Maintenance of Produce Foggers/Misters in Grocery Stores

Legionnaires' disease is a serious type of pneumonia caused by *Legionella* bacteria. People can become ill when they inhale water contaminated with the bacteria. Building water systems that are not adequately maintained can be a source of *Legionella* bacteria.

Improperly maintained produce foggers/misters have been implicated in outbreaks of Legionnaires' disease in the past. In addition to being a potential source of *Legionella* bacteria, improperly constructed, operated, or maintained produce foggers/misters can also be a potential source of other bacteria or micro-organisms that can make people ill.

Active management of your water system and produce foggers/misters reduces the risk of *Legionella* growth and spread.

Your management program should include:

- A system to ensure proper construction, operation, and maintenance of your produce fogger/mister, including identification of potential hazards which require intervention.
- Implementation of control measures to reduce conditions that may allow the growth of *Legionella* bacteria.
- Implementation of immediate corrective action when a hazard has been identified.

Guidelines are readily available to assist you in development of a water management program. Please reference "Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings" at cdc.gov/legionella/.

The following conditions promote the growth of *Legionella* bacteria in a water system and need to be controlled to reduce the potential for exposure:

- Piping or dead ends where water flow is decreased or allows water to stagnate.
- Warm stagnant water (not hot or cold); *Legionella* bacteria thrive in warm water (77°F to 108°F).
- Fixtures or piping with scale, sediment, or biofilm (slime) which provide housing, food, and security for many types of germs including *Legionella* bacteria.
- Inadequate disinfectant. Some processes such as heating, storing, or filtering water can use up disinfectant, allowing *Legionella* that may be present to grow if not controlled. The water systems of facilities served by an individual water well are typically not disinfected.
- Water pH; pH outside of 6.5 to 8.5 can make the disinfectant less effective.

Produce foggers/misters can vary in their design and complexity but typically include a water reservoir, filters, pump, piping, pipe fittings, and spray nozzles. Operational and maintenance procedures should be developed specific to your equipment. For complex systems, you may need to work with a plumber or other contractor with specific expertise.

The FDA Retail Food Code (Section 5-205.14) requires the following maintenance of produce foggers/misters from a sanitation perspective:

A reservoir that is used to supply water to a device such as a produce fogger shall be:

- Maintained in accordance with manufacturer's specifications; and
- Cleaned in accordance with manufacturer's specifications or according to the procedures specified under the following section, whichever is more stringent.

Cleaning procedures shall include at least the following steps and shall be conducted at least once a week:

- Draining and complete disassembly of the water and aerosol contact parts;
- Brush-cleaning the reservoir, aerosol tubing, and discharge nozzles with a suitable detergent solution;
- Flushing the complete system with water to remove the detergent solution and particulate accumulation; and
- Rinsing by immersing, spraying, or swabbing the reservoir, aerosol tubing, and discharge nozzles with at least 50 mg/L hypochlorite solution.

The Person-in-Charge must make documentation available to Department staff regarding the maintenance of your produce fogger/mister during routine inspections.

Can people be exposed to *Legionella* by consuming the produce under a produce mister?

People cannot become ill with Legionnaire's disease from consuming produce which is displayed under the mister.

Modifications/Repairs/Installations of Your Produce Fogger/Mister

Please consult with your local plumbing inspector regarding the requirements, permits, and inspections that apply to the installation or modification of a produce misting system.

Filters

The use of a filter in the system does not eliminate the need for proper maintenance. Filters must be used and replaced per the manufacturer's specifications. Filters that are not maintained properly can actually become a source of bacteria or other micro-organisms.

Personal Protective Equipment

It is important that any employees that are cleaning/sanitizing or otherwise maintaining the components of the produce fogger/mister utilize the appropriate personal protective equipment (PPE) to prevent exposures to hazards.

Developed by Jo Daviess County Health Department and Illinois Department of Public Health with information from the Centers for Disease Control and Prevention.
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