

All businesses reopening following lockdown must take the appropriate action – before they open - to ensure the safety of their water supplies and eliminate the risk of exposure to legionella bacteria. If your building has been closed or had reduced occupancy during the covid-19 outbreak, water system stagnation may have occurred due to lack of use, increasing the risks of Legionnaire's disease.

The steps that you will need to take will depend on how you have been managing and controlling the risk during lockdown. If you have continued with a robust legionella management system in accordance with your written scheme throughout this period, then you may not need to take any further steps before reopening. Where no additional action has been taken or, you are concerned about whether the steps you have taken are adequate, it is essential that you do not put your water systems back into use without making it sure it is safe to do so.

What is legionnaire's disease?

Legionella bacteria can cause pneumonia-like illnesses, including the most serious disease called legionnaire's disease, which is potentially fatal. Low levels of legionella bacteria are common in natural water sources such as ground water and reservoirs, so it is virtually impossible to prevent legionella bacteria entering purpose-built water systems in buildings, such as hot and cold water systems including storage tanks and cisterns.

If the right environmental conditions are present, the bacteria may grow and present a risk to health if people are exposed to the risk of breathing in small contaminated droplets of water suspended in the air (aerosols) generated by for example, showers, taps, toilets, evaporative condensers associated with some air conditioning systems and humidifiers.

Where can legionella be found?

Any part of the premises that has water present. A water system includes all components associated with the system, eg all associated pipework, pumps, feed and storage tanks, valves, taps, showers, heat exchangers etc. With the right environmental conditions there is the potential for legionella bacteria to grow and contaminate the whole water system. There is a reasonably foreseeable legionella risk if:

- Water is stored or re-circulated as part of your system
- The water temperature in all or some part of the system is between 20-45°C, when the bacteria thrives and multiplies
- There are sources of nutrients such as rust, sludge, scale and organic matters
- The conditions are likely to encourage bacteria to multiply. Dead legs in the pipework and parts of the system used infrequently can cause particular problems with bacterial growth going unnoticed
- It is possible for water droplets to be produced and disseminated over a wide area, e.g. the aerosol (water spray) created when using shower hoses

The bacteria tends to grow in biofilms (slime) and on surfaces where there is a low water flow or water is allowed to stagnate. This is particularly likely when water systems have been closed down for an extended period.

What do I need to think about in terms of legionella when reopening my premises?

You should already have had a legionella policy in place setting out how the risks of legionella have been identified and controlled before the Covid-19 pandemic. You can get further information on this and the legal requirements relating to the control of legionella bacteria in water systems by reading the guidance available on our website:

<https://www.gov.je/SiteCollectionDocuments/Working%20in%20Jersey/ID%20ControlLegionella%2020100205%20EV.pdf>

It is recognised, however, that most businesses premises have been closed or had significantly reduced occupancy for an extended period (more than 7 days) due to the restrictions imposed by covid-19. Unless you have maintained an appropriate regime to ensure the whole water system has been subject to the appropriate controls and monitoring through, for example, weekly flushing of the whole water system, appropriate temperature checks, microbiological sampling and /or disinfection; stagnation of at least some of the water system is likely to have occurred due to a lack of use, increasing the risk of legionnaire's disease.

You must therefore carefully consider how you will ensure that your water supply is safe for use before reopening. You may need to seek advice from a competent person, particularly if you did not have an effective legionella management system in place before lockdown.

If you are unable to identify and implement suitable controls for legionella before reopening, then the premises should remain closed until suitable specialist advice has been obtained.

Additional steps before reopening could include:

Hot and cold water systems

- Increasing the temperature of the hot water to above 60°C if possible and drawing through to all the hot water outlets (whilst being careful to manage the scalding risk)
- Ensuring cold water is maintained at a temperature of less than 20°C
- Flushing all hot and cold water outlets (ie left turned on) for several minutes
- If your water is stored in tanks the water should be flushed through for a significant period of time
- Descaling, cleaning and disinfecting all shower heads, hoses and taps
- Disinfection of the system and/or having microbiological sampling carried out for legionella bacteria (these will require assistance from a specialist water system contractor)

It is important to note that something as simple as flushing taps can generate water droplets so you need to plan for how these risks will be controlled. Steps that can be taken include running the taps at low velocity and flushing shower heads whilst submerged into a part filled bucket of water.

Air conditioning units

If your premises has air conditioning units that have a source of water that can generate aerosol, you will need to assess the risks of legionella being present within them before restarting.

- Small wall or ceiling-mounted units with closed cooling systems should not present a risk
- Larger units may present a risk if they have improperly drained condensate trays, or humidifier or evaporative cooling sections where water can stagnate, becoming a reservoir for bacteria to grow