



INDUSTRIAL LAUNDRY

By Removing and Controlling Boiler Scale, A Custom Garratt-Callahan Program Cuts Fuel Costs by 20 Percent

Problem

An industrial laundry in the southeast had two natural gas-powered 500-hp boilers running full-time in its steam plant, and both were troubled with severe mineral deposition on the heat exchange surfaces. The boiler scale, as much as 1/16-inch thick in places, was not only limiting the boilers' efficiency and driving up fuel costs – it was also jeopardizing the integrity of the boiler tubes and greatly increasing the risk of under-deposit corrosion.

Solution

A Garratt-Callahan field engineer recommended the immediate installation of a water softener and began an on-line scale removal program using Garratt-Callahan's Polymer PLUS dispersants, sequestrants and sludge conditioners.

Results

The results were evident just three months after the Garratt-Callahan treatment program began, when the plant maintenance team removed 30 gallons of loose scale from each boiler. After another three months, they removed twice that much. Meanwhile, the boiler stack temperature began trending downward, and was down by 20 degrees after 6 months and 50 degrees after one year. Fuel consumption per 1,000 pounds of steam generated went down by 20 percent – an \$8,000 annual savings in fuel costs alone over the year since the treatment program started. Additional savings will result from the labor saved by not needing to remove more deposits.

Conclusion

By descaling boilers with the right water treatment program, steam plant managers can cut fuel costs substantially. By *controlling* scale with the same kind of program, they can ensure the long life of their equipment.

Garratt-Callahan: Water treatment that saves money and protects equipment at the same time.