Legionella Risk Assessment & Action Report

Identification, Assessment of Risk & Precaution To Be Taken With Respect To Legionella Bacteria

Hot & Cold-Water Systems

Site Address:
Risk Assessment Survey Date: 18/05/2021
Recommended Review: 18/05/2022
Report Prepared By:

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Property Summary & Management Frame Work

Property Address	
Occupation Date & Times	18/05/2021 at 11:00
Occupancy	Hotel
Occupancy Numbers	30+
People exposed to hazard	Visitors, guests, employees, contractors and members of public
Area Assessed	Cold & Hot water Distribution System.
Cold Main Supply to Property	Yes – Supplying to entire building.
Is there any tenant or regular visitor particularly susceptible to Legionella due to age, health or lifestyle?	Unknown
Describe type of Cold-Water System	Cold water storage tank supplying to hot water tank. Cold water from main feed to bedrooms.
Describe type of Hot Water System	1 x Gas Boilers with 1 x hot water storage tank supplying to building 77. 1 x Gas Boiler with 1 x hot water storage tank supplying to building 79.
Responsible Company	Saba Hotel Managements
Advice to management	No
Analytical Test Sampling Location (Hot Water)	Hot water from building 77 ground floor bedroom. Hot water from building 79 ground floor bedroom.
Analytical Test Sampling Location (Cold Water)	None
Internal Areas Accessed	Boiler Room & Bedrooms
Internal Areas Excluded	None
Recommendation	During periods of unoccupancy of bedrooms' outlets on hot & cold-water system should be flushed through at least once a week for at least 2 minutes.
Hazard	Human exposure to Legionella bacteria
People exposed to hazard	Employee, visitors, contractor, visitors and public (All those making-use of the buildings).
Area affected by hazard	Within the threshold of the building/premises wherever water services are present and, depending on environmental conditions & water applications, within the vicinity of the building.
Likelihood of hazard	Tolerable or Unlikely (Low) / Possible (Medium) / High (Likely) Determined by consideration of the potential for contamination, amplification, transmission & exposure to Legionella bacteria; dependent on the design, installation, operation, usage and management of the water systems.
Specific Legislation	The Health & Safety at Work Act 1974 – Section 2, 3 & 4. The control of Substances Hazardous to Health Regulation 2002. The Notification of Cooling Towers & Evaporative Condensers Regulation 1991. The Health & Safety Executive's Approved Code of Practice and Guidance "Legionnaires" disease. The control of legionella bacteria in Technical guidance HSG274

Details of Management Personnel

Duty Holder

The person/legal entity who is in control of premises or systems in connection with work, where there is a risk from water systems in the building. Responsibilities included:

- The appointment of s competent & responsible person to undertake the measures needed to comply with COSHH;
- Make responsible enquires to establish the suitability of the responsible;
- Ensure that responsibilities and lines of communication are properly established and clearly laid down;
- Undertake a risk assessment to identify & evaluate the risk from Legionella bacteria;
- Consult with employees with respect tp the arrangement in place. In particular, the arrangements for obtaining competent help, information on the risks & controls measures, and health & safety training.

Organisation:	
Name:	
Position:	
Contact Information:	

Appointed Competent Person

Person or person appointed to undertake the duties required to comply with the COSHH Regulations.

- The appointed competent person or persons should have sufficient authority, competence and knowledge of the installation to ensure that all operational procedures are carried out in a timely and effectively manner.
- Carry out the risk assessment
- Draw up and implement the scheme of precautionary measures.
- In particular, they should know the potential sources of legionella bacteria and the risks they present, the measures to adopt, including the precautions to take to protect the people concerned, and their significance and the measures to take to ensure that the control measures remain effective and their significance.

Organisation:	Unable to confirm
Name:	Unable to confirm
Position:	Unable to confirm
Contact Information:	Unable to confirm

Appointed Responsible Person
The person specifically appointed by the duty holder to take day to day responsibility for controlling any identified risk from legionella bacteria. - Should have sufficient authority, competence and knowledge of the installation to ensure that all operational procedures are carried out effectively and in a timely way. - Oversee or manage the monitoring and review of the control scheme.

Organisation:	
Name:	
Position:	
Contact Information:	

Site Maintenance Manager
The maintenance manager supervises the schedule of planned prevention maintenance and relative maintenance task as instructed by the responsible person. The maintenance manager has a duty to cooperate and communicate effectively with the responsible person and other parties to ensure the safe management of the water. The maintenance manager is a responsible for ensuring that planned preventative maintenance and reactive maintenance is carried out in a timely manner, to the correct specification and by suitable trained competent persons.

Organisation:	Unable to confirm
Name:	Unable to confirm
Position:	Unable to confirm
Contact Information:	Unable to confirm

Water Treatment Contractor
Undertakes tasks as instructed by the Maintenance Manager.

Organisation:	Unable to confirm
Name:	Unable to confirm
Position:	Unable to confirm
Contact Information:	Unable to confirm

GUIDANCE ON LEGIONNAIRES' DISEASE

Landlords of residential accommodation have responsibilities for combating Legionnaires' Disease. Health and safety legislation requires that rented properties are subject to a regular risk assessments for the Legionella bacteria which causes Legionnaires' Disease, and thereafter maintain control measures to minimise the risk.

What is Legionnaires' Disease?

Legionnaires' Disease is a pneumonia like illness caused by the Legionella bacteria and can be fatal. The infection is caused by breathing in small droplets of water contaminated by the bacteria. The disease cannot be passed from one person to another.
Legionella bacteria are found in the natural environment and may contaminate and grow in water systems, including domestic hot and cold water systems. They survive low temperatures and thrive at temperatures between 20 - 45°C if the conditions are right. They are killed by high temperatures at 60°C or above.

How do I carry out a Legionella risk assessment?

The purpose of carrying out a risk assessment is to identify and assess any risks in your water system. The responsible person should understand your water systems and any associated equipment, in order to conclude whether the system is likely to create a risk from exposure to legionella, and should be able to identify whether:

- water is stored or re-circulated as part of your system
- the water temperature in some or all parts of the system is between 20-50 °C
- there are sources of nutrients such as rust, sludge, scale and organic matters
- conditions are present to encourage bacteria to multiply
- it is possible for water droplets to be produced and, if so, whether they could be dispersed over a wide area, e.g. showers and aerosols from cooling towers
- it is likely that any of your employees, residents, visitors etc. are more susceptible to infection due to age, illness, a weakened immune system etc. and whether they could be exposed to any contaminated water droplets.

Your risk assessment should include:

- management responsibilities, including the name of competent person and a description of your system;
- potential sources of risk;
- any controls in place to control risks;
- monitoring, inspection and maintenance procedures;
- records of the monitoring results, inspections and checks carried out;
- arrangements to review the risk assessment regularly.

If you conclude that there is no reasonably foreseeable risk or the risks are low and are being properly managed to comply with the law, your assessment is complete. You may not need to take any further action at this stage, but any existing controls must be maintained and the assessment reviewed regularly in case anything changes in your system.
Before considering carrying out a risk assessment you should familiarise yourself in particular with the following HSE publications: -

Legionnaires disease: A brief guide for duty holders - http://www.hse.gov.uk/pubns/indg458.pdf
Legionnaires disease: Part 2: The control of legionella bacteria in hot and cold water systems - http://www.hse.gov.uk/pubns/priced/hsg274part2.pdf

Tenant/Lease Holder Guidelines

Landlords/magaing person should inform lease holder of the potential risk of exposure to Legionnaire's disease within domestic properties and domestic properties and its consequences. They should advise on any actions arising from the findings of the risk assessment, where appropriate.

Managing person should be advised in particular that they should:

- Inform the landlord/letting agent/managing person if they believe the hot water temperature is below 50°C or the hot water tank/boiler is defective in any way.
- Not adjust the temperature of the hot water.
- Advise landlord/letting agent if they believe the cold water temperature is above 20°C flush through little used outlets for 2 minutes at least once a week.
- Clean, disinfect and descale shower heads at least once every 6 months
- Notify the landlord/managing person if they notice any debris or discolouration in the hot or cold water.

Hot Water Storage & Distribution System

Asset Prefix	HWSDS
Assets ID	1
Number(s) of Boiler	1
Boiler Location	Rear plant room
Safe Access Available	Yes
Boiler Make & Model – 1	Vaillant 656/4-5 A eco TEC plus
Boiler Service Records Available	Unable to confirm
Hot Water Suppling to	Building 77
Hot Water Storage Tank Present	Yes
Number(s) of Hot Water Storage Tank	1
Storage Hot Water – Location	Kitchen airing cupboard
Hot Water Storage Make & Mode – 1	Indirect Cylinder
Hot Water Storage Capacity	>200L
Electric Immersion Heaters	Yes
Storage Hot Water – 1 - Temperature ° C	58.9° C
Storage Service Records Available	Unable to confirm
Unit status at the time of inspection	In Service
Hot water supply Insulated	No
Deadlegs and Redundant Pipework	No
Hot Water Temperature ° C – Basement	50.3° C
Hot Water Temperature ° C – Ground Floor	48.9° C
Hot Water Temperature ° C – First Floor	49.9° C
Hot Water Temperature ° C – Second Floor	50.0° C
Hot Water Temperature ° C – Third Floor	50.0° C
Is Expansion Vessel present?	Yes
Vessel Service Records Available	Unable to confirm
Is TMVs installed?	No
TMVs Service Records Available	N/a
Adequate Record Keeping	No
Disinfection Program	No
Scale Present on the Outlet(s)	No
Overall Risk Rating	Tolerable or Unlikely (Low)

Analytical Test Sampling

Location 1: Hot Water Sample was taken from ground floor bedroom.

Water Samples collected during the risk assessment survey were submitted for independent testing at a UKAS accredited laboratory registered with the Legionella Control Association and waiting for results.

Comments

- Currently the hot water temperatures are satisfactory and very limited access to building.
- The design and installation of hot water services are satisfactory.
- Apartments which are unoccupied causing dead legs in water distribution system.

Recommendation

- Temperature setting on the boiler must be heated & stored hot water above 50 & below 60 Degree C to avoid legionella bacterial to get multiple.
- It is not possible to verify the internal condition of the hot water storage tanks due to sealed system however the tank receives a high turnover during full occupancy and it is therefore assumed that the water hygiene will be maintained to high standard.
- The legionella risk should be controlled by keeping the water distribution system clean and free from nutrients, including those arising from corrosion and lime scaled.
- Monthly temperature checks should be carried out by competent person and records must be maintained.
- Clean & sanitise outlets quarterly to reduce lime scale risk.
- An annual inspection of the hot water storage tank should be done to check its condition inside and outside, and the water within it. The thermal insulation should be good condition so that it protects from extremes of temperature.
- Any little used outlets in bedrooms should be flushed through weekly by running water through the outlets for at least two minutes.
- Regular servicing and maintenance of the boilers and calorifiers are essential to maintain the optimum operating efficiency, safety and accurate hot water temperature supply to avoid legionella bacteria to get multiple.
- The expansion vessel found on site requires 6 monthly flushing and recording in the water hygiene logbook.
- Log all details of remedial action.

Action Required

- Currently temporary dead ends on hot water distribution system to those bedrooms which are vacant, during periods of unoccupancy all outlets on hot water systems should be flushed through at least once a week for at least 2 minutes. For longer periods considered draining the system. Make sure system is flushed through when it is re-occupied by running all outlets for at least two minutes. Aerosol production should be minimised during this process.



Asset Prefix	HWSDS
Assets ID	2
Number(s) of Boiler	1
Boiler Location	Rear plant room
Safe Access Available	Yes
Boiler Make & Model – 1	Greenstar 40CDi Conventional
Boiler Service Records Available	Unable to confirm
Hot Water Suppling to	Building 79
Hot Water Storage Tank Present	Yes
Number(s) of Hot Water Storage Tank	1
Storage Hot Water – Location	Top floor airing cupboard
Hot Water Storage Make & Mode – 1	Indirect Cylinder
Hot Water Storage Capacity	>300L
Electric Immersion Heaters	Yes
Storage Hot Water – 1 - Temperature ° C	57.0° C
Storage Service Records Available	Unable to confirm
Unit status at the time of inspection	In Service
Hot water supply Insulated	No
Deadlegs and Redundant Pipework	No
Hot Water Temperature ° C – Ground Floor	56.3° C
Hot Water Temperature ° C – First Floor	52.6° C
Hot Water Temperature ° C – Second Floor	52.5° C
Hot Water Temperature ° C – Third Floor	56.5° C
Is Expansion Vessel present?	No
Vessel Service Records Available	Unable to confirm
Is TMVs installed?	No
TMVs Service Records Available	Not Present
Adequate Record Keeping	
Disinfection Program	No
Scale Present on the Outlet(s)	No
Overall Risk Rating	Tolerable or Unlikely (Low)

Analytical Test Sampling

Location 1: Hot Water Sample was taken from ground floor room.

Water Samples collected during the risk assessment survey were submitted for independent testing at a UKAS accredited laboratory registered with the Legionella Control Association and waiting for results.

Comments

Currently the hot water temperatures are satisfactory and very limited access to building.
The design and installation of hot water services are satisfactory.
Apartments which are unoccupied causing dead legs in water distribution system.

Recommendation

Temperature setting on the boiler & calorifier must be heated & stored hot water above 50 & below 60 Degree C to avoid legionella bacterial to get multiple.
It is not possible to verify the internal condition of the hot water storage tanks due to sealed system however the tank receives a high turnover during full occupancy and it is therefore assumed that the water hygiene will be maintained to high standard.

The legionella risk should be controlled by keeping the water distribution system clean and free from nutrients, including those arising from corrosion and lime scaled.
Monthly temperature checks should be carried out by competent person and records must be maintained.
Clean & sanitise outlets quarterly to reduce lime scale risk.
An annual inspection of the hot water storage tank should be done to check its condition inside and outside, and the water within it. The thermal insulation should be good condition so that it protects from extremes of temperature.
Any little used outlets in bedrooms should be flushed through weekly by running water through the outlets for at least two minutes.
Regular servicing and maintenance of the boilers and calorifiers are essential to maintain the optimum operating efficiency, safety and accurate hot water temperature supply to avoid legionella bacteria to get multiple.
Log all details of remedial action.

Action Required

Currently temporary dead ends on hot water distribution system to those bedrooms which are vacant, during periods of unoccupancy all outlets on hot water systems should be flushed through at least once a week for at least 2 minutes. For longer periods considered draining the system. Make sure system is flushed through when it is re-occupied by running all outlets for at least two minutes. Aerosol production should be minimised during this process.

Cold Water Storage & Distribution System

Asset Prefix	CWSDS
Assets ID	1
Cold Water Storage Tank Present	yes
Number(s) of Storage Tank	2
Location of Storage Tank	Loft
Safe Access Available	Yes
Cold water supply Insulated	No
Dead legs and Redundant Pipework	No
Cold Water Temperature ° C – Basement	15.5° C
Cold Water Temperature ° C – Ground Floor	18.6° C
Cold Water Temperature ° C – First Floor	19.3° C
Cold Water Temperature ° C – Second Floor	13.6° C
Cold Water Temperature ° C – Third Floor	16.10° C
Cold Water Temperature ° C – Tank	15.0° C
Safe Access Available	Yes
Adequate Headroom	No
Illuminated	No
Material of Tank	Plastic
Tank Insulation	No
Tank Capacity	>100L
Adequate Lid	Yes
Warning Pipe Fitted	Yes
Supply Insulated	No
External Condition	Debris
Internal Condition	Cleaned
Sediment/Scale/Slime/ Corrosion	No
Storage Tank Inlet / Outlet on Same Side	No
Parallel Tank(s)	Yes
Is there a turnover of stored cold water within 24 hours	Yes

Adequate Record Keeping	No
Disinfection Program	No
Scale Present on the Outlet	No
Overall Risk Rating	Tolerable or Unlikely (Low)

Analytical Test Sampling
Location 1: Cold Water Sample was not taken.

Recommendation

- Water must flow from cold outlets at below 20 Degree C to minimise legionella risk within 2 minutes.
- Currently the cold-water temperatures are satisfactory.
- Any little used outlets in bedrooms should be flushed through weekly by running water through the outlets for at least two minutes.
- Storage tank receives a high turnover during full occupancy and it is therefore assumed that the water hygiene will be maintained to high standard.
- The legionella risk should be controlled by keeping the water distribution system clean and free from nutrients, including those arising from corrosion and lime scaled.
- Monthly temperature checks should be carried out by competent person and records must be maintained.
- Clean & sanitise outlets quarterly to reduce lime scale risk.

Action Required

- Install thermal insulation jacket, it should be good in condition so that it protects from extremes of temperature.

Cold Water Storage & Distribution System

Asset Prefix	CWSDS
Assets ID	2
Cold Water Storage Tank Present	Yes
Number(s) of Storage Tank	2
Location of Storage Tank	Loft
Safe Access Available	Yes
Cold water supply Insulated	No
Dead legs and Redundant Pipework	No
Cold Water Temperature ° C – Basement	18.5° C
Cold Water Temperature ° C – Ground Floor	18.6° C
Cold Water Temperature ° C – First Floor	19.3° C
Cold Water Temperature ° C – Second Floor	15.6° C
Cold Water Temperature ° C – Third Floor	16.9° C
Cold Water Temperature ° C – Tank	16.5° C
Safe Access Available	Yes
Adequate Headroom	No
Illuminated	No
Material of Tank	Plastic
Tank Insulation	No
Tank Capacity	>100L
Adequate Lid	Yes
Warning Pipe Fitted	Yes
Supply Insulated	No
External Condition	Debris

Internal Condition	Cleaned
Sediment/Scale/Slime/ Corrosion	No
Storage Tank Inlet / Outlet on Same Side	No
Parallel Tank(s)	Yes
Is there a turnover of stored cold water within 24 hours	Yes
Adequate Record Keeping	No
Disinfection Program	No
Scale Present on the Outlet	No
Overall Risk Rating	Tolerable or Unlikely (Low)

Analytical Test Sampling

Location 1: Cold Water Sample was not taken.

Recommendation

- Water must flow from cold outlets at below 20 Degree C to minimise legionella risk within 2 minutes.
- Currently the cold-water temperatures are satisfactory.
- Any little used outlets in bedrooms should be flushed through weekly by running water through the outlets for at least two minutes.
- Storage tank receives a high turnover during full occupancy and it is therefore assumed that the water hygiene will be maintained to high standard.
- The legionella risk should be controlled by keeping the water distribution system clean and free from nutrients, including those arising from corrosion and lime scaled.
- Monthly temperature checks should be carried out by competent person and records must be maintained.
- Clean & sanitise outlets quarterly to reduce lime scale risk.

Action Required

- Install thermal insulation jacket, it should be good in condition so that it protects from extremes of temperature.

Shower

Asset Prefix	SH
Assets ID	1
No of showers – Building 77	15+
Hot Water Temperature ° C – Ground Floor	50.8° C
Cold Water Temperature ° C – Ground Floor	17.8° C
Hot Water Temperature ° C – First Floor	50.2° C
Cold Water Temperature ° C – First Floor	17.8° C
Hot Water Temperature ° C – Top Floor	49.8° C
Cold Water Temperature ° C – Top Floor	16.9° C
Shower Type	Mixer showers
Shower Head Condition	Cleaned
Hot Supply from Stored Water	Yes
Cold Supply from Stored Water	No
Shower Hose Condition	Good
Shower Head make contact with a contamination zone	No
Shower Usage	Unknown
Is there a cleaning regime for the shower head	No
Risk Rating	Tolerable or Unlikely (Low)

Comments

- Currently the hot water temperatures from boiler 1 are satisfactory and very limited access to bedrooms.
- The design and installation of hot water services are satisfactory.

Rooms which are unoccupied causing dead legs in water distribution system.

Recommendation

- Cold water must flow from outlets at below 20 degree and hot water above 50 degrees to minimise legionella risk.
- Any little used shower in bedrooms should be flushed through weekly by running water through the outlets for at least two minutes.
- Shower should be run least once a week.
- Avoid build up contamination on or in showerheads and associated hose.
- All shower heads should be cleaned, disinfected and de-scaled at least once every three months or as determined by the risk assessment.

Action Required

- Shower should be run least once a week.

Shower

Asset Prefix	SH
Assets ID	1
No of showers – Building 79	15+
Hot Water Temperature ° C – Ground Floor	50.8° C
Cold Water Temperature ° C – Ground Floor	17.8° C
Hot Water Temperature ° C – First Floor	50.2° C
Cold Water Temperature ° C – First Floor	17.8° C
Hot Water Temperature ° C – Top Floor	49.8° C
Cold Water Temperature ° C – Top Floor	16.9° C

Shower Type	Mixer showers
Shower Head Condition	Cleaned
Hot Supply from Stored Water	Yes
Cold Supply from Stored Water	No
Shower Hose Condition	Good
Shower Head make contact with a contamination zone	No
Shower Usage	Unknown
Is there a cleaning regime for the shower head	No
Risk Rating	Tolerable or Unlikely (Low)

Recommendation

- Cold water must flow from outlets at below 20 degree and hot water above 50 degrees to minimise legionella risk.
- Any little used outlets should be flushed through weekly by running water through the outlets for at least two minutes.
- Avoid build up contamination on or in showerheads and associated hose.
- All shower heads should be cleaned, disinfected and de-scaled at least once every three months or as determined by the risk assessment.

Action Required

- Shower should be run least once a week.

Other Asset Details – Closed Heating System

Asset Prefix	LTHW (Low Temperature Hot Water) Heating System
Assets ID	01
Type of Heating	Central heating
Serving	Throughout Building
Unit status at the time of inspection	In Service
Supply Insulated	Yes
Adequate Service Record Keeping	Unable to determine
Dead legs and Redundant Pipework	Unable to determine

Comments

- Central heating & air conditioning units aren't in a scope.
- Current LTHW is Open vented central heating system which fills the boiler & central heating system and keeps it topped up with water on a long term basis. There are high chances of stagnation in the water tank due to less frequent leaks in central heating.
- The stagnation of water within the water tank in the loft and central heating pipework presents a risk of contamination.

Recommendation

- There is a risk of exposure to water spray/aerosol containing legionella bacteria during maintenance, repairs, decommissioning on heating systems, it should be minimizing during maintenance.

Other Asset Details – Fire Fighting System

Asset Prefix	CWST (Cold Water Storage Tank)
Assets ID	01
Fire Fighting system exist	No

Comments:

- This system isn't in scope.

Recommendation

- None

Management Arrangements, Documentation & Records

Audit Checklist

Witten Control Scheme & Site Records	Yes	No	N/A	Comments
There is a site-specific water services or water hygiene log book in place.		✓		Records must be detained.
The management structure including the details of the duty holder & appointed responsible person (or persons) has been documented.		✓		Records must be detained.
Details of the management, communication pathways have been documented		✓		Records must be detained.
The allocation of responsibilities including the duty holder, the responsible person and those involved in administrating the control scheme has been documented.		✓		Records must be detained.
There is documented evidence to demonstrate the adequate training & experience of those involved in administrating the control measures.		✓		Records must be detained.
A schedule of the various inspections, tests & check has been documented along with details of task frequency & the person responsible.		✓		Records must be detained.
The control limits for the regime have been defined in the documentation.		✓		Records must be detained.
The scheme included contingency procedures and/or an incident plan for action in the event that the control measures are not effective.		✓		Records must be detained.
The documentation included instruction for the safe operation of the system.		✓		Records must be detained.
There was a register of water-related assets including plant items, pumps, strainers, outlets and other relevant items / equipment.		✓		Records must be detained.
There was an accurate & up to date schematic drawing of the water systems.		✓		Records must be detained.
There was a copy of the most recent risk assessment.		✓		Not Present

Monitoring Records

Monitoring Records	Yes	No	N/A	Comments
Flushing records for infrequently & intermittently used outlets & equipment.		✓		Records must be detained.
Alteration of duty & standby equipment (e.g. hot water circulation pumps).		✓		Records must be detained.

Water temperature readings made and recorded in accordance with HSE's HSG274 guidance.		✓		Monthly records must be detained.
Cleaning & descaling records for showers, spray taps, other outlets.		✓		Records must be detained.
Storage tank inspection records.		✓		Records must be detained.
Calorifier/water heater servicing, inspections & cleaning (where applicable).		✓		Records must be detained.
Cleaning & disinfection records.		✓		Records must be detained.
Microbiological testing.		✓		Records must be detained.
Thermostatic missing valve checks & serving.		✓		Records must be detained.
Water softener checks, servicing & disinfection.			✓	None.
Water treatment records.			✓	None.
Replacement and/or cleaning of filters & strainers.			✓	None.
Sanitising air handling units with cooling or humidification facilities.			✓	None.
Details of faults/out of specification results and details of associated remedial action.				Records must be detained.
Documented records audits		✓		Records must be detained.
At least 5 years retained historical records as per the HSE's ACoP L8 2013.		✓		Records must be detained.
Records are dated in full dd/mm/yy format.		✓		Records must be detained.
Records are kept in sufficient details to demonstrate the control measures have been applied/implemented correctly.		✓		Records must be detained.

Additional Comments

Staff legionella awareness training required.
Records must be detained.

Schedule of Recommended Control Measures

Frequency	Task	Details	Desired Outcome
Weekly	Flush low use outlet & dead-legs	Flush the outlets until the temperature at the outlet stabilises and is comparable to supply water and purge to drain.	Stagnation water purged and replaced with fresh water.
Monthly	Measure & record hot & cold-water temperatures	*Cold water Distribution System*: Nearest & furthest cold-water outlets from storage cisterns. *Non-recirculating hot water system*: Calorifier flow, nearest & furthest and long branches to outlets. *Recirculating hot water system*: Calorifier flow & return and take temperatures at return legs of principle loops.	Cold water 20 degree or less within 2 minutes of flow. Hot water above 50 degree within 1 minutes of flow.
6 Monthly	Expansion Vessels	Frequency as indicated by the risk assessment. Where practical flush through expansion vessels and purge to drain.	Stagnation water purged & replaced with fresh water.
Quarterly	Records Audit	The site responsible person should ensure that all records have been completed and correctly dated. It should be ensured that the defects log has been populated with details of any unsatisfactory results,	Effectiveness implementation of control measures. Supervision of

		the findings of related investigations, details of the remedial action carried out and the result of any subsequent re-testing.	workforce and contractor. Robust due to diligence records.
Quarterly	Showers	Clean and descale the showerheads, hose & spray taps, dismantle if required. Frequency to be increased as indicated by the rate of fouling or other risk factors.	Maintain hygiene condition of spray devices at the times.
6 Monthly	Measures and records mains water temperature	Records the main water temperature at the nearest & furthest outlets from the point of entry. This task should be scheduled to correspond with the seasonal extremes of summer and winter.	Water temperature of 20 degree or less within 2 minutes of flow.
Annually	Flush the calorifier drain valve	Collect the initial flush from the base of hot water heaters to inspect clarity, quantity of debris and temperature. Frequency may be increased as indicated by the risk assessment or result of inspection findings.	Clean condition without significant deposits of scale, sediment, corrosion products. Debris or other contamination.
Annually (In Summer)	Cold water storage cistern	Measures and records cold water storage cistern water temperature at the cistern inlet & from the stored water remote from the inlet.	Water temperature of 20 degree or less within 2 minutes of flow. There should be less than 3 degree temperature differential between them.
Annually	Cold water storage cistern	Visual inspection, check condition of internal surfaces, assets water quality, lid, screen, valve function, check insulation, check overflows and warning pipes are clear in good condition. Carry out remedial work where necessary.	Clean condition without significant deposits of scale, sediment, corrosion products. Debris or other contamination.
Annually	Hot & Cold water temperatures	Measures and record hot & cold water temperatures at a representative numbers of all outlets on a rotational basis.	Cold water 20 degree or less within 2 minutes of flow. Hot water above 50 degree within 1 minutes of flow
Annually	Calorifiers & water heaters	Internal inspection, descaling may be required. Use of a borescope may be required.	Clean water condition free from excessive deposits of scale, sediment, corrosion products. Debris or other contamination.
Annually	Water heater services	Removed and inspect immersion heaters, carefully remove loose scaled from heaters and remove loose scale from heater, corrosion products &	Clean water condition free from excessive deposits

		debris from hot water storage compartment.	of scale, sediment, corrosion products. Debris or other contamination.
Annually	Domestic hot water trace heating	Inspect and check all sections for correct operation and ensure that equipment has been serviced as per manufacturer's instruction.	Correct & safe operation. Hot water temperatures maintained at or above 50 degree throughout distribution system.
Annually	Thermostatically controlled mixing devices (including thermostatic mixing valves (TMV), mixing taps & showers	Risk assess whether the fittings are required and if not remove. Inspection and testing where needed, test outlets temperature and check fail safe adjusted and retested until satisfactory operation is achieved. Alternatively, faulty devices may be replaced. Inspect, clean, descale and disinfect any strainers or filters associated with the devices.	Outlets achieves s blended water temperatures between 39 & 45 degree within 1 minute of flushing. Failsafe operates effectively to prevent risk of scalding.
Annually	Check cold water distribution thermal insulation to ensures it is intact	Consider weatherproofing where components are exposed to the outdoor environment	
Annually	Check water system diagram is correct	Amends as necessary	Diagram is accurate.
Annually	Check for any disused outlets	Remove redundant pipework as close as possible to main supply pipe. Where outlets cannot be removed ensures that they are added to the weekly flushing schedule.	Number of dead legs to be minimised. Unavoidable dead legs identified and managed appropriately.
Every 1 to 3 years depending on degree of risk	Regularly review the assessment.	As per organisational procedures and in accordance with HSE ACoP L8 (2013), HSG274 Part 2 and BS 8580:2011	Risk assessment is valid and up to date
Once and then whenever the building use pattern changes	Evaluate cold water cistern water storage capacity	Calculate the normal daily consumption of stored water by local meter readings or by undertaking a drop test on the store water supply. Stored water capacity should not exceed more than a day's consumption; this means the entire contents of the cold water storage cisterns ought to be used and replenished at least once during normal working hours.	Maximum duration of 24 hours for turnover of entire stored water reserves.

Declarations and Signatures

It is hereby understood and agreed that the company shall not be liable in respect of any claim or cost or expenses arising out of any neglect, error or omission occurring or committed prior to the assessment date stated above in respect of Legionella Risk Assessments.

It is the responsibility of the landlord to act on any recommendations made within this Risk Assessment and we will not accept any liability for the failure of any landlord to carry out any recommendations made.

Our responsibility for this report is only to identify any potential risk exposures to Legionella which the landlord must then refer to a specialist for water sampling with additional cost in order to investigate this and carry out the appropriate testing to identify if Legionella is present, together with solutions to prevent or eliminate this.

Signature:

Date: 19/03/2021