

FlexPro® Improves Corrosion and Deposition in Hydrostatic Cookers

Background

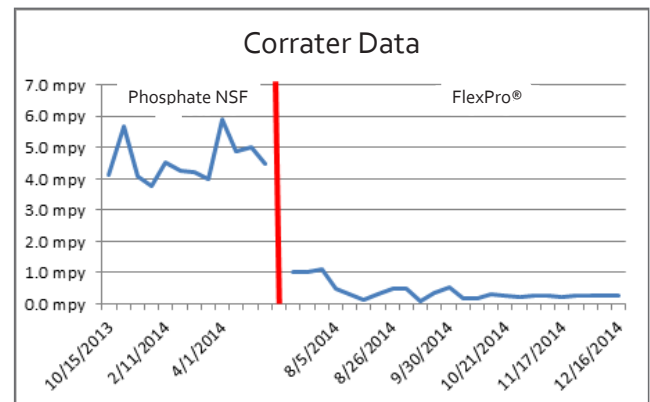
A Midwestern food plant treated its hydrostatic cooker with a phosphate NSF-based program. This program performed acceptably against corrosion, but marginally against deposition. A potable treatment was required since the treated water was recycled. The goal was to provide a non-depositing treatment to reduce phosphate loading and meet corrosion rate requirements.

Solution

The plant conducted an 180-day evaluation using ChemTreat's FlexPro® phosphorus-free treatment on a single cooker. The non-phosphorus treatment alternative allowed the effluent discharged to the river to comply with discharge permit requirements.

Results

The customer's target corrosion rate on mild steel was <2.0. Coupons (30- and 90-day) and a corrater probe were used to monitor corrosion rates. After FlexPro® treatment was applied, the corrator corrosion rates were routinely <0.5 #mpy. Deposition within the system was also greatly reduced throughout the trial, as observed during a routine cleaning.



16 Stork - Corrater Tips - 05/20/14
Treated with phosphate NSF
in system for 60 days;
tips show corrosion and
deposition



16 Stork - Corrater - 01/20/15
Treated with FlexPro®
in system for 180 days
(still in system);
tips show minimal corrosion
and no deposition