

Legionella Control International

COVID-19 - Detailed Water Management Precautions

This detailed guidance sets out the expectations for the management of water systems during this period of COVID-19 precautions.

The Health and Safety at Work Act still applies and Dutyholders must be taking reasonably practicable steps to control risk from legionella throughout this time. Dutyholders implicated in an outbreak of Legionnaires' disease resulting from actions taken for COVID-19 precautions are not likely to have any exemption from prosecution.

The legal responsibility for legionella control lies with the Dutyholder who must make their own determination for each circumstance, but the following principles should be considered when making decisions on what to do to control legionella during the COVID-19 outbreak:

Evaporative cooling systems

The expectation for evaporative cooling systems is that they will be maintained as usual or switched off safely – there is no leeway in this.

Water supplying critical services e.g. hospitals

The expectation for water systems supplying critical services, for example hospitals, is that they will be maintained as usual – there is no leeway in this.

Hot and cold water systems

Hot and cold water systems in buildings that are empty or with under occupancy must address the issue of stagnation:

1 - If the building is still partially in use take additional measures to keep the remaining occupants safe:

- a - If possible, drop stored water levels in tanks to maintain <24 hours storage.
- b - Flush to simulate use – weekly flushing may not be sufficient.
- c - Monitor temperature to ensure thermal gain in cold water is controlled.
- d - If fitted, consider temporarily increasing levels of potable water treatment dosing – consider other consequences of this such as corrosion and make the decision on balance of benefit.
- e - If controls are lost (temperature, biocide levels, etc.) the guidance in HSG274 is to sample for legionella weekly.

f - Consider other short term measures to keep remaining occupants safe such as point of use filters at designated locations with other areas shut off.

2 - Buildings that are temporarily shut down (mothballed) should follow the guidance in HSG274 Part 2 paragraphs 2.50-2.52:

a - Do not drain down pipework.

b - If possible, remove sources of heat and external thermal gain.

c - Lock off, place signage on doors and otherwise advise potential users that the system has been taken out of use.

d - Have a plan in place for recommissioning the water system.

For all of the work above there should be a task risk assessment in place to ensure operatives are working safely.

Recommissioning water systems

It is essential that when buildings reopen following the lifting of COVID-19 restrictions, that any water system is not simply put straight back into use. During the period of shutdown it would be sensible to formulate a recommissioning plan for each water system to allow safe start-up and assurance to users that it is safe. Dutyholders are likely to be able to access competent help from service providers remotely during the period of restricted movement.

Any plan for recommissioning buildings must take into account the safety of the operatives carrying out the work. It is foreseeable that the hazard present within water systems in this situation would be greater than normally expected. Reasonably practicable measures such as limiting aerosol, minimising exposure and use of RPE should be considered.

Evaporative cooling systems should already have robust start-up and shut-down procedures in place and the expectation is that these will be followed.

The minimum expectation for small, simple hot and cold water systems would be flushing through with fresh mains water. Larger buildings, those with tanks, showers, calorifiers and more complex pipework the expectation is likely to be for more extensive flushing followed by cleaning and disinfection.

During flushing all valves should be operated in the fully open position so that any particulate matter can be flushed through. Of particular importance are float-operated or other restrictive valves which need to be manually opened to ensure clearing of particulates and prevent fouling of the valves. Where a clearing velocity cannot be achieved, consideration should be given to removal of valves to enable an effective flush.

Where cleaning and disinfection is carried out, it is very important to monitor the decrease in disinfectant level over the course of the contact time. Loss of more than 40% disinfectant concentration could indicate influence of biofilm. See BSI PD855468 for more guidance.



Where buildings have been empty for some time and during warm weather, it is likely that some increase in bacteria levels and biofilm will occur. These water systems may require more than a simple disinfection at 50ppm of chlorine for an hour to be successful. Be prepared for the need to repeat some disinfections to achieve success.

In all cases where systems are being recommissioned it is sensible to have evidence to prove/reassure that the recommissioning process has been effective. Sampling to BS7592 should be considered for recommissioning plans to validate the effectiveness of the process. As per HSG274 part 2, samples should be taken 2-7 days following recommissioning and not on the day of disinfection. Follow up samples may need to be considered as part of the recommissioning plan.

There is potential for multiple outbreaks of Legionnaires' disease following the COVID-19 outbreak if actions taken now are not carefully considered.

Remember, the Health and Safety at Work Act still applies and Dutyholders must continue to take reasonably practicable precautions to control the risks from legionella throughout this time.

Further advice and support

If you require further advice or support on any of the issues raised here please contact us:

Legionella Control International

Warren Bruce Court
Warren Bruce Road
Manchester M17 1LB

Tel: 0330 223 36 86
Email: info@legionellacontrol.com

Extracted from guidance provided by the Legionella Control Association – legionellacontrol.org.uk