CASE STUDY

Energy Facility Reduces Biocide Treatment Costs with ChemTreat's SurfClean™ 2.0

Background

A large energy facility in South Carolina required biweekly bleach deliveries to maintain bacteria counts below the system target for their 2.2-million-gallon cooling tower system.

The deliveries cost approximately $12,000 each, and the bleach program incurred additional equipment repair and maintenance costs, so the facility was looking for a more cost-effective alternative.

Solution

The local ChemTreat team recommended our SurfClean 2.0 technology to supplement bleach treatment through a custom feed setup.

By monitoring residuals and adjusting feed times and frequency, ChemTreat helped the plant refine the treatment program to reduce chemical usage while maintaining bacteria counts below the system target.

Sessile and planktonic bacteria counts were monitored throughout the process to ensure the treatment was meeting the facility's needs.

Results

The combination of SurfClean and bleach yielded the following benefits for the facility:

- 67% reduction in bleach usage, from approximately 400 to 130 gallons/day.
- Over $100k in annual cost savings.
- 33% reduction in the system's chloride concentration, lowering corrosion potential.
- Sessile and planktonic bacteria populations maintained below the system target of $\leq 10^4$ CFU/mL.
- Replacement of a bleach pump with an eductor feed system is expected to reduce downtime for equipment repair and maintenance costs.

Pleased with the results, the facility has continued using SurfClean treatment in their cooling system.

Results are examples only. They are not guaranteed. Actual results may vary.

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