US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

WEYERHAEUSER COMPANY
FLINT RIVER OPERATIONS

PROJECT XL

FINAL PROJECT AGREEMENT (FPA)

1999 MID YEAR PROGRESS REPORT

(JANUARY 99 - JUNE 99)

FLINT RIVER OPERATIONS
PROJECT XL

1999 MID YEAR PROGRESS REPORT

(JANUARY 99 - JUNE 99)

OUTLINE

US EPA ARCHIVE DOCUMENT

I. Overview

- General Status
- Facility Compliance Status

II. Environmental Performance Update

- FPA Table Two
- FPA Table Three

III. Minimum Impact Manufacturing

- MIM Phase IV Implementation
- MIM Phase V Implementation

IV. Stakeholder Involvement

- Meetings
- Presentations
- Information Requests
- FPA Project Contacts Listing

V. Final Project Agreement Implementation

- Regulatory Actions
- FPA Section IX: Implementation Schedule

VI. Schedule

- Next Six Months
- Long Term Schedule
- Weyerhaeuser Contact Listing

- Glossary of Terms

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

FLINT RIVER OPERATIONS
PROJECT XL

1999 MID YEAR PROGRESS REPORT

(JANUARY 99 - JUNE 99)

I. OVERVIEW:

Note: The 1999 Mid Year FPA Tables Two and Three summarize the facility's actual environmental performance results versus the FPA superior environmental goals. The 1999 Mid Year Progress Report narrative provides detailed technical information describing the specific actions taken by the facility to achieve the superior environmental performance goals. Please refer to the "Glossary of Terms" for an explanation of abreviations.

General Status

The one remaining MIM Phase IV project, ISO 14001 EMS Implementation, is not yet complete, but progress has been made. Reorganization and staffing reductions to better compete in the highly competitive pulp and paper market has caused the environmental staff to focus mostly on immediate needs and requirements. Environmental excellence has been maintained at the facility while operating under the existing Flint River environmental management system. An ISO 14001 Guidance Document has been completed as a joint effort with corporate resources, Flint River and one other Weyerhaeuser manufacturing facility. This guidance document outlines the requirements, steps to take, and examples to implement an ISO 14001 EMS. Documentation of some environmental aspects has begun at the facility and more effort is planned during the next six months.

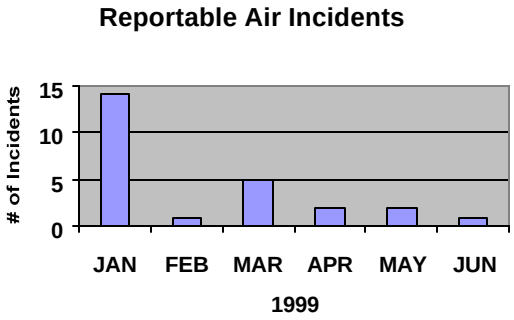
Steady progress is being made in MIM Phase V. The volume of solid waste to the landfill has remained about the same since showing a significant reduction in 1997, but composting trials have proven that a viable product can be produced. One business in Georgia has used the compost material produced as a trial by Weyerhaeuser for land reclamation and found it to be superior to other products they have tested from commercial sources. An energy conservation study was completed, and although no projects from this study have yet been implemented, other energy saving efforts for the past year have contributed towards a 25% reduction in the Power Boiler steaming rate. HAP's emission testing on plant sources has been completed and testing of the condensate streams was begun in June. Data collection will be completed very soon and will form the basis for drafting a site-specific MACT rule for the facility.

The Georgia Economic Developers Association has recognized Weyerhaeuser – Flint River Operations with an award in the 1999 Existing Industry Awards Program. The award, presented by Governor Barnes, was given in part for improvements that have moved Flint River toward the Weyerhaeuser vision of "Minimum Impact Manufacturing", operating to eliminate or reduce emissions and effluent to lower levels while improving product quality and reducing manufacturing costs.

Facility Compliance Status

Table Two of this report shows the water parameter results for the first six months of 1999 and the yearly historical results. BOD and AOX continue to track well below the enforceable limit. TSS has increased this first half of the year and appears to be over the limit, but the lbs/ADMT unit is not the same as used in the NPDES permit which uses lbs/day. TSS is not over the NPDES limit. Plant production has been lower than predicted during this period which drives the TSS number higher when calculated in this manner. Raw water usage is also higher than normal for the latest reporting period, but not greater than the current permit limit. The primary cause of increased water usage is a shift towards a higher percentage of production of a pulp grade that requires more water to manufacture. Effort is underway at the plant to implement a potential water conservation project that will make a significant reduction in the use of water.

In the last two Project XL updates a higher than normal number of reportable air permit incidents has been recorded. In the previous report it was stated that leadership in the plant was taking action by initiating plans to inventory the operational status of the environmental monitors and control equipment and make improvements where needed. This work went on through the month of January 1999 and in subsequent months, improvement was evident (see graph below).



Among the steps taken was an effort to review limits with operators and the Production Coordination staff. Some equipment was identified that needed additional maintenance. An environmental limits schematic was developed and installed on the operators distributed control system. Emphasis remains high in this area. Results are tracked by the operating teams and reported directly to the plant leadership during the monthly business review meetings.

II. ENVIRONMENTAL PERFORMANCE UPDATE:

One of the primary purposes of the FPA was to delineate the level of superior environmental performance that Flint River Operations would achieve under its MIM evolution strategy. These superior environmental performance targets were specified in Tables Two and Three of the FPA. The tables are updated in this report to reflect the facility's actual environmental performance through June 1999. The raw water usage has increased above the MIM Phase IV goal, primarily due to increased customer orders of a finished product grade the requires more water in the manufacturing process. The permit limit for water usage has not been exceeded. Water conservation projects are a priority in future reporting periods to offset this increase. Total Suspended Solids (TSS) appears to be higher than goal on a pounds per ton of finished product basis, however, within the NPDES permit pounds per day specification the limit has not been exceeded. The other parameters (BOD and AOX) in Table Two are well within limits. The small solid waste generation increase in Table Three is due to continued uneven Calciner reliability causing higher lime mud solid waste generation.

III. MINIMUM IMPACT MANUFACTURING:

MIM Phase IV Implementation

MIM Phase IV covers the construction and operation of several process technology improvements (Isothermal Cooking - Brownside Optimization, Odor Control Upgrade, Energy Steam Reductions) and the conversion of Flint River Operation's environmental management system (EMS) to conform to ISO 14001. All of these MIM Phase IV projects have been completed in a previous year with the exception of ISO 14001 EMS.

ISO 14001 EMS: This project requires a great deal of effort for environmental resources to document the significant environmental aspects and the supporting management structure. Due to the limited resources and the requirements of other mandatory programs such as the Cluster Rule and Risk Management Plans (RMP), only moderate progress has been made during this six months. The Guidance Document was completed with corporate resources, Flint River, and another Weyerhaeuser facility. The first of many environmental aspects has been documented and will serve as a model for succeeding efforts. Additional progress is anticipated in the remainder of 1999.

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

MIM Phase V Implementation

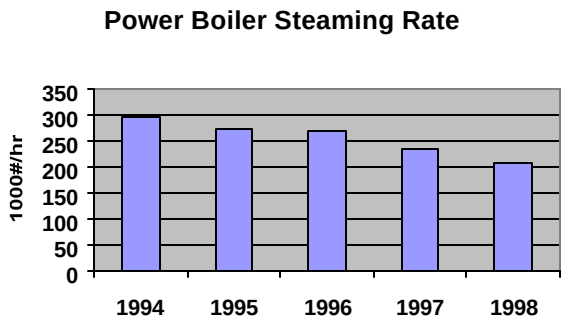
So far in 1999, MIM Phase V Feasibility Studies have continued in the following areas: Solid Waste Reductions, Energy Conservation, HAPs Emission Reductions and Water Use Reduction. The Timberlands Resource Strategies were fully implemented in 1997.

Solid Waste Reductions: For the first six months of 1999, solid waste performance has averaged 475 lbs/ADMT of production. This is an increase of 3% over 1998 performance of 461 lbs/ADMT of production. The increase is predominately due to additional lime mud caused by operational problems with the Calciner. The increase in lime mud offset continued progress in reducing Power Boiler flyash by approximately 200 tons or 6%, Screening Room "knots" by about 118 tons (27%), and recovery of 982 tons of Woodyard "sticks". Emphasis is being placed on maintaining centerlines of the Calcining and Recausticizing operations to reduce lime mud generation during the remainder of the year.

Composting: A draft of the composting feasibility report has been received from the University of Georgia and concludes the composting process results in a stable product that can be used in horticulture, agricultural and other soil blending applications. The economic evaluation of the composting process has begun and will be completed by the end of August. The compost has been used on a test plot for surface mine reclamation and has shown promising results. The China Clay Producers Association has requested an additional 450 tons of compost for an expanded field study. If the expanded study is successful and the economics are favorable, composting of process residuals would be commercially viable.

Land Application Feasibility Trials: The Weyerhaeuser study plan for application of compost and some process wastes on small test plots as forest and crop amendments continues. Due to the drought conditions experienced this spring, the pine seedling survivability survey has been conducted but growth measurements will not be performed until early next year. Use of lime mud as a lime substitute by the Macon County Extension Agent will be conducted this fall.

Energy Conservation: As reported in the last update, four energy conservation projects were completed that reduced steam usage nearly 36,000 lbs/hr. This is in addition to other steam conservation efforts. A "Steam Conservation" study was also completed during these past six months that identified several projects that have the potential to further reduce steam usage. The projects are not being actively pursued at this time because of poor Pulp and Paper market conditions and the resulting tightening of control over the use of capital money. Data from the past several years clearly indicate that steam usage has decreased and continues to do so through the first six months of 1999. (See graph below)



The expected benefit, as stated in the FPA, is a reduction in criteria air pollutants from reduced Power Boiler steaming rate.

HAP's Emissions Reduction: HAP's emissions testing conducted on the process sources subject to the MACT 1 rules shows the mill to be in compliance with the quantity of HAP's required to be collected under the MACT standards. This is a result of the digester, screening, and odor control systems modifications completed in 1996. Determination of the HAP's content of various condensate streams as required by the Cluster Rules

US EPA ARCHIVE DOCUMENT

will be completed in July with the results being reviewed with the USEPA and Georgia EPD in August. The MACT Compliance Plan will then be developed followed by the site specific rule.

Water Use Reduction: Despite efforts to reduce water usage throughout the plant, the amount of water used in the plant has increased. The higher brightness product grade that is manufactured at the plant has increased as a percentage of total production. This higher brightness grade requires the use of more water than what is needed for other grades. Several individuals in the plant are evaluating potential projects that would reduce water usage within the manufacturing process. One of the most promising is to increase the capacity of a white water pump that would prevent overflow from the white water chest. The white water that overflows to the sewer is replaced by new water at another location in the process. Following the annual maintenance shutdown in August, a detailed engineering review will be done to insure that no part of the process will be adversely affected by this change. Eliminating the overflow could potentially save 400,000 gallons of water per day. Other projects continue to be studied, such as; 1) sending bleaching stage E_0 filtrate to replenish water lost in the Woodyard log flume, and 2) collecting bearing cooling water from the Recovery Boiler and Power Boiler ID and FD fans and sending it to the Power Boiler Scrubber.

Bleach Plant Effluent Reductions: There have been no new events that alter the information presented in the last report. The initial feasibility study for this project has been completed. The study was done to determine the equipment required, effects on product quality and effluent, and estimated capital costs. Information gained from this study and other pertinent information will be reviewed with EPA and GA EPD in connection with the reissuance of the mill's NPDES permit. The company's initial assessment is that the project cost estimate now available exceeds the amount that would justify moving ahead with additional bleach plant effluent quantity reductions, given current pulp market conditions. Pulp purchasers in Europe have indicated very little interest in paying a higher price for pulp from a mill with a closed bleach plant. Pulp purchasers in North American have been even less interested. There still remains some additional testing for internal improvements in the Bleach Plant without the expenditure of major capital that may lead to a reduction of effluent.

IV. STAKEHOLDER INVOLVEMENT:

Weyerhaeuser Company openly communicates concerning the status of operation under the FPA, answering all questions and inquiries. On February 4, 1999 the second annual stakeholders meeting was held at the facility near Oglethorpe, Georgia. This meeting was open to the public and was advertised in area newspapers and courthouses. The feedback obtained from the meeting was very supportive of both the Project XL Program and Weyerhaeuser Company's environmental performance.

U.S. EPA has maintained an updated Project XL Internet page, which contains a copy of the approved FPA document and other associated information. This 1999 Mid Year Progress Report will be available on U.S. EPA's Project XL Internet page at http**://www.epa.gov/ProjectXL**.

The following is a listing of meetings and conferences that Weyerhaeuser personnel have attended and participated in to share information regarding the FPA and Project XL during the first half of 1999:

Presentation to a Georgia Tech Environmental Management Course
Included a discussion of Project XL
Participated in a Project XL cost/benefit review with EPA, stakeholder representatives and other XL participants in Washington, DC
Weyerhaeuser Environmental Audit Workshop
Presented program on Flint River Operations Project XL Experience & Minimum Impact Manufacturing

US EPA ARCHIVE DOCUMENT

V. FINAL PROJECT AGREEMENT IMPLEMENTATION:

Regulatory Actions

During the first half of 1999, the regulatory initiatives continue to be the development of the site specific rule for implementing the alternative compliance approach for the MACT I standard and the request for a minor modification to the solid waste handling permit. The modification to the solid waste permit was submitted to comply with the agreement in Section IX of the FPA. The modification to the water withdrawal permit is now expected during the year 2000, following implementation of water conservation projects.

FPA Section IX: Implementation Schedule

Progress against the implementation timelines outlined in FPA Section IX. - Implementing Project XL for Flint River Operations, is as follows:

Mechanisms That Are Enforceable:

WATER:	Items 1, 2, 3, 4, 5 - Completed in NPDES permit.
WATER USAGE:	Item 1 – No action has taken place with project at this time. The study to identify water reduction possibilities remains on the plant's technology plan for 1999. One specific project is in the final stage of evaluation.
SOLID WASTE:	Item 1 – Permit modification request submitted in late 1998. No action to date by Georgia EPD.
AIR:	Items 1, 2, 3, 4, 5, 6 - Completed in PSD air quality permit. Item 7 – In progress

Mechanisms That Are Not Enforceable:

ISO 14001 EMS:	Item 1 - Work in progress, expected completion in 2000.
WATER:	Item 1 - Following timelines per the original FPA.
SOLID WASTE:	Item 1 - Completed. Item 2 – Land application study in progress, results will be measured in late 1999. Composting trial completed, evaluating commercial agreement for land reclamation. Following timelines per the original FPA for 50% reduction.
HAZARDOUS WASTE:	Item 1 - Completed.
BLEACH PLANT:	Item 1 - Following timelines per the original FPA for 50% reduction.
ENERGY:	Item 1 – In-depth feasibility study completed. Item 2 - Following timelines per the original FPA.

VI. SCHEDULE:

Next Six Months

The key focus areas for continued successful implementation of the FPA over the next six months will be the following:

- Continue the effort to further reduce the number of air emissions that occurred in 1998.
- Identify and implement water conservation measures to achieve MIM Phase IV goal of 11.5 MGD.
- When water conservation measures support the MIM Phase IV goal, modify the water withdrawal permit.
- Evaluate the "Steam Conservation " study results and determine how much Power Boiler steaming rate reduction is possible before incurring operational problems.
- Complete the development of the MACT I site-specific rule for the facility.
- Implement the applicable Cluster Rule requirements according to timelines within the regulation.
- Further develop composting and its economic feasibility as a means to reduce Solid Waste.
- Make progress in the effort to convert Flint River Operation's EMS into ISO 14001 EMS in 1999.
- Define possible water reuse and reduction opportunities that would reduce Bleach Plant effluent flow.

Long Term Schedule

At this time, the long term schedule for MIM Phase V feasibility studies and the implementation of the agreed- upon regulatory flexibility are nearly on track with the original schedule outlined in the FPA. In addition to the Project XL FPA initiatives, other regulatory requirements to be implemented include the following: Cluster Rule Liquor Best Management Practices, Compliance Assurance Monitoring requirements and state issuance of the facility's Title V Air Permit. Additionally, we will continue our on-going dialogue with Stakeholders seeking their input on our facility's long term MIM Vision, including the Lake Blackshear Watershed Association, Macon County Local Emergency Planning Committee, Georgia Southwestern State University, representatives of local and state governments, and local neighbors and facility employees.

US EPA ARCHIVE DOCUMENT

Weyerhaeuser Project Contact Listing:

Please contact the below listed Weyerhaeuser individuals for more information regarding this FPA:

Mr. Gary Strandburg
Environmental Manager
Weyerhaeuser Company - Flint River Operations
Old Stage Coach Road
P.O. Box 238
Oglethorpe, Georgia 31068

Phone: (912) 472 5227
Fax: (912) 472 5508

Mr. Mark Johnson
Area Regulatory Affairs Manager
Weyerhaeuser Company
Environment, Health & Safety
115 Perimeter Center Place, Suite 495
Atlanta, Georgia 30346

Phone: (770) 396 8131
Fax: (770) 396 9331

Mr. Frank Wohrley
Environmental Engineer
Old Stage Coach Road
P.O. Box 238
Oglethorpe, Georgia 31068

Phone: (912) 472 5283
Fax: (912) 472 5508

Mr. Gary Risner
Federal Environmental Manager
Weyerhaeuser Company
1100 Connecticut Ave. NW Suite 530
Washington, DC 20036

Phone: (202) 293 7222
Fax: (202) 293 2955

Ms. Janet McRanie
Georgia Regional Communications Manager
Weyerhaeuser Company - Flint River Operations
Old Stage Coach Road
P.O. Box 238
Oglethorpe, Georgia 31068

Phone: (912) 472 5230
Fax: (912) 472 5462

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

GLOSSARY OF TERMS

ADMT	Air Dry Metric Ton - measure of the facility's finished product = 2,205 lbs
AOX	Adsorbable Organic Halide - measurement of the amount of chlorinated organic compounds.
BOD5	Biological Oxygen Demand - the amount of oxygen consumed in five days by biological processes breaking down organic matter.
COD	Chemical Oxygen Demand - the measure of oxygen required to oxidize all compounds in water, both organic and inorganic.
EMS	Environmental Management System
EPA	United States Environmental Protection Agency
EPD	Georgia Environmental Protection Division
FPA	Final Project Agreement
HAP	Hazardous Air Pollutant
ISO	International Standards Organization
NPDES	National Pollutant Discharge Elimination System
MIM	Minimum Impact Manufacturing - a holistic pollution prevention strategy to minimize the impact on the natural environment (air, soil, water).
MACT	Maximum Achievable Control Technology
ORP	Oxidation Reduction Potential
SO_2	Sulfur Dioxide
TRS	Total Reduced Sulfur
TSS	Total Suspended Solids - a measurement of the amount of suspended solids in an effluent water sample.
XL	eXcellence and Leadership

US EPA ARCHIVE DOCUMENT

1999 MIDYEAR ACTUALS FPA - TABLE TWO

FLINT RIVER BASELINE PERFORMANCE AND MIM IV GOALS TO BE INCLUDED IN ENFORCEABLE PERMITS

ENVIRONMENTAL PARAMETER [1]	BASELINE[2]	1996 ACTUAL	1997 ACTUAL	1998 ACTUAL	1999 ACTUAL YTD	FPA AGREEMENT MIM PHASE IV GOAL
Raw Water Usage (million gallons/day)	11.18	11.91	11.74	11.49	12.19	11.50
Effluent Discharged to Flint River						
BOD (lbs./ADMT)	4.32	3.52	3.01	2.13	2.74	3.80
TSS (lbs./ADMT)	4.65	3.58	3.13	2.80	4.22	4.09
AOX (kg./ADMT)	0.11	0.10	0.10	0.10	0.10	0.15

1 Applicable regulatory requirements are unaffected for all regulated environmental parameters that are not listed in Table Two.

2 Baseline conditions are derived from average monthly values for calendar 1993, 1994 and 1995.

US EPA ARCHIVE DOCUMENT

1999 MIDYEAR ACTUALS FPA - TABLE THREE

FLINT RIVER BASELINE PERFORMANCE AND MIM GOALS THAT WILL *NOT* BE INCLUDED IN ENFORCEABLE PERMITS

ENVIRONMENTAL PARAMETER	BASELINE	1996 ACTUAL	1997 ACTUAL	1998 ACTUAL	1999 ACTUAL YTD	FPA AGREEMENT MIM PHASE V GOAL
Solid Waste Generation (lbs/ADMT)	690	505	409	461	475	310
Hazardous Waste Generation	Small Qnty.Gen.	Small Qnty.Gen.	Conditionally Exempt SQG	Conditionally Exempt SQG	Conditionally Exempt SQG	Conditionally Exempt SQG
Bleach Plant Flow (m^3/ADMT)	20	20	20	20	20	10
Environmental Management System	Flint River EMS	Flint River EMS	Flint River EMS	Flint River EMS	Flint River EMS	ISO 14001
Energy Conservation				Feasibility Study in Progress	Evaluate Energy Reductions	To Be Determined after Feasibility Study