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Water Hygiene & Treatment Guidance during the Covid-19 Pandemic

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The Importance of Water Hygiene

As buildings begin to reopen, following a period of little to no use, it is essential that any water system is not simply put straight back to use. It is imperative that the correct planning has taken place and procedures are in place for the recommissioning of water systems to allow safe start up and assurance to building users.

The LCA (Legionella Control Association) and Tempus' water specialists have provided detailed advice regarding Water Hygiene, Legionella Control and what the expectation is for management of water systems during this period of Covid-19 precautions.

The purpose of this document is to provide an overview of:

- Government Advice and Legislation;
- LCA Guidance;
- Assessing water system risk in your building;
- Key Points and Considerations.

Tempus can assist with plans for recommissioning of water systems, so please read through this document - we'd be happy to answer any questions you have and start the necessary planning for re-opening.

Government Advice & Legislation

The Government has not stated any special measures to exempt Responsible person/s from the 'Health and Safety at Work Act 1974', under which statutory requirements of ACOP L8 & HSG274 guidance fall. Therefore, continuation of normal water hygiene and treatment works should be maintained (in line with PPM schedules), for example - monthly water temperature testing, showerhead descaling, tank inspections etc.

Any 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.

LCA Guidance

Clearly, Tempus and our partners cannot make sweeping statements about what is critical, what can be deferred for a few weeks and what can be deferred for longer. The legal responsibility for legionella control lies with the Dutyholder, but Tempus can support and provide expert advice to our customers to assist them in compliance.

Each Dutyholder 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:

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

2. 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.

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

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

        i. If possible, drop stored water levels in tanks to maintain <24 hours storage.

        ii. Flush to simulate use – weekly flushing may not be enough.

        iii. Monitor temperature to ensure thermal gain in cold water is controlled.

        iv. 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.

        v. If controls are lost (temperature, biocide levels, etc.) the guidance in HSG274 is to sample for legionella weekly.

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

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

        i. Do not drain down pipework.

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

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

        iv. Have a plan in place for recommissioning the water system.

It is foreseeable that the hazard present within water situations in this situation would be greater than normal expected. There should be a task risk assessment in place to ensure operatives are working safely - Tempus will provide these.

Assessing water system risk in your building

If a building is closed or access restricted, a reduced footfall will result in any water system/s usage being much lower than normal operation conditions. With the recent warm weather there is a likely to be an increase in bacteria and biofilm will occur. We have highlighted typical items to consider when assessing water system risk in your building/s:

Increased Flushing

With reduced water usage it is essential that the little used outlets (HWS and CWS) register is reviewed and updated. Any outlets that are little used should go on to the weekly flushing regime and recorded in the site logbook. Depending on the extent of the closure, this may include all outlets on site. There is no specific time limit for this flushing however the water should be flushed

until the temperature of the water reaches within 2 degrees of the temperature of the incoming mains water. E.g. if the nearest mains outlet to the mains is 10˚C the other outlets should be flushed until they reach 12˚C or below. We would suggest a minimum of 2 minutes per outlet to be sufficient in most cases.

As an extra precautionary measure, to check that your increased flushing has been effective, you may want to consider extra microbiological sampling from these buildings with reduced water usage.

Cold Water Storage Tanks

HSG 274 guidance states that tanks should be turned over (water within them used up) every 24 hours to prevent stagnation from occurring. Any site with a tank should increase flushing of tank fed outlets (can see these from the risk assessment schematics), ideally to daily to help turn them over within 24hours, but at least weekly to help keep the system water moving. If possible, the tank capacity should also be reduced. If a delayed action ball-valve is fitted, we can advise you on how to lower these to reduce tank capacity or can provide you with a cost for installing these.

If there is a possibility of bypassing the tank or reducing the number of tanks in use, this should be considered to reduce the amount of stored water on site. Please note, if a tank is isolated for a period of time it should be drained or left full (and clearly labelled) but then chlorinated before it is reinstated.

Water Heaters

If the hot water is not required in the building you could turn the water heater off without a water hygiene issue, as long as the water is stored at less than 20˚C (like your cold water). It can then be managed in a similar way to a cold water tank, with outlets fed by it flushed daily or as frequently as possible. We would recommend that when the unit is reinstated that a pasteurisation is carried out prior to service resuming. This involves turning up the water heater to store the water as hot as possible (60°C+) for at least an hour, before flushing through to all outlets fed by it.

Cooling Towers

if the building does not require the cooling tower system/s during the closure period this can be shut down, however we would only recommend this in the case of a full lockdown, where it would be impossible to access site to carry out maintenance (and valves are known to hold). Again, as with the cold water storage tanks (CWSTs), it is essential that if this is carried out the towers will need to be cleaned and disinfected prior to being returned to service. It is particularly important that you continue to maintain your daily and weekly testing /tasks during the period. Dipslides, TVC and Legionella sampling should continue at the usual frequencies.

Water Softener

the salt level in the brine tank should be checked regularly and topped up if required.
It is likely that the amount of softened water required will be less than usual, so salt levels won't drop very quickly but should be checked regularly.

Closed systems

BMS/manual valve exercising for these systems should be continued as normal to ensure circulation is occurring. If you have a remote monitoring system installed (e.g. Hevasure) on

your closed system/s it is important that you continue to monitor this and regularly check in with your specialist/account manager to ensure the systems are being maintained well.

Key Points & Considerations

1. It is essential that water system is not simply put straight back into use.

2. The Government has not stated any special measures to exempt Responsible person/s from the 'Health and Safety at Work Act 1974' –normal water hygiene and treatment works should be maintained (in line with PPM schedules)

3. Any plan for recommissioning buildings must consider 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.

4. While each individual water system is likely to need individual consideration, it will be helpful to be aware of the bigger picture regarding demand on services. There will be an increased demand for flushing and disinfection, sampling and other system recommissioning work. Tempus will help to manage expectations and lead times with you.

5. As a minimum a water sample must be taken from different outlets. Due to the risk of stagnating and growing bacteria the water needs to be tested BEFORE buildings open.

6. There is potential for multiple outbreaks of Legionnaires' disease following the COVID-19 outbreak if actions taken now are not carefully considered. Please make your customers aware of this, and that the responsibility for legionella control lies with the Dutyholder.

7. With the increase in demand for water testing services, there is increased demand on labour (both engineers and in laboratories. It's important that works are booked now to ensure test results can be returned and leave sufficient time to complete any remedial works/further actions

Next Steps...

Here at Tempus, everything is (and always has been) about the customer.

We're proud to say that we've been looking after our customer's repair and maintenance needs since 2011. With the ethos that the "*Customer is King*", we provide bespoke and scalable solutions for any building, regardless of the size or problem. This works for our customers.

The foundations we built back then, still stand now, even stronger than ever. From our self-delivered 24/7/365 Helpdesk to our frontline staff and industry effects to how effectively we deliver our service, everything centres around our customers.

With a completely scalable and flexible service, we can give you the support for your workplace that you actually need. Please call or email us to discuss returning to your premises so we can work with you to create a plan and ensure all requirements are considered and met.

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We look forward to hearing from you.

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