

US EPA ARCHIVE DOCUMENT

# IP COLLABORATIVE TEAM XL -2 BMP PROJECT

## MEETING NOTES

April 18, 2001

**ATTENDEES:** Sterling Pierce from DEP, Chris Rascher, Joe Genco, Adriann van Heiningen from UMO, Curt Treadwell, Phil Sekerak, Rich Mason, John Cronin, Frank Card from IP, Shiloh Ring from Town of Jay, William Ball, Marc Hein, from Acheron

The meeting began at approximately 10:15 a.m.

Joe requested that a reminder of all upcoming meetings be sent to all team members approximately one month before any upcoming meetings. John will ensure this item is completed.

The group discussed presentations that take place as part of the meetings and the possibility that all files be provided to John in electronic format so that they can be included with mailings of the meeting minutes. The group generally like this idea and agreed to provide the information to John in electronic format.

Representatives from Acheron Environmental Laboratory attended the meeting and provided the team with a brief overview of WET testing. A summary of the presentation is provided below:

WET testing was initiated by the EPA several years ago and is one part of a three part test program. The three parts are as follows:

- Chemical specific testing (eg. BOD, metals, solids, etc.)
- Biomonitoring (Rockbaskets, or Macroinvertebrate testing - the placement of a (rock) basket on the bottom of a water stream to determine the health of the benthic substrate that attach to the rocks)
- Bioassay (WET testing, or toxicity - health of organisms in the water column)

In a WET test, dilutions are used of varying concentrations. For example, samples may be set up in ratios of receiving water/facility effluent as follows:

- 100/0; 75/25; 50/50; 25/75; 0/100

Acheron pointed out that organisms may not survive even in a sample of 100% receiving water as the organism is not acclimated to the environment. The two tests that are completed are the acute (48 hour) and chronic (21 - 25 days). Terminology that is often used when providing results are as follows:

- LC50 - concentration of a facility effluent at which 50% of the organisms die
- NOEC - No Observable Effect Concentration - concentration at which there is no observable effect on the sample organisms
- The chronic test is a measure of weight gain in the sample organisms

Items that could effect the WET test results include physical (suspended and dissolved solids, etc.) and toxic (organic, inorganic, metals, etc.) parameters. If the results of a WET test indicate a problem a TRE (toxic reduction evaluation) may be completed. A TRE is the method established for determining what the toxicant may be. Once the toxicant is identified, the WET test may be completed a second time to determine if any improvements have been made. The group agreed to both pH adjust and filter future toxicity samples.

Curt and Phil reviewed the status of the project list. Items 1, 2, 4 and 5 on the attached sheet have been completed. Curt was able to identify cost savings opportunities for item 3 which will lower the estimate from \$20k to \$15k. For the status of items 6 - 13, see the project status table.

Curt, Phil and Chris reviewed the project budget. The following is a summary of the discussion:

- Original budgeted amount: \$780,000
- Spent or Committed amount: \$171,000
- Remaining: \$609,000

Phil and Curt reviewed the status of the washing carryover project. COD test results are as follows:

Source	1/98 Results	1/01 Results	% Reduction
#1 Decker (A)	2,741	461	83%
#2 Decker (A)	3,890	537	86%
B Decker	5,315	1,431	73%

Joe reviewed the oxygen delignification system and opportunities that may exist for either improved performance and/or discharges. Joe provided the following list of items for the discussion:

- Installing a larger tower (for increased residence time)
- Increasing temperature
- Running at a higher pressure
- Improving mixing
- Reduce carryover

A specific recommendation made by GL&V (Bill Miller) was to increase temperature from a range of 180 - 184 degrees F to a range of 190 - 195 degrees F. The group agreed that these items should be discussed at the next technical team meeting.

John reviewed the calculations that have been used for determining COD and color discharges. The following are sample calculations and a summary of the discussion that took place on the subject.

Color = (daily effluent color) x (daily effluent flow) x 8.34 / (daily unbleached pulp production)

- A minimum of three samples are required per week
- All tests averaged at the end of each quarter

- Note that the above calculation is clearly defined in state regulations and in the state

Unlike color where the calculation is clearly defined in the licenses or regulations, there is no guidance for COD. Calculations that could be used include each of the following:

$\text{COD} = (\text{average daily effluent COD } \{\#/d\} \times \# \text{ of operating days in month}) / (\text{total monthly pulp production})$

or

$\text{COD} = (\text{average daily effluent COD } \{\#/d\} \times \# \text{ of days in month}) / (\text{total monthly pulp production})$

- Average daily effluent COD = daily conc. X daily flow x 8.34
- A minimum of one sample is tested per week
- Tests are averaged at the end of each month
- There is no production or mass based limit in the town or state regulations/ordinance or permits

Chris Rascher reviewed the XL project and status. Based on his comments, John will draft a memo to Chris in order to meet the requirements of the semi-annual update to the EPA. The memo will be available and reviewed at the next collaborative team meeting.

Adriann provided a summary of proposed new projects that could be added to the list. These projects included the following:

- Bleach Plant Projects:
- Optimizing O2 system
- Improved washing
- Installing Kappa number analyzers
- Downflow/Isothermal cooking
- Black Liquor Entrainment and Turpentine Recovery:
- Minimize black liquor carryover
- Turpentine recovery
- Evaporator Condensates:
- Condensate stripping
- Reverse osmosis on stripped condensates
- Screen Room and Miscellaneous
- Knots and screenings processing
- Sewer conductivity and flow monitoring

These projects will be reviewed at the next technical team meeting.

Chris and Phil reviewed the agenda for an upcoming course sponsored by TAPPI titled "Effluent Reductions by Process Closure". The group agreed to send at least one person. Phil Sekerak was selected as one individual that should attend.

**The next meeting dates were set as follows:**

**Technical team meeting:**

- Exact date TBD, however, it is tentatively scheduled to be on May 23. Chris will contact John to finalize the meeting location and if any changes are needed to the date.

**Collaborative team meeting:**

- June 13, 2001, 10:00am, International Paper Loon Conference Room "C", Environmental Building