ICOM Energy Association

Re-opening Your Business: How to ensure your water systems are safe from Legionella and other waterborne diseases

As businesses mobilise to re-open over the coming weeks and months, the emphasis from a health and safety point of view, is being focused on how we can all social distance, wash our hands and stay safe, but building occupiers need to be wary of a different type of threat.

Buildings left vacant for weeks or months, due to the sudden lockdown conditions imposed in the UK, will have stagnant water sitting in pipework, cylinders, boilers and other appliances, leaving them susceptible to biofilms, bacteria and other waterborne diseases growing in the systems like Legionella.

To minimize the risk of Legionnaires' and other diseases associated with water and to ensure the water in your building is still potable the following steps should be followed in all commercial buildings:

Be Aware

- The Health and Safety at Work Act still applies. The legal responsibility for legionella control lies with Dutyholders, who must take reasonably practicable steps to control risk from legionella throughout this time.
- A re-commissioning plan should be put into place to allow safe start up.

Stay Safe

- Any staff involved in the checking and flushing of systems should be aware of the dangers, follow the prescribed procedures, limiting aerosol and minimising exposure and wear appropriate PPE.
- Note - Legionella symptoms are very similar to the symptoms of Covid-19.

Identify

- Ensure everything which uses water is identified, even the ones which are less obvious, including:
    - hot and cold water pipework systems,
    - calorifiers,
    - water storage tanks,
    - cooling towers,
    - kettles,
    - water coolers and coffee machines,
    - pools, hot tubs and spas,
    - water features and water fountains,
    - outside taps,
    - sprinkler systems
    - irrigation systems.

Water Management Plan

- Develop, if not in existence, a water management plan which needs to be managed by someone who can report back to senior management.
- The complexity of the plan will depend on the specific scenario. Individual risk assessments must determine the control measures required.
- HSG274 Part 2 offers comprehensive guidance on how to carry out a risk assessment and manage a plan.
- Communicate with staff so they are aware that measures are being taken.

Action

- Evaporative cooling systems should already have robust start-up and shut-down procedures in place which should be followed.
- For small commercial buildings with very simple hot and cold water systems, the minimum requirement would be to flush systems 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.
- It is sensible to have evidence to prove that the process has been successful, so sampling in accordance with BS7592 should also be considered to validate the effectiveness of the process.

Water Supplier

- It may be necessary to speak to your local water company so they are aware that your building is going back into use, they can then also inform you if any advice relating to your supply.
- Due to the demand variations at this time, water pressures could suddenly change, which the water company can also advise on.
- If large amounts of contaminated water are to be discharged to fowl sewer, then you may need to apply for a temporary trade effluent licence from your supplier.

Written schemes of control for legionella should always have included start-up and shut-down procedures for water systems. COVID-19 has highlighted that many schemes do not include this or that the process is unworkable or unsuitable. Written schemes of control should be reviewed to ensure any future emergency shutdown of a building includes safe de-commissioning and recommissioning of the water systems.

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