COVID-19: How to Prevent Legionella During Extended Building Shutdown

Extended building closures can place water systems at risk for amplifying Legionella bacteria that can pose a risk to human health.

Although the bacteria that causes Legionella occurs in natural water sources, outbreaks are generally caused by the amplified growth and aerosolization of the bacteria from human-made water systems.

Many buildings do not have formal water management plans. A sudden and extended discontinued use of the water systems may increase the risk of stagnant water remaining in the plumbing for several weeks or months. Stagnant water from plumbing lines can be easily aerosolized and create a mist when discharged through showerheads, faucets, and garden fixtures. The fine mist can be inhaled, permitting the bacteria that causes Legionella to enter the lungs and cause infection.

There is also an increased risk for bacteria growth in water from cooling towers, fountains, humidifiers, etc. if not properly maintained during a shutdown.

It is critical to reduce the opportunity for bacteria to amplify in stagnant water or water trapped in pipes to help prevent Legionella during a shutdown. There are simple measures that all property and business owners can take to reduce the risk.

WHAT IS LEGIONELLA?

Legionella (Legionnaires' disease) is a serious pneumonia associated with a high fever. Approximately 10% of those infected will die. It was discovered following the 1976 American Legion convention at The Bellevue-Stratford Hotel in Philadelphia, where 211 persons became ill, and 29 died.

PRE-SHUTDOWN ACTIVITIES

- ☐ Identify all water sources and fixtures.
- ☐ Drain and disinfect indoor water features and fountains.
- ☐ Drain water from all process equipment dishwashers, floor cleaners, tools and medical equipment.
- ☐ Assign a team to inspect the building on at least a weekly basis.
- ☐ Pretreat boilers and water cooling towers as necessary.

DURING THE SHUTDOWN

- ☐ Inspect the entire building for water leaks or broken fixtures.
- ☐ Run hot and cold water from each fixture (i.e., showerheads, sinks, hoses, spray hoses) for 5 to 7 minutes each week.
- ☐ Continue to inspect emergency eyewash and shower stations by running them every week.
- ☐ Inspect outdoor fixtures and other areas that can accumulate stagnant water.
- ☐ Maintain climate control systems.
- ☐ Maintain pool and spa equipment chemistry at normal levels.
- ☐ Flush all toilets weekly.
- ☐ Maintain water heaters at 140° F.

DURING START-UP

- ☐ Inspect, clean and disinfect all water features and fountains.
- ☐ Inspect, clean and disinfect water cooling towers.
- ☐ Defrost, drain, sanitize and replace the filters on commercial ice machines.
- ☐ Confirm proper chlorination of pools and spas.
- ☐ Inspect all equipment that has water tanks for biofilm, and disinfect as necessary.

MORE INFORMATION

Additional information on water management can be found here.

Please note, this content is intended to provide guidance to building and business owners that are not required to have a formal Water Management Plan (WMP).

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