



Customer:

An Oriented Strand Board (OSB) mill located in the Southeast United States was incurring high costs associated with maintenance and inefficient operations of their wastewater treatment system

Project:

Implement outsourced operations and CleanWESP™ wastewater treatment program to optimize performance of wastewater treatment system and provide a Total Water Management program for extending process equipment life.

Highlights:

- Lack of operational expertise and operation time lead to inefficient water treatment, process equipment failure, and reduced production time
- ProChem Inc.'s operations and chemical treatment program results in increased board production time due to decreased planned and unplanned maintenance
- Minimize effluent TSS/TDS preventing erosion and corrosion damage
- Allow Facility's management to focus on their core business



Outsourcing Wastewater Treatment Operations Reduces Maintenance Costs and Increases Production Run Time

THE CLIENT'S CHALLENGE

An oriented strand board (OSB) mill located in the Southeast United States was staffing their wastewater treatment system (WWT) internally with a full-time employee. Due to a lack of water treatment expertise, the treatment system only ran 25% of the available operational time (12 hours per week). No documentation of system operations (SOP's) existed, and, when upsets occurred, analysis / corrective actions were not documented or implemented. These conditions lead to numerous issues:

- Utilization of up to three times the necessary chemical causing waste and upsets
- Reduced pump and equipment life including belt replacements greater than \$100,000/year
- Significant damage to the emission control systems
- High off-site hauling costs due to improper operation of WWT system
- Serious corrosion and erosion of expensive emission control equipment

THE PROCHEM SOLUTION

ProChem Inc. provides experienced wastewater treatment experts for wastewater treatment operations to the customer 12 hours per day 7 days a week. Through our Total Water Management strategy, we worked with the facility to develop a continuous improvement strategy beginning with the optimization of the chemical treatment program in order to minimize Total Suspended Solids (TSS) and Total Dissolved Solids (TDS) in the system effluent. This strategy prevents solids accumulation on the emission control equipment and eliminating erosion. ProChem Inc. provides ongoing updates to the operating procedures for the WWT system to ensure optimal operations, documented system metrics and water quality measurements. Daily, weekly and monthly reports of system conditions are provided to facility management in an effort to communicate system performance, issues identified / resolved and to facilitate future improvement strategies.

THE WIN

- Minimize planned downtime for the Wet Electrostatic Precipitator (WESP) / Regenerative Thermal Oxidizer (RTO) cleaning
- Eliminate unplanned downtime of the entire water recirculation system
- Increase board production time by 5%
- Decrease WESP maintenance costs by more than 50% by eliminating hydro-blasting
- Eliminate equipment erosion as a result of poor solids management
- Projected two times extension of RTO media life and associated cost reduction
- Reports detailing system conditions and trending data provide the facility management team the necessary information to make informed decisions