of the following year.

II. WASTE STREAM IDENTIFICATION

A. Solid and Nonhazardous waste

Primary Sludge - This waste stream is composed of recovered solids from the process wastewater system. Pulp fibers, clays, starches and other solids are lost to area process sewers during operations at the paper machines, stock preparation and bleach plant areas. These process sewers flow into the mill sewer and eventually reach the No. 1 primary clarifier. The settled solids are put through a screw press for de-watering. As a waste minimization effort, the sludge is burned in the No. 2 and 5 boilers as fuel. The No. 2 clarifier receives waste from all other streams which include the liquor cycle, woodyard ditch, stripped condensate, etc. The No. 2 clarifier sludge is pumped to the sludge ponds for de-watering.

Boiler Ash - This waste stream is produced in the No. 2 and 5 boilers from the burning of wood waste. The ash is currently hauled to the landfill.

Caustic Plant Waste - This waste stream contains waste produced from the mill's chemical recovery process. The waste includes lime mud dregs, slaker grits, and lime kiln balls. Lime mud dregs and slaker grits have high lime content and are being considered as components along with ash for soil amendments. The lime balls, conversely, are difficult to return to a usable form such as kiln feed, so this stream is placed in the landfill. The lime ball stream is very small.

Pulp and Woodyard Waste - This waste stream is composed of screen room rejects, sawdust from digester filling and chip screening, waste wood from wood handling, scrap wood and lumber from maintenance operations, and bark from debarking. Sawdust and bark are placed on the bark pile for burning in the No. 2 and 5 power boilers. Sawdust and bark are used to cleanup small oil spills throughout the mill. Our air permit allows us to place sawdust and bark used for the cleanup of oil spills onto the bark pile to be burned in the No. 2 and 5 power boilers.

Waste Solvents From Parts Washers - This waste stream comes from maintenance shops. The mill substituted all solvents to nonhazardous solvents throughout the mill in 1995. A contractor (Safety-Kleen) collects, replaces and disposes of all solvents.

General Refuse, Paper Waste, and Miscellaneous - This waste stream consists of general office trash, garbage, and paper. The general office trash and garbage are being compacted and sent off site to a sanitary landfill.

Currently, recycling programs are in place for office paper, aluminum cans, cardboard, paper cores and wrappers, used lights containing mercury, and scrap metal. Contractors collect paper cores and wrappers which are ground and bailed for recycling. The bailed paper cores and wrappers as well as aluminum cans and scrap metal, are handled by Southern Metals Recycling. Safety-Kleen collects our used lights containing mercury for recycling². Wooden pallets are

²Recycling of cardboard and office paper started in January, 1997.

picked up by Bolivia Lumber Company for reuse and/or given to mill employees. In addition to these recycling efforts, lead-acid batteries, concrete from on-site construction and used tires are also recycled, though the specific quantities recycled annually are not known. In addition, liquid waste (used oil) is collected and sent off-site to be recycled at a used oil recycling facility (Noble Oil Company).

B. Hazardous Waste

All hazardous waste is collected in properly labeled drums in the mill hazardous waste storage building except for used lights containing mercury, which are collected in the fluorescent bulb room, and universal waste batteries (collected in the storeroom and outside the environmental lab). When the fluorescent bulb room or drums are full, they are collected by a local hazardous waste contractor (Safety-Kleen). The inventory of the mill storage area is recorded on a "Hazardous Waste Generation Inventory" sheet maintained in the EHS Department Office. This record includes waste type, generation date, shipping date, and the number of pounds shipped. Each shipment of hazardous waste has a hazardous waste manifest with the proper DOT description. All shipment records are maintained in the EHS Department Office. Data on each shipment is also entered into the corporate database (DATANET) for tracking of hazardous waste shipments. The following paragraphs are Riegelwood Mill's hazardous waste stream descriptions:

Paint Wastes - These waste streams are generated during routine painting of buildings and equipment by our paint contractors and the Maintenance Department. All paint wastes are shipped for disposal by our hazardous waste contractor (Safety-Kleen).

Waste Paints Containing Lead - Paint containing lead still exists in certain areas of the mill. This waste stream is generated as old equipment is removed. Paint chips removed are handled as hazardous waste and taken off-site (by Safety-Kleen) for proper disposal.

Aerosol Cans - Aerosol cans (such as air fresheners, DW-40, paint cans, etc.) are used throughout the mill for a variety of purposes. The mill punctures spent aerosol cans containing hazardous materials (to begin by April 15, 1998) using an Aerosolv aerosol can piercing system. The residual is treated as hazardous waste and sent off-site as hazardous waste while the punctured can is scrap metal, which is recycled.

Nickel Cadmium and Mercuric Oxide batteries - This stream consists of rechargeable batteries and button cells used throughout the mill which contain Nickel Cadmium and Mercuric Oxide. These batteries are collected throughout the mill (to begin by April 15, 1998) and are recycled/disposed of as universal waste.

Lead Babbit - This stream is made up of lead babbit used to maintain the chipper cutting knives at the cutting vault. This hazardous babbit will be replaced by a nonhazardous babbit by April 15, 1998. Waste lead babbit will be recycled by a metal recycler upon removal from the mill.

Used Lighting Elements - This stream is made up of used fluorescent tubes, mercury vapor lamps, high pressure sodium, metal halide lamps and incandescent bulbs from all over the mill. The bulbs are collected for recycling and disposal by a contractor (Safety-Kleen). The mill is currently substituting mercury fluorescent tubes with nonhazardous fluorescent tubes as replacement bulbs are needed.

Asbestos - This stream is composed of mostly insulation in the mill. Any severely damaged or friable asbestos insulation that cannot be contained is removed and disposed of by a qualified contractor. The asbestos is disposed of at our approved asbestos disposal site located adjacent to our landfill. This stream is being minimized with the replacement of insulation that does not contain asbestos.

Freon From Air Conditioners - This stream comes from the leakage of air conditioning units throughout the mill. The mill has freon recovery units to minimize this stream. The units are checked periodically for leaks. When leaks are detected the units are drained, repaired and refilled using the recovery unit.

PCBs - There is only 1 PCB capacitor left on-site which will be removed by December 31, 1998.