Legionella & Digital Mixing

What is Legionella?

Legionnaires' disease is a type of pneumonia that is caused by legionella bacteria.

Causes:

By breathing or aspirating in mist from contaminated water sources such as showerheads, faucets, decorative fountains and other water sources in a premise plumbing system.

How is it treated?

A course of antibiotics as administered by a doctor.

Who is at risk?

People over 50 years of age, current or former smokers, and those with a compromised immune system.

CMS Mandate

Center for Medicaid & Medicare (CMS) issued a mandate in 2017 based on ASHRAE 188 stating that hospitals must comply or risk losing Medicaid and Medicare reimbursements.

If a hospital does not meet the requirements of the CSM Mandate, it risks losing Medicare and Medicaid reimbursements. The Joint Commission can also request to see a hospital's Water Management Plan.

The Cost of Legionella

- **6100** reported cases in 2016 (CDC)
- **One in ten** Legionnaires' cases leads to death (CDC)
- Legionnaires' disease at a health facility could average **$38,000** per patient (CDC)
- Legionella is **the number one** cause of waterborne diseases outbreaks in the United States
- Reported settlements and jury awards range from $**255,000 to $5.2 million**. (Risk Management Magazine)
- Waterborne illnesses including legionella led to more than **40,000** hospitalizations for a total cost of **$970 million**, including **$430 million** in Medicare and Medicaid expenses (CDC 2012)
- Adding employee worktime and productivity costs to the direct healthcare costs from legionella the estimated total cost is well over **$1 billion a year** (McCoy W, Pearson W. 2011. ASHRAE Standard 188P: Prevention of Legionellosis associated with building water systems)

Legionella water management program

- Establishing a water management program team
- Describing the building water systems using words and diagrams
- Identifying areas where Legionella could grow and spread
- Deciding where control measures should be applied and how to monitor them
- Establishing ways to intervene when control limits are not met
- Making sure the program is running as designed and effective
- Documenting and communication all the activities

www.legionella-strategies.com

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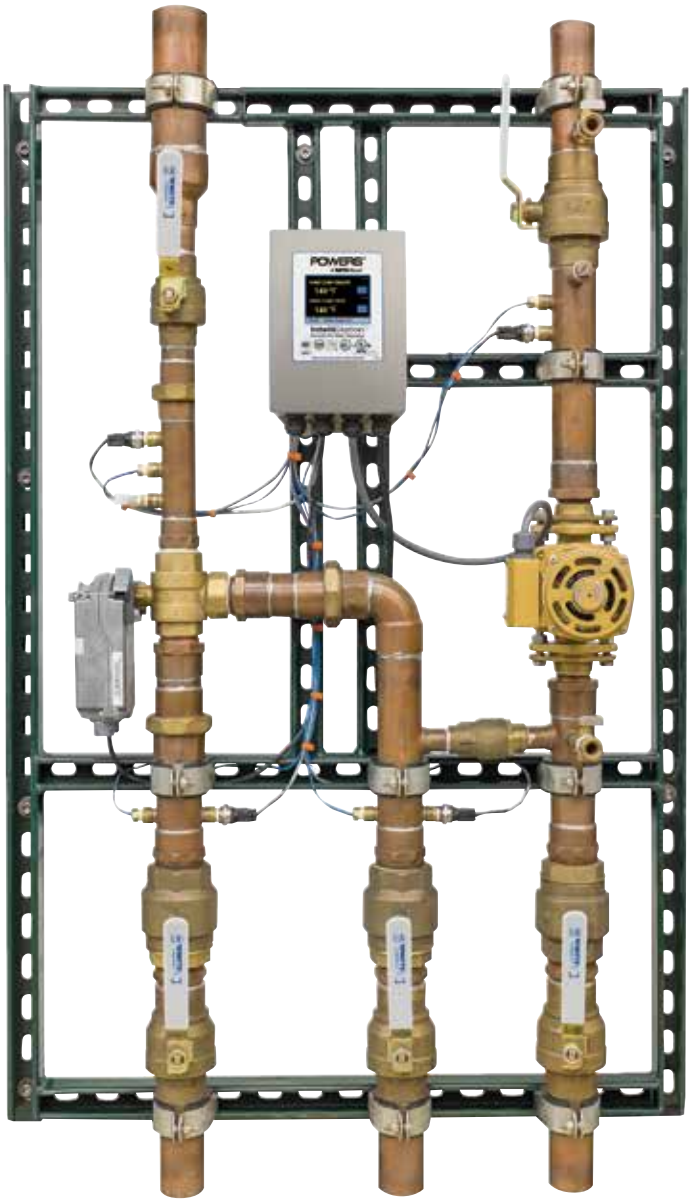

Digital Mixing – Intellistation®

- Digital water mixing and recirculation solutions can be integrated into a building automation system to allow facility managers complete control of and visibility into their domestic hot water delivery.
- Provide precise control of hot water delivery within 2 degrees of the set point, surpassing industry standards for mechanical systems.
- When coupled with point-of-use heating, such as a localized tank-less heater, they can help mitigate any potential issue from dead legs in the system
- Digital mixing eliminates temperature creep within the system, thus eliminating the need for balancing valves.
- A sanitization of disinfectant mode can be triggered to briefly raise the temperature about 158 degrees F to induce a “rapid kill” and purge all legionella bacteria.
- All of this means that it cab more precisely be controlled to mitigate legionella growth in the heated water.

For more information:

www.watts.com/products/plumbing-flow-control-solutions

www.legionella-strategies.com/

- 140 degrees F or hotter is not conducive to preventing scalding
- Water temperature or mixing valves are needed to keep temperature in safe range (106 – 120)

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