CASE STUDY

Unleashing the Power of Automation: How this Healthcare Facility Upgraded its Cooling Tower Control System and Saved $8000 Per Year

CHALLENGES

This Healthcare Facility relied on an analog cooling tower control system with no real-time conductivity and minimal calibration ability. Cooling water treatment chemicals were added continuously, without automatic adjustment for variable heat load. Biocide was added manually with a pre-set timer limiting the effectiveness of biological control.

SOLUTIONS

All three control panels were replaced with a web-capable controller platform with fully automated chemical addition, real-time readouts, data logging of makeup, conductivity, and inhibitor levels, and remote alarming. After upgrading the equipment, this facility switched to a more efficient chemical, AQUAGUARD 508, and adopted alternating biocides with different dose rates for improved biological control.

RESULTS

Reduced Chemical Usage

New improved chemistry, stability and control, resulted in reduced chemical usage, substantial cost savings, and better biological control.

Breakeven ROI in only 10 Months

Equipment upgrades and water treatment program changes resulted in significant reduction of chemical use and $8000 in annual program savings.

- Scale and corrosion inhibitor volume reduced by 80%
- Biocide volume reduced by 45%
- Water treatment chemical operating cost reduced by 55%

AT A GLANCE

A healthcare facility improved its cooling tower efficiency by upgrading to a fully automated control system. This change resulted in an annual cost savings of $8000. The change improved water treatment efficiency, reduced chemical consumption, and improved biological control.

KEY METRICS

Upgrades resulted in 80% reduction in cooling water chemical use and 55% reduction in biocide.

55% DROP
IN CHEMICAL OPERATING COSTS

$8000
ANNUAL SAVINGS

10 MONTHS
BREAKEVEN ROI

CASE STUDY

GUARDIAN CHEMICALS INC.

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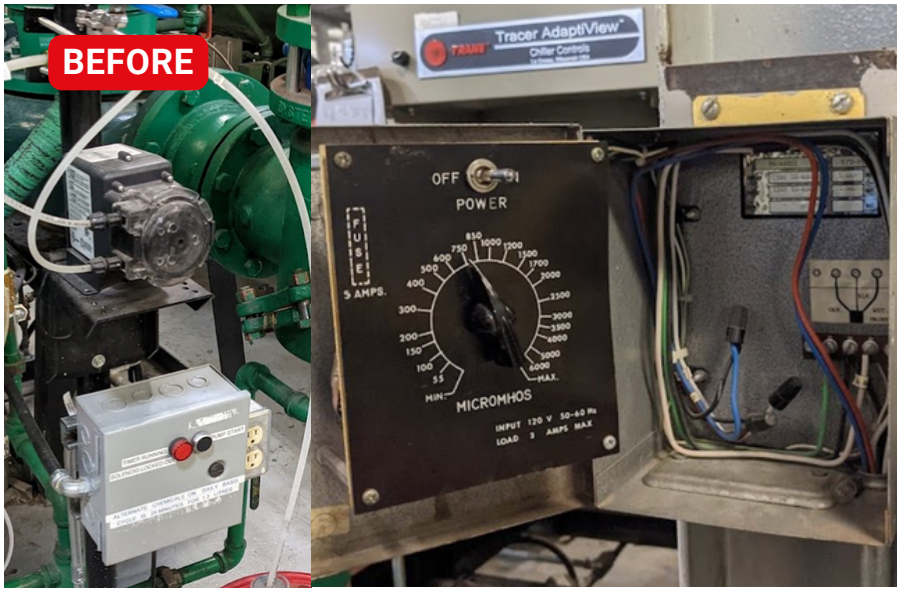
DATA



Old analog cooling tower control system with no ability to automate addition of chemical treatment. This resulted in continuous dosing of water treatment chemicals. Without control, more efficient chemistries could not be used due to excessive consumption.

New web-enabled cooling tower system controller improved control of cooling tower operation and dosing of chemical treatment. Controlled dosing allowed for a more efficient water treatment chemical to be used (AQUAGUARD 508). Equipment and chemical upgrades resulted in cost savings and reduced chemical use.