About Us

Your trusted partner in advanced automated water monitoring technology.
At Angel Guard, we make our expertise accessible to everyone, delivering cutting-edge tools for effective digital water management.
Transform your building's water system with smart, efficient solutions. Start your journey today and experience the benefits of intelligent water monitoring!

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HOSPITAL TRUST

CLARENCE

Case Study:

Digital Water Monitoring within Hospital Trusts

> Continued monitoring ensures that the babies within the neonatal unit remain protected and safe from water-borne pathogens and provides a real-time insight into the health of the water at any time from any device...
>
> Water management company manager

Background

Angel Guard's Clarence remote water monitoring system had already been introduced by the water management company to the hospital trust, agreeing on a trial period to allow the trust to experience the benefits of the Clarence system.

Challenge:

The on-site estates team had expressed concerns over potential water quality issues, concluding that remote monitoring may give them a better indiction if any environmental factors may be contributing to or creating increased risk to their patients.The main concerns were:

Complex water pipe systems: High number of outlets and long pipe runs
High security systems in place: Needed to be confident Clarence used a private closed system
Installation needed to be quick and easy: Due to patient requirements, the install had to be efficient and non disruptive to the hospital day to day running.
Connectivity: Potential problems with connectivity due to interference from machines e.g. MRI scanners
Protection for immunocompromised patients: Cancer patients and Neonatal patients were just a few of the highly vulnerable patients who required safe water systems.

Solution

A Clarence C-1 was installed within a patient kitchen in the Neonatal ward of the hospital close to the sink outlet. The C-1 provided 24 hour monitoring of the water temperatures within the pipework, significant flow events and measured biofilm levels within the water. the system was also able (through the Seraph Protect portal) to provide an overall risk level.

Results and ESG Benefits

- **Early Identification:** Poor temperature control was identified with average temperatures often being between 30-40 degrees Celcius.
- **Low Flow Events:** It became apparent very quickly that there were only 3-4 flow occurrences daily with weekends having none.
- **Pattern Identification:** The portal soon began to identify patterns of low flow events and times of high usage allowing the estate team to make informed decisions on how to resolve the problem with the outlet.
- **Saving Lives:** After three weeks the early stages of biofilm levels were highlighted by the system triggering alerts for the water management team. the outlet tested positive for Pseudomonas Aeruginosa measuring 6CFUs.
- **Water savings:** A flushing regime was created and implemented, bringing the readings within acceptable levels without having to waste water flushing the whole system.
- **Chemical Dosing:** Due to the Clarence system and its technology, the portal identified the risk levels of each of the outlets allowing for a targeted chemical disinfection reducing cost and protecting the environment.

Conclusion

Through the 24hr monitoring of temperature,flow events and biofilm detection, the Clarence system was very quickly able to identify a high risk level with relevent contributing factors provided,informing and empowering the water management company to take quick action with countermeasures ,potentially saving the lives of babies within the neonatal unit.