

DGS LEGIONELLA MANAGEMENT PROGRAM

This plan outlines the approach of the Department of General Services (DGS) Facilities Management Division (FMD) to the management of Legionella bacteria in potable water systems in state-owned office buildings under the jurisdiction of DGS.

Introduction:

Legionella is a naturally occurring bacterium found in low levels in untreated bodies of freshwater, such as rivers, lakes, and streams. Susceptible people can become infected when they breathe in tiny droplets of water or aerosols that contain Legionella. However, most healthy people exposed to Legionella do not get sick.

General Principles:

1. At present, DGS has proactively, and out of an abundance of caution, tested 38 buildings for the presence of Legionella bacteria.
2. DGS has also consulted ASHRAE standards and screened its portfolio for buildings that meet the applicable ASHRAE standards for water management plans.¹
3. Our focus is on assuring that we have appropriate water management plans in place for building systems or specific devices at these buildings that meet ASHRAE standards to minimize growth of Legionella, which may include various kinds of control measures and monitoring, including testing temperature, disinfectant levels, pH, or for Legionella specifically.
4. Existing literature on Legionella suggests that decreased flow of water can increase the risk of Legionella growth. Thus, it is possible that the lack of occupancy of state buildings during the pandemic increased the likelihood that Legionella would be present and therefore detected in DGS office buildings.
5. With the advent of hybrid work under this Administration, the increasing occupancy of state buildings will increase flow of water and therefore reduce the likelihood that Legionella will grow.
6. Proactive water management best practices, along with greater water flow, represent the most important strategy to reduce the likelihood that Legionella grows in state office buildings.

FMD Mission: "Delivering professional building management services

through value offered customer care and a strong commitment to excellence – for all of California."

*FMD Goals: 1. Be outstanding stewards for our state **ASSETS** 2. Take care of our **PEOPLE** 3. Provide great **CUSTOMER SERVICE***

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¹ *: while office buildings are considered low risk for Legionella, buildings that meet specified criteria present a higher risk than other office buildings. Buildings with a higher risk are recommended to have water management plans.

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Immediate Situation – Tested Buildings:

For buildings that have been tested for Legionella bacteria and have tested positive with levels or trends that are not considered well-controlled, DGS should take the following approach:

1. For those buildings that meet the specified ASHRAE criteria for water management plans, DGS should ensure that there is a water management plan for the building/applicable infrastructure.
 - a. The water management plan should specify those actions that are best practices for controlling the growth of Legionella, such as temperature controls, flushing, etc.
 - b. The water management plan should specify control measures and monitoring protocols, which include testing for effectiveness of control measures and assessment of indicators that the water in the building is being maintained in accordance with Legionella growth management best practices. For example, taking temperature readings to ensure that potable water systems are consistently at the right temperatures. The water management plan should also indicate when testing for Legionella should be done.
 - c. DGS should carry out Legionella remediation activities specified in the water management plans until testing indicates that levels are dropping.
 - d. After that point, DGS should continue to follow routine water system management activities specified in the water management plan in building or sections of buildings where ASHRAE criteria are met, and a water management plan is indicated. This is consistent with research demonstrating that increases in building occupancy may contribute to Legionella control by normalizing water conditions, such as water flow, temperature, fixture use, etc.
2. For those buildings that do NOT meet the specified ASHRAE criteria, DGS should take the remediation actions recommended by the testing consultants until testing indicates that levels are dropping. After this point, DGS should continue water system best practices.

Note: for the purposes of this policy, FMD should evaluate the specific findings for Legionella at a given building to determine what would constitute an appropriate reduction in levels. Part of that analysis would include the number of locations with positive indicators, the concentration of the bacteria, the recommended remediation actions, and the specific retesting results.

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Immediate Situation – Non-Tested Buildings:

1. For those buildings, or infrastructure at those buildings (such as cooling towers or decorative fountains) that have not been tested for Legionella bacteria, and that meet the ASHRAE criteria for water management plans, DGS should ensure that there is a water management plan for the building/applicable infrastructure.
2. For those buildings that have not been tested for Legionella bacteria, and that do NOT meet the ASHRAE criteria for water management plans, DGS should ensure that water management best practices are nonetheless employed at those facilities.

Note: these represent the actions taken/to be taken by DGS for buildings in its portfolio. For state buildings that meet the ASHRAE criteria for water management plans that are under the jurisdiction of **other** state agencies (ex: CalTrans, DSH, CDCR, CalVet, DDS, etc.), DGS would be willing to meet with the facilities teams of those departments and provide guidance/lessons learned. DGS could also encourage (but not require) owners of leased buildings occupied by state departments to adopt industry best practices for building water management.

Special Circumstances:

In the event of a reported case of Legionnaire's disease associated with a DGS building, DGS shall work with the local public health department and water management consultants to investigate potential sources for Legionella infection, which may include conducting tests of the building for the presence of Legionella bacteria. If necessary, DGS may take actions in keeping with returning the building to a well-controlled state, including implementing a Legionella remediation plan. For buildings meeting ASHRAE criteria for water management plans, a water management plan should be implemented.

The Legionella remediation plan shall cease to be in operation after testing indicates that Legionella levels are dropping. After a plan is discontinued, DGS shall continue ensuring that water management best practices are employed at the facility.