

REGIONAL MEDICAL CENTER

A local hospital was having issues keeping their operating rooms at an adequate temperature for doctors and patients. The source of the problem was water scale deposits which had accumulated within the condenser tubes of one of the wing's dedicated chillers. It had been operating without issue throughout the spring months, but once temperatures began to increase the 1,200 ton unit began struggling. A team of service personnel were brought in to clean the tubes in order to prevent the issue escalating to critical. The unit had to be shut down and the condenser was opened to mechanically brush inside of the tubes and remove the scale deposits.

Although successful at reducing its condition from near critical, brushing did not remove all of the scale deposits from the chillers enhanced tubes. Those that remained would cause similar effects of that of arterial plaque and the tubes would be susceptible to further scale accumulation at an increased rate. At this point, the condenser water change in temperature (leaving water temperature - entering water temperature) had only achieved 4.5°F ΔT out of the OEM design of 10°F ΔT .

The remaining scale deposits were trapped in the enhancements of the condenser tubes. Safe, biodegradable **RYDLYME** descaler was circulated at a low concentration to remove the scale deposits quickly, easily and completely. The **RYDLYME** cleaning was performed within 7 hours and the unit brought back to life. The condenser was opened once more after cleaning for a final, validated inspection. Condenser water ΔT after **RYDLYME** was able to achieve OEM design specifications of 10°F ΔT . The cost of **RYDLYME** was recuperated in less than three weeks of operation as the total energy savings for the year was more than \$75,000!



CHALLENGE

A 1200 ton chiller system unable to keep up with the summer heat within a large medical center.

SOLUTION

After mechanical brushing failed to achieve complete tube cleaning, 300 gallons of **RYDLYME** was circulated for 7 hours.

RESULTS

Condenser water ΔT was restored to OEM design specifications and tubes were verified to be completely free of scale deposits. Over \$75,000 in annual energy savings!