

Idaho Department of Corrections: Domestic Hot Water Treatment



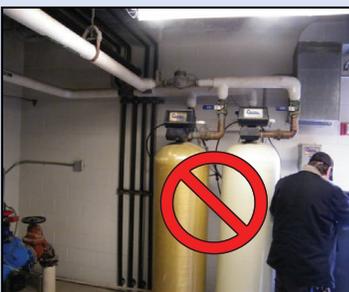
Domestic Hot Water
Scale prevention



IDOC had significant
scaling issues



Simple clamp-on installation
does not require plumbing
modifications or shutdown



By replacing water softeners,
Flow-Tech reduces the burden
on wastewater treatment plants,
prevents sodium and chloride
contamination, and reduces
wasted water

Issue: Boiler Fouling and Scale
Installation: January 2014
Benefits: Eliminated water softener, reduced chlorides, eliminated security risk from salt deliveries, reduced labor, and reduced cost

Idaho Department of Corrections operates a correctional facility in Kuna, ID. The complex has 22 buildings and is supplied by well water that is nearly 25 grains hard. In September of 2013 IDOC installed two Flow-Tech water treatment systems in two of the buildings to evaluate Flow-Tech's efficacy. They were interested in eliminating their water softeners and reducing the maintenance related to hard water issues.

In order to perform a thorough side-by-side evaluation, the test was performed on a wing of the complex where there were two identical housing units next to each other. A Flow-Tech water treatment system was installed on the #15 unit, and the #16 unit continued to operate with a water softener and acted as the control. The water softener in #15 was placed on bypass. The boiler, shower heads, faucets and mixers were all cleaned and free of scale.

Results

A thorough evaluation was performed after 4.5 months of operating the Flow-Tech water treatment system. The boiler proved to be free of scale, and the faucets, showers, and mixers that would normally require cleaning by this time were completely free of any build-up. In fact, the mixers in the #16 control unit required servicing as they were entirely scaled up.

The second Flow-Tech unit also achieved positive results, and IDOC implemented Flow-Tech as the new standard for water treatment not only at this facility but at all of the facilities that they oversee. The return on investment was very short due to the elimination of labor related to maintaining the water softener and cleaning the fixtures. Discontinuing salt deliveries removed a known security risk, and the reduction of sodium and chloride going to the sewer reduced the burden on their wastewater treatment plant.

WITHOUT FLOW-TECH



WITH FLOW-TECH



Flow-Tech provides treatment with a propagating signal
that can be measured throughout the system