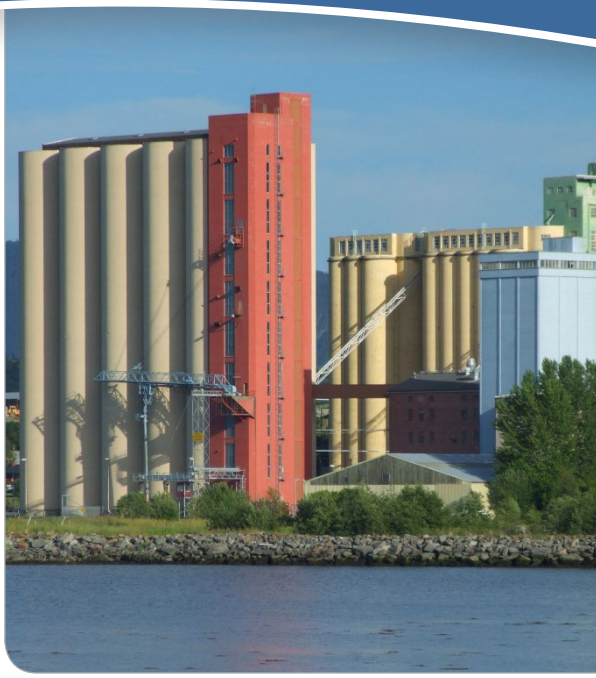
Case History
#10-010

Food Plant Condensate System Protected with ChemTreat BL1562 Non-amine Condensate Inhibitor



Background

In an effort to improve steam quality and corrosion protection, an evaluation of ChemTreat BL1562 was initiated at a Texas food plant.

Problem

Steam at the food plant is used in food preparation processes and comes into direct contact with food products. The plant had been using a FDA approved competitive non-amine filming program. The competitive program was poorly maintained, which led to boiler carryover, resulting in steam contamination and steam quality issues. The plant was also experiencing increased maintenance expense related to unacceptably high mild-steel corrosion.
Iron levels in the condensate were as high as 5 ppm with the color of the condensate orange to brown. Millipore filter testing showed large amounts of iron-based precipitation.

Solution

ChemTreat BL1562 was put online and feed rates were gradually raised to 35 ppm. Favorable results began appearing a short time later as the treatment distributed itself through the system. With the BL1562 program, iron levels initially increased as loose iron was being pulled off the insides of condensate lines. However, iron levels were ultimately reduced to < 0.5 ppm as corrosion was brought under control. Also, steam quality improved as the boiler carryover issues were eliminated.
All of this was made possible through the use of a direct test method for BL1562.

Figure 1: Millipore filter test results before BL1562

Figure 2: Millipore filter test results after BL1562

Benefits:

- Improved steam quality
- Elimination of carry-over contamination
- Lower maintenance expenses
- Lower corrosion rates
- Direct testing for BL1562
- Clean, clear steam condensate

ChemTreat®