

Lothian Operational Standard

LB-HS-115 Management of Legionella

This Standard details the minimum requirements for ensuring compliance with health and safety legislation and implementation of the Lothian H&S Policy Statement.

1. INTRODUCTION

Legionellosis is the collective name given to the pneumonia-like illness caused by legionella bacteria. Legionnaires' disease is a potentially fatal form of pneumonia and is caused when water droplets containing the bacteria are inhaled. Typical sources include hot and cold-water systems, sprays, showers, cooling towers and spa baths.

Any water system, with the right environmental conditions, could be a source for legionella bacteria growth. There is a reasonably foreseeable legionella risk if your water system:

- Has a water temperature between 20–45 °C
- Creates and/or spreads breathable droplets, e.g. aerosol created by a cooling tower, or water outlets such as shower heads and sprays
- Stores and/or re-circulates water
- Contains a source of food for the organism, e.g. presence of sludge, scale or fouling

It is important that control measures are implemented to prevent these conditions occurring in the workplace.

2. POLICY STATEMENT

Lothian are committed to ensuring that water systems in all their premises are installed, operated and maintained in a manner which reduces risk from legionella and ensures reasonable water quality.

3. SUMMARY OF REQUIREMENTS

Duties under the Health and Safety at Work Etc. Act 1974 (HSWA) extend to risks from legionella bacteria, which may arise from work activities.

The Control of Substances Hazardous to Health Regulations 2002 (COSHH) more specifically provide a framework of duties designed to assess, prevent or control the risk from bacteria like legionella and take suitable precautions.

The Approved Code of Practice "Legionnaires' disease: The control of Legionella bacteria in water systems" (L8) contains practical guidance on how to manage and control risks.

Employers are specifically required to reduce the risks from legionella by:

- Ensuring all systems in the workplace that could be a potential source of infection are identified and assessed for risk every two years
- Implementing a control scheme to ensure the risk of exposure is minimised
- Appointing someone competent and trained to manage and control the scheme effectively
- Retaining and updating site log books with details of maintenance, modifications and monitoring

4. WHAT NEEDS TO BE DONE

Responsibilities

- 4.1 Within Lothian, responsibility for the overall management of legionella should be allocated to an appropriate Director or Senior Manager.
- 4.2 For each location where the risk assessment identifies there is a risk from legionella the Director or Senior Manager indicated in item 4.1 must ensure that a competent¹ person is appointed to take managerial responsibility on a day-to-day basis, and to coordinate and supervise the implementation of any necessary control measures.
- 4.3 The 'Responsible Person' must have the status and authority to carry out their duties and knowledge of the installations e.g. Engineering Manager or equivalent, as a minimum.
- 4.4 The 'Responsible Person' must advise and monitor the arrangements for the assessment of risk, control and monitoring of water systems including liaison with contractors conducting assessments and maintenance.

Risk Assessment

- 4.5 Lothian must ensure that an assessment of the risks from legionella is carried out for each site under their control taking into account all water systems which could be a potential source of legionella bacteria growth.
- 4.6 Assessments must be carried out by third party, competent and trained LCA accredited specialist consultant appointed in accordance with the requirements of Lothian Contractor and Supplier Management.
- 4.7 Lothian must ensure that the documented assessment for all sites identifies:
- All potential sources of risk in hot and cold-water systems and hazard ratings for each

¹ **Competent** – relevant and sufficient training and experience, knowledge and other qualities to fulfil legal obligations. As a minimum the Responsible Person must have attended "Legionella Control for Managers" training.

- Management Responsibilities i.e. who is responsible for managing its implementation
- How to safely and correctly operate the system
- A Programme of Controls necessary to address risks relevant to the site including specifically,
 - Inspection, monitoring and on-going maintenance i.e. what checks will be carried out and the frequency
 - Any immediate remedial work that is necessary
 - Any long-term remedial work that is necessary
- Basic information for the compilation of a log book (see Records)
- A review date

The risk assessment may be supported by photographs of plant inspected and schematic drawings of the system(s) as appropriate, if required

4.8 A valid assessment must be documented for each site under the control of Lothian

4.9 Assessments must be reviewed every 2 years or wherever there is reason to believe that it is no longer valid such as:

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

Prevent or Control Risk

4.10 The recommendations from the risk assessment will indicate specifically the action to be taken to reduce risk. Lothian must ensure arrangements are in place to address any remedial actions and implement a programme of control measures as appropriate to the risk that have been identified.

4.11 The 'Responsible Person' must implement a course of action that will be effective in managing the risk from legionella and as recommended in the documented risk assessment.

4.12 In general, this will include:

- Ensuring that the release of water spray is properly controlled
- Avoiding water temperatures between 20 and 45°C and conditions that favour the growth of legionella and other micro-organisms

- Ensuring water cannot stagnate anywhere in the system by keeping pipe lengths as short as possible, removing redundant pipework and flushing systems regularly
- Avoid use of materials in systems that harbour bacteria or provide nutrients for bacterial growth
- Keep the system and the water in it clean and avoid build-up of sediments;
- Treat the water to either kill legionella (and other microorganisms) or limit their ability to grow
- Ensuring systems operate safely and correctly and that it is adequately maintained

Training and Information

- 4.13** Lothian must ensure that an adequate level of training is provided to those appointed to the role of 'Responsible Person' in order for them to fulfil their duties i.e. attendance on "Legionella Control for Managers" which may be provided by the current preferred contractor, as a minimum.
- 4.14** Where other duties are delegated or deputised to other managers or supervisors, they too must attend the training indicated in item 4.13
- 4.15** Other employees and those involved in maintenance, facilities or property departments should receive instruction and information on the risks specific to the sites they will be working on i.e. attendance on "Legionella Control for Everyone" which could be provided by the current preferred contractor, as a minimum.

Records

- 4.16** A Log Book (maybe digital) must be retained for all affected Lothian sites and should contain the following, as a minimum:
- a) Names and position of people responsible for carrying out the various tasks under the written scheme;
 - b) The risk assessment and a written scheme of actions and control measures;
 - c) Plans or schematic drawings of the systems;
 - d) Details of precautionary measures that have been carried out, including sufficient detail to show that they were carried out correctly and the dates on which they were carried out;
 - e) Remedial work required and carried out, and the date of completion;
 - f) A log detailing visits by contractors, consultants and other personnel;
 - g) Cleaning and disinfection procedures and associated reports and certificates;
 - h) Results of the chemical analysis of the water;
 - i) Information on other relevant hazards, e.g. treatment chemicals;
 - j) Training records of personnel;
 - k) The name and position of the people or persons who have responsibilities for implementing the scheme, their respective responsibilities and their lines of communication;

- l) Records showing the current state of operation of the system, e.g. when the system or plant is in use and, if not in use, whether it is drained down; and
- m) The signature of the person carrying out the work, or other form of authentication where appropriate.

4.17 Managers and employees attending training must be requested to sign a record of attendance to indicate they have received and understood it. Copies of training records should be retained in the Log Book.

5. WHO SHOULD DO IT

5.1 Managing Director having overall accountability for safety must:

- Ensure that the requirements of this standard are fulfilled
- Ensure responsibility is appropriately allocated for the management of legionella and that necessary resources are made available to enable duties to be fully discharged and any remedial actions addressed

5.2 Directors and Senior Managers must:

- Ensure arrangements for assessing and controlling risks associated with legionella are in place at each location and that responsibilities for carrying out assessments and implementing control measures have been appropriately allocated
- Ensure that arrangements for the identification and management of legionella are regularly monitored and reviewed
- Ensure employees appointed with responsibilities or having specific duties are competent and have received an appropriate level of training, instruction and information

5.3 The person appointed as 'Responsible Manager' must:

- Take managerial responsibility on a day-to-day basis for the management of legionella, and coordinate and supervise the implementation of any necessary control measures
- Ensure a valid assessment is carried and documented by a third party, competent and trained LCA accredited specialist consultant taking into account all water systems which could be a potential source of legionella bacteria growth
- Implement a course of action that will be effective in managing the risk from legionella and as recommended in the documented risk assessment
- Ensure those nominated with specific duties in-house as part of the written scheme e.g. measuring and recording water temperatures, cleaning and disinfection of showerheads etc., are competent and have received adequate training
- Ensure the risk assessment is reviewed every 2 years or wherever there is reason to believe that it is no longer valid

- Liaise with contractors conducting assessments and carrying out any remedial work
- Ensure a log book is compiled that identifies all affected sites and that records as relevant to the identification and control of legionella on the sites is retained

5.4 H&S Manager must:

- Advise managers on implementation of this standard and the measures needed to reduce exposure and risks associated with legionella
- Advise on and monitor the arrangements for the assessment of risk, control and monitoring of water systems
- Provide advice regarding the provision of training and information to employees

5.5 Employees must:

- Familiarise themselves with the risks and precautions associated with their work activities
- Cooperate with management, and others who have responsibility for ensuring control measures are maintained at all times
- Stop, Think and 'Check' for potential hazards immediately before starting a task and to take into account changing circumstances throughout the task by carrying out a dynamic risk assessment²
- Not misuse or damage equipment which has been provided to reduce exposure and report any defects in control measures to their line manager.
- Report any defects in control measures immediately to the line manager
- Notify the line manager immediately of the onset of any ill health effect and raise any concerns about their health and safety with their manager in the first instance

6. MEASURE

- 6.1 The requirements of this standard will be monitored by Lothian H&S to ensure effective implementation.

Evidence of effective management will include:

- Documented risk assessments and written schemes of actions and control measures are readily available for each site
- A complete and up to date Log Book is available
- Control measures identified in the scheme have been fully implemented and there are no outstanding remedial actions

7. AUDIT

- 7.1 Compliance with the requirements of this H&S Standard will be audited periodically in accordance with the Lothian H&S Audit Programme.

8. REVIEW

- 8.1 This H&S Standard will be reviewed every 2 years or in accordance with Lothian Policy following significant changes in the matter to which it relates.

9. REFERENCES AND RESOURCES

- L8: Legionnaires Disease, The Control of legionella bacteria in water systems: Approved Code of Practice