Many organizations have rules or guidance on managing Legionnaires’
ASHRAE 188:2018 Standard and the CDC Tool Kit

ASHRAE 188
- First NA standard
- Only ANSI Accredited Standard
- Consensus view of the best practices for managing Legionnaires’ risk in building water systems
- Recommended Water Safety Plan
- Testing specific section

CDC Toolkit
- Yes/No Worksheet for risky building areas
- Walk through of Legionella mgmt. program
- Example problem scenarios
- Healthcare-specific guidance
WSM Plans – Who needs them?
Centers for Medicare & Medicaid Service (CMS) Memo

Memo June 2017  
Updated July 2018

Sent to:  
State Survey Agency Directors

Subject:  
Requirement to Reduce *Legionella* Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires’ Disease (LD)

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**Memo Text**

**DATE:** June 02, 2017  
**TO:** State Survey Agency Directors  
**FROM:** Director Quality, Safety and Oversight Group (formerly Survey & Certification Group)  
**SUBJECT:** Requirement to Reduce *Legionella* Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires’ Disease (LD)

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**Memorandum Summary**

- **Legionella Infections:** The bacterium *Legionella* can cause a serious type of pneumonia called LD in persons at risk. Those at risk include persons who are at least 50 years old, smokers, or those with underlying medical conditions such as chronic lung disease or immunosuppression. Outbreaks have been linked to poorly maintained water systems in buildings with large or complex water systems including hospitals and long-term care facilities. Transmission can occur via aerosols from devices such as showerheads, cooling towers, hot tubs, and decorative fountains.

- **Facility Requirements to Prevent Legionella Infections:** Facilities must develop and adhere to policies and procedures that inhibit microbial growth in building water systems that reduce the risk of growth and spread of *Legionella* and other opportunistic pathogens in water.

- **This policy memorandum applies to Hospitals, Critical Access Hospitals (CAHs) and Long-Term Care (LTC). However, this policy memorandum is also intended to provide general awareness for all healthcare organizations.**

- **This policy memorandum clarifies expectations for providers, accrediting organizations, and surveyors and does not impose any new expectations nor requirements for hospitals, CAHs and surveyors of hospitals and CAHs. For these provider types, the memorandum is merely clarifying already existing expectations.**

- **This policy memorandum supersedes the previous Survey & Certification (S&C) 17-30 released on June 02, 2017 and the subsequent revisions issued on June 9, 2017.**
CMS Memo – not new Requirements

- **42 CFR §482.42 for hospitals:**
  
  “The hospital must provide a sanitary environment to avoid sources and transmission of infections and communicable diseases. There must be an active program for the prevention, control, and investigation of infections and communicable diseases.”

- **42 CFR §483.80 for skilled nursing facilities and nursing facilities:**
  
  “The facility must establish and maintain an infection prevention and control program designed to provide a safe, sanitary, and comfortable environment and to help prevent the development and transmission of communicable diseases and infections.”

- **42 CFR §485.635(a)(3)(vi) for critical access hospitals (CAHs):**
  
  CAH policies must include: “A system for identifying, reporting, investigating and controlling infections and communicable diseases of patients and personnel.”
CMS Memo
Basic requirements for water systems

1. Conduct risk assessment; where could pathogens grow?
2. Implement a water safety management program
3. Specify monitoring: test methods and ranges
CDC Tool Kit WSM Plan: 7 core activities

1. Establish a water management program team
2. Describe the building water systems using text and flow diagrams
3. Identify areas where Legionella could grow and spread
4. Decide where control measures should be applied and how to monitor them
5. Establish ways to intervene when control limits are not met
6. Make sure the program is running as designed and is effective
7. Document and communicate all the activities

Continuous program review (see below)

Source: CDC Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings Version 1.1
WSM Plan – 7 core activities

ASHRAE 188

1. Establish Team
2. Describe System
3. Assess Risk
4. ID Controls
5. Monitor/Correct
6. Verify/Validate
7. Document
Standards and Guides for managing Legionnaires’ disease

Summary:

- Of the many standards and guides, the most used are ASHRAE 188 and CDC Tool Kit
- These two documents both employ a 7-step process to help create effective water safety management (WSM) plans
- Not even the best plans will eradicate *Legionella* from a water system, this is about management
- Public health should be in a leadership role in guiding and educating healthcare facilities on the basics of WSM planning and compliance with CMS rule
- CMS Memos reference ASHRAE 188 and CDC Tool Kit
Water Safety Management Team: Roles and Responsibilities

Patsy Root
Regulatory Affairs Manager
IDEXX WATER
WSM Team Roles and Responsibilities

**WATER SAFETY (RISK) MANAGEMENT STEPS**

- **ROLES & RESPONSIBILITIES**
- **WRITING THE SUMMARY**
- **DESCRIBE THE BUILDING**
- **IDENTIFY RISK**
- **MITIGATE RISK**
- **CORRECTIVE ACTIONS**
- **DOCUMENTATION**
- **RESOURCES & TOOLS**
WSM Plan – 7 core activities

ASHRAE 188

1. Establish Team
2. Describe System
3. Assess Risk
4. ID Controls
5. Monitor/Correct
6. Verify/Validate
7. Document
WSM Plan Team – key roles

- Ability to oversee the program
- Ability to communicate regularly about the program
- Ability to confirm program performance
- Ability to monitor and document program performance
- Knowledge of the water systems
- Ability to identify control locations and control limits
- Ability to identify and take corrective actions
WSM Plan Team: core functional areas

Oversee, Decision makers
Communicators
- Building owner
- Building manager/administrator

Understand infection prevention
- Certified industrial hygienists
- Environmental health specialists

Know the water system
- Maintenance or engineering
- EH&S

Confirm Program, V&V
- Microbiologists (including laboratory services)
- Head of health services
- State and local health officials

Know where/how to put controls
- Equipment/chemical suppliers
- Contractors/consultants

Source: CDC Tool Kit
WSM Team: making decisions using RACI

**Responsible**
- The person who actually carries out the process or task assignment
- Responsible to get the job done

**Accountable**
- The person who is ultimately accountable for process or task being completed appropriately
- Responsible person(s) are accountable to this person

**Consulted**
- People who are not directly involved with carrying out the task, but who are consulted
- May be stakeholder or subject matter expert

**Informed**
- Those who receive output from the process or task, or who have a need to stay informed
### Using RACI to manage WSM Teams

#### RACI - Water Safety Management Planning

**Project/Decision:** Write and Implement a Water Safety Management plan for XYZ Hospital

**Objective:** Demonstrated risk reduction for hospital occupants from Legionnaires’ disease

**Define Decisions/Activities/Tasks**

<table>
<thead>
<tr>
<th>Participants</th>
<th>Building Administrator / COO</th>
<th>Facilities / Maintenance Manager</th>
<th>Chief Engineer / Plumbing</th>
<th>Industrial hygienist / Infection Preventionist</th>
<th>Nursing</th>
<th>Public Health</th>
<th>EH&amp;S</th>
<th>Water Treatment Specialist</th>
<th>Laboratory Testing Services</th>
<th>Public Water Supplier</th>
<th>TIME FRAME</th>
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<td>Assign Team Member Roles</td>
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<td>Objective 1 Describe the system in simplified drawing</td>
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</table>
Knowledgeable Public Health organizations that can contribute to WSM

- State and Local Health Officials from Public Health groups
- Association of State and Territorial Health Officials (ASTHO)
- National Association of City and County Health Officials (NACCHO)
- Environmental Council of the States (ECOS)
- Including: sanitarians, environmental health specialists, microbiologists, industrial hygienists, safety/hazard officers
WSM Team Roles and Responsibilities

Summary:

- Understand the core competencies needed to form an effective WSM team
- Insure that you have a facilitator
- Following the RACI model, have one “A” person/task to make final decisions based on team input
- Include people who understand the building systems, how to identify risk, the occupants (including employees) and where/how to manage identified risk
- Include the testing laboratory and public water provider; they have core knowledge that shouldn’t go untapped
- Public health should educate on and participate in WSM teams
- Document team activities and record meeting minutes for future reference