

RECORDED BENEFITS

- Reduced Larson-Skold Index from 4 to below 1
- Significantly reduced mild steel corrosion
- Significantly reduced MB levels and biomass
- Improved workplace safety

Aluminium Facility Reduces Biofilm and Corrosion in Process Cooling System

ClearPointSM Biofilm Detection and Control Program

Customer Challenge

A North American aluminium facility had high microbiological (MB) demand in its foundry water supply, which impeded the effectiveness of its ClO₂ control program. Corrosion rates increased due to rising chlorides and ClO₂ off-gassing in critical process equipment. Significant algae and slime growth occurred in the cooling tower. As a result, the plant had significant challenges with water quality and screen blockages.

Recommended Solution

Solenis recommended replacing the ClO₂ system with ClearPointSM biofilm detection and control program. Comprised of three components—OnGuardTM 3B analyzer, BiosperseTM CX3195 chlorine stabilizer, and Solenis' superior service—the ClearPoint program offers real-time biofouling measurements and automatically adjusts the CX3195 feed rates to ensure program control 24/7.

Results Achieved

The ClearPoint program provided significant benefits that were measurable and quantifiable as follows:

- Improved specificity and reactivity for microorganisms, significantly reducing MB levels as measured by ATP and bug counts
- Reduced bleach consumption and eliminated sulphuric acid use
- Improved workplace safety due to the elimination of chlorite handling and storage and potential ClO₂ gas concerns
- Reduced Larson-Skold Index from 4 to below 1, significantly reducing mild steel corrosion (from 20 mpy to less than 2 mpy)

Eliminated Algae in Cooling Tower



Pretrial



During Trial

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