

CASE STUDY

TREATMENT OF TOXIC LOADINGS FROM A PULP AND PAPER MILL THROUGH THE ADDITION OF BCP57

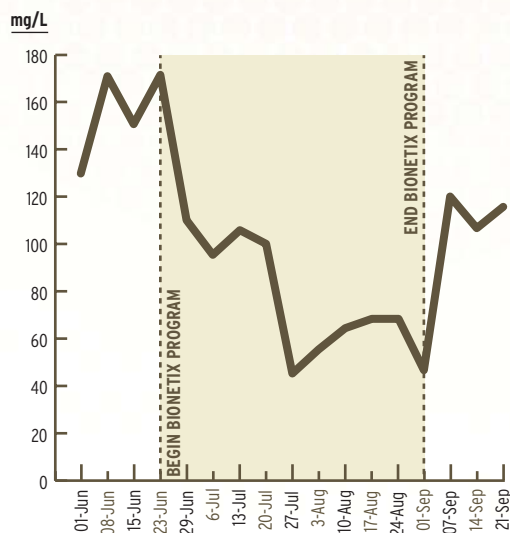
BACKGROUND

A Canadian pulp and paper mill was having problems due to toxic loadings in an already overloaded system. Among other problems, the plant was plagued with poor settle ability and high-suspended solids. The mill suffered from elevated TSS discharges throughout the year due to an overloaded ASB treatment system. This problem was more pronounced during the winter months when treatment efficiencies dropped off due to lower temperatures. As the summer wore on, they did not experience the improvement usually expected in the warmer period. Consequently, they researched biological treatment technologies and decided to proceed with the supplementation of the ASB with BCP57. This strategy was initiated to remain compliant with the regulated TSS limits while the existing treatment system was being physically upgraded.

TREATMENT

BCP57 was added initially in dry powdered form on June 23rd and continued with a daily maintenance dose until September 1st. The product was added directly to the lagoon system without the use of a pre-acclimatization device. Supplier and consultants advised that the benefits of the augmentation would be realized within 3-4 weeks. A noticeable improvement was observed by July 26th and this continued for the duration of the augmentation program with the occasional spike of TSS, the causes of which were undermined. The supplementation was not continued after September 1st due to the pending startup of the upgraded effluent system, although it appears that the trend for TSS discharges was moving back up just prior to the new basins coming on line September 21st.

TSS DISCHARGES



DISCUSSION

The addition of BCP57 to the lagoon system in a pulp and paper mill was effective in increasing the efficiency of an overloaded system. It reduced the BOD and TSS in the effluent and accelerated the degradation of unpleasant odors associated with handling pulp and paper wastes.

The owners of the pulp and paper mill summarized the situation as follows:

"We believe it is fair to say that the BIONETIX™ was a beneficial short-term solution for our mill in lowering TSS discharges until the commissioning of the newly expanded treatment system. We thank you for your assistance in helping us to initiate a successful strategy in response to a significant environmental issue."