





Health and Safety

Control of Legionella in Water Systems

Minimum Standard

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1 Aims and Principles

The aim of this Government of Jersey (GoJ) Minimum Standard is to provide guidance to departments on the steps which should be taken to manage the risks associated with exposure to legionella bacteria.

This Minimum Standard sets out the requirements placed on departments with responsibility for the safety of any water system and the arrangements which should be in place to ensure the safety of employees and others who could be affected, such as contractors or members of the public.

Departments which hold responsibility for managing the risks associated with legionella must develop their own procedures, detailing the specific arrangements to be implemented. The procedures must meet the standards set out in this document or be of an equivalent or higher standard.

2 Legislation and Guidance

a) Applicable Legislation

Health and Safety at Work (Jersey) Law, 1989

b) Guidance

Legionella and Legionnaire's Disease UK HSE (INDEX)

<u>Legionnaires' disease.</u> The control of legionella bacteria in water systems - Approved Code of Practice and guidance (L8) (UK HSE)

Other useful references are contained in Appendix A.

3 Definitions

Legionella

A single bacterium of the genus legionellae, exposure to which can cause legionnaires' disease, a form of pneumonia.

Responsible Person

Appointed person with day-to-day responsibility for the management of a water system where it is reasonably foreseeable that legionella could arise due to its design, purpose or usage.

4 Who this Minimum Standard Applies to

Applies to:

- All Government of Jersey (GoJ) and States' employees
- All Appointees
- Voluntary staff or those on honorary contracts where there is no implied contract of employment

5 Links to other GoJ Policies, Minimum Standards and Guidance

a) Policies

Government of Jersey - Health and Safety Policy

b) GoJ Minimum Standards

Control of Contractors
COSHH
Incident Reporting and Investigation
Lone Working
Permit to Work
Pressure Systems
Personal Protective Equipment
Risk Assessment

6 Roles and Responsibilities

The department responsible for managing any GoJ owned or occupied buildings should ensure that arrangements are in place which clearly set out the roles and responsibilities of those required to manage the risks to employees and others from potential legionella in water systems.

Reference should be made to the Government of Jersey - Health and Safety Policy for general responsibilities.

7 Persons in Control of Premises

GoJ departments occupy or are responsible for a large number of premises. The key to ensuring that the risk of legionella is properly managed is for the responsibilities of GoJ, whether landlord, tenant or both, to be clearly identified.

The responsibility for the safety of the water system in any premises either occupied or managed by GoJ should be clearly defined in the lease or Service Level Agreement, whichever is applicable.

All GoJ departments which occupy or have responsibility for parts of any building should check the relevant documents to identify which party, landlord or occupier, is responsible.

Appropriate steps should be taken to confirm that the risks posed by legionella are being actively managed, including by parties who do not have the responsibility for the safety of the water system but could be affected by it.

8 Water Risk Assessment

Any GoJ department with responsibility for ensuring safe water systems, will need to carry out a suitable and sufficient water risk assessment of any systems which use water within the building and which could pose a risk. This should identify and assess the risk of exposure to legionella bacteria from work activities and any water systems on the premises and determine appropriate control measures required to be put in place to manage those risks.

The purpose of the assessment is to provide information on:

- Risks to health, i.e. whether the potential for harm to health from exposure is reasonably foreseeable, unless adequate precautionary measures are taken; and
- Necessary measures to prevent, or adequately control, the risk from exposure to legionella bacteria.

In many instances, the risk may be low and is already being properly managed. Examples of this include:

- In a small building without individuals especially 'at risk' from legionella bacteria
- Where daily water usage is inevitable and sufficient to turn over the entire system
- Where cold water is directly from a wholesome mains supply (no stored water tanks)
- Where hot water is fed from instantaneous heaters or low volume water heaters (supplying outlets at 50 °C)
- Where the only outlets are toilets and wash hand basins (no showers)

Any person carrying out an assessment of the risks posed by a water system and providing advice on prevention and control of exposure must be competent to do so. This person will usually be an external consultant/contractor. See Sections 12 and 13.

All systems require a water risk assessment but not all systems will require elaborate control measures to be implemented.

However, the water risk assessment should continue to be reviewed regularly in case of any changes in the system or if there is reason to be believe it is no longer valid.

Further information on matters to consider during the water risk assessment process is available in <u>Legionnaires' disease</u>. The control of legionella bacteria in water systems - Approved Code of <u>Practice and guidance (L8) (UK HSE)</u>.

Additional sources of information are also available in Appendix A.

9 Control Measures to Manage the Risk of Exposure

The water risk assessment should identify the types of control measures which can be implemented to manage the risk of exposure to legionella bacteria.

Control measures used to control the potential growth of legionella bacteria in a system include the following:

- Avoiding water temperatures between 20 °C and 45 °C, the temperature range that legionella and other microorganisms will multiply.
- Prevent potential water stagnation which may encourage biofilm and bacterial growth by regular use of the water outlets.
- Avoiding the use of materials that harbour bacteria and other microorganisms, or provide nutrients for microbial growth i.e. fittings, materials, and appliances. Use approved plumbing fittings and materials (WRAS approved) to comply with UK legal requirements.
- Using water treatment processes
- Taking action to ensure the correct and safe operation and maintenance of the water system.

In simple terms, keep the cold water cold, the hot water hot and keep water moving.

10 Appointment of a Responsible Person

Where the initial assessment of a water system shows that there is a reasonably foreseeable risk of exposure to legionella bacteria and measures can be put in place to prevent or control the risk of exposure, a competent person, known as the 'Responsible Person' should be appointed by the department responsible for the premises.

This person should have sufficient authority, training, competence and knowledge of the installation.

They will be required to take day-to-day responsibility for ensuring that the risks are controlled and should make sure that the following is carried out:

A suitable and sufficient water risk assessment is carried out (see Section 8)

- A written scheme is prepared and implemented (see Section 11)
- Any persons involved with works on GoJ water systems are trained and competent (see Section 12)
- Only competent consultants and contractors are engaged to provide water safety services (see Section 13)
- Monitoring and routine inspections are carried out as required (see Section 14)
- Records are kept as required (see Section 15)

The Responsible Person will have overall responsibility to ensure these actions are carried out but it is likely that other persons, including those external third parties, will be required to assist.

A deputy must also be appointed to cover when the Responsible Person is unavailable or alternative arrangements made e.g. obtain support from an external competent person or other GoJ Responsible Person.

11 Design and Refurbishment of Water Systems

The design of new water systems, whether in new buildings or those planned as part of refurbishment or alteration of existing buildings, shall be properly controlled.

To avoid any potential costly remedial works and on-going maintenance, all designs need to take account of the following:

- 'Get it right first time' avoiding potentially costly remedial works.
- Eliminate or, where elimination is not reasonably practicable, minimise the risks associated with the water system, including waterborne pathogens, scalding, chemical hazards, and disruption to supplies.

Departments responsible for overseeing this type of work must ensure that only competent persons are engaged to design or refurbish water systems.

12 Written Scheme

A written scheme must be prepared by the department responsible for the premises.

The written scheme should make reference to the risk assessment and should specify the control measures that are required for controlling the risk from exposure to legionella and how these will be implemented and managed.

The written scheme should include:

- An up-to-date plan showing the layout of the plant or water system, including parts temporarily out of use (a schematic diagram is sufficient)
- A description of the correct and safe operation of the system
- The control measures required to ensure safe use.
- Checks needed to ensure the written scheme is effective and the frequency of such checks.
- The remedial action to take if the written scheme is shown to be not effective.

The written scheme should also provide details of:

- The physical treatment programme e.g. using temperature control for hot and cold water systems
- The chemical treatment programme, including a description of the manufacturer's data on effectiveness, the concentrations and contact time required.
- Health and safety information for storage, handling, use and disposal of chemicals if used by GoJ employees or if stored on GoJ premises.
- System control parameters (together with allowable tolerances); physical, chemical and biological parameters, together with measurement methods and sampling locations, test frequencies and procedures for maintaining consistency.
- Actions to be taken in the event of a failure of the control measures, including.
 - Lines of communication
 - Cleaning and disinfection procedures
 - Emergency procedures.

The written scheme should also describe the correct operation of the water system plant, including:

- Commissioning and recommissioning procedures
- Shutdown procedures
- Checks of warning systems and diagnostic systems in case of system malfunctions
- Maintenance requirements and frequencies
- Operating cycles including when the system plant is in use or idle.

Further guidance on the prevention or control of exposure is available in <u>HSG274 Legionnaires'</u> disease – technical guidance. Parts 1, 2 & 3 (UK HSE).

13 Training and Competency

All persons involved with GoJ water systems in any capacity, whether employees or external third parties, must be suitably trained and competent to carry out the required tasks.

Responsible Person

The Responsible Person will need sufficient knowledge and understanding of the water system to enable them to carry out their role as defined in Section 10.

It is recommended that any GoJ person appointed as a Responsible Person should as a minimum, have attended a 'Legionella – Responsible Person' training course.

Persons carrying out the water risk assessment

Any person carrying out a water risk assessment of water systems must have sufficient understanding of the design of the water system, how it is used and the effect this will have on the potential for legionella bacteria to arise within the system.

They must also have a full understanding of the typical control measures for managing the risks and how these can be implemented.

Water risk assessments are usually carried out by a competent external contractor.

GoJ employees working on water systems

Any GoJ employees carrying out work on water systems which could expose themselves or others to legionella should be given suitable water hygiene training.

This should include the findings of the water risk assessment and the control measures and actions which need to be taken to protect themselves and others.

Appendix B provides guidance on the type of information which could be included in water hygiene training.

If appointing an external contractor to carry out works on water systems, checks should be made that they are have the necessary training, knowledge, ability and experience to provide the required service. See Section 13.

14 Appointing External Consultants or Contractors (service providers)

GoJ departments may use specialist service providers, such as consultants and contractors, to undertake aspects of the operation of water systems including the water risk assessment, maintenance, and implementation of control measures, such as treatment or cleaning etc.,

Those who appoint specialist service providers should make reasonable enquiries to satisfy themselves of the competence of these parties in their area of work before entering any contracts e.g. water risk assessment provision, treatment, monitoring, cleaning etc.

Appendix C contains a template 'Evidence of Service Provider's Competence' letter for making such enquiries.

The enquiring department should be satisfied that any service provider employed is competent to carry out the required tasks and that the tasks are carried out to the required standards.

Registration with a body such as The Legionella Control Association can help service providers to demonstrate a commitment to good practice and an <u>online directory</u> of members is available. Members are required to meet the standards set out in the <u>Code of Conduct</u> and <u>A Buyer's Guide to Using the Code of Conduct for Service Providers</u> is also available for reference.

The Code of Conduct does not have any legal status but gives guidance to those who appoint service providers about the standards of service they should expect to receive.

Only installers with the appropriate qualifications, regulatory knowledge and competence should be appointed to install and maintain water installations. If using UK contractors, the <u>Water Safe</u> register holds details from all seven Approved Contractors' Schemes for businesses that have registered plumbing installers who are authorised through the Water Supply (Water Fittings) Regulations 1999. Local contractors will need to provide other evidence of competency.

For further information on appointing contractors, reference should be made to the Government of Jersey Minimum Standard – Control of Contractors.

15 Monitoring and Routine Inspection

To ensure that control measures remain effective, the condition and performance of the water system will need to be monitored. The appointed Responsible Person should ensure that arrangements are in place for monitoring and inspections to be carried out, which could be by GoJ employees or a third party.

Management arrangements should include:

- Checking the performance and operation of the system and its component parts
- Inspecting the accessible parts of the system for damage and signs of contamination
- Monitoring to ensure that any treatment regimes continue to control to the required standard.

The frequency and extent of routine monitoring will depend on the operating characteristics of the water system and a suitably competent person will be able to advise on the monitoring regime required.

16 Record Keeping

Records should be kept to enable the responsible department to demonstrate that the risks have been assessed and that suitable controls are in place and are being monitored to confirm effectiveness.

Records should include:

 Names and positions of persons responsible, and their deputies, for carrying out the various tasks under the written scheme

- The name and position of the person or persons who have responsibilities for implementing the written scheme, their respective responsibilities and their lines of communication
- A water risk assessment and a written scheme of actions and control measures
- Schematic diagrams of the water systems
- Details of precautionary measures that have been applied/implemented including enough detail to show that they were applied/implemented correctly, and the dates on which they were carried out
- Remedial work required and carried out, and the date of completion
- Either the signature of the person carrying out the work, or other form of authentication where appropriate.
- A log detailing visits by contractors, consultants and other personnel
- Cleaning and disinfection procedures and associated reports and certificates
- Results of any chemical or microbiological water sampling
- Records of any monitoring/inspection test or check carried out with dates included
- Information on other hazards, e.g. treatment chemicals
- Training records of personnel
- Records showing the current state of operation of the water system, e.g. when the system
 or plant is in use and, if not in use, whether it is drained down
- Other items such as meetings and audits

Records should be kept for 5 years and can be stored electronically.

APPENDIX A

Useful References

Water Supply [Water Fittings] Regulations, 1999

Water Supply [Water Quality] Regulations, 2010

Control of Substances Hazardous to Health Regulations, 2002

<u>L8 - Legionnaires' disease. The control of legionella bacteria in water systems - Approved</u> <u>Code of Practice and guidance (UK HSE)</u>

HSG274 - Legionnaires' disease - technical guidance. Parts 1, 2 & 3 (UK HSE).

HSG282 - The control of legionella and other infectious agents in spa-pool systems (UK HSE).

The Building Regulations, 1992

BS 8580:2019 – Risk Assessments for Legionella Control.

BS 8558:2015 – Installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages specification

BS EN 806. Parts 1 to 5. – Specifications for installations inside buildings conveying water for human consumption.

BS 7592:2022 – Description: Sampling for Legionella bacteria in water systems. Code of practice

Water Regulations Advisory Scheme [WRAS] Water Regulations Guide: 2004

Water Regulations Advisory Scheme [WRAS] Water Fittings and Materials Guide: 2005

Health Technical Memorandum 04-01: Safe water in healthcare premises, Parts A & B (HTM 04-01)

APPENDIX B

Water Hygiene Training

Water hygiene training should be given to all GoJ persons who have responsibility for water systems which pose a risk from legionella.

Water hygiene training will cover an appreciation of practices that can affect water hygiene, outlet cleanliness and user safety.

Those working on water systems [including outlets] should receive training in good working practices to prevent contamination of water supplies and outlets.

Those responsible for housekeeping tasks such as outlet flushing, and cleaning of outlets shall also be trained in how to prevent the contamination of water supplies.

The level of training required for individuals will be dependent on their role and should encompass a variety of areas which will be relevant for them. The minimum will usually be a Legionella Awareness course with any further training being determined by either the Responsible Person or other competent individual/organisation.

Examples of areas covered

- Relevant parts of the Written Scheme (see Section 11)
- An awareness of Waterborne pathogens and their consequences
- Departmental control strategies and how water distribution systems, water outlets, components and any associated equipment can become contaminated
- Roles & responsibilities of individuals to prevent the contamination of the water distribution system and water outlets and assisting in ensuring control measures in place are effective.
- New system design and refurbishment
- Components/accessories (taps, TMVs) and how to store and handle pipework
- How the safety of water can be maintained by good hygiene practices [personal hygiene along with dealing with clothing, footwear, cleaning equipment/materials, tools and storage when considering water hygiene]
- Disinfection and cleaning equipment/ materials.

APPENDIX C

Template Letter - Evidence of Service Provider's Competence

Contractor name Contractors Address 1 Contractors Address 2 Contractors Address 3

[date]

Dear [name],

Re: Competence Confirmation for Service Providers

The risk of legionnaires disease and poor water hygiene within Government of Jersey properties are health and safety issues which the Government of Jersey pro-actively manages.

The requirement to ensure that the risks associated with legionella bacteria are effectively managed in water systems operated in Jersey is enshrined in the Health and Safety at Work (Jersey) Law, 1989. Reference is made to UK standards for particular guidance on the practical arrangements which should be in place to comply with this.

Guidance from the UK HSE & the UK Department of Health requires [organisation] to have vetted all contracting companies who are suppliers of goods, services and/or consulting advice to the [organisation].

As such this is a formal request from [organisation] for you to please provide physical evidence [in the form of copies] of both competence for the company and/or individual membership [as applicable], to the following:

- Membership certificate to the LCA [Legionella Control Association] https://www.legionellacontrol.org.uk/
- Membership to one of the schemes covered by the Water Safe Register (UK companies only)
 www.watersafe.org.uk

If you require any further information about either of these schemes, please refer to the web links provided.

For further information as to why [organisation] is requesting this information, please refer to:

- Using Contractors A Brief Guide (UK HSE)
- <u>Legionnaires' disease. The control of legionella bacteria in water systems Approved Code of Practice and quidance (L8) (UK HSE)</u>

Yours sincerely, [name]