



It has been eight months since the UK entered its first COVID-19 lockdown at which point the majority of workplaces were vacated as the population was advised to work from home where possible. The use of numerous buildings changed and occupancy has remained very low ever since. With the control of legionella bacteria relying on a good turnover of water, the sudden low occupancy of buildings created a need to manually increase turnover through flushing of water systems. Meeting this challenge was further complicated by the reduced availability of staff through the need to shield, self isolate or otherwise remain at home.



An Increased Risk?

The symptoms and the means of transmitting COVID-19 have their similarities with Legionnaires' disease and studies undertaken in China have shown a significant proportion of COVID-19 fatalities had experienced a secondary infection including legionella pneumophila. This suggests that COVID-19 patients have an increased susceptibility to infection by legionella bacteria, and other pathogens, during treatment and potentially for some months afterwards. Therefore, the pandemic itself has created a potential increase in legionella risk associated with domestic water systems through lower occupancy while at the same time, increasing the number of people with a greater susceptibility to infection by legionella bacteria. As buildings are reoccupied, it is therefore foreseeable that an increase in cases of Legionnaires' disease could occur if systems are not maintained safely during the pandemic.



Reducing This Risk

Basic principles for the control of legionella bacteria are based on:

- good turnover of water;
- maintaining temperatures either below 20°C or above 50°C; and
- maintaining good hygiene and cleanliness of a system.

During the COVID-19 pandemic, William Martin Compliance have seen a noticeable increase in cold water system operational temperatures, particularly during the summer months, and an increase in low level legionella detection particularly in cold water systems. These findings suggest a poorer level of control over bacterial activity than was seen prior to the COVID-19 pandemic. With most buildings adopting a system wide flushing regime, the indication is that the regime may be insufficient.



It seems likely that lower occupancy levels in commercial buildings are here to stay for the time being and we therefore advise the following measures are taken to ensure the maintenance of water systems is adapted to account for the changing risks:

- Review hot and cold water system temperature monitoring records and if an increase in cold water temperatures has occurred, the frequency and/or duration of flushing may need to be increased.
- Reduce the volume of hot and cold water storage where possible to the lowest achievable level which will maintain the water supply during peak demand.
- Review weekly flushing practices to ensure the entire content of the system is turned over at least once a week and cold systems are maintained below 20°C. Flushing should include all devices connected to a water system including taps, toilets, showers, dishwashers and vending machines.
- Remind tenants and other building occupants of their responsibility to flush water services under their control. If tenants are unable to fulfil these requirements arrangements should be made with the landlord to complete these duties on their behalf.
- Routine sampling results should be reviewed for any indication of a change in water quality such as low level legionella detection or an increase in Total Viable Counts (TVCs). Consideration should be given to increasing the frequency and number of samples collected from a water system particularly where a change in water quality is identified. (Smaller and simpler water systems with no routine sampling regime may benefit from the introduction of routine sampling during ongoing periods of low occupancy).
- Review the legionella risk assessment to ensure that all recommendations have been adequately implemented.
- Review routine maintenance records to ensure that all planned preventative maintenance tasks advised by the legionella risk assessment have been completed and documented as required.



At William Martin Compliance we have a nationwide team of experts who can provide comprehensive advice on effectively managing the risk presented by legionella bacteria in domestic and other water systems.

If you require further information or advice regarding legionella control, please contact our Team:

enquiries@wmcompliance.co.uk or call our team on 0203 819 8829