

ALBERTA HOSPITAL COOLING SYSTEM CURBS ENERGY COSTS

PROBLEM

Fouling from both internal and external forces reduced the efficiency of the cooling system at the 600-bed University of Alberta Hospital site in Canada.



Manufacturer's data for the coils connected to this system documents an increase in overall system energy consumption by 7% for a fouling factor of only .001.

The efficiency of any cooling system can be increased by controlling the fouling of solids. As the largest user in a district cooling system, the hospital receives water which travels through more than two kilometers of piping from the central location, gathering deposits of scale and other particles from all areas and buildings on the system. Even in this closed-loop system, the piping was becoming sufficiently obstructed to significantly impact energy consumption, demanding an effective filtration solution.

SOLUTION

To clean up the piping systems serving the hospital, LAKOS Separators with Closed Recovery Systems were installed in a side-stream application on both chilled water systems. With flow ranging from 480-880 US GPM (110-200 m³/h) depending on the season (the system operates in two distinct modes), the separators are removing significant amounts of solids, with marked gains in energy efficiency. Independent testing identified removed solids ranging in size from 2 to 630 micron.

OUTCOMES

With the installation of the LAKOS system, Manager Doug Dunn estimates an 8% reduction in energy costs, saving the facility \$20,000 annually:

- Promoting **zero liquid loss & easy disposal** of solids
- **Reduced wear and maintenance** to pumps
- **Accelerated performance** with new LAKOS Separators

Adding a LAKOS system costs less than you think

To get one customized to your needs, contact your local representative