



ASHRAE 188-2015

Legionellosis: Risk Management for Building Water Systems

It took 15 years and five public reviews but it finally happened, an ASHRAE **standard** that provides details and guidance to prevent and mitigate the emergence of Legionellosis from water systems. On June 26, 2015, the American National Standards Institute approved ASHRAE Standard 188-2015 entitled “**Legionellosis: Risk Management for Building Water Systems**”. It is important to understand that ASHRAE does not police the implementation of any of its standards. Instead, compliance is under the purview of agencies that are directly involved with assuring the safety of building occupants. These agencies are commonly known as AHJ’s (Authority Having Jurisdiction) and include OSHA for commercial buildings and The Joint Commission for healthcare facilities.

ASHRAE 188-2015					
Purpose	Minimum Requirements of a Legionellosis Risk Mitigation Program.				
Scope	Implementation of a risk management plan called a Water Management Program (WMP) for potable and non-potable water systems (e.g. cooling towers, whirlpools, spas) where water mists may harbor Legionella.				
Elements of WMP	Hazard Analysis, Risk Mitigation, Plan Validation.				
WMP Team	<table border="1"><thead><tr><th><u>Non-Healthcare</u></th><th><u>Healthcare</u></th></tr></thead><tbody><tr><td>Any combination of building employees, suppliers, risk consultants.</td><td>Membership can be extended to concerned stake holders but must include the following: senior organizational leader, facilities maintenance and infection control.</td></tr></tbody></table>	<u>Non-Healthcare</u>	<u>Healthcare</u>	Any combination of building employees, suppliers, risk consultants.	Membership can be extended to concerned stake holders but must include the following: senior organizational leader, facilities maintenance and infection control.
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Validation	Testing for Legionella or monitoring of Legionellosis.				

Only certain types of potable water systems are specified in ASHRAE 188-2015. These include those associated with the following types of buildings:

- Multiple housing units with one or more centralized heating units.
- Buildings with more than 10 stories (including levels below grade).
- Healthcare buildings
- Nursing homes

The potable water systems in the above buildings have the potential to harbor Legionella and generate mists. Accordingly, the potable water distribution networks and point of use devices associated with these systems (ice machines, shower heads, tap faucets and any mist generating devices) will become part of the WMP. Swimming pools are not mentioned in ASHRAE 188-2015 unless they are associated with a healthcare facility. All buildings with cooling towers, evaporative condensers, fountains, or air washers must have these devices included in the WMP. For each device, a written procedure must be included in the WMP that details how it is to be commissioned, maintained, shutdown and remediated in the event of Legionella contamination or an incidence of Legionellosis associated with it.

Preparing a WMP can be a daunting task, therefore it is always best to make it as simple as possible so that it can be easily understood and implemented. If your building meets the criteria used to determine if it needs to be compliant with requirements of ASHRAE 188-2015, your first step will be to order a copy of this document. This can be done by logging onto ashrae.org. Once logged on, click on the far left tab “Resources and Publications”. From there a drop down menu will appear after which you will click on the “Bookstore” option. Once the Bookstore is open you will immediately see the 188-2015 standard available for sale, either as an immediately downloadable pdf file or as a paper copy that can be mailed to you. Please note that in either case, photocopying or distribution is not allowed. If multiple copies are required, these can be ordered at a discounted price from the ASHRAE bookstore.

After reading ASHRAE 188-2015, you may become discouraged by its details and complexity. In that case, refer to the diagram below which describes a WMP defined by its three elements. The WMP begins by identifying the location and seriousness of the hazard (Legionella), followed by ways to mitigate the risk and finally, validating if the WMP is effective. The most effective way to validate the effectiveness of a WMP is to monitor the presence and concentration of Legionella in the devices previously identified. Other methods of validation are indirect or rely upon historical records of disease occurrence.

Weas Engineering believes that the most effective way to validate a WMP is to test for Legionella bacteria with the goal of none detected. As the diagram below indicates, a WMP is a continuous cycle of re-evaluation. This process of constant vigilance has been extremely effective in developing risk management programs around the world. It can also be used by your water management team to minimize the risk of building occupants becoming infected with disease causing mists of Legionella.

Water Management Plan (WMP)

