



SMS Environmental Ltd

Quad One
Becquerel Avenue
Harwell Campus
Didcot
OX11 0RA

Risk Assessment (UKAS Accredited)


Task Information

ID	1051135
Task Category	Legionella
Building	2CH00632_20 Wheatbottom Community Centre
Building Address	20 Wheatbottom Community Centre,Crook,
Building Code	2CH00632
Assigned Users	Ethan Jones (15/07/2024 16:00:00)
Finished By	Ethan Jones (15/07/2024 11:57:04)
Description	Risk Assessment (UKAS Accredited)
Further Information	Legionella risk assessment to be completed in line HSG274 part 2 , all areas of the building are to be included , including any commercial areas

Client Details

Code	SR7 7TT	Contact	Andrew Graham
Name	Believe Housing	Phone	0300 131 1999
Address	Coast House, Spectrum 4, Spectrum Business Park, County Durham		

Client Details

Site Name	2CH00632_20 Wheatbottom Community Centre
Site Address	20 Wheatbottom Community Centre, Crook
Site Contact	Andrew Graham / Sinead Croucamp
Site Postcode	DL15 9HB
Telephone Number	07901510712
Client	Believe Housing
Client Address	Coast House, Spectrum 4, Spectrum Business Park, County Durham
Client Postcode	SR7 7TT
Risk Assessor	Ethan Jones
Quality Controlled By	Samantha Carter
Date of Survey	15/07/2024
Issue Date	22/07/2024
Name of the person who receive risk assessment	Emma Jorgenson
Site Photograph	 Site
Recommended Review Date	15/07/2026
<p>Risk assessment should also be reviewed whenever there is reason to believe that it is no longer valid. This could be due to change of building usage or installation of new plant and equipment or following a case of Legionnaires Disease. In the event of the outbreak of legionellosis please refer to HSG274 Part 2 Appendix 2.3 http://www.hse.gov.uk/pUbns/priced/hsg274part2.pdf This Risk Assessment has been carried out in accordance with HSE ACoP L8, BS 8580-1:2019, ISO 17020, HTM 04-01 (Healthcare Site Only) and HSG274 Part 2</p>	
<p>Note: A separate assessment is required for each building or site.</p>	
Template Version: 260923	
Document Version Control:	Version 1
Overall Legionella Risk Rating	Low

Overall Scalding Risk Rating

Low

Table of Contents

Risk Assessment Methodology	5
Management Personnel	7
Nominated Authorities	8
Executive Risk Summary	10
Risk Assessment	11
Documentation and Records	13
General Asset Register	15
Incoming Mains Water - 1	17
Combination Boiler - 1	18
Outlet Asset Register	19
Thermometer Used to Complete RA	21
Temperatures - 1	22
Temperatures - 2	22
Temperatures - 3	22
Closed Water Systems	23
Sampling Requirements	24
Review of Written Scheme to Control Legionella Risk	25
Schematic Drawing	32

Risk Assessment Methodology

Scope Of The Risk Assessment	To complete a UKAS accredited legionella risk assessment of the domestic water system
Any health and safety risks noted as part of this risk assessment are done so for guidance only and fall outside the scope of our UKAS accreditation.	No health and safety risks noted at the time of the assessment
Risk Assessment Methodology	
Step 1: Identify The Hazards	
Step 2: Decide Who Might Be Harmed And How	
Step 3: Evaluate The Risks	
Step 4: Decide On Precautions Or Controls	
Step 5: Record Findings And Implement Them	
Step 6: Review Your Findings And Update If Necessary	
Site Description	The property is a community centre. The water system consists of an incoming mains which feeds all the cold water outlets and combination boiler 01. The combination boiler feeds all the domestic hot water outlets in the property.
Limitations Of The Risk Assessment	Due to the layout of the pipework in the building, the assessor is unable to fully trace it throughout the premises. The assessor will need to make assumptions on the layout based upon visible pipework and information provided by on site staff. The assessor is limited by the available information provided by staff and legionella logbook.
If there are limitations how could they impact on the outcome of the risk assessment?	Where appropriate / necessary any limitations may have an impact on the overall risk rating of this assessment.
Profile of the Building Users and how they may be harmed?	The properties water system will be used by staff, clients and contractors. An average demographic of people will use the water system and it is reasonable to assume that there may be users, that have a higher susceptibility to legionella bacteria and scald risks.
Has this site or area been defined as Augmented Care?	No
Has there ever been a case of Legionnaires Disease associated with this site?	None observed
Has Legionella bacteria been ever isolated from the water system?	None observed
Current method used to control Legionella?	Temperature

Notes on control method:	Currently control measures are satisfactory and consistent. The hot temperatures were observed to rarely fail but is not of concern.
Does this site have a current Legionella Logbook?	Yes - Digital Logbook and On Site Logbook
Who was interviewed during the assessment?	Andrew Graham
Who was your competent escort on site?	Andrew Graham
This UKAS Accredited risk assessment is was produced using documented in-house methods based on ACoP L8 and BS 8580-1:2019. Method reference numbers are: MS80 & IMS75.	
This Risk Assessment has been carried out in accordance with the requirements of ISO17020 Clause 4 Impartiality and Independence as described in the SMS Environmental IMS76 Impartiality Policy.	No threats to impartiality or independence was observed at the time of the assessment
Risk Assessor competence has been checked and established using the procedure detailed SMS HR57 Legionella Risk Assessor Training & Competency Program and UKAS RG9 Accreditation of Bodies Undertaking Legionella Risk Assessment Activities, competency checks form part of the UKAS accreditation process.	
I confirm I have the necessary training, skills, experience and knowledge to complete a competent risk assessment of this type of system (INSERT NAME).	Ethan Jones

Management Personnel

STATUTORY SITE DUTY HOLDER

A senior executive with budgetary control who ensures that the operation complies with the law, by appointing and overseeing a competent Responsible Person. All appointments should be made and accepted in writing.

NOMINATED RESPONSIBLE PERSON

This person would report to the statutory site duty holder and have day-to-day responsibility for ensuring that operational duties are carried out in a timely and effective manner and ensuring the adequate training and competence of themselves, operational staff and any contractors or subcontractors. This person should also be responsible for the accurate audit of the Site Log Book.

OPERATIONAL STAFF

Staff whose duties include inspection, monitoring, implementing, record keeping and carrying out of remedial actions. There should be adequate record keeping of their on-going training and regular assessment of their competence.

SERVICE PROVIDERS

For example: Risk Assessors, monitoring companies, Consultants, and contractors carrying out such duties as water treatment and cleaning and disinfection. Information should also be available to show the competence of individuals and the contact details of all relevant personnel within the service provider company

The Client should satisfy himself that:

- Each of the above can be clearly identified;
- That they are aware of the contact details of others in the chain of command;
- Each role has a competent Deputy identified;
- That each post has been accepted in writing; and
- That there is a separate sheet for each position showing training records and competency assessment.

* It is the responsibility of the Nominated Responsible Person to ensure that Logbooks are kept up to date and that actions are implemented.

Is the liaison and communication between the duty holder and the responsible person effective?

From the observed documents and records in the legionella logbook. It would appear that a good method of control for the water system is in place.

In a healthcare setting, is the liaison and communication between the duty holder, the responsible person, and the Water Safety Group effective and robust?

Not applicable

Nominated Authorities

DESIGNATION	NAME	POSITION	TELEPHONE NO
STATUTORY DUTY HOLDER	Alan Smith	Chief Executive	3001311999
NOMINATED RESPONSIBLE PERSON	Emma Jorgenson	Compliance Manager	0191 8142900 / 07384523636
DEPUTY NOMINATED RESPONSIBLE PERSON	Andrew Graham	Compliance Officer	0191 8143081 / 07901510712
OPERATIONAL STAFF 1	-	-	-
OPERATIONAL STAFF 2	-	-	-
OPERATIONAL STAFF 3	-	-	-
SERVICE PROVIDERS	SMS Environmental Ltd	Legionella Risk Assessors	01235 835 835
SERVICE PROVIDERS	HSL Compliance Ltd	Water Monitoring Contractor	078233499745 / 07909706236

Risks of Exposure to Legionella Bacteria Health and Safety Law¹

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 of Health and Safety at Work Regulations 1999** provide a broad framework for controlling health and safety at work. As well as requiring risk assessments, they also require employers to have access to competent help in applying the provisions of health and safety law; to establish procedures for workers if there are situations presenting serious, imminent danger; and for co-operation and co-ordination where two or more employers or self-employed people share a workplace. More specifically, COSHH provides a framework of actions designed to control the risk from a range of hazardous substances, including biological agents.

Only the courts can give an authoritative interpretation of law on the application of these Regulations and guidance to people working under another's direction. If people working under the control and direction of others are treated as self-employed for tax and national insurance purposes, they may nevertheless be treated as employees for health and safety purposes. So, it may be necessary to take appropriate action to protect them. If there is any doubt about who is responsible for the health and safety of a worker, clarify this and include it in the terms of a contract. However, a legal duty **under section 3 of the HSW Act** cannot be passed on by means of a contract. You will still have duties towards others under section 3 of the HSW Act. If you employ workers on the understanding that they are responsible for their own health and safety, seek legal advice before doing so.

For section 3 to apply:

- a) there must be a duty holder – either an employer or a self-employed person; and
- b) there must be a risk to the health or safety of a person who is not an employee of the duty holder or the self-employed duty holder themselves; and
- c) that risk must arise from the conduct of the duty holder's undertaking. 'Undertaking' means 'enterprise' or 'business'.

Section 3 does not apply to:

- d) welfare issues (such as the provision of toilets or washing facilities);
- e) nuisance or amenity issues that have no health or safety implications (such as unpleasant smells arising from work activities);
- f) poor workmanship, where trading standards or contractual remedies may exist, unless they have demonstrably compromised health and safety.

Control of substances hazardous to health regulations 2002 (as amended in 2004) (COSHH) provides a framework of actions designed to control the risk from a range of hazardous substances, including biological agents. The essential elements of COSHH are:

- a) risk assessment;
- b) where reasonably practicable, prevention of exposure or substitution with a less hazardous substance, or substitution of a process or method with a less hazardous one;
- c) control of exposure, where prevention or substitution is not reasonably practicable;
- d) maintenance, examination and testing of control measures;
- e) provision of information, instruction and training for employees;
- f) health surveillance of employees (where appropriate, and if there are valid techniques for detecting indications of disease) where exposure may result in an identifiable disease or adverse health effect.

¹HSE (2013) Legionnaires' disease: The control of legionella bacteria in water systems Approved Code of Practice and guidance on regulations L8 4th Edition Available From <http://www.hse.gov.uk/pubns/priced/l8.pdf>

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) require employers and others, e.g. someone who has control of work premises, to report to HSE, accidents and some diseases that arise out of or in connection with work. Cases of legionellosis are reportable under RIDDOR if: a) a doctor notifies the employer; and b) the employee's current job involves work on or near cooling systems which are located in the workplace and use water; or work on water service systems located in the workplace which are likely to be a source of contamination. For more guidance on RIDDOR, see the HSE Website. Those who have, to any extent, control of premises, have a duty under the **Notification of Cooling Towers and Evaporative Condensers Regulations 1992** to notify the local authority in writing with details of 'notifiable devices'. These are cooling towers and evaporative condensers, except when they contain water that is not exposed to the air and the water and electricity supply are not connected. If a tower becomes redundant and decommissioned or dismantled, it should also be notified. Although the requirement is to notify the local authority, the relevant authority (i.e. HSE or the local authority) for the premises concerned enforces the Regulations. Notification forms are available from the local authority or local environmental health department. The main purpose of these Regulations is to help investigate outbreaks.

The Safety Representatives and Safety Committees Regulations 1977 and the **Health and Safety (Consultation with Employees) Regulations 1996** require employers to consult trade union safety representatives, other employee representatives, or employees where there are no representatives, about health and safety matters. This includes changes to work that may affect their health and safety at work, arrangements for getting competent help, information on the risks and controls, and planning of health and safety training. Similar legislation applies in Northern Ireland, Isle of Man and the Channel Islands.

You can find more on the control of legionella bacteria in water systems at the HSE's website <http://www.hse.gov.uk/legionnaires/index.htm>

Executive Risk Summary

Risk Criteria	Commentary	Risk Rating
Management: An assessment of Legionella control on site, It is important that those people involved in assessing risk and applying precautions are competent, trained and aware of their responsibilities	The nominated authorities was provided by Believe Housing before the assessment was carried out. Previous assessment was observed for the property in digital logbook. Training records are available on request. Written scheme were also available on digital logbook. Records for water hygiene PPMs were observed onsite and in digital logbook	2
Contamination. An assessment of the risk at source, including assessment of the quality, temperature and integrity of the water supply.	The incoming mains is supplied by mains water. Mains water has a low contamination risk due to legionella entering the building through it, in small quantities.	2
Amplification. An assessment of the conditions and whether they are likely to support any Legionella growth, including temperature, water change rate, nutrients, materials of construction and areas where water is not replaced with fresh.	The temperatures were observed to be compliant at the time of the assessment. There is no significant stored water on the water system, reducing the risk.	2
Transmission. An assessment of whether droplets or aerosols are likely to form and spread.	The outlets in the property will create a small aerosol and splash back which could potentially be breathed in.	2
Exposure. An assessment of the risk that droplets or aerosols will be inhaled (or contaminated water aspirated).	If circumstances permit, the users of the outlets may be affected by the produced aerosol	2
Susceptibility of individuals exposed. An assessment of the nature of the exposed population, taking account of their vulnerability to Legionella Infection.	The properties water system will be used by staff, visitors and contractors. All age categories will use the water system and there will be individuals who have a higher susceptibility to legionella bacteria and/or scald risks.	3
Overall Site Risk Summary	The risk given is low. This is due to the low risk configuration of the water system, the lack of water storage and compliant temperatures observed.	2

The overall site risk rating is calculated thus. The highest individual risk rating per criterion is entered against the risk rating column, any criteria that had no hazards loaded against them must therefore be given a low risk rating. The arithmetic mean is then calculated using the following formula:

$$\bar{x} = \frac{1}{n} \left(\sum_{i=1}^n a_i \right)$$

Where:

- \bar{x} = Arithmetic Mean
- n = Number of terms
- a_i = the value of each individual term

The overall site risk rating is reported numerically from 1 to 9 as detailed in table 1 and using the same priority action time frame recommendations derived from table 2.

Risk Assessment Risk Rating System

Definitions

- Hazard identification:** process of recognizing that a hazard (3.8) exists and defining its characteristics;
- Hazard:** hazard source, situation, or act with a potential for harm in terms of human injury or ill health or a combination of these;
- Risk:** combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health that can be caused by the event or exposure(s)
This risk scoring system covers;
- Risk assessment:** process of evaluating the risk(s) arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk(s) is acceptable

Risk Assessment

This risk scoring system is informed by 'BS 8580-1:2019 Water quality – Risk assessments for Legionella control – Code of practice', and HSE Guidance on Risk Management available from their website. During a risk assessment hazard identification will take place and each hazard risk rated evaluating the following parameters:

1. **Contamination.** An assessment of the risk at source, including assessment of the quality, temperature and integrity of the water supply.
2. **Amplification.** An assessment of the conditions and whether they are likely to support any Legionella growth, including temperature, water change rate, nutrients, materials of construction and areas where water is not replaced with fresh.
3. **Transmission.** An assessment of whether droplets or aerosols are likely to form and spread.
4. **Exposure.** An assessment of the risk that droplets or aerosols will be inhaled (or contaminated water aspirated).
5. **Susceptibility of individuals exposed.** An assessment of the nature of the exposed population, taking account of their vulnerability to Legionella Infection.

An Explanation of the Risk Rating System

During the risk assessment, individual hazards will be identified and risk rated using the scoring matrix derived from BS 18004 and the HSE website (See Figure 1) this will evaluate per type (contamination, amplification, transmission, exposure and host susceptibility) for individual hazards.

Likelihood of Harm Occurring	Potential Severity of the Harm		
	Slightly Harmful 1	Harmful 2	Very Harmful 3
Highly Unlikely 1	Trivial 1	Tolerable 2	Moderate 3
Unlikely 2	Tolerable 2	Moderate 4	Substantial 6
Likely 3	Moderate 3	Substantial 6	Intolerable 9

² HSE (No Date) Frequently asked questions. "What are risk matrices?" Available from: <http://www.hse.gov.uk/risk/faq.htm>

Rating	Risk	Priority Action Time Frame
1	Trivial (Very Low)	Within 5 Years
2	Tolerable (Low)	Within 1 year
3 - 4	Moderate (Medium)	Within 6 Months
5 to 6	Substantial (High)	Within 1 Month
7 to 9	Intolerable (Very High)	Immediately

Table 2 Priority Action Time Frame

Individual hazards have received a risk score should be managed within that time period. The overall risk rating for the site will be an evaluation of all recorded risks and is communicated in the Risk Summary Page

Are there any known periods of time that this site or parts of this site may become vacant?	Yes - If not booked
Is there an adequate programme of control in place during periods of little use?	Weekly flushing regime in place

No hazards

Documentation and Records

Period of Time Reviewed for This Assessment?	12 months
Is there an Up-to-date logbook and schematic diagram(s) of the water system(s) to be evaluated?	Yes - Digital logbook and onsite logbook present
Is an asset list available, an asset register that includes all associated plant, pumps, strainers and other relevant items?	Yes - In written scheme, located in digital logbook
Is the previous risk assessment available for review?	Yes - In onsite and digital logbook
Date of Previous Assessment?	2nd August 2022
Is there evidence that the findings and required corrective actions from previous risk assessments have been addressed?	Yes - Observed onsite
Are records of any logbook checks or audits available?	None observed at the time of the assessment
Evaluation of the current written scheme of control, including:	
Does the scheme have a clearly described management scheme, such as a diagram of management structure showing lines of responsibility, task allocation and communication?	Yes - located in digital logbook
Are deputies identified to cover for staff sickness/holidays, etc.?	Yes - located in digital logbook
Are there details of the maintenance history of the water system(s) to be assessed in the logbook?	Yes - located in on-site logbook
Are there training records, and records of competency checks, for on-site personnel?	Yes - Provided by believe housing prior to assessment
Has the health and safety provision for those undertaking the written scheme of control considered both site staff and contractors? And, are appropriate risk assessments and method statements available for inspection? If not raise a hazard.	Yes - Located in on-site logbook and digital logbook
Are there monitoring and inspection records for all tasks completed? Tank inspections, temperatures, TMV checks, flushing records etc	Yes - in on-site logbook and digital logbook
Do monitoring and inspection records indicate any deviations from acceptable operating conditions?	No - Water system has been mostly compliant
If applicable are water treatment and service reports available?	Not applicable
Are cleaning and disinfection records available?	Not applicable

Are legionella and other microbial analysis results available?	No
Do microbial analysis results indicate that the current Legionella control measures are effective?	Not applicable
Where past issues have been caused by positive identification of Legionella bacteria, have the correct actions been taken within a reasonable time?	Not applicable
Where past issues have been caused by positive identification of Legionella bacteria, have re-samples been collected to ensure control has been regained?	Not applicable
Are thermometers and other site test equipment calibrated regularly, or calibration checked?	Not observed at the time of the assessment
Are records kept for five years?	Yes

General Asset Register

Incoming Mains Water	1
Private Water Supply	-
Ion Exchange Water Softeners	-
Electromagnetic Water Conditioners	-
Source Water Filter	-
Type of Domestic Water System?	
Open Vented:Gravity Fed with Recirculation	-
Open Vented:Gravity Fed without Recirculation	-
Unvented	1
Boosted Water Supply	-
Cold Water Storage	-
Domestic Hot Water Services	
Calorifiers	-
Water Heaters (more than 15 litres)	-
POU Water Heaters (15 litres and less)	-
Combination Water Heater	-
Combination Boiler	1
Plate Heat Exchangers	-
Hot Water Buffer Store/Tank	-
Expansion Vessels	-
Hydraulic Accumulators	-
Showers	-
Air Humidification	-
Closed System (Heating)	1
Closed System (Chilled)	-

Swimming Pool	-
Spa Pool	-
Other System Assets	-
Miscellaneous	-

Incoming Mains Water - 1

Incoming Water Supply



Incoming mains

Additional Area Photo for Context (Optional)



Next to toilet

Source

Mains Water

Location

Accessible toilet

Diameter

22mm

Is there an isolation valve?

Yes

Does the isolation valve work?

Unknown


Is there some form of Backflow Protection on the Incoming Mains?

None visible

Is there a water meter fitted? If so, please note the consumption figure at the time of the RA.

No

Combination Boiler - 1

Asset No. (CB)	CB01
Asset Make	Potterton
Asset Model	Promax Combi 28 HE Plus A
Asset Location	Kitchen cupboard
Area Served	All DHWS
Set Temperature (°C)	60
Temperature (°C) Nearest Outlet	57.8
Temperature (°C) Furthest Outlet	60.8
Power Points In Area?	<5m
Nearest Drain	Outside
Combination Boiler Photograph	 <p>CB01</p>

Outlet Asset Register

Shower Heads/Spray Outlets	
Hot & Cold Mixed Showers	-
Electric Showers	-
Emergency Showers	-
Plate Wash Heads	-
Spray Outlets (Excl. Showers)	-
Thermostatic Mixing Valves / Mixing Devices	
TMV Type 2	-
TMV Type 3	-
Thermostatic Shower Mixers	-
Non-Thermostatic Shower Mixers	-
Thermostatic Mixing Taps	-
Mixer Taps (Non-Thermostatic)	1
TMVs Not Accessible	-
Water Outlets	
Domestic Hot Water Outlets	4
Domestic Cold Water Outlets	3
Drinking Water Outlets	1
Miscellaneous	
Drinking Water Chillers	-
Washing Machines	-
Dishwashers	-
Beverage Boilers	1
Steam Ovens	-
Potato Peelers	-

In-line Cartridge Water Filters	-
In-line Cartridge Water Conditioners	-
Outside taps and services	-
Others	-

Thermometer Used to Complete RA

Thermometer SMSE Asset ID No.	SMSE02489/4
Date Last Calibrated	29/02/2024
Is there a sticker indicating the next calibration date on the thermometer?	Yes
Next calibration due on	31/08/2024
Unique ID of the Timing Device during the assessment?	iPad timer

Temperatures - 1

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Kitchen	No	15.7	57.8	-	MCWS	Both	-	Yes

Temperatures - 2

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Toilet	No	15.5	58.9	-	MCWS	-	-	Yes

Temperatures - 3

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Accessible toilet	No	15.5	60.8	-	MCWS	Both	-	Yes

*TMVs are installed to prevent scalding to users on Health & Safety grounds. Due to the blended hot water temperatures they produce they are non compliant in respect of Legionella control. Where TMVs have a comprehensive maintenance programme in place the potential risk is lowered but not removed.

Hot Water: Stored water 60°C. Distribution >50°C within 1 minute of running

Healthcare Hot Water: Stored water 60°C. Distribution >50°C within 30 seconds and >55°C within 1 minute of running

Cold Water: Stored water <20°C. Distribution <20°C within 2 minutes of running

Closed Water Systems

Heating System?	Yes - Central domestic heating system (Cat 3)
Heat Reclaim System?	-
Chilled Water System?	-
Solar Pre-Heat System?	-
Other:	-
Notes and Observations:	-

These system listed above are all closed systems and therefore present no risk under normal operation. Some consideration should be given to the risks associated with all parts of the system under all reasonably foreseeable operating conditions. For example, a heating system may operate above the temperature range at which legionella bacteria can survive and is fully enclosed. However: - the feed and expansion cistern could easily contain warm water, as could any part of the system where there is no recirculation, in each case providing conditions suitable for legionella bacteria to multiply and will be detailed in this assessment if applicable; - maintenance work such as draining water for chemical testing or dosing, or even air venting radiators, could create contaminated aerosols and contractors should be made aware of this and complete a work specific risk assessment and provide appropriate controls before undertaking any work Only once these considerations are taken into account should these systems present a negligible risk.

Sampling Requirements

Is there a Legionella (LP) sampling regime in place on site?	No
Legionella sampling Visit frequency	-
Legionella sampling number per visit	-
Details Of Specific Locations	-
Is there a Total Viable Count (TVC) sampling regime in place on site?	No
TVC sampling Visit frequency	-
TVC sampling number (per visit)	-
Details Of Specific Locations	-
Is there any other form of sampling being carried out on site?	No
Other sampling frequency	-
Other sampling number	-
Details Of Specific Locations	-
Is there a need to implement any additional sampling?	No
Additional sampling frequency	-
Additional sampling numbers	-
Details Of Specific Locations	-
Justification For Proposed Sampling Regime / Amendments	Due to low risk design of water system
Have You Detailed This Sampling In The Written Scheme Of Control?	NA
Reactive sampling specifically for the presence of Legionella bacteria must also be undertaken at any time that the implemented control measures appear to be failing.	

Review of Written Scheme to Control Legionella Risk

Control Type	Frequency / Allocation
All Systems: Risk Assessment or Risk Review and Reassessment (2-yearly or when there is a reason to suspect it is no longer valid.)	
Responsibility Allocation	SMS Environmental Ltd
Current Legionella risk assessment review frequency	2 yearly
Is the current risk assessment review period considered as being adequate for this building/system?	Yes
What is the recommended risk based review frequency (if different from the current review period)?	-
The recommendation is being made to alter the current risk assessment review period due to the following factors	-
Log Book Audit. Complete a check of the log book to ensure that all tasks detailed in the written scheme are being properly completed by competent and trained individual and appropriate records made, either in hard or electronic records.	
Responsibility Allocation	Believe housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Check the training and competence of all individuals who have responsibility for undertaking tasks and delivering the written scheme.	
Responsibility Allocation	Believe housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Calorifier: 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)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Calorifier: Where there is no inspection hatch, purge any debris in the base of the calorifier to a suitable drain 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)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Calorifier: 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). (Monthly)	
Responsibility Allocation	-
Current Frequency	-

Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
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 (55 °C in healthcare premises) Monthly	
Responsibility Allocation	HSL Compliance Ltd
Current Frequency	Monthly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Hot water services: 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)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Hot water services: All HWS 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)	
Responsibility Allocation	HSL Compliance Ltd
Current Frequency	Monthly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
POU water heaters (no greater than 15 litres): Check water temperatures to confirm the heater operates at 50–60 °C or check the installation has a high turnover (Monthly–six monthly, or as indicated by the risk assessment)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Combination water heaters: 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. (Annually)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Combination water heaters: Check water temperatures at an outlet to confirm the heater operates at 50–60 °C. (Monthly)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: Inspect cold water storage tanks and carry out remedial work, including disinfection, where necessary (Annually)	

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: 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)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: 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 (Monthly)	
Responsibility Allocation	HSL Compliance Ltd
Current Frequency	Monthly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: 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 period. Peak temperatures or any temperatures that are slow to fall should be an indicator of a localised problem. (Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control)	
Responsibility Allocation	HSL Compliance Ltd
Current Frequency	Monthly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: Check thermal insulation to ensure it is intact and consider weatherproofing where components are exposed to the outdoor environment (Annually)	
Responsibility Allocation	Believe housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
All Domestic hot and cold water services: Check all hot and cold water outlets for scale and biofilm build-up and if found to be contaminated clean, descale and disinfect.	
Responsibility Allocation	Believe housing
Current Frequency	Unable To Confirm
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	Quarterly
All Domestic hot and cold water services: If flow straighteners or tap inserts are fitted to any water outlet, these should be removed and cleaned descaled and disinfected or replaced as necessary.	
Responsibility Allocation	Believe housing
Current Frequency	Unable To Confirm

Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	Quarterly
Showers and spray taps: Dismantle, clean and descale removable parts, heads, inserts and hoses where fitted (Quarterly or as indicated by the rate of fouling or other risk factors.)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Thermometer: Uniquely identify instrument and calibration check against ice-point and boiling point standards in line with a written procedure (6-monthly)	
Responsibility Allocation	HSL Compliance Ltd
Current Frequency	Unable To Confirm
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	6 Monthly
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, although long-term use of such filters may be needed in some healthcare situations). (According to manufacturer's guidelines)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Chilled Water Dispenser: Change Carbon Filter and disinfect entire unit including supply pipework. (6-Monthly)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Base Exchange Softener: Visually check the salt levels and top up salt, if required. Undertake a hardness check to confirm operation of the softener (Weekly)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Base Exchange Softener: Service and Disinfect (Annually)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Infrequently used equipment within a water system (i.e not used for a period equal to or greater than seven days) should be included in 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 For high-risk populations, e.g. healthcare and care homes, more frequent flushing may be required as indicated by the risk assessment.	

Responsibility Allocation	Contego
Current Frequency	Weekly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
TMVs: 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. (Annually)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Expansion vessels: Where practical, flush through and purge to drain. Bladders should be changed according to the manufacturer's guidelines or as indicated by the risk assessment (6-Monthly)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Water Connections to Outside Services: Checking the existence of all water connections to outside services; kitchens, fire hydrants and chemical wash units. Any insulation should be checked to ensure that it remains intact. Any water outlets that are no longer used should be removed (Annually)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Legionella Sampling: Sample from systems identified in the risk assessment. (As detailed in the risk assessment)	
Responsibility Allocation	-
Current frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
TVC: Sample from system identified in the risk assessment. (As detailed in the risk assessment)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Closed Water Systems: When testing, maintaining or operating low risk systems, such as fire systems, heating and chilled water systems, etc. Complete a task specific risk assessment and instigate a safe system of work that prevents the generation of a breathable aerosol that will expose operatives to viable legionella bacteria	
Responsibility Allocation	Believe housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Check the system operation and chemical stocks in the reservoir. (Weekly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Test the treated water for both chlorine dioxide and total oxidant/chlorite at an outlet close to the point of injection to verify the dosage rate and conversion yield. (Monthly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Measure the concentration of chlorine dioxide at sentinel taps – the concentration should be at least 0.1 mg/l; and adjust the chlorine dioxide dosage to establish the required residual at the sentinel sample points. (Monthly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Test the chlorine dioxide and total oxidant/chlorite concentration at a representative selection of outlets throughout the distribution system - the concentration should be at least 0.1 mg/l chlorine dioxide. (Annually)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check rate and release of copper and silver ions in the water supply. (Weekly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check copper and silver ion concentrations at sentinel outlets. (Monthly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check the measurement of copper and silver ion concentrations at representative taps selected on a rotational basis each year. (Annually)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check the condition and cleanliness of the electrodes and the pH of the water supply. (Annually)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Notes or Observations	-

BS8580-1:2019 9.3 Control Measures Page 17 states: The Risk assessment should not involve the preparation of the written scheme of control but rather provide information that is critical to its preparation, improvement and review. Note 2 Ensuring that there is a written scheme of control is a legal requirement of the duty holder although they might instruct the risk assessor to advise or prepare the scheme of control on their behalf as a separate commission.

Schematic Drawing

Please detail as much information as possible: Sentinel Outlets, Primary and Secondary Flow and Return Loops, Materials, Size, Location, Valves etc

This is a new site and requires a new schematic

Yes

Changes to existing schematic (sent as a separate AutoCad file)

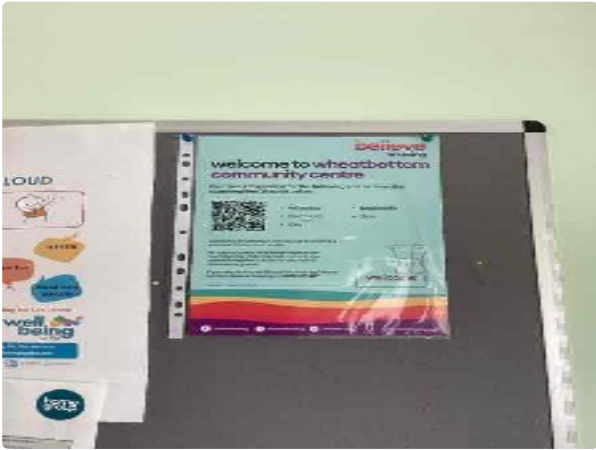
No

No Changes - Insert Job No. of last schematic

-

ENSURE ALL SENTINEL OUTLETS ARE MARKED ON THE SCHEMATIC

Images



QR code for Health and safety information

Bibliography

1. Approved Documents for Building Regulations in England and Wales: www.planningportal.gov.uk/buildingregulations/ Approved Documents for Building Regulations in Scotland: www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards
2. Water Supply (Water Fitting) Regulations 1999 SI 1148/1999 The Stationery
3. BS 3198: 1981 Specification for copper hot water storage combination units for domestic purposes British Standards Institution
4. BS 6920-2-1:2000+A3:2008 Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water. Methods of test British Standards Institution
5. BS 7592:2008 Sampling for Legionella organisms in water systems. Code of Practice British Standards Institution
6. BS 8558:2015 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages British Standards Institution
7. BS 8580-1:2019 Water quality. Risk assessments for Legionella control. Code of practice British Standards Institution
8. BS EN 806 (Parts 1–5) Specifications for installations inside buildings conveying water for human consumption British Standards Institution
9. CIBSE (2014) Guide G: Public health and plumbing engineering www.cibse.org
10. Consulting workers on health and safety. Safety Representatives and Safety Committees Regulations 1977 (as amended) and Health and Safety (Consultation with Employees) Regulations 1996 (as amended). Approved Codes of Practice and guidance L146 (Second edition) HSE Books 2012 ISBN 978 0 7176 6461 0 www.hse.gov.uk/pubns/books/l146.htm
11. Controlling scalding risks from bathing and showering United Kingdom Homecare Association (UKHCA) www.ukhca.co.uk
12. DoH (2016) Health Technical Memorandum 04-01: Safe water in healthcare premises Part A: Design, installation and commissioning <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
13. DoH (2016) Health Technical Memorandum 04-01: Safe water in healthcare premises Part B: Operational management <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
14. DoH (2016) Health Technical Memorandum 04-01: Safe water in healthcare premises Part C: Pseudomonas aeruginosa – advice for augmented care units <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
15. DoH (2017) Health Technical Memorandum 04-01: Supplement. Performance specification D 08: thermostatic mixing valves (healthcare premises) <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
16. Guidance on the Control and Prevention of Legionnaires' Disease in England Health Protection Agency 2010 www.hpa.org.uk
17. Guide to risk assessment for water services The Water Management Society www.wmsoc.org.uk/publication.html
18. Guidelines on Management of Legionella Incidents, Outbreaks and Clusters in the Community Health Protection Agency Scotland 2009 www.hpa.scot.nhs.uk
19. Health and Safety at Work etc. Act 1974 (c 37) The Stationery Office 1974 ISBN 978 0 10 543774 1
20. Health and safety in care homes HSG220 HSE Books 2001 ISBN 978 0 7176 2082 1 www.hse.gov.uk/pubns/books/hsg220.htm
21. HSE (2012) Hazardous substances at work: A brief guide to COSHH Leaflet INDG136(rev5) HSE Books www.hse.gov.uk/pubns/indg136.htm
22. HSE (2013) Legionnaires' disease: Technical guidance Part 3: The control of legionella bacteria in other risk systems <http://www.hse.gov.uk/pubns/priced/hsg274part3.pdf>
23. HSE (2013) Legionnaires' disease: Technical guidance Part1: The control of legionella bacteria in evaporative cooling systems <http://www.hse.gov.uk/pubns/priced/hsg274part1.pdf>
24. HSE (2013) Legionnaires' disease: The control of legionella bacteria in water systems. Approved Code of Practice L8 (Fourth edition) HSE Books 2013 www.hse.gov.uk/pubns/books/l8.htm
25. HSE (2014) Legionnaires' disease Part 2: The control of legionella bacteria in hot and cold water systems <http://www.hse.gov.uk/pubns/priced/hsg274part2.pdf>
26. HSE Guernsey (2013) The Control of Legionella Bacteria in Water Systems in Guernsey
27. Legionella Control Association (2017) The Control of Legionella A Recommended Code of Conduct for Service Providers www.legionellacontrol.org.uk.
28. Managing health and safety in construction. Construction (Design and Management) Regulations 2007. Approved Code of Practice L144 HSE Books 2007 ISBN 978 0 7176 6223 4 www.hse.gov.uk/pubns/books/l144.htm
29. Reporting accidents and incidents at work: A brief guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) Leaflet INDG453(rev1) HSE Books 2013 www.hse.gov.uk/pubns/indg453.htm
30. Scottish Health Technical Memorandum 04-01 Health Facilities Scotland www.hfs.scot.nhs.uk/publications-1/engineering/shtm-04-01/
31. The Health Protection (Notification) Regulations 2010 SI 659/2010 The Stationery Office
32. The Notification of Cooling Towers and Evaporative Condensers Regulations 1992 SI 1992/2225 The Stationery Office
33. The Private Water Supplies (Scotland) Regulations 2006 SSI 209/2006 The Stationery Office
34. The Private Water Supplies (Wales) Regulations 2010 Welsh SI 66/2010 The Stationery Office
35. The Private Water Supplies Regulations 2009 SI 3101/2009 The Stationery Office
36. The Public Health (Notification of Infectious Diseases) (Scotland) Regulations 1988 SSI1550/1988 The Stationery Office

37. The Water Supply (Water Quality) (Scotland) Regulations 2001 SSI 207/2001 The Stationery Office
 38. The Water Supply (Water Quality) (Scotland) Regulations 2010 SSI 95/2010 The Stationery Office
 39. The Water Supply (Water Quality) Regulations 2016 SSI 2016 No. 614 The Stationery Office
 40. UK Gov (2017) Safe water in healthcare premises HTM 04-01 Parts A, B, C & D08 Available from <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
 41. UKAS (2017) Accreditation of Bodies Undertaking Legionella Risk Assessment Activities RG9 3rd Ed
 42. Water (Scotland) Act 1980 The Stationery Office 1980 ISBN 978 0 10 544580 7
 43. Water Byelaws 2004 Scottish Water www.scottishwater.co.uk
 44. Water Fittings and Materials Directory Water Regulations Advisory Scheme www.wras.co.uk/Directory
 45. Water Industry Act 1991 The Stationery Office 1991 ISBN 978 0 10 545691 9
-