Contract Heating
Install | Service | Repair

Legionella Control Association
KEEPING WATER SYSTEMS SAFE

LEGIONELLA RISK ASSESSMENT (Domestic Hot and Cold Water Systems)

To

Client	A Flat In Town Ltd			***Property ID***	**106295**		
Address	36	East Claremont Street		*Property Address*	55 2F1	Albert Street	
		Edinburgh				Edinburgh	
		Lothians	EH7 4JR			Midlothian	EH7 5LW

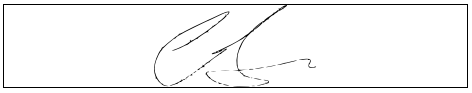
RESPONSIBLE PERSON:

The Dutyholder must appoint a person to be mangerially responsible for implementaion and management of the scheme for control of legionella and must ensure there are emergency procedures in place in response to legionella issues, if the name of this person is not available the Dutyholder must identify the person responsible and record this for future reference. The Dutyholder should also consider who will be responsible if the nominated person is not available. The responsible person should be suitably informed, instructed and trained and their suitability assessed.

Doc	18	v	2019-1	*Certificate ID*	CH-LRA-872020163242-133	*Property Type*	Domestic	*Property Use*	Rental

OPERATIVE TRAINING

The operative providing this report has received training in Water Regs and Specific Legionnaires Disease training provided by an external certification body.

Date Issued	08-Jul-20	*Issued By*	Lockhart Brown	

REVIEW PERIOD: Annually

This is a minimum review period and may need to be more regular dependant on the system and risks it presents. Personal susceptibility must be considered and can vary on change of ownership or tenancy see notes in General Information section

REPORT REVIEWED AND CONFIRMED BY:

Date:		Name: (CAPITALS)		

ON SITE INFORMATION

Is there a Written Scheme On Site:	No	**Key Site Staff:**	N/A
Has the Written Scheme been reviewed:	N/A	**Other Contractors:**	N/A
Is the Written Scheme effective:	N/A	**Competency Assessed:**	

GENERAL COMMENTS

WATER CARRYING EQUIPMENT/ASSET REGISTER

There are increased risks associated with spray generating equipment, equipment supplied from a storage vessel, flexi or rubber pipework connections, hot outlet temperatures below 50c and cold outlet temperatures above 20c.

LOCATION	*TYPE*	*INSTALL*	*SPRAY*	*SUPPLY COLD*	*SUPPLY HOT*	*FLEXI CONNECT*	*COLD TEMP C*	*HOT TEMP C*	*REMEDIAL*
Shower Room	Shower Electric	Pass	Yes	Mains	NA	NV	13	50	No
Shower Room	Toilet	Pass	No	Mains	NA	No	13	NA	No
Shower Room	Tap Mixer	Pass	Yes	Mains	BLR Combi	**Yes**	13	54	No
Kitchen	Tap Mixer	Pass	Yes	Mains	BLR Combi	**Yes**	13	55	No
Kitchen	Washing Machine	Pass	No	Mains	NA	**Yes**	13	NA	No

HOT STORAGE VESSELS / WATER HEATERS

LOCATION	*TYPE*	*INSTALL*	*SUPPLY*	*STORE TEMP C*	*INLET TEMP C*	*REMEDIAL*
Lounge	BLR Combi	Pass	Mains	60	13	No

REMEDIALS (CONDITION SURVEYS)

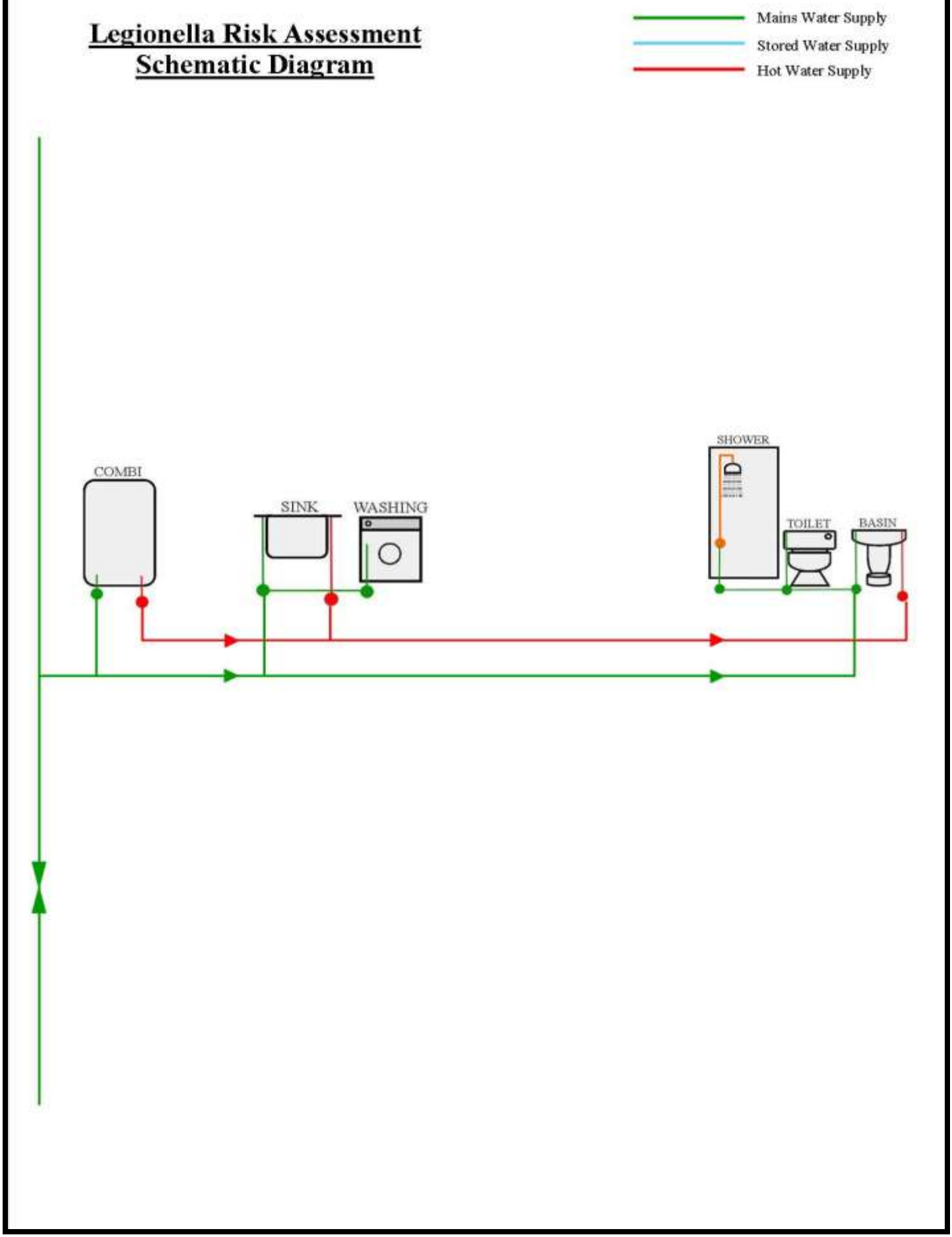
Design, construction and operation of the system has been assessed and factors contributing to the risk are recorded in the remedials section

LOCATION	*TYPE*	*REMEDIAL DESCRIPTION*	*RISK RATING*
Internal	Pipework	Pipework to be insulated/lagged	Low

Low	A low risk rating would indicate that the appliance/installation is in generally good condition and operating satisfactorily, any remedial measures highlighted, although they may be required under HSE L8 (Fourth Edition), HSE HSG274 Part 2 or similar guidance, are not necessarily required to be addressed immediately and may be completed within a framework of on-going maintenance. Recommended timescale for action 6 months.
Medium	A medium risk rating indicates that some remedial measures are required in order to reduce the risk to a satisfactory level. The issues identified during this assessment are unlikely to pose a very significant risk and the remedial measures highlighted, although they may be required under HSE L8 (Fourth Edition), HSE HSG274 Part 2 or similar documentation. They may be acted upon within a framework of on-going maintenance but measures should be considered to control the risk in the interim. Recommended timesacale for action 3 months.
High	A high risk rating represents a wholly unsatisfactory arrangement with regard to the prevention and control of legionellosis and legionnaires disease and requires urgent attention in order to reduce the risk to a satisfactory level. Recommended timescale for action 1 month. Where a present risk to health and safety is encountered the client will be notified of this at the time of the risk assessment and immediate action will be required.

RECOMMENDATIONS ON REMEDIALS

Legionella Risk Assessment Schematic Diagram



This schematic is a simplified illustration of the layout of the water system based on what fixtures and pipework were visible at the time of the inspection, it provides only an indication of scale. Whilst every effort has been made to ensure the schematic diagrams are as accurate as possible Contract Heating Ltd. cannot gaurantee their accuracy.

OPERATIVE RISK ASSESSMENT OF SITE HAZARDS PRIOR TO CARRYING OUT WORKS

MANUAL HANDLING Present: No Safe: Yes

Comment:

ASBESTOS Present: No Safe: Yes

Comment:

SLIPS, TRIPS ETC. Present: Yes Safe: Yes

Comment: Wearing issued safety footwear with non slip sole, ensure clear working area

HOT WORK Present: No Safe: Yes

Comment:

FALLING OBJECTS Present: No Safe: Yes

Comment:

ELECTRICITY Present: No Safe: Yes

Comment:

WEATHER ISSUES Present: No Safe: Yes

Comment:

WASTE Present: No Safe: Yes

Comment:

SPILLAGE Present: No Safe: Yes

Comment:

OTHER CONTRACTOR Present: No Safe: Yes

Comment:

BIO HAZARDS Present: No Safe: Yes

Comment:

LONE WORKING Present: Yes Safe: Yes

Comment: Confirmed company phone has reception in area of work activity

WORKING AT HEIGHT Present: No Safe: Yes

Comment:

CONFINED SPACES Present: No Safe: Yes

Comment:

NOISE Present: No Safe: Yes

Comment:

VIBRATION Present: No Safe: Yes

Comment:

OTHER HAZARD Present: No Safe: Yes

Comment:

DUTY HOLDER RESPONSIBILITIES (FOR LEGIONELLA RISK MANAGEMENT IN DOMESTIC ACCOMODATION)

Obligations of the Duty Holder and Responsible Person:

Under general health and safety law, as an employer or person in control of a premises (eg a landlord), you have health and safety duties and need to take suitable precautions to prevent or control the risk of exposure to legionella. Details of the specific law that applies can be found in part 1 of Legionnaires' disease: The control of legionella bacteria in water systems.
Carrying out a risk assessment is your responsibility and will help you to establish any potential risks and implement measures to either eliminate or control risks. You may be competent to carry out the assessment yourself but, if not, you should ask someone with the necessary skills to conduct a risk assessment. This can be done by someone from within your own organisation or from someone outside, eg an external consultant.

Obligations to Manage the Risk:

As an employer or person in control of premises, you must appoint someone competent to help you comply with your health and safety duties, eg take responsibility for managing the risks. A competent person is someone with the necessary skills, knowledge and experience to manage health and safety, including the control measures. You could appoint one, or a combination of:

· Yourself
· One or more workers; and/or
· Someone from outside your business

If there are several people responsible for managing your risks, eg because of shift-work patterns, you need to make sure that everyone knows what they are responsible for and how they fit into the overall risk management programme.
If you decide to employ contractors to carry out water treatment or other work, it is still the responsibility of the competent person to ensure that the treatment is carried out to the required standards. Remember, before you employ a contractor, you should be satisfied that they can do the work you want to the standard that you require. There are a number of external schemes to help you with this, for example The control of legionellosis: A recommended code of conduct for service providers.

Obligations for Preventing and Controlling the Risk from Exposure to Legionella Bacteria:

Obligations for Preventing and Controlling the Risk from Exposure to Legionella Bacteria:
You should consider whether you can prevent the risk of legionella in the first place by considering the type of water system you need, eg consider whether it is possible to replace a wet cooling tower with a dry air-cooled system. The key point is to design, maintain and operate your water services under conditions that prevent or adequately control the growth of legionella bacteria. You should, as appropriate:

· ensure that the release of water spray is properly controlled;
· Avoid water temperatures and conditions that favour the growth of legionella and other micro-organisms;
· Ensure water cannot stagnate anywhere in the system by keeping pipe lengths as short as possible or by removing redundant pipework;
· Avoid materials that encourage the growth of legionella.
· Keep the system and water in it clean; and
· Treat water to either kill legionella (and other microorganisms) or limit their ability to grow.

If you identify a risk that you are unable to prevent, you must introduce appropriate controls. You should introduce a course of action that will help you to control any risks from legionella by identifying:

· Your system, eg developing a written schematic;
· Who is responsible for carrying out the assessment and managing its implementation;
· The safe and correct operation of your system;
· What control methods and other precautions you will be using; and
· What checks will be carried out to ensure risks are being managed and how often.

Reviews:

Risk assessments should be reviewed periodically and if circumstances have changed (e.g. changes to the water system or its use; changes to the use of the building in which the water system is installed; the availability of new information about risks or control measures; the results of checks indicating that the control measures are no longer effective; changes to key personnel; a case of legionnaires disease/legionellosis associated with the system) that would have an effect on the legionella risk within the premises it is recommended that a new Legionella Risk Assessment is carried out. Monitoring of the hot and cold water services can be carried out as identified by the Legionella Risk Assessment and can be used by the responsible person at the time of the overall review of the Legionella Risk Assessment.

Obligations Regarding Record Keeping:

Persons appointed to take managerial responsibility of the risks (see page 1) should ensure that the appropriate records are kept. Records should include details about:

· The person or people responsible for conducting the risk assessment, managing, and implementing the written scheme;
· The risk assessment and any significant findings of the risk assessment;
· The written control scheme and its implementation; and
· The results of any inspection, test or check carried out, and the dates.

These records should be retained throughout the period for which they remain current and for at least two years after that period. Records kept in accordance with the last bullet point above should be retained for at least five years.

LEGIONELLA CONTROL ASSOCIATION

Contract Heating Ltd. are members of the Legionella Control Association and are registered for the following categories, Legionella Risk Assessment Services, Hot and Cold Water Monitoring and Inspection Services and Cleaning and Disinfection Services.

References:

BS 7592 Sampling for Legionella bacteria in water systems	
BS 8558:2011 Guide to the design installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages	
The Water Supply (Water Fittings) (Scotland) Byelaws 2014	
The Private Water Supplies (Scotland) Regulations 2006	
TMV Manufacturers Asscociation Recommended code of practice for safe water temperatures	
Legionnaires' disease. The control of legionella bacteria in water systems. Approved Code of Practice and guidance L8 (Third edition) HSE Books 2001 ISBN 978 0 7176 1772	http://www.hseni.gov.uk/l8_legionnaires__disease_the_control_of_legionella_bacteria_in_water_systems.pdf
Health and safety at work act 1974	http://www.legislation.gov.uk/ukpga/1974/37
The management of Health and Safety at Work Regulations 1999	http://www.legislation.gov.uk/uksi/1999/3242/made
Control of Substances Hazardous to Health 2002	http://www.legislation.gov.uk/uksi/2002/2677/pdfs/uksi_20022677_en.pdf

ALLOCATION OF RESPONSIBILITIES (FOR LEGIONELLA RISK MANAGEMENT IN DOMESTIC ACCOMODATION)

Service	Action to Take	Frequency	Action By (Owner, Agent, Tenant, Contractor / competent
All	Identification of Duty Holder, responsible person or deputies	Once	Owner, Agent
	Conducting of a Legionella Risk Assessment	Once	Owner, Agent
	Remedial work to be arranged with level of priority / degree of risk	Once	Owner, Agent
	Review of Risk Assessment	Periodically (min. annually)	Owner, Agent
	Risk Assessments, COSHH, and Safety Data sheets for work carried out.	As Required	Contractor / competent person
	Manage periods of non-occupancy, implement a flushing regime or drain if vacant for long periods	As Required	Owner, Agent
	Providing training and identifying competence of staff carrying out Risk Assessments	Once	Contractor / competent person
	Provision and maintenance of suitable record system	Continuous	Owner, Agent
Calorifiers	Inspect calorifier internally by removing the inspection hatch or using a boroscope 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	Tenant, Owner, Agent
	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	Annualy but may be increased as indicated by the risk assessment or result of inspection findings	Tenant, Owner, Agent
	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, in healthcare premises not below 55 °C)	Monthly	Tenant, Owner, Agent
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 (55 °C in healthcare premises)	Monthly	Tenant, Owner, Agent
	For circulating systems: take temperatures at return legs of principal loops (sentinel points) to confirm they are at a minimum of 50 °C (55 °C in healthcare premises). Temperature measurements may be taken on the surface of metallic pipework	Monthly	Tenant, Owner, Agent
	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 (55 °C in healthcare premises). 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)	Tenant, Owner, Agent
	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 (55 °C in healthcare premises) to create a temperature profile of the whole system over a defined time period	Monthly	Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control
POU water heaters (no greater than 15 litres)	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	Monthly–six monthly, or as indicated by the risk assessment	Tenant, Owner, Agent
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	Tenant, Owner, Agent
	Check water temperatures at an outlet to confirm the heater operates at 55–60 °C	Monthly	Tenant, Owner, Agent
Cold water tanks	Inspect cold water storage tanks and carry out remedial work where necessary	Annually	Tenant, Owner, Agent

	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	Tenant, Owner, Agent
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	Tenant, Owner, Agent
	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	of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control	Tenant, Owner, Agent
	Check thermal insulation to ensure it is intact and consider weatherproofing where components are exposed to the outdoor environment	Annually	Tenant, Owner, Agent
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, eg areas with high risk patients	Tenant, Owner, Agent
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	Tenant, Owner, Agent
Base exchange softeners	Visually check the salt levels and top up salt, if required. Undertake a hardness check to confirm operation of the softener	Weekly, but depends on the size of the vessel and the rate of salt consumption	Tenant, Owner, Agent
	Service and disinfect	Annually, or according to manufacturer's guidelines	Tenant, Owner, Agent
Multiple use filters	Backwash and regenerate as specified by the manufacturer	According to manufacturer's guidelines	Tenant, Owner, Agent
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 should be cut back as far as possible to a common supply (eg to the recirculating pipework or the pipework supplying a more frequently used upstream fitting) but preferably by removing the feeding 'T' Infrequently used equipment within a water system (ie 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 For high risk populations, eg healthcare and care homes, more frequent flushing may be required as indicated by the risk assessment	Weekly, or as indicated by the risk assessment	Tenant, Owner, Agent
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. There is further information in paragraphs 2.152– 2.168 of HSG274 Part 2	Annually or on a frequency defined by the risk assessment, taking account of any manufacturer's recommendations	Tenant, Owner, Agent
Expansion vessels	Where practical, flush through and purge to drain	Monthly–six monthly, as indicated by the risk assessment	Tenant, Owner, Agent

Information and documentation relating to Legionella can be found on the HSE website	http://www.hse.gov.uk/legionnaires/
Contract Heating Ltd. are members of the Legionella Control Association, the code of conduct and registration document can be accessed via the Contract Heating website.	http://www.contractheating.co.uk/LegionellaControlAssociationCodeofConduct.pdf http://www.contractheating.co.uk/LegionellaControlAssociationCertificateofRegistration.pdf

GENERAL INFORMATION

Legionnaires' disease is normally contracted by inhaling small droplets of water (aerosols), suspended in the air, containing the bacteria. 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.

In addition, personal susceptibility can vary widely. Factors contributing to a possible increase in susceptibility can include age, illness, a weakened immune system etc. and whether they could be exposed to any contaminated water droplets.

ASSESSORS COMPETENCY

All of our assessors have been certificated in managing the risk of legionnaires disease in compliance with the approved code of practice and guidance (L8) under the NICEIC or BPEC schemes.

SCOPE AND LIMITATIONS OF THE RISK ASSESSMENT SURVEY

The scope of the risk assessment includes a survey of the water systems within Domestic Premises only e.g. flat/apartment/house. It attempts to identify the condition and operational characteristics of the property water system. It will provide recommendations for any remedial works that may be required to meet with current regulations as well as guidance on ongoing procedures for reducing the risk associated with the Legionella organism.

This survey was carried out on only the parts of the property which were made accessible to the surveyor. Any water systems found in any part of the property that were not made available, are not included in this report and exclusion of these systems does not indicate absence.

MANAGEMENT RESPONSIBILITIES

Landlords who provide residential accommodation, as the person in control of the premises or responsible for the water systems in their premises, have a legal duty to ensure that the risk of exposure of tenants to legionella is properly assessed and controlled. This duty extends to residents, guests, tenants and customers. They can carry out a risk assessment themselves if they are competent, or employ somebody who is.

Duty holders are required to prevent or control the risk from exposure to legionella. Precautions include physical methods such as regular movement of hot and cold water in distribution pipework, regular flushing of outlets to ensure water cannot stagnate in the hot and cold water systems and Point of Use filters. For control measures to be effective, it is essential to keep the whole system clean, as biofilms or inorganic matter such as scale can reduce the efficacy of any type of control measure significantly.

REMEDIAL WORK

Remedial work highlighted in this report should be assessed and actioned as required by the duty holder.

END USER RESPONSIBILTY

- Ensure hot water temperature settings on water heaters and hot water storage cylinders are maintained at a suitable setting to maintain outlet temperatures.
- Regularly clean and disinfect showerheads.
- Take appropriate action or inform the duty holder if the hot water is not heating properly or if there are any other problems with the system.
- Little used outlets should be flushed on hot and cold setting at least once per week.
- In some circumstances dependant on the materials of construction Flexible Plumbing Connections have been shown to support the growth of microorganisms. In order to keep the risk to as low a level as possible it is recommended that water temperatures are kept well out with the 20-45 degrees C range and that water should not be allowed to stagnate in these supplies/connections. See equipment list for Flexi Connect.

UNOCCUPIED PROPERTY

The risk may increase where the property is unoccupied for a short period. It is important that water is not allowed to stagnate within the water system and so dwellings that are vacant for extended periods should be managed carefully. As a general principle, outlets on hot and cold water systems should be used at least once a week to maintain a degree of water flow and minimise the chances of stagnation. To manage the risks during non-occupancy, consider implementing a suitable flushing regime or other measures, such as draining the system if the dwelling is to remain vacant for long periods.

ONGOING RECOMMENDATIONS

It is important to review the assessment periodically in case anything changes in the system. However, the frequency of inspection and maintenance will depend on the system and the risks it presents. In the event that ongoing monitoring and maintenance procedures are implemented, these should be recorded in a log book which should be reviewed on a regular basis.

DISCLAIMER

Whilst every endeavour is made in order to ascertain the correct information regarding the property layout and water system information, the surveyor must rely on knowledge and any available system drawings as provided by the property owner or manager. Lack of such knowledge or information may lead to assumptions on the part of the surveyor and will be stated as such in the report.

The views and guidance expressed in this report are given in good faith and are based on Contract Heating Ltd's interpretation of HSE ACoP L8 (Fourth Edition) and HSE HSG274 Part 2, the scope of the survey and the information made available by the client.

Contract Heating Ltd cannot be held liable for any consequential loss as a result of any actions taken by a third party as a result of this report.