Novel Cooling Tower Treatment Program Reduces Chlorinated Halogens

ClearPoint™ Biofilm Detection and Control Program

Customer Challenge
A food additives producer in Western Europe was searching for an efficient microbiological (MB) control program to address biofilm and Legionella in their cooling tower. The key objectives were to reduce chlorinated halogen formation (AOX, THM etc.), maintain internal and regulatory compliance, while achieving equal or better MB control and corrosion control.

Recommended Solution
Solenis installed a ClearPoint™ biofilm detection and control program comprised of an OnGuard™ 3B analyzer, a patented MB chemistry, Biosperse™ NT1901 chlorine stabilizer, and Solenis’ superior service. ClearPoint detects and measures real-time biofouling and corrosion and automatically adjusts chemical feed as required. MB activity can be reduced significantly without the adverse side effects associated with strong oxidizing biocides.

Results Achieved
The ClearPoint program maintained low total bacterial counts and no Legionella while significantly reducing the formation of chlorinated halogens, enabling internal and regulatory compliance. ORP levels stabilized and dropped from over 550mV to 400mV and copper corrosion rates were reduced. Overall bleach consumption was lowered by 50%, reducing the generation of environmentally harmful disinfection by-products.

Lower ORP and Corresponding Reduced Corrosion

Reduced chlorinated halogens formation
Lower ORP levels and reduced corrosion rates
No biofilm growth, no Legionella
Significantly reduced bleach consumption