



WARRINGTON
Borough Council

**COMMUNITY SAEFTY AND RESILIENCE TEAM
STANDARD OPERATING PROCEDURE SOP01**

**THE CONTROL OF WATER BORNE BACTERIA, PARTICULARLY
LEGIONELLA, IN CIVIC BUILDINGS AND SCHOOLS**

**WARRINGTON BOROUGH COUNCIL
FAMILY AND WELLBEING DIRECTORATE
COMMUNITY SAFETY AND RESILIENCE TEAM
2ND FLOOR NEW TOWN HOUSE
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VERSION:

5

NOTE:

This Standard Operating Procedure (SOP) supports Warrington Borough Council's Health, Safety and Welfare Policy. Directorates and Schools may, if appropriate, add to this information to compliment specific guidance, standard operating procedures and safe systems of work relevant to the control of Legionella in their service activities. This document applies to all WBC Premises and Community Schools. Voluntary Aided Schools and Academy Schools (where WBC are engaged via an SLA as the schools Competent Adviser) may choose to follow this SOP or develop their own effective management systems to control the risks from legionella bacteria.

DOCUMENT CONTROL

Description and Purpose

This guidance note is intended to provide the procedures for Warrington Borough Council staff to follow in order to comply with the ACOP L 8 (Legionnaires' Disease Approved Code Of Practice L8 2013).

Record of Amendments

Active date	Review date	Amendment reference	Reasons for Change	Version	Number of pages
November 2011	November 2012	Full document review		1	29
November 2013	Following any significant changes to legislation or procedures. A full review will be undertaken every 2 years.		Updated Council Logo	2	29
November 2014	Following any significant changes to legislation or procedures. A full review will be undertaken every 2 years	Reviewed	Incorporated Changes to Legislation HSE reviewed ACOP L8 2013 and HSG 274	3	27
December 2015	Following any significant changes to legislation or procedures. A full review will be undertaken every 2 years	Reviewed	Changes to specify line management responsibilities and links to WINNIE and My School Services	4	27
April 2018	Following any significant changes to legislation or procedures. A full review will be undertaken every 2 years	Full Review	Changes to logo, updated links.	5	27

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Target audience									
Responsible persons for Premises	Y								
All WBC staff	Y								

Relevant legislation (if any)
The Health & Safety at Work Act 1974 The Management of Health & Safety at Work Regulations 1999 The Control of Substances Hazardous to Health Regulations 2002 Legionnaires' Disease Approved Code Of Practice L8 2013 HSG 274 Part 1 Evaporative Cooling Systems HSG 274 Part 2 Hot and Cold Water Systems HSG 274 Part 3 Other Risk Systems

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1. Purpose

- 1.1 The purpose of this Standard Operating Procedure (SOP) is to provide sufficient detail to allow Premises Managers acting on behalf of Assistant Directors (via their management structure), Head Teachers (if applicable) and Governing Bodies to identify the risk from waterborne bacteria, particularly legionella bacterium, to develop, monitor and review effective management systems and to control any identified risks from legionella *so far as is reasonably practicable*.
- 1.2 The Council recognises that potential health hazards may arise from being exposed to legionella bacteria and shall seek to ensure that so far as is reasonably practicable employees, occupiers of Premises, contactors, visitors and any other persons are not exposed to legionella bacteria as a result of the Council's undertakings.
- 1.3 The Council will achieve effective control of legionella by taking a proactive approach by commissioning legionella risk assessments (LRAs) on a regular basis, through completion of a legionella control management plan (see separate document) and managing the control of legionella in our buildings to ensure sustained compliance.

2. Legal Requirements

2.1 Health and Safety Law

- 2.1.1 Duties under the Health and Safety at Work etc. Act 1974; apply to the risks from exposure to legionella bacteria that may arise from work activities. The Management Regulations provide a broad framework for controlling health and safety at work. More specifically, the Control of Substances Hazardous to Health (COSHH) Regulations provides a framework of actions designed to control the risk from a range of hazardous substances, including biological agents.

2.2 The Health and Safety at Work etc. Act 1974 (HSWA)

Summary of the Health and Safety at Work Act 1974 sections 2, 3 and 4

Section 2 places a duty on employers to ensure the health, safety and welfare of employees so far as reasonably practicable. Section 2 also requires employers to consult with trade union safety representatives on matters affecting health and safety in the workplace. Employers of more than five people must also prepare a written health and safety policy and bring it to the attention of employees.

Section 3 requires employers to ensure that non-employees who may be affected by work activities are not exposed to risks to their health and safety.

Section 4 places a duty on anyone responsible for the workplace to ensure that the Premises, plant and machinery do not endanger the people using them.

2.3 The Management of Health and Safety at Work Regulations 1999 (MHSWR)

Summary of the Management of Health and Safety at Work Regulations

The Management of Health and Safety at Work Regulations 1999 (MHSW) provides a broad framework for controlling health and safety at work which includes the legal requirement for employers to undertake suitable and sufficient risk assessments, they also require employers to have access to competent assistance in applying the provisions of health and safety law; to establish procedures to be followed by any worker if situations presenting serious and imminent danger were to arise; to record all findings and to ensure co-operation and co-ordination where two or more employers or self-employed persons share a workplace.

2.4 The Control of Substances Hazardous to Health Regulations 2002 (COSHH)

Summary of the Control of substances Hazardous to Health Regulations

The Control of Substances Hazardous to Health Regulations 2002 (COSHH) cover hazardous substances including biological agents (pathogenic micro-organisms) and they contain a schedule of special provisions relating to biological agents. COSHH, together with the associated Approved Codes of Practice (ACoP), require employers to assess the risks of exposure to biological agents (micro-organisms) and either prevent exposure (where reasonably practicable) or adequately control it.

2.5 Compliance with Legal Requirements and compliance with The Approved Code of Practice (ACoP) L8 2013 Legionnaires' disease: the Control of Legionella Bacteria in Water Systems

To comply with legal duties, employers and those with responsibilities for the control of Premises need to take the right precautions to reduce the risk of exposure to legionella, and must understand how to:

- **Identify and assess sources of risk** – This includes ensuring a legionella risk assessment is undertaken by a competent person in order to identify whether conditions are present which will encourage bacteria to multiply, e.g. is the water temperature between 20 - 45°C; is there a means of creating and disseminating breathable droplets, e.g. the aerosol created by a shower, are there any susceptible people who may be exposed to the contaminated aerosols?
- Prepare a management scheme for preventing or controlling the risk;
- Implement, manage and monitor precautions - if control measures are to remain effective, then regular monitoring of the systems and the control measures are essential;
- Manage those risks, including the appointment of a person, or persons, to take managerial responsibility and to provide supervision and training of personnel;

- Monitoring of general bacterial numbers can indicate whether microbiological control is being achieved, this is required for cooling towers and is also recommended for spa pools;
- Sampling for legionella is a means of checking that the management control system is working; (please note, this is not part of the risk assessment process, and is only required if there has been a breach in your control measures).
- Avoid the use of systems that give rise to a reasonably foreseeable risk of legionella or where this is not reasonably practicable, prepare a written scheme for minimising those risks from exposure;
- Keep appropriate records;
- Ensure sustained compliance; to prevent enforcement or prosecution from the Health and Safety Executive (HSE).

2.6 Enforcement

- 2.6.1 The HSE is responsible for enforcing legionella legislation in Councils. Where deaths occur; the Police and the Crown Prosecution Service will be involved. With all health and safety legislation, when a breach occurs, both the organisation and individuals can be prosecuted if circumstances and the audit trail, or lack of it, prove it to be appropriate.
- 2.6.2 Legionella is a risk which is controlled by both preventative management and physical controls. A prosecution is relevant if failings occur in either the practical control measures or the managerial systems designed to monitor and review those controls; however a legionella outbreak is not required to prove negligence.

3. Background to the Disease

- 3.1 Legionellosis is a collective term for diseases caused by legionella bacteria including the most serious Legionnaires' disease, as well as the similar but less serious conditions of Pontiac Fever and Lochgoilhead Fever. Legionnaires' disease is a potentially fatal form of Pneumonia and everyone is susceptible to infection. The risk increases with age, but some people are at higher risk, e.g. people over 45, smokers and heavy drinkers, people suffering from chronic respiratory or kidney disease, diabetes, lung and heart disease or anyone with an impaired immune system.
- 3.2 The bacterium Legionella Pneumophila and related bacteria are common in natural water sources such as rivers, lakes and reservoirs, but usually in low numbers. They may also be found in purpose-built water systems, such as evaporative condensers, hot and cold water systems, spa pools and indoor water features. If conditions are favourable, the bacteria may multiply, increasing the risks of Legionnaires' disease, and it is therefore important to control the risks by introducing appropriate measures.

- 3.3 Legionnaires' disease is normally contracted through inhaling the legionella bacterium in tiny droplets of water (aerosols) suspended in the air such as those in showers, steam rooms and whirlpools etc. Certain conditions can increase the risk from legionella, if:
- The water temperature in all or some parts of the system is between 20 – 45°C, which is suitable for the bacteria to grow;
 - It is possible for water droplets to be produced and if so, they can be dispersed;
 - Water is stored and/or recirculated;
 - There are deposits that can support bacterial growth, such as rust, sludge, scale, organic matter and biofilms.
- 3.4 Legionella bacteria can survive under a wide variety of environmental conditions and have been found in water at temperatures between 6°C and 60°C; however water temperatures in the range 20°C to 45°C seem to favour and proliferate growth.
- 3.5 The legionella bacteria do not appear to multiply below 20°C and will not survive above 60°C, they may, however remain dormant in cool water and multiply only when water temperatures reach a suitable level. Temperatures may also influence virulence; legionella bacteria held at 37°C have greater virulence than the same legionella bacteria kept at a temperature below 25°C, they also require a supply of nutrients to multiply such as algae, amoebae and other bacteria, sediment, sludge, scale and other materials within the system, together with bio-films, which are also thought to play an important role in harbouring and providing favourable conditions in which the legionella bacteria may grow.
- 3.6 Please note: it now seems to be a common occurrence during periods of warm weather for underground supplies to heat up cold water to buildings, to temperatures over 20°C. Utility company's need to supply cold water at 25°C or below, therefore if your incoming water supply temperature is between 21°C - 25°C it is paramount that you ensure that all other risk control measures are in place, actioned and monitored with records maintained. Where incoming supplies of cold water are over 25°C it is the Premises Managers responsibility to report this issue to your utility company for them to address.
- 3.7 A bio-film is a thin layer of micro-organisms which may form slime on the surfaces in contact with water, such bio-films, sludge and scale can protect legionella bacteria from temperatures and concentrations of biocide that would otherwise kill or inhibit these organisms if they were freely suspended in the water.
- 3.8 As legionella bacteria are commonly encountered in environmental sources they may eventually colonise in manufactured water systems and be found in hot and cold water systems, showers, Jacuzzi spa pools, water features and other plant which use or store water.
- 3.9 It is important to control the risks by introducing measures which do not allow proliferation of the organisms in the water systems and reduce, **so far as is reasonably practicable**, exposure to water droplets and aerosol. This will reduce the possibility of creating conditions in which the risk from exposure to legionella bacteria is increased.

- 3.10 At this time, there is no evidence of legionnaires disease being caught through person to person contact, the incubation period is between 2-10 days. Not everyone exposed will develop the full-blown disease but may suffer mild flu like symptoms, initial symptoms of the disease include high fever; chills, headaches and muscle pain, about one third of patients infected also develop diarrhoea or vomiting.

4. Management of the Risk of Legionella by Warrington Borough Council

- 4.1 Warrington Borough Council is committed to meeting its legal obligations under the Health and Safety at Work etc. Act 1974, the Management of Health and Safety at Work Regulations 1999, the Control of Substances Hazardous to Health and the ACoP issued by the Health and Safety Executive L8 2013.
- 4.2 The Chief Executive (CEX) is ultimately responsible and accountable for health and safety matters including the management of legionella. In line with the Council's Health and Safety Policy, the CEX operates through the Executive Directors who hold Assistant Directors to account for health, safety and welfare matters within their Division.
- 4.3 All employers for Civic Buildings, Local Authority Maintained Schools, Voluntary Schools and Academies have a duty of care to ensure legislative compliance with the risks associated with the control of legionella and **MUST** ensure they manage legionella in their buildings, Premises or school.

5. Duty Holders and Responsible Persons

5.1 Civic Buildings and Schools

- 5.1.1 The duty holder (Chief Executive via Executive Directors to Assistant Directors and Head Teachers for Local Authority Maintained Schools) are responsible for Legionella Management, duties are delegated via the service management structure to a designated "Nominated Person" (known as the Premises Manager in Civic Buildings or the Head Teachers in schools) who have control of the building and responsibility for maintenance, repairs and the overall day to day management of the control of legionella bacteria in their building or Premises and have a responsibility to ensure that legionella is managed and controlled effectively. This SOP and the Legionella Control Management Plan have been developed by the Council and should be followed and implemented to ensure compliance to the ACoP L8 2013.
- 5.2 In Voluntary Primary / High Schools (Church of England and Catholic) and Academy Schools, the Governing body, as the employer is responsible for compliance with the statutory health, safety and welfare for all employees, pupils, visitors and contractors on site. All parties should specifically appoint a competent person or persons and deputy to take day to day responsibility for controlling any identified risks from legionella bacteria. We would recommend that you implement and follow the

information within this SOP and the supporting Legionella Control Management Plan developed by WBC to ensure compliance with the ACoP L8 2013.

- 5.3 It is important that the Premises Manager (*and the assigned tap turner - appointed person*) have sufficient authority, competence and knowledge of the installation to ensure that all operational procedures are carried out effectively and in a timely way. Those specifically nominated to implement the control measures and strategies **must** be informed, instructed and their suitability assessed. They must be properly trained to a level that ensures tasks are carried out in a safe, technically competent manner; are fully aware and understand their responsibilities.
- 5.4 The Premises Manager can delegate tasks to other employees but ultimately they still have the management responsibility and therefore should seek assurance that arrangements are in place.

6. Managing the Risk of Legionella – Management Responsibilities

6.1 Assistant Directors (with Premises under their remit) are required to ensure that the following arrangements are in place within their service:

- Appoint a Premises Manager to carry out the day to day management duties of the Water Systems in the Premises.
- Ensure awareness of and have an understanding of the requirements within this Standard Operating Procedure (SOP) for legionella;
- Ensure that sufficient financial budgets are made available to the designated persons to manage the risks from legionella;
- Ensure that sufficient employees are appointed, adequately trained and are competent to undertake their duties under the Health and Safety Policy and this Legionella Standard Operating Procedure; Legionella training is available at St Werburgh's Development Centre tel.no. 442600 for further details;
- Ensure that a Legionella Risk Assessment is undertaken by a competent person and a written scheme of examination for legionella is completed, using the WBC Legionella Control Management Plan (see separate document);
- Ensure that the nominated persons have the appropriate capacity within their role to discharge the responsibilities effectively and ensure that the control of legionella is managed, monitored, reviewed and recorded to achieve sustained compliance.
- Ensure that Premises (including land) used within the Council where water is used or stored and where there is a potential for the creation of water droplets, (in reality, water droplets can occur anytime water is discharged from a system) are listed on the Councils Premises Managers list which is held and updated by the Property and Estates Management (PEM) Team.

Please note: The centrally held property list is updated annually; PEM officers reissue the property list to Assistant Directors for review. The Assistant Directors via their

delegated line management arrangements and the nominated Premises Manager are responsible for updating information including changes to personnel involved in the Management of Legionella, and for ensuring any changes are sent through to the PEM Team.

6.1.1 The Assistant Directors may delegate the duties listed above via their service management structure. This includes the duty to nominate a Premises Manager and for ensuring the delivery, implementation and monitoring of the above arrangements. Ultimately the Assistant Director still remains accountable for ensuring the Management of legionella within their service area.

6.2 **Nominated Premises Managers are responsible for ensuring that:**

- Reviews of the legionella risk assessment (LRA) are undertaken in accordance with the HSE ACOP L8 2013. Regular reviews of the legionella risk assessment must be undertaken by either the Council's Approved Specialist Water Hygiene Contractor or another Water Hygiene Contractor that the Management Service or the Premises Manager chooses to appoint. Risks must be identified and the required control measures necessary to reduce those risks implemented and documented.

Please note: Although the new ACOP L 8 2013 no longer stipulates that LRAs need to be reviewed every 2 years, it is the Premises Managers responsibility to ensure that the LRAs are reviewed regularly and specifically when changes have been made to the water systems or where there is reason to believe that the original risk assessment may no longer be valid. (The Management of Health and Safety at work identifies that Risk assessments should be monitored to ensure they remain relevant, they should all be subject to a periodic review. The frequency of the review depends upon the level of risk. It is viewed as good practice to review risk assessments annually however the Premises Manager may want to take a risk based approach to identify the review dates by assessing the risk rating. It may be necessary to review an assessment earlier if it becomes apparent that the assessment is no longer valid e.g. the nature of the work is no longer valid, a new system of work, equipment is introduced etc.)

- Where the risk assessment identifies that the Premises has a reasonably foreseeable risk of the creation of a source of legionella exposure, a locally controlled management system should be developed to control the risk. This risk will be managed through the appointed water hygiene contractor and the Premises Manager, (see separate document for the Councils Legionella Control Management Plan), this document must be completed by the Premises Manager and reviewed on at least an annual basis.
- The legionella control management plan must include named individuals to discharge specific tasks identified by the Premises Manager and also incorporate a system for monitoring, reviewing and communicating feedback, both upwards and downwards through the Councils local management structure. (The template on page 4 of the Legionella Control Management Plan ensures this detail is captured).
- Manage the day to day responsibility for the management and control of legionella;
- **Ensure the LRA is reviewed on a regular basis and/or following where there are changes to the water system** (heating and plumbing) this includes:

- Where the **system has been added to** - for example a new boiler; or a new bathroom refurbishment which has resulted in changes to the layout and pipework. (This would not include replacing an old sink with a new sink (like for like) where the same pipework has been used and the sink has no added features that pose additional risks to the water system.
- Where **part of a system has been isolated** or capped off
- **Or where part of the water system has been removed**
- Following any changes to the use of building;
- Any new information about risks or control measures;
- Results of checks indicating control measures are no longer effective;
- Changes to key personnel – Premises Manager, Deputy and Appointed Person (tap turner)
- Case of legionnaire's disease is suspected or is in the water system.

(Premises Managers, Head Teachers, Deputy Premises Managers and Deputy Head Teachers must liaise with Building Services (where commissioned) to plan regular LRA reviews in advance, or to agree by appointment when triggered by relevant events).

- Store and maintain on the Premises the legionella log book including the risk assessment, up to date schematics, action plans, written scheme of examination, records of inspection, maintenance, monitoring, remedial works, certificates and all associated control measures to reduce the risk of legionella within the Premises to ensure sustained compliance;
- Review the Legionella Control Management Plan developed for your Premises on an annual basis (or sooner whenever significant changes are made);
- Liaise when required with surveyors, Water Management Specialist, PEM Team, Community Safety and Resilience (H&S) Team.

Attend legionella training and refresher training every 3 years.

6.3 Appointed Persons (tap turners - the person who undertakes weekly flushing)

The appointed person, if appropriately trained and in possession of calibrated, serviced temperature equipment, can undertake and record monthly temperature tests of sentinel taps, (however this is often undertaken by a competent contractor, subject to being formally commissioned);

- Flush through parts of the system which are only used occasionally (rarely used outlets) on a weekly basis with records maintained;
- Carryout flushing of all water sources in the premises following any building closures of more than a week (e.g. Christmas closures and school holidays) this

must be undertaken before any other staff (pupils, clients, visitors or contractors) return to the premises. Records of the flushing must be maintained on site.

- Carryout flushing of all water sources in the premises following any building closures of more than a week where staff may still be accessing parts of the building during the shutdown period, the flushing must be undertaken on a weekly basis during any of these periods. Records of the flushing must be maintained on site.
- Undertake the duties allocated by the Premises Manager and record all findings and actions in the legionella log book;
- Attend legionella training and refresher training every three years.

6.4 The Community Safety and Resilience Team

The Community Safety and Resilience Team (H&S) has the responsibility for providing day to day advice and guidance regarding health and safety matters. The team develop and review Health and Safety Standard Operating Procedures and Guidance Notes, which allows the Council to comply with its legal responsibilities.

6.5 Competence

The Nominated Person should also ensure that all employees involved in work that may expose an employee or other person to legionella are given suitable and sufficient information, instruction and training. This includes the findings of the risk assessment, regular reviews and the appropriate precautions and actions they need to take to safeguard themselves and others. This should be reviewed and updated whenever significant changes are made to the type of work carried out or methods used. Training is an essential element of an employee's capability to carry out work safely, but it is not the only factor: instructions, experience, knowledge and other personal qualities are also relevant to perform a task safely.

7. Arrangements - Property and Estate Management (Building Services)

- 7.1 If and when commissioned by a **Civic** Premises Manager, Building Services will commission the requested Legionella Risk Assessments review and / or renewal.
- 7.2 Schools, Academies and Trusts are invited to sign up to range of building maintenance related services on an annual basis. This includes, but is not limited to a review and / or renewal of an LRA. If and when commissioned by a school / academy / Trust Premises Manager, Building Services will commission the requested Legionella Risk Assessments review and / or renewal.
- 7.3 It is the responsibility of **all** Premises Managers to assess and establish a site specific, risk based, appropriate review regime (e.g. monthly, quarterly, six monthly, annual etc. reviews) and to communicate that regime to the Building Services team **each January**, to allow the reviews or full Legionella Risk Assessments to be programmed into work

schedules for the financial year ahead. **It should be noted that if no regime is communicated to Building Services, no reviews or Legionella Risk Assessments will be programmed.**

- 7.4 **For information regarding funding for Legionella Risk Assessment and contract monitoring:** Please contact Building Services direct to discuss the costs of setting up a SLA and any other regime or remedial works you wish to plan for your Premises; they can be contacted as below:

Robbie Burke
Service Contract Engineer

Building Services
Warrington Borough Council
Economic Regeneration, Growth and Environment
Warrington & Co
Property & Estate Management
Quattro Building
Buttermarket Street
WA1 2NJ

Email: rburke@warrington.gov.uk
Tel: 01925 443506
Mob: 07730 075 940

- 7.5 **Important Note:** Formal commissioning will only be accepted if accompanied with an expenditure code to fund site-specific management controls and or remedial works identified in the risk assessment. The Building Maintenance Programme (BMP) currently funds remedial works for civic buildings only, with water monitoring funded by clients at all other sites.

See table below:

	Civic Buildings	Third Parties and all Schools
LRA review and / or renewal	BS (on request by PM)	Client
Remedial work identified above	BS	Client
Temperature monitoring	Premises Manager / AD	Client
Staff training	Premises Manager / AD	Client
Other risk systems	Premises Manager / AD	Client

- 7.6 In Premises where the Council is the tenant and employs staff, this responsibility **MAY** fall to the landlord; the Property and Estate Management team has responsibility to monitor these lease arrangements. Premises Managers must confirm these arrangements are in place for premises they use and occupy.
- 7.7 For those Premises Managers that do not sign up to a SLA with Building Services and who employ contractors or consultants directly, please note this does not absolve the Premises Manager of responsibility for ensuring that control procedures are carried out to the standard required to prevent the proliferation of legionella bacteria. Premises Managers should make reasonable enquiries to satisfy themselves of the competence of contractors in this area of work before they enter into contracts for the treatment,

monitoring, and cleaning of the water system, and other aspects of water treatment and control.

8. Where defects are identified during monitoring

- 8.1 The centrally appointed (via Building Services) Water Hygiene Contractor will bring all risk defects to the attention of the Premises Manager / Deputy / Appointed Person immediately after inspection and place a written inspection report in the on-site legionella logbook (please note that some companies may issue the monthly written inspection report electronically). Where a Premises Manager / Head Teacher appoints their own Water Hygiene Contractor, it is suggested that the requirements of para 8.1 should be included in the terms and conditions of the contract.
- 8.2 Following the water hygiene risk assessment, the specialist contractor may recommend management controls and may also recommend a body of remedial works as required to eliminate or reduce a risk within the water system (e.g. removal of redundant pipework, cleaning of water storage tanks etc.).
- 8.3 In the event of remedial works being recommended, Premises Managers or Deputies must consider the risks to the premises and organisation if the recommendations are not addressed or implemented.
- 8.4 The Premises Manager must also be aware of which recommendations within the Risk Assessment they are undertaking themselves and which actions are being commissioned via an approved contractor to ensure all actions are appropriately managed. It is good practice to sign off the recommendations in the LRA by the Premises Manager once actioned.
- 8.5 **Remedial Works:**
- Following receipt of the LRA including associated, recommended remedial works, the Premises Manager must consider the benefit of the remedial works in reducing the hazard and consequent management controls.
 - Building Services is made aware of the need for remedial works via regular remedial reports from their appointed specialist contractor (for civic buildings and those Premises that have signed a SLA contract). However, these reports are compiled and issued weekly, up to a month in arrears, and are subject to being costed which may take a period of time from the initial visit. To avoid delays, it is therefore essential that Premises Managers read, understand and act upon all legionella reports left with them following the monthly monitoring visits, upon their immediate issue and receipt.
 - Premises Managers must decide whether to take immediate action in response to identified remedial works. Immediate action might include e.g. commissioning remedial work via the Building Services, or via an independently appointed water hygiene contractor.

8.6 Important Note:

- Some remedial works can routinely be substituted by management controls;
- Even when remedial works are carried out, management controls will continue to be needed.

8.7 Remedial works ordered via Building Services should be commissioned using the Intranet form: Online Applications - Building Maintenance First Response Form:

<http://v28webint:95/>

For schools: the link can be found at the bottom right of the page - Building Maintenance Request Form:

<http://www.myschoolservices.co.uk/Services/1074>

9. Shared buildings and small seasonally used Premises

- 9.1 Shared buildings have been identified as a potential risk. For any applicable premises within their remit, Assistant Directors must ensure that workable arrangements exist for managing water systems in premises used by multiple services, including premises partially occupied by third parties (non-Council).
- 9.2 A single Premises Manager and deputy should be nominated for the building and report up via their service management arrangements to an identified single Assistant Director. This is to ensure that the co-ordination and management of all legionella activity for that premises is undertaken. Where third parties also occupy the premises, arrangements must be in place to record who does what, how, when etc. Coordination between all parties is essential.
- 9.3 The Assistant Director (via their service management structure and Premises Manager) should communicate through all occupants sharing the premises and should agree, in advance, budgetary arrangements for providing suitable control measures in respect of legionella.
- 9.4 It is unacceptable for premises to have incomplete management systems for legionella. If confusion, lack of co-operation or failure to agree impedes the management of legionella, the issue should be escalated by the designated nominated Premises Manager via their service management structure to Assistant Directors or Executive Director.
- 9.5 Smaller or seasonally used premises may be combined under one Premises Manager. Where it is not practical for a legionella logbook to be maintained on-site, the multi-site Premises Manager must make arrangements to receive, collate and store all monitoring records and ensure that a complete audit trail exists.

10. Record Keeping

- 10.1 The Premises Manager or Deputy must ensure that appropriate records (water monitoring, TMV servicing, tank cleaning, chlorination of showers, remedial works

Legionella Control Management Plans, etc.) are kept and retained throughout the period for which they remain current and for at least five years after.

- 10.2 The Premises Manager should ensure that all precautions continue to be undertaken and that adequate information is available. A record of the assessment and precautionary measures and treatments should be kept. All records should be signed and dated by those people performing the various tasks assigned to them.
- 10.3 The control of legionella is achieved by the application of a consistent system of preventative measures. In the event of an outbreak (the cause may be due to a breakdown in those control measures or the management system monitoring them), it would be essential to prove all efforts had been made to prevent the outbreak. This would only be successfully achieved by producing a fully documented record of all the control measures undertaken in the premises. Details of the legionella control management plan, risk assessments, monitoring, remedial work, adjustments or improvements carried out must be recorded, available and current.
- 10.4 It is important to note that the folder provided by the water hygiene contractor is **NOT** a complete Legionella Management Plan. It provides some elements of a complete and competent logbook. However, additional information should be provided by the Premises Manager to supplement the folder at each Premises, to provide a fully documented management system for the control of water borne bacteria.
- 10.5 A complete Premises Manager's Legionella Logbook should be premises specific and at least include details of the following:
- A risk assessment and a written scheme of actions and control measures;
 - The names and positions of people responsible for the management of Legionella, for carrying out the various tasks under the written scheme; with contact details;
 - A schematic diagram of the water systems;
 - Premises specific WBC Legionella Control Management Plan – to be reviewed annually;
 - 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; (e.g. flushing of rarely used outlets, flushing following a building closure at Christmas and following school closures for holiday periods longer than a week);
 - Remedial work required and carried out, and the date of completion;
 - A log detailing visits by contractors, consultants and other personnel;
 - The signature of the person carrying out the work, or other form of authentication where appropriate;
 - Cleaning and disinfection procedures and associated reports and certificates;
 - A detailed control scheme including a table of monthly programmed actions;

- Description of the safe operation of the plant;
- Details of required periodic precautions identified during the water hygiene risk assessment;
- Results of monthly monitoring;
- Records of any works recommended to be undertaken on the system with an audit trail to ensure the works have been undertaken satisfactorily;
- Details of what to do in case of failures identified during monitoring;
- A site specific emergency shutdown procedure, including whom to contact; (please note, if you have an SLA with Building Services this is not provided by the water hygiene contractor as part of the legionella risk assessment);
- Records of the periods of use of the water system and any periods of shut down and if the system was drained down;
- Results of the chemical analysis of the water;
- Results of any biological monitoring;
- All entries should be verified by a signatory, i.e. the Premises Manager / deputy / or appointed person, kept up-to-date and monitored;
- Training records for all relevant staff.

These key points are to ensure sustained compliance for the management of legionella within your premises.

10.6 Microbiological monitoring - legionella testing for hot water systems is only recommended in particular circumstances, which are as follows:

- Where water temperatures are reduced as a consequence of using alternative biocide treatments, sampling should be done initially on a monthly basis, with the interval increased depending on the level of confidence in control measures;
- In systems where the control parameters (whether temperature or biocides) are not being achieved (microbiological monitoring may be required, the frequency to be determined from the control results);
- When an outbreak is suspected or has been identified (frequency as required by the risk assessment);
- Possibly in hospital wards / care homes for immunologically suppressed patients (dependant on the risk assessment).

10.7 All the above would be subject to the risk assessment process. In the unlikely event of samples having to be undertaken, Premises Managers will need to fund the sampling process with support from the Environmental Health Team in analysing samples and reports.

11. Competency of Contractors

11.1 The contractor appointed to carry out the legionella risk assessment (and subsequent reviews at intervals determined by the Premises Manager) to draw up and implement precautionary measures should have accreditation, ability, experience, instruction, information, training and resources to enable them to carry out their tasks competently and safely. In particular, they should know the:

- Potential sources of legionella bacteria and the risks they present;
- Measures to adopt, including the precautions to take to protect the people concerned, and their significance;
- Measures to take to ensure that the control measures remain effective and their significance.

12. Typical areas of concern, which must be risk assessed for their potential to become infected with Legionella bacteria:

12.1 Scalding

12.1.1 There is a risk of scalding where water comes out of taps at temperatures above 44°C. In certain facilities e.g. care homes and schools, this is especially so for whole-body immersion in baths and showers of vulnerable patients/clients, the very young, elderly people, and people with disabilities (who may not be able to recognise high temperatures and respond quickly).

12.1.2 Premises Managers have a legal duty to assess the risk of scalding (see the example scalding risk assessment in the WBC Legionella Control Management Plan) and to adopt appropriate measures to control it. The Premises Managers approach will depend on the needs and capabilities of pupils, clients or residents. For capable people, e.g. staff, a warning notice may be sufficient, but if young children and vulnerable people can get access to hot water taps, baths or showers, it is recommended that thermostatic mixing valves be fitted to prevent water being discharged at more than 43°C.

Note: when new TMV's are installed via Building Services, they will be set at a temperature of 41°C unless specifically, otherwise advised by the Premises Manager following their site / client focused risk assessment.

12.2 Hot and cold water taps

- Monthly temperature testing and recording must be carried out by a competent, specialist Water Hygiene Contractor or trained Appointed Person with records maintained on site;
- Cold water temperature should be below 20°C after running the water for 2 minutes;
- Hot water temperature must be above 50°C after running the water for 1 minute (unless the system is fitted with a temperature mixing valve);

- Any hot and cold tap, toilet, shower etc. that is not used within a seven day period must be flushed through for 2 minutes on a weekly basis (avoid splashing to minimise the release of water droplets / aerosols) by the Appointed Person;
- Following building closures e.g. at Christmas and following school holidays all hot and cold water taps, toilets and showers etc., must be flushed through for 2 minutes before the building is occupied by staff, pupils, clients or contractors etc. with records of the date and time of flushing. For those buildings with tank fed water, it is important that Premises Managers ensure that when flushing following a building closure that Premises Managers ensure that all standing water from the tanks and pipework is removed.

12.2.2 However, care is needed where water runs hot. The risks of scalding should be assessed and appropriate measures taken to prevent scalds, e.g. warning notices and thermostatic mixing valves fitted to hot water pipes. Where thermostatic mixer valves (TMVs) have been fitted, temperature monitoring can only take place at an uncontrolled tap (one without a TMV at the correct point in the system) or via access to exposed pipework behind the TMV. This may present other hazards and must be risk assessed by the Premises Manager in consultation with the Water Hygiene Contractor. Premises Managers may also need to refer to the buildings asbestos management plan, to check for asbestos containing materials on site.

Please note: where TMV's are fitted, Premises Managers are required to have them and any strainers or associated filters serviced, inspected, cleaned, descaled and disinfected as recommended by the manufacturer. For further detailed information please click on the links below to the HSE documents which are part of the ACoP L8 2013.

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

[Part3: The control of legionella bacteria in other risk systems](#)

For Civic Buildings, the servicing, inspection, de-scaling etc. of TMVs is funded by and commissioned by Building Services. This applies to known TMVs. If Premises Managers install their own TMV's without Building Services' knowledge, they will not be included in the commissioned servicing regime.

For Non-Civic Buildings, the servicing, inspection, de-scaling etc. of TMVs is offered via the annual SLA process by Building Services.

As with all non-civic servicing, the Premises Managers must provide an expenditure code with the commission request.

As above and if commissioned, this applies to known TMVs. If non-civic Premises Managers install their own TMV's without Building Services' knowledge, they will not be included in the commissioned servicing regime.

12.3 Showers

Any shower (whether heated directly by an instant water heater or through the mains hot water system) that is not used within a seven day period must be flushed through for 2 minutes every week at both maximum and minimum temperatures. Avoid the release of water droplets / aerosols by either securing a plastic bag over the shower head with a corner cut off to allow water to escape or by removing the shower head and

placing the shower hose directly over the drain outlet, this weekly flushing must be carried out and recorded by the Appointed Person (tap turner).

- 12.3.1 Where the quarterly (statutorily defined) routine maintenance, disinfection and chlorination of showers and hoses is identified during the risk assessment, this must be commissioned, funded, documented and monitored by the Premises Manager to ensure it occurs at the allotted time, with records maintained on site.

12.4 **Emergency Showers**

Emergency Showers should be installed 'upstream' of higher use outlets to maintain frequent flow, these showers are likely to be 'rarely used outlets' and risk assessed as such. Even where emergency showers, WC's etc. are locked behind doors; the Premises Manager must bring these to the attention of the specialist approved Water Hygiene Contractor risk assessing the Premises.

12.5 **Toilets**

Any toilet that is not used within a seven day period must be flushed each week (the lid should be closed to avoid contact with any water droplets / aerosol, (if lids are not fitted you can put something over the top of the toilet to prevent the release of water droplets) this weekly flushing must be carried out and recorded by the Premises Manager's Appointed Person. In the case of urinals, ensure the continuous flushing systems are working correctly.

12.6 **Redundant water systems**

The Premises Manager must ensure that any work arranged or carried out in their Premises does not leave any dead legs or any redundant water systems such as taps, showers, toilets, radiators and fire hose reels etc.

12.7 **Water features - indoor and outdoor**

Where an ornamental water feature is on site, it must feature in the Premises legionella risk assessment.

Note: Building Services does not provide or commission a water feature management service.

12.8 **Wet air conditioning systems and Evaporative Condensers**

These are high risk units and regular maintenance and monitoring of these systems **must** take place. Premises Managers with such equipment must ensure this is managed to the highest standard. Regular, programmed audits (by the Premises Manager) are required, to ensure adopted controls are being delivered on-site. It should be noted that Building Services does not provide or commission an evaporative condenser management service.

12.9 **Fire hose reels**

Fire hose reels present the potential to hold stagnant water for long periods and should be risk assessed as part of the legionella risk assessment:

- Where flushing of fire hose reels is carried out by Premises Managers / Appointed Persons, this must be done carefully (i.e. by opening the operating valve slowly) to avoid the creation of water droplets / aerosols. The mouth of the hose should initially be directed into a drain;
- Fire hose reels are for emergency use only and must not be used for any other purpose e.g. watering the garden or washing vehicles;
- In consultation with the Fire and Rescue Service and with reference to the Premises Fire Risk Assessment, consideration may be given to the complete removal of fire hose reels at certain locations; as there are concerns that employees may place themselves at risk by attempting to fight a fire for longer than is safe, by using fire hose reels;

12.10 Spa or hydrotherapy pools and baths

Facilities in which warm water is deliberately agitated and re-circulated create the ideal environment for bacterial growth. It is essential that manufacturer's guidance is strictly followed and that this equipment is included in the legionella risk assessment.

12.11 Horticultural misting/watering systems

Guidance indicates a low risk but these systems should be included in the legionella risk assessment, where quarterly disinfection, cleaning of pipework and spray heads is generally advised or as indicated by the risk assessment.

12.12 Please note the above list is not exhaustive. Premises Managers may also need to consider:-

- Water butts;
- Water recycling units;
- Garden hose pipes;
- Stand pipes;
- Ornamental water fountains (outdoor);
- Drinking fountains;
- Emergency sprinkler systems;
- Dishwashers and washing machines and any other similar appliances that are installed in your Premises and infrequently used and do not have a back flow prevention system. You will need to have the appropriate control measures in place for these appliances.

12.13 The checklist below is the recommended frequency of inspection for other risk systems that may contain legionella bacteria (this list is taken from the HSE's Legionnaire's Disease Technical Guidance document part 3)

System/service	Task	Frequency
Ultrasonic humidifiers/foggers and water misting systems	If the equipment is fitted with UV lights, check to ensure the effectiveness of the lamp (check to see if within working life) and clean filters	Six monthly or according to manufacturer's instructions
	Ensure automatic purge of residual water is functioning	As part of machinery shut down
	Clean and disinfect all wetted parts	As indicated by risk assessment
	Sampling for legionella	As indicated by risk assessment
System/service	Task	Frequency
Spray humidifiers	Clean and disinfect spray humidifiers and make-up tanks, including all wetted surfaces, descaling as necessary	Six monthly
	Confirm the operation of non-chemical water treatment (if present)	Weekly
Air washers, wet scrubbers, particle and trivial gas scrubbers	Clean and disinfect air washers, wet scrubbers, particle and trivial gas scrubbers and water storage tanks	As indicated by risk assessment
	Apply, monitor, and record the results of the water treatment	As indicated by risk assessment
Water softeners	Clean and disinfect resin and brine tank – check with the manufacturer what chemicals can be used to disinfect resin bed	As recommended by manufacturer
Emergency showers, eyebaths and face-wash fountains	Flush through and purge to drain ensuring three to five times the volume of water in the stagnant zone is drawn off	As indicated by risk assessment, but at least every 6 months
	Inspect water storage tanks (where fitted)	Monthly
Emergency showers, eyebaths and face-wash fountains	Clean and disinfect shower heads, nozzles, roses, 'Y' strainers, and water storage tanks (where fitted)	Quarterly, or more frequently, as indicated by the risk assessment

Sprinkler and hose reel systems	When witnessing tests of sprinkler blow-down and hose reels ensure that there is minimum risk of exposure to aerosols	As directed, follow manufacturer's instructions
Spa pools	Detailed HSE/PHE guidance on the management of spa pools is available in <i>Management of spa pools: Controlling the risks of infection</i>	Follow manufacturer's instructions
Whirlpool baths	Clean, flush and disinfect air channels Remove, flush and clean jets	As indicated by risk assessment
Horticultural misting systems	Clean and disinfect distribution pipework, spray heads and make-up tanks including all wetted surfaces, descaling as necessary	Quarterly or as indicated by risk assessment
System/service	Task	Frequency
Vehicle wash systems	Check and clean filtration systems, collection tanks and interceptor tanks and check treatment system A biocide programme should be in place and should be monitored and controlled similar to the standards required in cooling towers Clean and disinfect system and ensure sludge tanks are emptied	As indicated by risk assessment
	Sample for legionella	Initially to establish that control has been achieved and thereafter quarterly or as indicated by risk assessment
Fountains and water features	Clean and disinfect ponds, spray heads and make-up tanks including all wetted surfaces, descaling as necessary	As indicated by the risk assessment, and depending on condition
Industrial process water systems	Conduct a risk assessment of each system, preferably using an assessment team comprising members knowledgeable in legionella management and control, as well as those familiar with the design and operation of the system Devise a control scheme based on this risk assessment	Monitoring, inspection, and testing frequencies to be determined as indicated by the risk assessment.

13. Responsibilities of designers, manufacturers, importers, suppliers and installers

- 13.1 Designers, manufacturers, importers, suppliers and installers of water systems that may create a risk of exposure to legionella bacteria, must:
- ensure, so far as is reasonably practicable, that the water system is so designed and constructed that it will be safe and without risks to health when used at work;
 - provide adequate information for the user about the risk and measures necessary to ensure that the water systems will be safe and without risks to health when used at work. This should be updated in the light of any new information about significant risks to health and safety that becomes available, so that Premises Managers can ensure relevant changes are made to their risk assessment and controls.

14. Emergency Procedures (Premises specific)

- 14.1 If defects are identified via monthly monitoring, the Premises Manager should assess the urgency of the issue and implement the necessary remedial actions required to rectify the issues.
- 14.2 For further details on emergency procedures please see section 11 in the Legionella Control Management Plan.

15. References

- [Control of legionella bacteria in water systems 2013 \(L8\) – HSE;](#)
- [HSG 274 Part 1 Evaporative Cooling systems;](#)
- [HSG 274 Part 2 Hot and Cold Water Systems;](#)
- [HSG 274 Part 3 Other Risk Systems.](#)
- [Legionnaires' Disease, a guide for employers - IAC27 \(rev2\) HSE;](#)
- [Legionnaires' disease a brief guide for Duty holders INDG458](#)
- [Health and Safety in Care Homes](#)
- [The control of Legionella: A recommended code of conduct for service providers](#)

16. Contacts and Other useful Information

Please note this standard operating procedure (SOP01) gives an indication of the main requirements of the Regulations. For further detailed information please refer to the Regulations and the accompanying Code of Practice (ACoP L8) 2013

If you have any questions or would like further information please visit the Teams WINNIE pages by clicking the link **[Community Safety & Resilience \(Health & Safety\) WINNIE page](#)**

Or email the Community Safety and Resilience Team by clicking the link here **health&safety@warrington.gov.uk**

Further information is also available by contacting: -

The Community Safety and Resilience (H&S) Team Tel. 01925 442174 / 01925 442169

Building Services Tel. 01925 443506 / 443503

St Werburghs Training Centre Tel. 01925 442600

Insurance (Salford City Council)

cliff.peacock@salford.gov.uk

cheryl.dale@salford.gov.uk

Tel. 0161 607 6980

Tel. 0161 607 6985

Schools can obtain Health and Safety advice by visiting the My School Services Site click on the link **[My School Services \(Health & Safety\) site](#)**

Information can also be found by visiting the following websites: -

HSE Legionella: www.hse.gov.uk/legionnaires/

Legionella Control Association: <https://www.legionellacontrol.org.uk/>

Appendix 1

Glossary

Aerosol - a suspension of particles which may contain legionella with a typical droplet size of <5um that can be inhaled deep into the lungs.

Algae – a small, usually aquatic, plant which requires light to grow, often found on exposed areas of cooling towers.

Bacteria – a microscopic, unicellular organism.

Biofilm – a community of bacteria and other microorganisms, embedded in a protective layer with entrained debris, attached to a surface.

Calorifier – an apparatus used for the transfer of heat to water in a vessel by indirect means, the source of heat being contained within a pipe or coil immersed in the water.

Deadleg – pipes leading to a fitting through which water only passes infrequently when there is draw-off from the fitting, redundant or abandoned legs of pipework.

Evaporative Condenser – a heat exchanger in which refrigerant is condensed by a combination of air movement and water sprays over its surface.

Legionnaires' disease – a form of pneumonia caused by bacteria of the genus legionella.

Legionella – a single bacterium of the genus legionellae.

Legionellae – the name of a genus of bacteria which included over 50 species and belongs to the family Legionellaceae, They are ubiquitous in the environment and found in a wide spectrum of natural and artificial collection of water.

Legionella pneumophila – one of the causative organisms of legionnaires' disease

Legionellosis – any illness caused by exposure to legionella.

Microorganism – an organism of microscopic size including bacteria, fungi and viruses.

Nutrient – a food source for microorganisms.

Pontiac fever – a disease caused by a species of legionella, an upper respiratory illness less severe than legionnaires' disease.

Risk assessment – identifying and assessing the risk from exposure to legionella from work activities and water sources on Premises and determining any necessary precautionary measures.

Service Provider/contractor – companies or individual or their sub-contractors who are involved with providing advice, consultancy, operating, maintenance and management services or the supply of equipment or chemicals to the owner or occupier of Premises.

Sludge – a general term of soft mud-like deposits found on heat transfer surfaces or other important sections of a system, e.g. base of calorifiers and cold water storage tanks.

Stagnation – the condition where water ceases to flow and is therefore liable to microbiological growth.