
# Control of Legionella Policy

| | | |
|---|---|---|
| Reference / Issue No: | OP/4 | 5 |
| Date of this version: | March 2023 | |
| Next review due: | March 2025 | |
| Lead responsibility: | Asset Management | |
| Contents: | 13 pages | 0 appendices |

## Contents

## 1. Introduction

1.1 In order to be fully compliant with the Control of Substances Hazardous to Health (COSHH) Regulations as they apply to Legionella, Fife Housing Group (FHG) has developed both risk management and risk control measures to ensure satisfactory processes and systems are in place to minimise the risk of Legionella infection.

1.2 This document describes the process of risk management and minimum risk control measures for each type of premises and associated water systems in accordance with the Health and Safety Executive's Approved Code of Practice (ACOP) and Guidance (Fourth Edition, Published 2013): Legionnaires Disease: The Control of Legionella Bacteria in Water Systems, commonly known and referred to as L8.

## 2. Policy statement

2.1 It is the written policy of FHG to do all that is reasonably practicable to protect residents, employees, visitors and communities from health hazards arising from the use and distribution of water in all FHG's owned or leased properties including the office. This is achieved by the implementation of a risk management control scheme which is provided by the consultant once the risk assessment is complete to ensure full compliance with all statutory requirements of current relevant legislation, standards, codes of practice and published guidance.

2.2 The policy and guidance will be reviewed every two years, or sooner if there are significant changes to legislation or advances in risk control technology and industry practice, by the FHG's 'responsible person' in conjunction with the appointed consultant.

2.3 FHG undertakes to perform the following actions:

- Appoint responsible person(s) and provide adequate training;
- Identify all water plant and systems which present a potential risk of exposure to Legionella bacteria;
- Arrange for Legionella risk assessments to be conducted of all its water systems and to review these assessments at least every two years or when significant changes occur. (Reference will be made to HSG 274 Parts 1, 2 and 3 in connection with the pro-active monitoring and regular review of the assessment and control measures which are recommended, especially where the risk assessment is deemed no longer valid);
- Eliminate or reduce risks whenever possible by the procurement of plant, equipment and systems which have been designed to eliminate or control the risks of exposure to Legionella bacteria;
- Establish and operate a risk management control scheme for controlling risks from Legionella bacteria in all relevant property;

- Monitor compliance with the management process and review risks and the performance of the risk control measures, revising risk assessments and management processes as required;
- Maintain comprehensive records for each property; and
- Employ only competent, adequately qualified and trained personnel and service providers.

## 3. Responsibilities

3.1 In defining responsibilities, FHG will ensure that the 'responsible person' has the training, competency and authority to manage the water systems and controls. Without this they will not be able to fulfil their role.

3.2 The Chief Executive has overall responsibility for ensuring that FHG meets its legal obligations with respect to the control of Legionella bacteria in building water systems.

3.3 The Director of Finance, Governance and Assets has budgetary control for their respective area of the business and, as this area is managed under their Directorate, the Asset Manager will act as the nominated 'responsible person' as defined under the Health and Safety Executive's Approved Code of Practice (ACOP) and Guidance (Fourth Edition): Legionnaires' Disease: The Control of Legionella Bacteria in Water Systems).

3.4 The responsibility for the development and implementation of a risk control and management programme has been delegated to FHG's Director of Finance, Governance and Assets and this will be managed by the Asset Manager (nominated Responsible Person). It is recommended that a deputy is also nominated and, therefore, this will be the Asset Officer. The Asset Officer and Clerk of Works will also be trained in water management as additional competent persons.

3.5 FHG will engage the services of a water treatment specialist(s) to provide the necessary competent advice on policy and procedural matters, and to prepare Legionella risk assessments, written control procedures and site documentation for Legionella management and control.

## 4. Legionella bacteria and Legionnaires ' disease

4.1 Legionella bacteria commonly occur in both natural (rivers, ponds, lakes, soil, mud and sediment) and artificial water systems within buildings (cooling towers, evaporative condensers, and domestic hot and cold water systems). Under certain conditions, temperatures within the range $20^0$C to $45^0$C and nutrients contained within sludge, scale, biofilm and corrosion deposits, Legionella bacteria can rapidly multiply thus increasing the potential for exposure.

4.2 These conditions can develop in poorly maintained and operated cooling towers, evaporative condensers, showers, spray apparatus and hot and cold water systems, which are the sources of most reported cases of Legionnaires Disease. Legionella bacteria are usually associated with larger water systems, for example in factories, hospitals and hotels but the bacteria can also populate smaller water systems used in homes or residential accommodation. Further potential sources of Legionella bacteria include spa and whirlpool baths, humidifiers, water features and fire suppression systems (sprinklers and hose reels).

4.3 Water systems and services which are normally considered to present a foreseeable risk of exposure to Legionella bacteria (as defined with ACOP L8) are listed below in descending order of risk:

- Cooling systems with cooling towers, evaporative condensers or dry/wet cooling systems;
- Hot and cold water systems;
- Spa pools; and
- Other plant and systems containing water that can create and increase the risk from Legionella during operation or when being maintained.

The above list is for guidance only and should not be taken as an exhaustive listing of water systems that present a foreseeable risk of exposure to Legionella bacteria.

4.4 Legionnaires' Disease is a potentially fatal form of pneumonia caused by the inhalation of Legionella bacteria. The bacteria is normally contained within fine water droplets (aerosol) that may be caused by operating a cooling tower, shower, spray apparatus, running a tap outlet or operating a humidifier.

4.5 Legionnaires' Disease has the potential to affect anyone, however, persons more susceptible are normally in the age range of fifty and above, smokers, heavy drinkers, persons suffering from chronic respiratory or kidney disease and persons with impaired immune systems. Healthy persons are not immune from catching Legionnaires ' disease. A large proportion of reported cases of Legionnaires ' disease within the UK each year are those returning from foreign travel.

4.6 The identification of Legionella bacteria within a water system is not an outbreak, this is only the case when two or more persons have contracted the disease from the same source.

## 5. Minimising the risk from Legionella bacteria

5.1 It is generally accepted that levels of Legionella bacteria found in typical mains supply waters are very low (normally below the detectable limit) and do not pose a serious risk providing they are not allowed to proliferate. The survival and growth of Legionella bacteria are governed by a number of factors which include:

- Water temperature;
- Water retention period;
- Accumulation of sludge, scale, deposits and corrosion by-products;
- Use of unsuitable materials; and
- Low levels of disinfectants and other biocide treatments.

5.2 Legionella bacteria start to die at a temperature above $50^0$c with the temperature determining the speed this process occurs. Below $20^0$c the Legionella bacteria remains dormant. However, within the temperature range of $20^0$c to $45^0$c Legionella bacteria can proliferate rapidly giving rise to large numbers of the bacteria, and increasing the likelihood of a high risk of exposure. Numbers can double every two to twelve hours. Within a few days, action levels can be reached.

5.3 In closed or sealed water systems even if Legionella bacteria are found to be present at very high concentrations, under normal operation the risk present is low although where Legionella is present the risk remains. FHG recognises that its duty is to minimise the Legionella bacteria levels.

5.4 During cleaning or maintenance works where aerosols may be generated these same low risk systems could present an unacceptable level of exposure to operatives performing such work. In these circumstances, job specific risk assessments and method statements must be in place to cover such maintenance and/or cleaning procedures.

5.5 Experience has shown that while it can be difficult to completely eradicate Legionella bacteria from building water systems, the risks can be reduced to an acceptable and manageable level by the adoption of a suitable programme of system design and risk management and control.

## 6. Legal requirements

6.1 Legislation in the United Kingdom in relation to exposure to hazardous substances including biological agents such as Legionella bacteria is contained within The Control of Substances Hazardous to Health (COSHH) regulations. Under the COSHH regulations the employer has a duty to ensure that health risks associated with hazardous substances including micro-organisms such as Legionella bacteria are adequately controlled in the workplace by a process of risk assessment and management control.

6.2 Further legal requirements are described in the Health and Safety Executive's Approved Code of Practice (ACOP) and Guidance (Fourth Edition): Legionnaires Disease: The Control of Legionella Bacteria in Water Systems (L8) which came into effect on the 25 November 2013. Additionally, HSG274 parts 1, 2 and 3 and HSG282 are guidance notes which assist in compliance with ACoP L8 and are also required to be taken into account.

6.3 Although failure to comply with any provision of the Approved Code of Practice is not in itself an offence, failure may be taken by a court in criminal proceedings as proof that a person or organisation has contravened the legal requirement to which the provision relates. In such a case, however, it will be the person or organisation that has to satisfy the court that compliance with the requirements has been achieved in some other way. The ACOP sets out guidance to satisfy the relevant legislative requirements under COSHH, which include:

- Appoint a competent person for day-to-day management;
- Identification and assessment of risk;
- Preparation of a written scheme for prevention or controlling the risk;
- Management and the selection, training and competence of personnel;
- Record keeping; and
- Responsibilities for designers, manufacturers, importers, suppliers and installers.

## 7. Monitoring and testing

7.1 The extent of monitoring is determined through categorisation of premises and water systems together with the risk assessment process described within this document.

7.2 FHG will engage the services of a nominated and suitably qualified Legionella Control Association member to have responsibility for completing site surveys, risk assessments and for the preparation of site specific written control schemes, record system and programme of maintenance and monitoring for each property allocated to them by FHG.

## 8. Property categorisation

8.1 FHG has worked closely with their nominated water consultants to determine the correct policy and processes for use with the various water system types and sizes installed within its property portfolio. It is essential that the policy adopted is not a one size fits all approach as the risks associated with mains supplied water systems are negligible compared with that of large stored water systems, showers, etc. although this is dependent upon how the water system is designed, maintained and managed.

8.2 FHG has undertaken a review of the water system types contained throughout their flatted property portfolio and has compiled a list of minimum monitoring requirements for Legionella control in each of the different types of premises according to water system type. These are broadly categorised by property size and type and this will be included within the risk assessment for each block.

8.3 As part of ongoing monitoring FHG will review the tenancy information in line with the policy review as it recognises that tenants individual needs will also play a part in the assessing the risk of Legionella, and potentially the monitoring requirement.

8.4 The actual level of risk will be dependent on a number of factors including system design, operation, condition and maintenance. It is important to establish the written control scheme and any requirements for remedial measures such as cleaning and disinfection, equipment removal or replacement.

## 9. Identification and assessment of risk

9.1 FHG will engage the services of a nominated and suitably qualified Legionella Control Association member to have responsibility for completing site surveys, risk assessments and for the preparation of site specific written control schemes, record system and programme of maintenance and monitoring for each property allocated to them by FHG.

9.2 In carrying out the initial assessment of potential risk of exposure to Legionella bacteria, it is essential to take account of the main factors affecting that said risk, as detailed below:

- The potential for Legionella bacteria to colonise, survive and proliferate in the water system under normal operating conditions, for example, is the water temperature between $20^0$c and $45^0$c or is there debris in the system such as rust deposits, sludge or scale;
- The potential for water to stagnate including over-capacity and dead leg area, for example, capped pipe work or vacant areas of the property no longer used;
- Infrequently used outlets such as showers, taps, etc;
- The potential for aerosol generation during normal operation, and when maintenance work is undertaken; and
- The potential for exposure of persons to aerosols containing viable Legionella bacteria.

9.3 It is essential that all sites are assessed adequately to ensure that the most appropriate provisions are made to comply with current legislation. This must include the whole property, including tenanted areas that do not have separate water facilities, or supply from the local water supply company, or where the Group is responsible for building water services.

9.4 The risk assessment shall be reviewed at least every two years or when changes occur. Where the system is unchanged, the existing documentation shall remain but the review date and signature of reviewer must be entered onto the review sheet contained within the risk assessment document. A completed copy of the risk assessment and written control scheme shall be located within the Water Management Log Book supplied by the nominated water consultants who completed the assessment.

## 10. Risk control and written control procedures

10.1 When deciding on control measures appropriate to deal with risk allocation, the following list should be considered in the order given:

- The elimination of the hazard at source, for example, a direct mains- supplied point of use system;
- The reduction of the hazard at source, for example, large water systems, spray apparatus and dead-legs; and
- The reduction of the exposure to the hazard, for example, system checks, temperature monitoring and flushing of infrequently used outlets.

10.2 Process, control measures and policy, must be reviewed on a regular basis and revised as required. Similarly if conditions change to the extent that any risk identified is significantly affected then the risk evaluation and management process shall be reviewed.

10.3 Written control procedures must be provided for controlling the risks identified by the risk assessment taking into account the minimum monitoring requirements. The written control procedure shall clearly identify the specific actions required, their frequency and the nominated person responsible for the undertaking of such actions.

10.4 In controlling the risk of exposure to Legionella bacteria within “at risk” building water systems, particular attention must be paid to the following:

- The control and reduction of aerosol emissions;
- The control of Legionella bacteria proliferation by the application of a suitable water management programme including cleaning and disinfection, temperature control and if required, water treatment, plant and equipment checks, and routine maintenance to ensure compliance with recommendations given in HSG 274 Parts 1, 2 and 3;
- The monitoring of the performance of the water management programme; and
- The effective communication, training and documentation for the operation and maintenance of the water system(s). Additional checks and auditing should also be undertaken to ensure the adequacy of preventative actions for controlling the associated risks.

## 11. Training

11.1 FHG will engage the services of a nominated and suitably qualified Legionella Control Association member to carry out Legionella risk assessments and implement written control measures. As a minimum they must be adequately trained and competent to undertake such tasks and be suitably qualified and be independent of any of the parties carrying out the controls and the testing.

11.2 FHG will ensure that any personnel/persons involved in the management and implementation of the risk control programme are trained through responsible person training and competent in the duties they are required to undertake. FHG and any nominated water consultants will provide specific training in Legionella Awareness and Management, together with the risk management process detailed in this document. FHG will also provide support to colleagues in order to ensure that they understand the risk management process and their role in its successful implementation.

## 12. Water management programme

12.1 On the completion of each risk assessment a written control procedure and site record system including log book will be prepared. Any serious non-compliance identified during the survey visits will be communicated to the Asset Manager and a suitable course of action will be agreed. A copy of the FHG Legionella Log Book is maintained and is available in the organisations Y-drive.

12.2 Where routine system monitoring of temperature and flushing is required we will instruct existing colleagues to check this if appropriate. Where more specialised services are required, such as cleaning and disinfecting, these will be procured by the Group.

12.3 Water quality monitoring requirements will be co-ordinated by the Asset Manager and may involve the services of the nominated water consultant. Risk assessments will be reviewed every two years or more frequently if changes occur to building water services and/or occupancy in accordance with ACOP L8 guidance.

12.4 In order to benchmark and monitor the risk management process a selection of properties will be audited by a water consultant in conjunction with the Asset Manager on an annual basis. The selection will be based on properties not audited the previous year to ensure that all areas are covered and at some point during the audit process.

## 13. Documentation and records

13.1 The HSE Approved Code of Practice and guidance requires that detailed records are to be kept in a site file or electronic logbook. It is essential that records are organised in a structured format and reflect the key management processes in order to demonstrate compliance with the relevant statutory requirements and FHG requirements as set out in this document.

13.2 Relevant information shall be compiled and maintained by the Asset Management team to ensure that procedures and records reflect the water systems identified in the risk evaluation process. The Asset Manager will assign the tasks to ensure that operatives comply with the risk management programme. This information will be held within the Aareon ICT system.

13.3 It is the duty of FHG and its employees and agents to ensure that organisations and personnel employed are competent, suitably trained and have the necessary equipment to undertake their duties under the written control procedures, adequately and safely. These arrangements will be audited at a nominated percentage of sites on a randomly selected basis. Any non-compliance will be formally reported, and dependent on the severity, may include a written warning notification.

13.4 The level of documentation provided will be dependent on the system category determined for each location following the format of the following list:

**Site information**

- Risk management process;
- Risk assessment report and survey forms;
- Schematic drawing(s);
- Written control procedure;
- Training records; and
- Chemical safety information (If water treatment chemicals are in use).

**Diary -** Diary pages for recording all site checks, maintenance and monitoring.

**Temperature monitoring -** All categories: as required by the risk assessment.

**Cleaning and disinfection certificates -** Only approved documentation to be used in order to ensure consistency in site documentation.

**Water treatment -** All water treatment chemicals and equipment should be used in accordance with the manufacturer's instructions. Chemicals should be dosed to achieve stated concentrations and amounts of chemical used, recorded.

**All records will be kept for a minimum of five years.**

## 14. Maintenance

14.1 FHG will regularly seek guidance from its nominated water consultants on the current best practice for regular maintenance of all of its water systems. This will include:

- Cold water storage tanks;
- Water heaters and/or calorifiers;
- Showers; and
- Details of commissioning and de-commissioning procedures

This list is not exhaustive and the risk assessment will identify any potential areas that require additional maintenance.

14.2 FHG does not currently undertake any monitoring or de-scaling of showers within individual rented properties. This is deemed the responsibility of the tenant who will be informed/issued with guidance on the controls they can easily take to reduce the risk. Care will be taken where the tenant may be vulnerable and/or incapable of carrying out the controls identified.

## 15. Upgrades and new installations

15.1 Water services that are directly fed from the incoming mains supply present reduced risk to building occupants, so when contemplating new or refurbishment projects that involve work to the water services; this shall be the preferred solution. In all other circumstances, systems shall be changed from stored, to mains supplied, as opportunities arise for an upgrade.

15.2 When completing upgrade work, water services must comply with British Standards and Water Supply Regulations. Any changes made to site water systems must be documented within the site record system and where appropriate, the risk assessment and schematic drawings must be amended accordingly. The key points to consider when refurbishing or installing new water systems are:

- Keep systems simple;
- Restrict microbiological growth by keeping temperatures below $20^0$c;
- Remove disused systems and dead legs;
- Use low capacity local area water heaters;
- Insulate pipe work;
- Run all systems from the direct mains supply;
- Where showers are required, use electric point of use units;
- Label all outlets including drinking water; and
- Document all installations on a schematic drawing.

## 16. Roles and responsibilities

16.1 The Chief Executive has overall responsibility for the governance of this policy.

16.2 The Director of Finance, Governance and Assets is responsible for ensuring that this policy is consulted on with Board members and for its review, operational implementation and proper application.

## 17. Performance management

17.1 Any concerns regarding the adherence to this policy will be reported to the Board.

17.2 The achievement of testing against this policy will be reported through FHG's performance indicators.

17.3 Any change to the appointed professional consultant or the ‘responsible person’ will be advised through the CEO’s Report to Board.

## 18. Review

This policy will be reviewed every two years in conjunction with the risk assessment review.