IP COLLABORATIVE TEAM XL -2 BMP PROJECT

MEETING NOTES

November 2, 2001

ATTENDEES: Sterling Pierce from DEP; Chris Rascher from EPA; Adriann van Heiningen, Joe Genco, Marquita Hill from UMO; Doug Barton from NCASI; Shiloh Ring from the Town of Jay; Tom Saviello, John Cronin, Ben Leber, Steve Groves, Tiffany Petrie, Mike Rowland from IP

The meeting began at approximately 10:10am with Ben reviewing the agenda for the day.

Introductions were made. Recent changes that have taken place at the Androscoggin Mill include the following:

- Doug Johnson has been named Manager, Pulp Group
- Mike Rowland has been named Manager, Technical Services

The group reviewed the status of the budget for the XL2 project. In summary, as of 11/2/01, approximately $427,000 of $780,000 has been spent or committed to the XL2 projects.

John reviewed the status of recent color and COD discharges from the mill effluent. The most recent data is provided below:

International Paper Androscoggin Mill				
Color XL2 Limit: 120 #/adtubp			***COD XL2 Limit: 50.7 kg/kkg***	
Date	Value (#/adtubp)		Date	Value (kg/kkg)
3Q01	77		Sept, 2001	29
2Q01	85		Aug, 2001	27
1Q01	104		July, 2001	26
4Q00	103		June, 2001	31
3Q00	96		May, 2001	31
2Q00	106		April, 2001	32

Ben reviewed the updated project schedule. Provided on the following page is the project list discussed.

Source	Potential Projects	Est. COD Red. (lb/yr)	Est. Cost ($000)	Comments
1."A" Knot Sluice Filtrate	use cyclone water divert & mill water	690,000	4	**Complete** 1999
2. "B" Knot Sluice Filtrate	pipe to process w/"B" screen trial	1,100,000	0	improved screen efficiency **Complete** March 2000
3. "A" Screenings Sluice Filt.***	replace with PM white water	2,060,000	15	Need bleach plant shutdown
4. "B" Screenings Sluice Filt.	use cyclone water	510,000	3	**Complete** 1999
5. "B" Cleaner Rejects	A. "B" screen upgrade - B. Timed dump cleaner for above	3,300,000 1,100,00	120 ***70***	**Complete** March 2000 **Complete** - September 2001
6. "B" Digester Heater Drains	pipe heater drains to SRV tank	** 32,000 see below	40	safety concern, Investigating Alts. with Pulp Operations
7. "A" Flash Steam Condenser	A. Flash tank liquor carry-over issue 1. upgrade flash tank 2. install separator demister B. Turpentine recovery *	2,100,000 4,200,000 <BOD>	 1 MM ***180*** 2.5 MM Est	Tie-ins complete - Scoping equipment - Evaluate after liquor separator
8. Power House Sump Drains	A. Install sump pump & diversion system B. Oxy sump conductivity /pump system	8,000	 35	Remove water from the Blimp Tank.
9. Knot/Screening Entrained * Filtrate	Knots/screenings press	160,000	300 - 400 Estimate	Pursuing other alternatives
10. Misc. Spills	Computerized sewer conductivity display (Related to mill 2001 Fiber Loss Effort)	minimal		Instrumentation / PI displays Install weir box in "B" Pulp General Developing detailed scope
11. Improved delignification *	O_2 Delig. operational improvements. A. Additional mixer B. Feed system improvements		 70 ***45***	Deligimprovements / peroxide? UMaine/GLV evaluation..... Nuclear Level Transmitter Quote recieved - resolving mounting issues.

12. Washing Improvements *	A. Diagonal Wash & Extract. Screens B. "B" Hot water pump u/g C. "A" Decker dilution balance D. Dandy Roll - Brown Stock Washer		140 140 25 70 100	**Complete** "B" Dig May - 01 **Complete** "A" Dig - Wash screens May - 01 **Complete** Jan - 01 Perform COD carry-over analysis. investigate
13. Sewered condensates	Evaluate lowering evaporator conductivity divert set-points.			Evaporator operational concerns

Tiffany Petrie provided a review of the recently completed millwide sewer survey. The survey consisted of collecting composite samples at various mill locations over a three day period. The tests completed consisted of the following:

- BOD (filtered and unfiltered)
- COD (filtered and unfiltered)
- color
- toxicity
- conductivity
- pH
- TSS
- TDS
- Photographs of select sewer sources

The sample points were for the most part the same as those completed during the previous survey with the exception that samples at the following locations were not collected and tested: woodrooms, SMI, recaust, landfill, ring debarker and groundwood. In addition, some new points were added that could be high loading sources. The survey will be discussed in greater detail, along with recommendations for future projects, at the next technical team meeting.

Joe provided a review of the Effluent Reduction by Process Closure course that he and Ben attended. Provided is a summary of the material:

The class was held in Ashville, NC on June 25 - 27, and was attended bt Joe Genco and Ben Leber. The focus of the class was on reductions in water usage and minimization of sewer losses and included a visit to a Blue Ridge Paper Company in Canton, NC. Considerations for closing a kraft mill incude:

Capital money
Effluent monitoring
Spill control methods (spill ponds, filtrate buffer tanks, etc.)
Extended delignification
Oxygen delignification
Effective brown stock washing
Segregation of non-process water

Provided is a summary table of wastewater charecteristics from the facility:

	Pre-Modernization	***After***
Flow	45 mgd	29 mgd
Color	115 kg/tonne of pulp	20 - 25 kg/tonne of pulp
BOD	1.6 kg/tonne of pulp	0.5 - 0.8 kg/tonne of pulp
AOX	NA	0.04 - 0.12 kg/tonne of pulp

Additional details of the course will be discussed at future meetings as necessary.

Adriann provided a review of possible modifications that could be completed to the oxygen delignification system that could decrease wastewater loading. Provided is a summary of the material:

A typical oxygen delignification system will perform the following:

Reduces effluent
Lowers BOD & COD
Lowers AOX
Lowers dioxin
Reduces landfill solids

The reductions acheived are in proportion to the reduction in the kappa number. The process variables that have on effect oxygen delignification include:

Time and temperature
Alkali charge and consistency
Oxygen charge
Viscosity protectors

Additional details of the presentation will be discussed at future meetings as necessary.

The group requested that both Doug Johnson and Jeff Pike attend the next technical team meeting. John will follow-up on this item.

The group discussed improving the communications efforts of this and other XL projects that have been successful. Steve Groves suggested that the EPA should look into ways to improve the communications efforts that have taken place since the XL program was initiated.

The next meeting dates were set as follows:

Technical team meeting:

- 10:00am on November 14, 2001 at the Augusta offices of the DEP. Sterling to schedule a room for the meeting.

Collaborative team meeting:

- The next meeting was not scheduled at this time. It will be scheduled after completion of the next technical team meeting.