
Water Hygiene Management Policy

Housing Department
Brentwood Borough Council

Version Control

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Contents

1. Policy Statement	3
2. Statutory Requirements	3
3. Introduction to Legionella Bacteria.....	4
4. Purpose and Scope	4
5. Management and Responsibilities	5
5.1 Duty Holder	5
5.2 Statutory Duty Holder	6
5.3 Senior Duty Holder	6
5.4 Competent Persons.....	6
5.5 Competent Repairs and Maintenance Contractor	7
5.6 Competent Water Hygiene Contractors	8
5.7 Housing Officers.....	8
5.8 Tenant Responsibilities	9
5.9 Leaseholder Responsibilities	9
6. Brentwood Borough Council Owned and Maintained Accommodation	9
6.1 Multi-Occupancy Buildings	9
6.2 Housing Stock	9
7. Control Measures.....	10
7.1 Risk Assessments	10
7.2 Written Schemes of Precautions	11
7.3 Shutdown/Mothballing/Vacant (Void) Domestic Premises	12
7.4 Other Water Systems	12
7.5 Disinfection.....	12
7.6 Pressure Systems	13
7.7 Temperature Monitoring Flushing Regime.....	13
7.8 No Access Protocol.....	14
8. Emergency Management Procedures	15
8.1 Failing Temperature Control.....	15
8.2 Legionella Bacteria Detected in a Water System	15
8.3 The Escalation Process for Legionella	16
9. Site Logbook/Record Keeping	18
9.1 Record Keeping.....	18
10. Vulnerable Groups & Scalding.....	19
10.1 Scalding Risk Groups.....	19
10.2 Annual TMV Service.....	19

11. Training.....	20
11.1 Review Periods.....	20
12. Monitoring and Auditing.....	20
13. Monitoring of Legionella.....	21
14. Reporting of Legionella Incidents	22
15. Other Hazards that could be created by the Management of Legionella.....	22
16. Policy Audit and Review	22
16.1 Policy Review Record.....	23
Appendix 1 – External Resources	24
Legislation	24
Approved Codes of Practice.....	24
Guidance	24
Appendix 2 - Health and Safety Executive (HSE) Recommended Inspection Frequencies	25

1. Policy Statement

Brentwood Borough Council Housing Service has a responsibility to protect employees, residents, members of the public and others from the risk of Legionella infection by virtue of its' operations or services arising from plant, equipment, facilities, work or work-related activities, acts, or omissions. It will implement the management arrangements described in this document to ensure that this responsibility is met.

2. Statutory Requirements

Duties under the Health and Safety at Work etc Act 1974 (HASWA) extend to risks from legionella bacteria, which may arise from work activities. The Management of Health and Safety at Work Regulations 1999 (MHSWR) provide a broad framework for controlling health and safety at work. More specifically, the Control of Substances Hazardous to Health Regulations 2002 (COSHH) provide a framework of actions designed to assess, prevent, or control the risk from bacteria like Legionella and take suitable precautions. Refer to Appendix 1 for further information.

The Approved Code of Practice (ACOP) 'Legionnaires' Disease - The control of legionella bacteria in water systems (L8)' gives advice on how to comply with the relevant legislation and it is the intention of this policy to comply in full of that document and its associated guidance document HSG 274 parts 2.

3. Introduction to Legionella Bacteria

Legionnaires' disease (Legionellosis) 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 including:

- people over 45 years of age
- smokers and heavy drinkers
- people suffering from chronic respiratory or kidney disease
- diabetes, lung, and heart disease
- anyone with an impaired immune system

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 cooling towers, evaporative condensers, hot and cold-water systems, and spa pools.

If conditions are favourable, the bacteria may grow increasing the risks of Legionnaires' disease and it is therefore important to control this risk.

Legionnaires' disease is contracted by inhaling small droplets of water (aerosols) suspended in the air. Certain conditions increase the risk from legionella if: -

- the water temperature in all or some parts of the system may be between 20–45 °C, which is suitable for growth,
- it is possible for water droplets to be produced and if so, they can be dispersed,
- water is stored and/or re-circulated,
- there are deposits that can support bacterial growth, such as rust, sludge, scale, organic matter, and biofilms.

4. Purpose and Scope

This policy sets out the strategy that Brentwood Borough Council will follow and describes the framework of procedures for achieving and maintaining it. This framework describes the objectives at each stage, specifies the management, operational and specialist responsibilities, and lays down a clear management and communication structure to ensure that it is effective and that it fails safe wherever practicable.

As a Social landlord, our duties under the Health and Safety at Work etc Act 1974 (HASWA) extend to risks from legionella bacteria, which may arise from work activities. The Management of Health and Safety at Work Regulations 1999 (MHSWR) provide a broad framework for controlling health and safety at

work. More specifically, the Control of Substances Hazardous to Health Regulations 2002 (COSHH) provide a framework of actions designed to assess, prevent, or control the risk from bacteria like Legionella and take suitable precautions.

The Approved Code of Practice (ACOP) 'Legionnaires' Disease - The control of legionella bacteria in water systems (L8)' gives advice on how to comply with the relevant legislation and it is the intention of this policy to comply in full of that document and its associated guidance document HSG 274 parts 2.

To protect our residents and visitors, water hygiene risk assessments will be carried out in full adherence to 'BS 8580-1:2019. Water Quality. Risk Assessments for Legionella Control. Code of practice', will be undertaken at all premises with installed water systems. However, there is no set legislative guidance to undertake water hygiene risk assessments to individual dwelling. However, it is best practice to undertake individual dwelling risk assessments, as well as blocks. This is the approach Brentwood Council has adopted. The risk assessment will outline what water facilities are in our owned housing stock and check the condition of each asset. Once completed, it will provide the advice to give to residents on how to keep their water systems clean and in good condition.

5. Management and Responsibilities

The Brentwood Borough Council property portfolio currently comprises approximately 3000 properties with a mix of residential lets (tenanted and leasehold properties),

The following sets out levels of responsibility for risk management of Legionella across the organisation:

Brentwood Borough Council – Duty Holder

Chief Executive – Statutory Duty Holder

Director of Housing – Senior Duty Holder

Corporate Manager - Technical Services and Compliance Manager –

Competent Persons

Competent Repairs and Maintenance Contractor Responsibilities

Competent Water Hygiene Contractor Responsibilities

Tenant Responsibilities

Leaseholder Responsibilities

5.1 Duty Holder

- Brentwood Borough Council is a 'Duty Holder' and accountable in law for the implementation of all aspects of Health and Safety legislation in

the UK. The Duty Holder has chosen to appoint a Deputy Duty Holder to act on their behalf to oversee the management of Legionella control within the Housing Directorate for Brentwood Borough Council.

5.2 Statutory Duty Holder

- The Chief Executive Officer is the Statutory Duty Holder and, as the senior person responsible, has overall accountabilities for all aspects of the management of health and safety in Brentwood Borough Council.
- All staff within departments must comply with this Policy and the associated arrangements, instructions, and guidance.

5.3 Senior Duty Holder

- The Director of Housing is the Senior Duty Holder has a responsibility to support this policy by ensuring the allocation of resources including an adequate budget, suitable procurement, suitable and sufficient equipment, personnel, time, and training.
- All staff within departments must comply with this Policy and the associated arrangements, instructions, and guidance.

In particular they will:

- Ensure implementation and the continuing review of this policy
- Ensuring that the 'Duty of Care' to our tenants and their visitors, employees and contractors is robust
- Ensuring that all employees are kept fully informed of developments, legislation and good practices relating to the management of legionella
- Identify and assess sources of risk
- Eliminate risk where possible
- Appoint appropriate 'Competent Persons' to oversee, control and coordinate the control of the risk of Legionella
- Keep suitable records
- Ensure that there are adequate resources available to control the risk of Legionella

5.4 Competent Persons

- The Corporate Manager - Technical Services and Compliance Manager are the Competent Persons and have the authority to put into effect such measures as are required to control the risk of Legionellosis, both as a matter of routine and in the event of an emergency.
- The duty holder will ensure the Compliance Manager is appropriately competent, holding a recognised qualification in legionella control through the completion of a certified training course designed to meet the training needs of a 'duty holder' or 'responsible person' for legionella control.

- The Competent Persons have a duty to ensure that ACOP L8 and all relevant legislation associated with the management and control of Legionellosis are adhered to.
- The Competent Persons also have a responsibility to ensure records are kept confirming that this policy has been implemented.
- The Competent Persons will maintain records for all site-based activities as defined by the Written Scheme of Precautions, which may include logs of all visits by contractors, advisors, and auditors, flushing and cleaning regimes.
- The Competent Persons are required to ensure that those persons specifically appointed to implement the control measures are suitably informed, instructed and trained to carry out the prescribed task on their behalf and to arrange the procurement of competent help, as required, including ensuring that the organisations and individuals deployed are competent and appropriately trained and experienced.

In particular they will:

- Ensure implementation and the continuing review of this policy
- Ensuring that the 'Duty of Care' to our tenants, employees, contractors, and visitors is robust, on behalf of the Duty Holder
- Oversee the control and management of Legionellosis on behalf of the Duty Holder
- Ensure that Legionella risk assessments are carried out on behalf of the Duty Holder
- Eliminate risk where reasonably practicable
- Control risk where elimination is not reasonably practicable, by devising and implementing a scheme of precautions
- Arrange maintenance, monitoring and management of the precautions controlling the risk, including reviewing the risk assessment if there has been any material change
- Arrange the procurement of competent help, as required, including ensuring that the organisations and individuals deployed are competent and appropriately trained and experienced
- Receive service reports and priority corrective action notifications from the Competent Contractors
- Keep records

5.5 Competent Repairs and Maintenance Contractor

Brentwood Borough Council will only employ a suitably qualified specialist contractor to undertake a range of Repairs and Maintenance functions including those relating to water hygiene. This will include, but is not limited to, the appointment and supervision of the Water Hygiene Contractor. The Competent Repairs and Maintenance Contractor provides the interface between the Water Hygiene Contractor and the client ensuring that sample results, monitoring

reports, recommendations and advice are relayed to the Clients' Responsible Managers

The current Competent Repairs and Maintenance Contractor is: **Axis Europe**

Contact: Mechanical and Electrical Divisional Manager

Address: 3, Tramway Avenue, London, E15 4PN

Contact: Water Hygiene Supervisor

Address: 3, Tramway Avenue, London, E15 4PN

5.6 Competent Water Hygiene Contractors

Brentwood Borough Council, through its partnering contractor arrangements will employ, suitably qualified specialist contractors to undertake a range of water hygiene functions. This will include, but is not limited to, periodic water quality sampling and testing, temperature monitoring, servicing of thermostatic mixing valves (TMV's) and preparation of risk assessments, schematic drawings of water systems and Written Schemes of Precautions. They may also provide technical advice and training. All activities to be carried out as recommended in document L8 and specified in detail within their quotation and purchase order documents.

Records maintained by the Competent Persons include those of testing and inspection activities undertaken by the Competent Water Hygiene Contractor and works to water systems undertaken by other contractors employed by Brentwood Borough Council Housing Services.

The Competent Water Hygiene Contractor records are created electronically on Socius and are displayed on a secure web page to which access has been established for the Responsible Persons and Competent Repairs and Maintenance Contractor.

The current Competent Water Hygiene Contractor is: **HSL Compliance Ltd**

Contact: Account Manager

Address: 3rd Floor Cornelius House, 170/180 Church Rd, Hove, East Sussex BN3 2DJ

Telephone: 0845 604 6729

5.7 Housing Officers

- The housing teams will provide key support in gaining access into properties where access is proving difficult and use standard methods to do so. They will also facilitate, where required, the legal process to gain access as necessary.

- All staff within departments must comply with this Policy and the associated arrangements, instructions, and guidance.

5.8 Tenant Responsibilities

- Allowing access to enable the completion of periodic Legionella risk assessments and any remedial/maintenance work to be undertaken
- Regularly use all taps and showers in the property
- Regularly clean showers and keep them free from scale
- Not to adjust the temperature control of the Point of Use Water Heater once it has been set to a minimum of 60°C
- Inform the competent repairs and maintenance contractor if the hot water is not heating properly or if there are any other problems with the system, so that appropriate action can be taken.

5.9 Leaseholder Responsibilities

- Regularly use all taps and showers in the property
- Regularly clean showers and keep them free from scale
- Adhere to the terms defined within the lease agreement to maintain water systems within the demised premises

6. Brentwood Borough Council Owned and Maintained Accommodation

6.1 Multi-Occupancy Buildings

Where several duty holders share the use of the building, the duty holder who has control of the premises for work-related activities or the water systems within the building, has a responsibility to persons who may not be their employees, but who use the building. The extent of the duty will depend on the nature of the agreement; therefore, Director/Manager or a third-party duty holders must agree who will be responsible for ensuring that water systems comply with the Legionella ACOP and guidance, COSHH and any other relevant legislation. Leaseholders including Housing Associations have defined responsibilities within the lease agreement to maintain water systems within the demised premises. A suitable and sufficient assessment must therefore be carried out to identify, assess and properly control the risk of exposure to legionella bacteria from onsite activities and the water systems in the building.

6.2 Housing Stock

Brentwood Borough Council Housing owned properties let to housing tenants will be subject to risk assessments in accordance with this policy document.

Tenants will be informed of the potential risk of exposure to legionella and its consequences and advised of any actions arising from the findings of the risk assessment, where appropriate. Tenants are advised to inform the Repairs and

Maintenance team if the hot water is not heating properly or if there are any other problems with the system, so that appropriate action can be taken.

The 'Information guide' provided to all tenants will also advise tenants of the need to regularly clean and disinfect their showerheads

Brentwood Borough Council Housing Department will apply the following control measures to all housing properties

- flushing out the system before letting the property,
- avoiding debris getting into the system by ensuring the cold-water tanks, where fitted, have a tight-fitting lid
- setting the temperature of the water heaters to ensure water is stored at 60°C),
- appropriate monitoring programmes are implemented for all properties where there are water services within communal areas

7. Control Measures

7.1 Risk Assessments

Legionella Risk Assessments and schematic drawings will be carried out in full adherence to 'BS 8580-1:2019. Water Quality. Risk Assessments for Legionella Control. Code of practice', will be undertaken at all premises with installed water systems. These assessments will inform the need for any control measures, which will be detailed in Written Schemes of Precautions.

The Risk Assessment should also consider the following:

- Temperature of stored water, e.g., tanks, calorifiers, water heaters with header tanks etc
- Construction and dimensions of water storage tanks, calorifiers etc.
- Internal condition of water storage tanks and calorifiers (if possible)
- Water tanks are L8 and the water supply (water fittings) regulations 1999 compliant, e.g., screened overflows, insulation, lids
- Configuration of pipework to prevent water stagnation
- Dead legs in the pipework distribution system
- Condition of showers and showerheads
- Water temperatures at hot and cold outlets after specified running times
- Whether drinking water labels are installed to incoming mains (and conversely non-drinking water outlets also correctly labelled)
- Susceptible occupants, e.g., elderly, healthcare etc
- Legionella Pneumophila Bacterium (LPB) & TVC test sampling
- Identify where Thermal Mixing Valves (TMVs) are located on site

Water Hygiene Risk Assessments are required to be undertaken for any new property or accommodation that comes in the Council's responsibility.

Water Hygiene Risk Assessments are reviewed when there is a change to the system in which case a new risk assessment will be carried out **and** in addition specifically whenever there is reason to suspect it is no longer valid. Examples include:

- Installation of new hot and cold water systems, which will identify if any dead legs are present and need to be removed
- Changes to the use of the building in which the system is installed
- The availability of new information about risks or control measures
- The results of checks indicating that control measures are no longer effective
- A case of legionnaires' disease associated with the system

7.2 Written Schemes of Precautions

Written Schemes of Precautions will be prepared for all properties to accompany the Risk Assessment. Such schemes will include schematic drawings of the water systems to show and identify the following components:

- All system plant, for example water softeners, filters, strainers, pumps, non-return valves and other outlets, for example, showers, wash-hand basins etc.
- All standby equipment, for example spare pumps
- All associated pipework and piping routes
- All associated storage and header tanks
- The origin of the water supply
- Any parts that may be out of use temporarily
- Sentinel / Sampling points

The Written Scheme will contain instructions for the operation of the system, in both normal and abnormal conditions to include the following:

- A description of the correct plant operation and any precautions to be taken.
- Details of any start-up and shut-down procedures, plant rotation and flushing requirements for little-used outlets.
- Where appropriate, details of methods statements, e.g. for major tasks such as cleaning operations
- Where appropriate, details of tests that are to be completed on the systems, along with the required frequency of the tests and the acceptable control parameters.
- Details of defects or out-of-parameter results, and logs of appropriate corrective actions.

7.3 Shutdown/Mothballing/Vacant (Void) Domestic Premises

Where premises are not used for prolonged periods, they should not be occupied again until a re-commissioning process has been implemented. That process will be site specific and must be clearly specified before implementation.

Vacant Domestic (Void) properties awaiting new tenants will have the water system in use whilst maintenance is being undertaken before use.

7.4 Other Water Systems

Cooling Tower Systems, Evaporative Condensers and Spa Pools are known to present risks with regards to the propagation of the Legionella bacterium. However, there are no installations of these types in any Brentwood Borough Council Housing Department properties.

External water features installed within the grounds of some estates and neighbourhoods will be subject to an appropriate risk assessment following which a suitable written scheme will be drawn up to control any risks as appropriate.

7.5 Disinfection

Brentwood Borough Council adopts temperature control as its primary control measure, maintaining water temperatures and throughout, configuration and cleanliness to avoid conditions under which Legionella can proliferate. All water systems will be maintained to ensure as far as is reasonably practicable that cold water temperatures below 20°C and hot temperatures above 50°C are supplied to outlets. All stored hot water will be maintained at temperatures of 60°C or above.

Water services shall be disinfected in accordance with BS8558: 2015 in the following circumstances:

- New installations before being taken into use to remove contamination which may have occurred during construction or installation
- If a routine inspection, sampling, or risk assessment shows it necessary to do so
- After any prolonged shutdown of a month or longer (a risk assessment may indicate the need for cleaning after a period of less than one month, especially in summer where temperatures have been high)
- If the system or part of it has been substantially altered or entered for maintenance purposes in a manner that may lead to contamination
- Following an outbreak or suspected outbreak of legionellosis or any other water borne infection/disease.

7.6 Pressure Systems

Hot water systems rely on a pressurised system usually a boiler to produce and maintain the temperature of the water at a safe level to minimise the risk of legionellosis. The Council's insurer will undertake inspections of the pressure systems the frequency based on the Written Scheme of Examination, to ensure any faults or anomalies are noted and communicated to the Council.

7.7 Temperature Monitoring Flushing Regime

The frequency of inspecting and monitoring the hot and cold-water systems will depend on their complexity and the susceptibility of those likely to use the water. The risk assessment should define the frequency of inspection and monitoring depending on the type of use and user.

The Table below provides a checklist for hot and cold-water systems with an indication of the frequency of inspection and monitoring that is implement at Brentwood Council for social housing.

Summary of Housing Support Officers (HSO), Caretakers Inspections (Sheltered Accommodation & HMO)				
Service	Frequency	Task	Required	Comments
HOT & COLD WATER SERVICES	Weekly flushing when in use	Sheltered Accommodation Taps & showers in guest rooms, void flats, together with communal taps	HSO are responsible for the weekly flushing where necessary by running water through outlets for 5 to 10 minutes to thoroughly flush release of aerosols.	Record action in Logbook for each of the areas and the type of appliance maintained, i.e., Wash Hand Basin, Bath, Sink, Shower, or other fittings.
HOT & COLD WATER SERVICES	Weekly flushing when in use	Communal Block Areas - Communal taps	Caretakers are responsible for the weekly flushing where necessary by running water through outlets for 5 to 10 minutes to thoroughly flush release of aerosols.	Record action in Logbook for each of the areas and the type of appliance maintained, i.e., Wash Hand Basin, Bath, Sink, Shower, or other fittings.

Garden Taps	Weekly flushing when in use. Tap will be isolated during November - February	Sheltered Accommodation Any outlet not in regular use e.g., garden hoses.	HSO when in use. If they can be isolated during winter months with an isolation valve. This could be situated just before the kitchen tap therefore creating no deadleg.	If there is an isolation valve, before use, it requires flushing for 10 minutes by the water hygiene contractor before putting into summer constant use.
Garden Taps	Weekly flushing when in use. Tap will be isolated during November - February	Communal Block Areas - Any outlet not in regular use e.g., garden hoses.	Caretakers when in use. If they can be isolated during winter months with an isolation valve. This could be situated just before the kitchen tap therefore creating no deadleg.	If there is an isolation valve, before use, it requires flushing for 10 minutes by the water hygiene contractor before putting into summer constant use.

7.8 No Access Protocol

Risk Assessment – Access Gained

The contractor will write to the resident at least 7 days before the proposed risk assessment or remedial action work date. The letter will inform the resident of the date the contractor will be carrying out either the risk assessment or remedial works. This will give the resident the option to contact Axis directly to change the appointment if not suitable

When access is obtained (at any stage) to carry out the remedial works, a signed service visit report will be issued with supporting photographic evidence itemising the works carried out. These documents will be sent via email to Brentwood Borough Council.

Risk Assessment – Access Not Gained

If access is not obtained, the surveyor takes a photograph of the resident's door showing a date and time they have tried to gain access and hand delivers No Access Letter 1 and inform the Project Manager. A copy of the No Access Letter 1 and photograph must be sent to Brentwood Borough Council via e-mail as evidence.

The contractor adheres to the No Access Letter 1 and returns in 7 days. If no access, the surveyor hand delivers the No Access Letter 2 and takes a photograph of the resident's door showing a date and time they have tried to gain access.

'No Access' letters will be left after each visit if no access is gained, and copies kept by the contractor. All access attempts and outcomes are reported to Brentwood Borough Council, recorded on Teams/Keystone and monitored through the Water Hygiene Monthly Meeting with the contractor.

Following the two failed written appointment letters, the contractor provides full details of access attempts and outcomes to Brentwood Borough Council by e-mail. The contractor records and evidence all the methods used to contact the resident and the outcomes in case legal action is pursued.

Following the required visits made by the contractors (the above) the process is then passed to Brentwood Borough Council Housing Department to attempt to gain access by posting No Access Letter 3 by hand to ensure the tenant has received the letter.

8. Emergency Management Procedures

The following procedures are to be followed in the event of the following occurrences:

8.1 Failing Temperature Control

Where it has been recorded that the temperature control for water systems have fallen outside of the agreed parameters, the Competent Persons in conjunction with the Competent Contractors will investigate and take appropriate action to remedy.

Where a one-off fault has been identified and the rectification has resulted in the correct temperatures being achieved, no further action will be taken. If temperature control consistently fails and the fault cannot be rectified the Competent Persons will immediately instigate Legionella sampling to be carried out until the system fault can be rectified or until an approved alternative control measure has been implemented and shown to be working.

8.2 Legionella Bacteria Detected in a Water System

Where a test for Legionella has been carried out and returned as positive then the Competent Contractors shall notify the Competent Persons immediately to ensure they are aware. They will carry out further sampling in the building and its users to determine the next course of action which could be but not limited

to, a complete flush through of the water system, pasteurisation of the water system, chlorination of the water system, alternative is dosing with Stabilised Silver Hydrogen Peroxide which is less aggressive and therefore less likely to create problems on installations in poor condition; or engineering solutions to remove potential problems to the system. The additional use of continuous biocide treatment and/or point of use filtration may also be considered on a temporary or permanent basis.

Where a positive result has occurred, sampling for the Legionella bacteria will be repeated following remedial works to confirm that those works have resolved the issue. Three successive clear/negative sample results will need to be returned before the issue can be considered resolved. A further failure at this time will necessitate that this procedure be repeated.

8.3 The Escalation Process for Legionella

Action levels following legionella sampling in hot and cold-water systems will follow this escalation process:

Legionella bacteria (cfu/l)	Action Required
<p>1 -100 cfu/l</p> <p>100 to 1000 cfu/l</p>	<p>■ if the minority of microbiological samples are positive, the system should be resampled. If similar results are found again, a review of the control measures and risk assessment should be carried out to identify any remedial actions necessary.</p> <p>■ if the majority of microbiological samples are positive, the system may be colonised, albeit at a low level depending on the hundreds of coli forming units (c/fu) identified in the laboratory test results. An immediate review of the control measures and risk assessment should be carried out to identify any other remedial action required. <u>Immediately</u> inform and report to the Facilities Manager, the Council’s Corporate Health and Safety Advisor and Water Hygiene Repair and Maintenance Contractor, Responsible Persons.</p> <p>Actions to be taken:</p> <ol style="list-style-type: none"> 1. Isolation, taking the affected water system or outlet out of use. Signage and practical means such as switch off power or prevent function from operation is required. 2. If a shower is the affected outlet, remove the shower head and the shower hose and disinfect. 3. Disinfection of the system must be implemented. 4. Retest will be undertaken at 3 days. Continue sampling and then disinfection, until 3 consecutive zero/clear test samples are obtained. 5. Review the potentially susceptible persons that may be affected by a positive high level c/fu count and monitor them for ill health signs.
>1000 cfu/l	<p>The system should be resampled, and an immediate review of the control measures and risk assessment carried out to identify any remedial actions, including isolation, including taking water system or outlet out of use and disinfection of the system should be considered and implemented. Retesting should take place 3 days after disinfection and at frequent intervals afterwards until a satisfactory level of control is achieved and 3 consecutive negative/clear samples are obtained. Inform the Competent Persons and Corporate Health & Safety Advisor and sample again at 3 monthly intervals.</p>
	<p>The disinfection of a water system is normally based on chlorine being dosed at 50 ppm for a minimum contact period of one hour, at the end of which the concentration should not be less than 30 ppm free residual chlorine. However, lower concentrations and longer contact times are considered acceptable, as set out in BS 8558. For systems in poor condition or when otherwise advised by the contractor, an alternative chemical dosing regimen i.e., Silver Hydrogen Peroxide may be used.</p>

	Other disinfectants may be used where they are shown to be effective. Their intended application should consider the type of system and user profile at the specified concentration levels and contact period. If the disinfectant is for use in water systems supplying wholesome water, then these must comply with the requirements of The Water Supply (Water Quality) Regulations 2000.
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The Council's Corporate Health and Safety Advisor, Responsible Persons and Duty Holders must be notified <u>immediately</u>, in the event the Escalation Process for Legionella is instigated.

9. Site Logbook/Record Keeping

Appropriate records of all risk assessments, tests, inspections and works to water systems must be kept for a minimum period of five years. This is to include records of all activities described in the Written Scheme of Precautions for each site.

Generally, records will fall into two categories: those associated with activities undertaken by the Competent Contractors and those for activities undertaken by the Designated Person and other on-site staff.

The site logbook will contain the following information:

- Full site address - Name of site contact (Managerial)
- Name of risk assessor and the company name
- Name of responsible person for BBC
- Date of assessment - Schematic drawing of domestic hot and cold-water storage system and associated pipework
- Photographic evidence of any pipework defects, condition of water tanks, calorifiers
- Details of microbiological sample results –
- Detail of operation relevant to controlling the risk
- The Written Scheme of Precautions
- Controls to be implemented complete with schedule
- Records of the weekly monitoring of Little Used Outlets
- Records of the Competent Water Hygiene Contractor monthly, quarterly, six monthly and annual monitoring of water systems

9.1 Record Keeping

Records of all applicable training will be held by HR and designated Training Records file held on the Health and Safety Corporate Drive.

Records of Legionella sampling, chlorination and disinfection will also be held on Keystone and SharePoint

10. Vulnerable Groups & Scalding

10.1 Scalding Risk Groups

A risk assessment should be carried out to identify potential scalding risks from hot water outlet temperatures where vulnerable persons have been identified e.g., children, elderly persons, people with disabilities or those with sensory loss who have access to bathing and washing facilities and may not be able to recognise high water temperatures and respond quickly enough to prevent scalding themselves. Where the risk assessment warrants it, engineering controls should be provided that ensure either:

- water is delivered to the bath/shower outlet at no more than 44°C or
- water is prevented from being discharged at hotter than 44°C from taps, which may be accessible to vulnerable service users - the fitting of thermostatic mixing valve (TMV) or thermostatically controlled shower with upper temperature limit of 41-43°C will therefore be necessary.
- ensure that where possible the release of water spray is properly controlled
- ensuring water cannot stagnate anywhere in the system by regular movement of water in all sections of the systems and by keeping pipe lengths as short as possible and/or removing redundant pipework and dead legs.
- avoiding using materials that harbour bacteria and other microorganisms or provide nutrients for microbial growth
- keeping the system and the water in it clean

10.2 Annual TMV Service

Where there is a risk of scalding to service users, especially the young, infirm, or elderly then provision based on a risk assessment will be made for the installation of thermostatically controlled devices to limit the temperature of the water to which they are exposed. Where such devices are installed, they will be maintained on a frequency defined by the risk assessment taking account of any manufacturer's instructions. Records of Thermal Mixing Valves (TMV's) maintenance will be held on Keystone¹ and annual servicing carried out.

An annual service of the TMV should be carried out by a competent contractor to ensure the TMV is working at the correct temperature and potential limescale build up is removed.

¹ Keystone is BBC's Asset Management Database which records both the assets for investment and risk purposes as well as all servicing and inspection regimes.

11. Training

Brentwood Borough Council officers and others acting on their behalf must be competent to undertake the tasks associated with their specified duties and responsibilities. This will be demonstrated by ensuring that the minimum levels of training described below are undertaken by the relevant duty holder.

Duty Holders & Responsible Persons

City & Guilds or equivalent Accredited Responsible Persons Course

All other Designated Officers including Surveyors, Repairs Team and other Staff engaged in implementing control measures e.g. Weekly flushing, etc.

City & Guilds or equivalent Accredited Legionella Awareness Course and additional in-house training for specific properties where required.

11.1 Review Periods

All training is to be reviewed at intervals not exceeding two years.

12. Monitoring and Auditing

12.1 The management of Legionella in residential Council premises is the responsibility of the Directors, Managers, or the appointed competent persons in control of the building(s).

12.2 The Corporate Health & Safety Advisor and Compliance Manager will audit building logbooks six monthly, to ensure the required level of monitoring is being carried out, as dictated by the written scheme. The results of this monitoring and auditing will be reported to the Competent Person.

12.3 As part of the Council's compliance checks the Corporate Health and Safety Advisor will review the Council's Legionella Management Policy and Procedures for the management and control of Legionella risks. An annual report will be presented to the Health and Safety Committee. The report will confirm the level of compliance with the required checks and monitoring systems within Housing premises and will also consider if the Legionella Management Policy and arrangements are appropriate and effective. Where necessary the report will recommend actions necessary to improve compliance. This will not only provide assurance that the Council is complying with its statutory responsibilities but will also demonstrate that the roles of the Duty Holders, Competent Persons, Appointed and Nominated Persons are being correctly and effectively undertaken.

13. Monitoring of Legionella

13.1 There may be additional works to be carried out following any health and safety monitoring carried out at specific premises in respect of microbiological sampling for legionella for hot and cold-water services, showers, air conditioning etc. Depending on the type of service installed, please refer to the HSE's Inspection Frequencies table, (Appendix 6) on how often testing is required to be carried out. Current copies of water testing inspection documents must be held either on site or centrally in electronic format for inspection purposes. Appropriate monitoring regimes will be established for the regular inspection of such systems and testing of water temperatures undertaken by the competent water hygiene contractor.

13.2 Legionella monitoring should be carried out where there is doubt about the effectiveness of the control regime or it is known that recommended temperatures, disinfectant concentrations, or other precautions are not being consistently achieved throughout the system. The risk assessment should also consider where it might also be appropriate to monitor in some high-risk situations, such as Sheltered Housing premises or where water tanks or showers are used.

13.3 The circumstances when monitoring for legionella would be appropriate include:

13.4 Water systems treated with biocides where water is stored, or distribution temperatures are reduced. Initial testing should be carried out monthly to provide early warning of loss of control. The frequency of testing should be reviewed and continued until such a time as there is confidence in the effectiveness of the regime,

13.5 Water systems where the control levels of the treatment regime, e.g., temperature or disinfectant concentrations, are not being consistently achieved. In addition to a thorough review of the system and treatment regimes, frequent testing, e.g., weekly, should be carried out to provide early warning of loss of control. Once the system is brought back under control as demonstrated by monitoring, the frequency of testing should be reviewed,

13.6 High-risk areas or where there is a population with increased susceptibility, e.g., in Sheltered Housing, monitoring will be undertaken on a weekly and monthly basis.

13.7 If water systems are suspected or identified in a case or outbreak of legionellosis where it is probable the Incident Control Team (Health & Safety Executive (HSE), Public Health England (PHE)) will require samples to be taken for microbiological sampling for Legionella, the Corporate Health & Safety

Advisor will investigate and report findings, to the Duty Holders and Competent Persons.

13.8 Where monitoring for legionella is considered appropriate in hot and cold-water systems, sampling should be carried out in accordance with BS 7592 'Sampling for Legionella organisms in water and related materials. The complexity of the system will need to be considered to determine the appropriate number of samples to take. A competent contractor will undertake the sampling and advise on the outcome and required actions. Reference should be made to the HSE guidance document HSG 274 as cited below.

13.9 The Escalation Process for Legionella following water sampling is given in Section 8.

14. Reporting of Legionella Incidents

Legionnaire's disease is reportable under Reporting of Injuries, Diseases and Dangerous Occurrence Regulations (RIDDOR) as an occupational disease. If two or more persons in a geographical area that are using the Council properties is found to have contracted legionnaires disease, it must be reported under RIDDOR (please refer to the Council's Incident Reporting Form) and contact the Corporate Health and Safety Advisor.

15. Other Hazards that could be created by the Management of Legionella

Consideration should be given to other health and safety hazards that could be created as the direct result of managing legionella. For example:

- the chemicals required to treat water systems may require a COSHH risk assessment and a copy of the Material Safety Data Sheet which should be retained and made available to any emergency service i.e. Ambulance or Fire Service. Copies of these will be retained by the Council and the Contractor before work commences.
- access to water systems may require work at height on a roof or work in confined spaces etc. these types of activities and their associated hazards should be considered within the risk assessment process and a suitable method statement written to document how to safely manage the activity. Copies of these will be retained by the Council and the Contractor before work commences.

16. Policy Audit and Review

The Duty Holders and Competent Persons have overall responsibility for taking all reasonable steps to ensure that this policy is complied with.

The policy will be formally reviewed following any material change to the arrangements for its management or implementation. This is to include changes to key personnel including the Duty Holder or Competent Persons or a change of Competent Contractor.

16.1 Policy Review Record

Reviewed by:	<i>Name and position</i>
Review Date:	
Detail reasons for review and any changes made:	

Reviewed by:	<i>Name and position</i>
Review Date:	
Detail reasons for review and any changes made:	

Reviewed by:	<i>Name and position</i>
Review Date:	
Detail reasons for review and any changes made:	

Appendix 1 – External Resources

Legislation

- Health & Safety at Work etc. Act 1974,
- Control of Substances Hazardous to Health Regulations 2002 (as amended),
- Management of Health & Safety at Work Regulations 1999,
- Workplace (Health, Safety and Welfare) Regulations 1992
- Provision and Use of Work Equipment Regulations 1998
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013
- Pressure Systems Safety Regulations 2000
- Manual Handling Operations Regulations 1992
- Personal Protective Equipment at Work Regulations 1992
- The Water Supply (Water Fittings) Regulations 1999

Approved Codes of Practice

- HSE's Approved Code of Practice L8 "Legionnaires Disease: The control of Legionella bacteria in water systems".

Guidance

- HSG 274 Part 2. The control of legionella bacteria in hot and cold-water systems
- BS 8580-1:2019 Water quality – Risk Assessments for legionella control – Code of Practice
- BS 8558:2015 Guide to the design, testing and maintenance of services supplying water for domestic use within buildings and their curtilages
- HSE Guidance -Controlling Legionella in Nursing & Residential Care Homes
- Health Technical Memorandum 04-01
- HSE EH40/2005 Workplace Exposure Limits
- Water Regulations Advisory Scheme (WRAS)

Appendix 2 - Health and Safety Executive (HSE) Recommended Inspection Frequencies

General:

Service	Action to Take	Frequency
Hot Water Services	For non-circulating systems: take temperatures at sentinel points (nearest outlet, furthest outlet and long branches to outlets) to confirm they are at a minimum of 50°C within one minute.	Monthly
	For circulating systems: take temperatures at return legs of principal loops (sentinel points) to confirm they are at a minimum of 50°C. Temperature measurements may be taken on the surface of metallic pipework	Monthly
	For circulating systems: take temperatures at return legs of subordinate loops, temperature measurements can be taken on the surface of pipes, but where this is not practicable, the temperature of water from the last outlet on each loop may be measured and this should be greater than 50 °C within one minute of running. If the temperature rise is slow, it should be confirmed that the outlet is on a long leg and not that the flow and return has failed in that local area.	Quarterly (Ideally on a rolling monthly rota)
	All hot water systems: take temperatures at a representative selection of other points (intermediate outlets of single pipe systems and tertiary loops in circulating systems) to confirm they are at a minimum of 50°C to create a temperature profile of the whole system over a defined time period. Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control.	Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control
Calorifiers	Inspect calorifier internally by removing the inspection hatch or using a borescope and clean by draining the vessel. The frequency of inspection and cleaning should be subject to the findings and increased or decreased based on conditions recorded	Annually, or as indicated by the rate of fouling

Service	Action to Take	Frequency
	<p>Where there is no inspection hatch, purge any debris in the base of the calorifier to a suitable drain.</p> <p>Collect the initial flush from the base of hot water heaters to inspect clarity, quantity of debris, and temperature Annually, but may be increased as indicated by the risk assessment or result of inspection findings.</p>	<p>Annually, but may be increased as indicated by the risk assessment or result of inspection findings</p>
	<p>Check calorifier flow temperatures (thermostat settings should modulate as close to 60 °C as practicable without going below 60 °C). Check calorifier return temperatures (not below 50 °C).</p>	<p>Monthly</p>
<p>Point of Use (POU) Water Heaters (no greater than 15 litres)</p>	<p>Check water temperatures to confirm the heater operates at 50–60 °C (55 °C in healthcare premises) or check the installation has a high turnover.</p>	<p>Monthly to six monthly, or as indicated by the risk assessment</p>
<p>Combination Water Heaters</p>	<p>Inspect the integral cold-water header tanks as part of the cold-water storage tank inspection regime, clean and disinfect as necessary. If evidence shows that the unit regularly overflows hot water into the integral cold-water header tank, instigate a temperature monitoring regime to determine the frequency and take precautionary measures as determined by the findings of this monitoring regime.</p>	<p>Annually</p>
	<p>Check water temperatures at an outlet to confirm the heater operates at 50–60 °C.</p>	<p>Monthly</p>
<p>Cold Water Services</p>	<p>Check temperatures at sentinel taps (typically those nearest to and furthest from the cold tank, but may also include other key locations on long branches to zones or floor levels). These outlets should be below 20°C within two minutes of running the cold tap. To identify any local heat gain, which might not be apparent after one minute, observe the thermometer reading during flushing.</p>	<p>Monthly</p>
	<p>Take temperatures at a representative selection of other points to confirm they are below 20°C to create a temperature profile of the whole system over a defined time</p>	<p>Representative selection of other sentinel outlets considered on a</p>

Service	Action to Take	Frequency
	period. Peak temperatures or any temperatures that are slow to fall should be an indicator of a localised problem.	rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control
	Check thermal insulation to ensure it is intact and consider weatherproofing where components are exposed to the outdoor environment.	Annually
Cold Water Tanks	Inspect cold water storage tanks and carry out remedial work where necessary.	Annually
	Check the tank water temperature remote from the ball valve and the incoming mains temperature. Record the maximum temperatures of the stored and supply water recorded by fixed maximum/ minimum thermometers where fitted.	Annually (Summer) or As indicated by the temperature profiling.
Shower and Spray Taps	Replace or dismantle, clean and de-scale removable parts, heads, inserts and hoses where fitted.	Quarterly or as indicated by the rate of fouling or other risk factors e.g. areas with high-risk tenants (where known) in Sheltered Accommodation
POU filters	Record the service start date and lifespan or end date and replace filters as recommended by the manufacturer (0.2 µm) membrane POU filters should be used primarily as a temporary control measure while a permanent safe engineering solution is developed.	According to manufacturer's guidelines
Base exchange softeners	Visually check the salt levels and top up salt, if required. Undertake a hardness check to confirm operation of the softener.	
	Service and disinfect	Annually, or according to manufacturer's guidelines.
Infrequently Used Outlets	Consideration should be given to removing infrequently used showers, taps and any associated equipment that uses water. If removed, any redundant supply pipework	Weekly, or as indicated by the risk assessment

Service	Action to Take	Frequency
	<p>should be cut back as far as possible to a common supply but preferably by removing the feeding 'T'. Infrequently used equipment within a water system (i.e., not used for a period equal to or greater than seven days) should be included on the flushing regime. Flush the outlets until the temperature at the outlet stabilises and is comparable to supply water and purge to drain. Regularly use the outlets to minimise the risk from microbial growth in the peripheral parts of the water system, sustain and log this procedure once started.</p>	
	<p>For high-risk populations, e.g., Sheltered Housing, more frequent flushing may be required as indicated by the risk assessment.</p>	
Thermostatic Mixing Valve (TMV)	<p>Risk assess whether the TMV fitting is required, and if not, remove. Where needed, inspect, clean, descale and disinfect any strainers or filters associated with TMVs. To maintain protection against scald risk, TMVs require regular routine maintenance carried out by competent persons in accordance with the manufacturer's instructions.</p>	<p>Annually or on a frequency defined by the risk assessment, taking account of any manufacturer's recommendations</p>
Air Conditioning Systems:	<p>Fixed Air Conditioning Inspected, disinfected and if required, cleaned if there is a significant change in operation status</p>	<p>Six Monthly</p>
Portable Air Conditioning	<p>Inspected, disinfected and if required, cleaned if there is a significant change in operation status such as laying dormant for a period of time.</p>	<p>Annually</p>
Water Softeners	<p>Clean and disinfect resin and brine tank – check with manufacturer what chemicals can be used to disinfect resin bed.</p>	<p>As recommended by the manufacturers</p>
Water Features	<p>Clean and disinfect ponds, spray heads, and make up tanks including all wetted surfaces, descaling as necessary.</p>	<p>As indicated by the risk assessment and depending on condition</p>