

# MONOCHLORAMINE SYSTEM STOPS *LEGIONELLA* OUTBREAK AT REGIONAL HOSPITAL



## PROBLEM

A regional hospital in the Western United States, with over 400 beds, suddenly experienced suspected cases of Legionnaires' Disease among their patient population. Legionnaires' Disease is a pneumonia caused by a species of *Legionella* bacteria. It typically spreads through mists and aerosols created by water-cooled air-conditioning systems, decorative water features or domestic water systems. A water analysis conducted in the facility confirmed the presence of *Legionella* in the facilities' potable water systems and patient testing confirmed four cases of the disease.

## SOLUTION

Kurita America responded immediately to the hospital's request to assess the situation and help develop solutions to protect the patients and staff. Following the Centers for Disease Control's (CDC) Legionellosis Outbreak Protocol, the Kurita America team collected samples from the water systems throughout the facility.

After conducting an in-depth evaluation and analysis, Kurita America recommended the facility install point-of-use filters on all fixtures in patient care areas as soon as possible. The team assisted the hospital's engineering staff in identifying the types and quantity of fixtures that would require filters. Materials were shipped overnight and installed the same day by Kurita America - saving valuable time while assuring the protection of their patients and staff.

The results of the water samples indicated extensive *Legionella* colonization in the hospital potable hot water systems. Because these systems continuously recirculate and only introduce make-up or incoming water from the local municipality when required, the initial disinfectant residual is quickly depleted. Additionally, due to very low water usage at night in healthcare facilities, any remaining disinfectant in the incoming water is typically at ineffective levels by morning, creating favorable conditions for bacterial growth.

In addition to the point-of-use filters, Kurita America recommended using a monochloramine-based solution, which has been identified by the Environmental Protection Agency (EPA) as the most stable EPA-listed disinfectant for the control of *Legionella* in potable water. Kurita America selected Sanipur's SANIKILL® monochloramine system, which has been widely recognized as one of the best technologies available for healthcare facilities.

## RESULTS

Kurita America's recommended treatment program has maintained a consistent monochloramine residual in the hospital's hot water systems since startup - providing continual protection to the patients and staff. All water analyses performed following the implementation of Kurita America's program have resulted in non-detectable levels of *Legionella*. Since then, there have been no suspected or confirmed cases of hospital-acquired Legionnaires' Disease. This long-term solution will continue to mitigate any further risks of *Legionella* and other waterborne pathogens in the future.

*Kurita America's recommended treatment program has maintained a consistent monochloramine residual and will continue to mitigate any further risks of Legionella and other waterborne pathogens.*

