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Water Hygiene

Guidance



Coventry City Council

www.coventry.gov.uk

Introduction

This guidance explains the safe working practices and procedures needed to be adopted for the control of legionella bacteria in City Council water systems. Implementing these practices and procedures ensures compliance with relevant legislation and good practice. Staff involved with maintenance or the provision of water systems, supervising such work, or issuing contracts for work, should fully familiarise themselves with the contents of this document. This guidance applies to all areas where the City Council has responsibility or control for water systems.

Legislation requires that we protect our employees and others from the harmful effects of legionella and this should be done by:-

- Complying with the relevant regulations, approved codes of practice, and the requirements of this guidance
- Ensuring managerial and supervisory responsibilities are satisfactorily addressed
- Implementing suitable controls to prevent the possibility of harmful levels of legionella
- Keeping records and providing training to employees

Significant risks

- The growth and survival of legionella bacteria under a wide variety of environmental conditions
- The exposure to harmful bacteria, causing infections, fever and disease from Legionella pneumophila and Legionella micdadei

Management responsibilities:

- Secure sufficient resources to ensure compliance with statutory requirements and this guidance
- Ensure compliance with relevant regulations and approved codes of practice.
- Ensure a suitable and sufficient legionella risk assessment is carried out to identify the hazards and risks from legionella
- Implement and maintain a safe system of working to ensure satisfactory compliance
- Implement control measures through a water hygiene management programme to prevent exposure to harmful bacteria
- Ensure any scalding risk is managed with water hygiene in mind
- Maintain, examine and test control measures for example automatic dosing equipment for delivery of biocides and other treatment chemicals
- Provide information, instruction and training for employees on the hazards from Legionella
- Ensure health surveillance is carried out for employees where required.

Employee responsibilities:

- Co-operate and comply with the requirements

Training

Key personnel will receive specialist training and regular refresher training in water hygiene management as appropriate.

Further Information and Guidance

Legionella Risk Assessments

Legionella risk assessments will be carried out by specialists on behalf of the City Council. Premises managers or those delegated with managerial responsibility for the supervision and implementation of water hygiene precautions are to ensure that a legionella risk assessment is in place.

A typical risk assessment will need to consider these basic issues:

- The source of system supply water, for example, whether from a mains supply or not
- Identifying possible sources of contamination to the water supply
- The normal plant operating characteristics
- Unusual, but reasonably foreseeable operating conditions, for example breakdowns
- Recommendations
- Schematics/drawings showing the system and its characteristics

The assessment should be reviewed regularly (at least every 2 years) or whenever there is reason to suspect that it is no longer valid. An indication of when to review the assessment and what needs to be reviewed should be recorded. This may result from:

- Changes to the water system or its use
- Changes to the use of the building in which the water system is installed
- The availability of new information about risks or control measures
- The results of checks indicating that control measures are no longer effective
- A case of Legionnaires' disease/legionellosis is associated with the system

Legionella Control Measures

There are many ways in which exposure to legionella bacteria can be controlled and the complexity of controls will vary depending on the risks posed by any one system.

Illness can occur from exposure to legionella growing in purpose-built systems where water is maintained at a temperature high enough to encourage growth (between 20–45 °C) and where there are nutrients that support bacterial growth such as rust, sludge, scale, organic matter and biofilms. Bacteria are dormant below 20°C and do not survive above 60°C. The risk from exposure will normally be controlled by measures, which do not allow the growth of legionella bacteria in the system and reduce exposure to water droplets and aerosol.

Control measures will generally include the following precautions where required:

- Controlling the release of water spray at outlets and hydrotherapy pools
- Identify vulnerable users where water is used as part of therapies for example users of hydrotherapy pools
- Providing safe operating temperatures that will both prevent the growth of bacteria and scalding
- Avoiding water stagnation, which may encourage the growth of bio-film by regular flushing of taps and outlets and removal of dead legs
- Prevent the possibility of materials which encourages the growth of bacteria contaminating the system for example covering water tanks
- Avoid use of construction materials in systems that can encourage the growth of bacteria and other organisms
- Keeping systems clean to avoid the build-up of sediments
- The use of a suitable and safe water treatment programme
- Effective monitoring and management systems, which ensure correct and safe operation together with effective maintenance of the water system

The primary objective should be to avoid conditions which permit Legionella Bacteria to grow and to avoid creating a spray or aerosol.

Monitoring and management systems should have a written scheme of work documenting the normal operating procedures and an emergency action plan for managing the risks from exposure to legionella bacteria.

Monitoring and management systems should identify:-

- The key personnel responsible for the implementation of control measures needed to prevent the growth of bacteria and scalding
- The arrangements for the safe use, storage, disposal and concentration of chemicals and the contact time for effective treatment
- The procedures for cleaning and disinfection including, frequency, sampling methods, schedules and locations
- Effective arrangements for the maintenance and treatment of water systems including up-to-date schematic plans showing the layout of systems and their location within and around the premises
- The procedures for operating and commissioning water systems including shutdown procedures
- The actions to take and lines of communication in the event of identifying risks within water systems such as the growth of bacteria or bio-film, unsafe operating temperatures, excessive sediment build up and/or stagnant water
- Effective means of recording what work is done to manage and monitor water systems

Managing scalding risk

It is important that we control the risk from scalding to service users within educational and social care settings. The young, the elderly, people who are vulnerable or with disabilities are potentially at risk from scalding. Risk assessments should be undertaken to confirm the control measures needed to protect service users. Control measures should generally include the following precautions where required:

- Ensuring individual care plans are undertaken where required to identify individual capabilities, medical conditions and sensitivity to temperature
- Consideration for Thermostatic Mixer Valves (TMV's) or Healthcare Standard electric showers to be fitted to assist in reducing the temperature to a safe level to prevent scalding
- Ensuring that TMV's and equipment are maintained to the standard recommended by the manufacturer
- Ensure risk assessments are carried out on the bathing /washing activities at establishments where TMV's are not fitted or other Legionella controls are not in place for example chemical dosing
- Ensuring adequate supervision is in place for service users who require assistance when bathing
- Ensuring that water temperatures are tested with a thermometer prior to bathing to ensure that the water is not too hot

Regular review of risk assessments should be undertaken to ensure control measures remain effective.

Safe operating temperatures

In most hot water systems the water is stored at 60°C and then distributed at lower temperatures to outlets. National legislation and guidance identifies that different service user settings recommend different operating temperatures to avoid the risk of scalding.

School Settings:

- 43°C is generally the maximum temperature for hot water in baths and showers, and in all cases where the occupants are severely disabled. It is also good practice to limit hot water supplies to washbasins in nursery and primary schools to 43°C

Social Care Settings:

- Water temperature should be reduced to below 44°C at all accessible outlets where the whole-body is to be immersed for example when showering or bathing

The Facility manager must not turn down the water storage temperature without first consulting with the Water Hygiene Officer or Statutory Compliance Manager for advice. For those establishments with devolved budgets that do not use the City Council's services they will need to contact their competent person appointed for the control of Legionella.

Legislation

Management of Health and Safety Regulations 1999 (MHSW)

The Control of Substances Hazardous to Health Regulations 1988 (COSHH)

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995

Further Information and Guidance

Water management programme weekly flushing [Click here](#)

HSE guidance

HSE topic guidance on Legionella and Legionnaire's diseases with links to information, resources and FAQs [Click here](#)

L8 – Legionnaire's disease, the control of legionella bacteria in water systems [Click here](#)

HSG 274 – Three part Legionnaires' disease: Technical guidance

Part 1: The control of legionella bacteria in evaporative cooling [Click here](#)

Part 2: The control of legionella bacteria in hot and cold water [Click here](#)

Part 3: The control of legionella bacteria in other risk systems [Click here](#)

HSG 220 - Health and Safety in Care Homes [Click here](#)

Department of Education Advice on Standards for School Premises [Click here](#)

INDG 458 - Legionnaires' disease A brief guide for duty holders [Click here](#)

Contacts

For further information contact:

Occupational Health, Safety and Wellbeing Services on 024 7683 3172 / 3117
or e-mail healthandsafetyservicesadmin@coventry.gov.uk

Statutory Compliance Manager on 024 7683 2929 or
e-mail paul.clarke@coventry.gov.uk

Occupational Health & Counselling Service on 7683 3285 or
e-mail herninder.khangura@coventry.gov.uk

If you need this information in another language or format
please contact Occupational Health on 024 7683 3255