Case History
0-36

CL3000

Simplifies Chlorine Dioxide Application While Delivering Excellent Results

Background

There are many unique capabilities of chlorine dioxide (ClO_2) as a cooling water biocide. A few of the benefits include:

- Fast acting
- Efficacy is independent of pH
- Penetrates slime masses
- Effective at low residual concentration
- Less corrosive than other halogens
- Does not degrade other water treatment chemistries
- Does not form THMs
- No built up resistance to "kill" mechanism
- Testable residuals

In the past, chlorine dioxide was limited to larger applications where plant personnel were able to purchase and maintain a ClO_2 generator. In most cases, use of a generator required the feed of 2 to 3 chemicals, and routine maintenance was required. While this is often the most cost-effective approach, it carries a host of challenges should the plant choose to manage the process on their own.

Solution

ChemTreat's CL3000 simplifies the application of chlorine dioxide because it eliminates the need for on-site chemical mixing. This product is a solution of chlorine dioxide in ultrapure water. CL3000 has found a niche in both open and closed cooling water systems. Additionally, CL3000 provides excellent biocontrol in some contaminated cooling tower systems where traditional bleach/bromide technology has failed.

A field rep in Ohio has been using CL3000 in a closed 90,000-gallon weld water cooling system. Previously, everything in the biocide arsenal was tried with little success. Biocounts remained high and the plant was having operational problems with plugging and under deposit corrosion. The addition of CL3000 has significantly reduced biocounts and has improved the plant operational reliability.

CL3000 has also found success in open recirculating cooling water systems. A system in Iowa was having problems in a cooling tower at a food processing plant. Emulsified soybean oil was continuously contaminating the recirculating cooling water. The plant was feeding up to 60 gallons per day of bleach. Every summer the plant experienced significant bio growth in the tower and the system had to be shut down in order to clean the process condensers. Since the use of CL3000, the plant has made it through the entire summer without having to clean the towers or the condensers.

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