

WATER

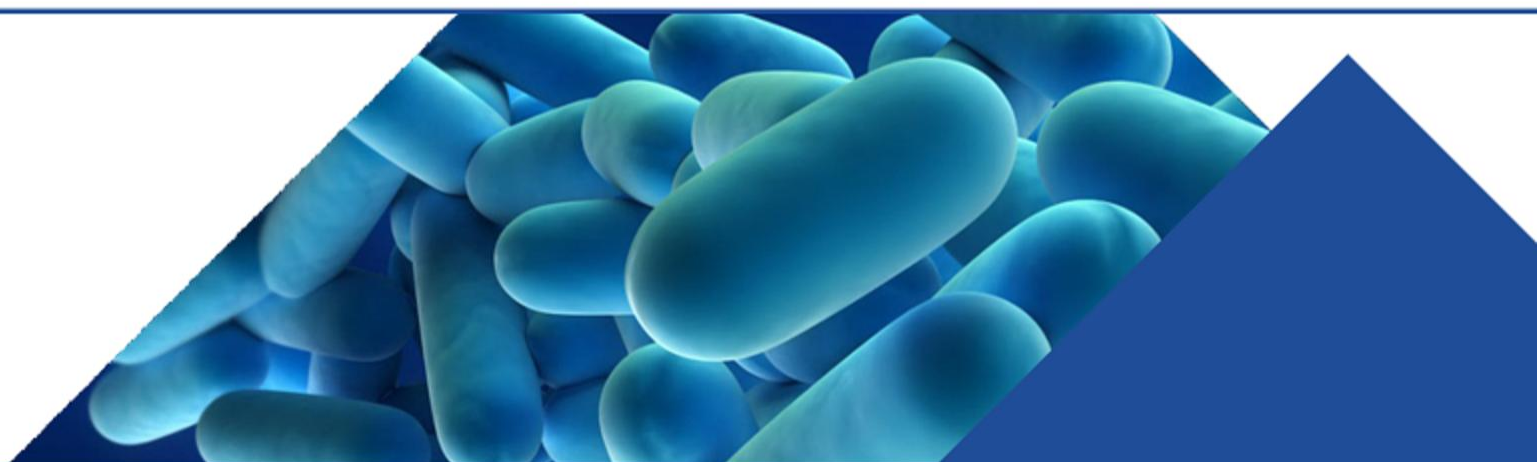
Tetra Consulting Ltd
LEGIONELLA RISK ASSESSMENT
(DOMESTIC SYSTEMS)

168 Medical, Locking Road, Weston-Super-Mare
BS23 3HQ

Completed by
Christian Hill AWMSoc

On behalf of
Kimera Facilities Management UK Ltd

Report No: L-428625
Date of assessment: 11/06/2025
Recommended review date: June 2027



REPORT DEVELOPMENT

Report completed by:	
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1.0 Legionella Risk Assessment

1.1 Scope

Tetra Consulting Limited were instructed by Kimera Facilities Management UK Ltd to carry out a Legionella Risk Assessment of 168 Medical, Locking Road, Weston-Super-Mare, BS23 3HQ. This report refers to the visit by Christian Hill AWMSoc on 11/06/2025.



1.2 Scope of Work

Scope of Work
Update of schematic drawing
Risk Assessment of whole building to include Domestic Water Services, Plant and all areas included down to Outlets

Tetra Consulting Limited are a Legionella Control Association (LCA) registered company for the following water related services: Legionella Risk Assessments, Independent Consultancy, Training and Legionella Analytical Services. To view our current LCA certificate and the Code of Conduct please see:

<http://www.tetraconsulting.co.uk/water-hygiene/>

For additional information on the management of water services and specific guidance for Duty Holders please use this link to an HSE Document:

<http://www.hse.gov.uk/pubns/indg458.pdf>

All Tetra Consultants within the Water Division have a minimum of 2 years' experience. Competence is confirmed or developed across various water systems including domestic hot and cold water systems, evaporative cooling systems and other high risk systems within an array of premises including residential, commercial and NHS buildings. Further appropriate accredited training courses are provided to supplement business needs where required.

For Assessors training and experience information, please see Section 4 of this report.

Unless stated in the Scope of Works table above this project does not include the production of a full Written Scheme of Control.

1.3 Summary of Systems Surveyed

1.0 Summary of Systems Present	Included	Excluded	Number	Comments
Domestic Water System including Cold and Hot Water Sources	✓		4	
Plate Heat Exchanger	✓		1	
Calorifier Cylinder	✓		2	
Cold Water Storage Tank	✓		1	
Mains Cold Water Supply	✓		1	

Additional Notes:

The systems listed within this report (listed above) represent the systems surveyed as part of this risk assessment and may not be the total number of systems present on site.

A competent escort was provided for the duration of the risk assessment. All accompanied areas are included in this risk assessment.

1.4 Recommendations

A number of recommendations were identified during the assessment and have been prioritised for remedial action in the table below:

Priority	Number Of Actions	Actions Required
1	0	Require immediate remedial action.
2	7	Require action within 1 month and completion within 3 months
3	0	Require action within 1 month and completion within 6 months.

1.5 Overall Risk Rating

Some of the individuals using the facilities within the property were considered to have increased susceptibility of contracting legionellosis.

The current risk of legionellosis in the water systems was deemed to be:

MEDIUM

Recommended review date: June 2027, or when this report is considered no longer valid due to changes to the water system or its use; changes to the use of the building; indications that the control measures are no longer effective; new construction/system modifications planned; or changes to key personnel.

1.6 Executive Summary

All cold temperatures were found to be below 20.0°C.

All hot temperatures tested were found to be compliant above 50°C.

Bypass pipework for cold water storage tank was identified as being as deadleg on the system.

The calorifier cylinder water bypass was identified as being as deadleg on the system.

There were no records to show that the total water turnover over of the cold water storage tank in a typical day has been monitored and recorded to establish there was reasonable flow through the tanks to prevent stagnation.

No records were available for the expansion vessels being flushed.

No records were available showing that the in line strainers, which are installed on the hot and cold pipework, are cleaned and descaled annually.

Scale was identified on outlets and aerators in various locations.

Various consulting rooms could not be accessed due to being in patient use.

Schematic drawing has been updated to reflect solar panel system associated with calorifier cylinder now being removed off the system.

Flexible hoses were identified on the water system. Flexible hoses degrade over time and may provide harbourage for legionella and other bacteria.

A water sampling regime and inspection regime of the outlets is recommended under the scheme of control.

Legionella samples should be taken from the system on a routine basis.

Where positive legionella results are returned; as part of the remedial works, check the condition of flexible hoses and replace as necessary.

Outlets should be inspected at least annually.

Strainers and flow restrictors should be removed and inspected for evidence of EPDM / rubber particles. The tap should also be opened fully to identify if discoloured water or particles are discharged, which may be an indication that the flexible hose has degraded and requires changing.

When purchasing flexible hoses, the hoses must be WRAS approved. Best practice is to consult the WRAS directory for any product that may come into contact with the water system.

2.0 ACTION PLAN

Priority 1

Priority 2

Priority 3

P 2 Management Controls			
Observation	Action	Date Action Completed	Comments
In general, tap outlets were free from scale deposits. However, a small number of tap outlets were noted to be harbouring scale deposits (see the Other Sources table in Section 3 for specific locations).	All tap outlets should be maintained free from scale deposits. Ensure the scaled taps are included in the routine cleaning / descaling programme.		
In general aerators were free from sediment and scale deposits. However, a small number of aerators were noted to be harbouring sediment and/or scale deposits (see the Other Sources table in Section 3 for specific locations).	All aerators should be maintained free from sediment and scale deposits. Ensure the aerators are included in the routine cleaning / descaling programme.		
The log book did not have records showing that the in line strainers, which are installed on the hot and cold pipework, are cleaned and descaled annually.	Ensure the strainers are removed and cleaned and descaled as part of the annual service. Records of this work, should be recorded in the logbook, signed and dated by the person carrying out the work.		
There were no records to show that the total water turnover over a typical day had been monitored and recorded to establish there was reasonable flow through the tanks to prevent stagnation. The volume of cold water stored should be minimised and should not normally be greater than one days water use.	Carry out an annual check on water consumption to ensure that there is suitable throughput to prevent stagnation. This can be done by fitting a water meter, or isolating the ball valve supplying the water and measuring the rate of water level drop within the tank. Whenever the building use pattern changes, this measurement should also be repeated. *Outstanding from previous		
The logbook did not contain any records to show that the expansion vessels were being flushed.	Implement a flushing regime on at least a six monthly basis for the expansion vessel(s). Records of this work, should be recorded in the logbook, signed and dated by the person carrying out the work.		

P 2 Deadleg 4 Roof-Plant room;			
Observation	Action	Date Action Completed	Comments
The calorifier water bypass is creating a deadleg where water could stagnate. *	The bypass should be opened and left running for at least 5 minutes once per week.		

P 2 Deadleg 2 Roof-Plant room;			
Observation	Action	Date Action Completed	Comments
The cold water tank bypass is creating a deadleg where water could stagnate. *	The bypass should be opened and left running for at least 5 minutes once per week.		

Actions marked with a "*" are outstanding from the previous assessment.

3.0 ASSESSMENT

3.1 Risk Assessment

The purpose of this assessment is to enable a valid decision to be made regarding:

- The risk to health, i.e. whether the potential for harm to health from exposure is reasonably foreseeable, unless adequate precautionary measures are taken.
- What measures for prevention, or adequate control to minimise the risk from exposure to *Legionella*, should be taken.

This assessment includes identification and evaluation of potential sources of risk and:

- The particular means by which exposure to *Legionella* is to be prevented.
- If prevention is not reasonably practicable, the particular means by which the risk from exposure to *Legionella* is to be minimised.

Where the risk of assessment demonstrates that there is no reasonably foreseeable risk or that the risks are insignificant and unlikely to increase, no further assessment or measures are necessary. However, should the situation change, the assessment should be reviewed and any necessary changes incorporated.

The assessment should be reviewed regularly (at least every two years) and whenever there is a reason to believe that the original assessment may no longer be valid, for example:

- Changes to the plant or water system or its use
- Changes to the use of the building in which it is installed
- The availability of new information about risks or control measures
- The results of checks indicating that control measures are no longer effective
- A case of Legionnaires' disease / Legionellosis is associated with the system

Each water source presents a different risk. This risk assessment assesses the actual risk presented by each type of water source taking account the controls in place and how it is being managed at the time of the assessment to provide the current legionellosis risk of the source.

This assessment also provides the risk presented when sufficient controls are in place; the water source is maintained in a clean condition and a good state of repair; and in accordance with the scheme of control; has moderate turnover; has brief exposure and is managed by competent persons. For the purposes of this assessment this is known as the ALARP risk - As Low As Reasonably Practicable risk.

Inherent risk is the level of risk presented by the systems, based on their specific design, or design faults, if no control measures were implemented.

Inherent risk is assessed and recommendations are given, where applicable, for reducing the inherent risk through modifying design elements that may include fittings, materials, distribution designs or other design considerations.

There is a chain of events leading to the infection of a human by *Legionella spp.* which are considered in the risk assessment:

- a) contamination;
- b) amplification;
- c) through-flow;
- d) transmission;
- e) exposure;
- f) host susceptibility.

Influencing factors on growth						Influencing factors on contracting disease									
A Contamination		B Amplification		C Through-flow		D Transmission		E Exposure		F Susceptibility		G Management Risk			
0	Chemically controlled	1	Cold <20C Hot Storage & Flow >60C Hot distribution >50C (>55C Healthcare) Return >50C	0	High turnover	0	Still or smooth flowing	1	Brief and few	1	General	0	Confident		
1	Wholesome	4	Warm or cool >20-31C, 43-50C; Hot Storage & Flow <60C Hot distribution <50C (<55C Healthcare) Return <50C	1	Moderate turnover, flushed or exercised	1	Splashing	2	Brief and numerous	5	Some susceptibility selection				
2	Clean and stored or softened							4	or moderate						
4	Exposed to contamination								Prolonged and numerous						
8	Contamination	5	Near optimum 32 -42C	4	Low or no turnover, excessive bleed	4	Aerosol generating	5	Excessive	8	Substantial susceptibility selection	4	Not confident		
10	Legionella present														

Each category is assessed providing a total score. The total scores have been categorised into low, medium and high legionellosis risk categories as follows, although it must be borne in mind that a high legionellosis risk does not necessarily indicate a current significant risk to health and a low legionellosis risk does not mean that the risk should be considered to be negligible.

Total Score	Legionellosis Risk	Priority
21 – 54	High	1
11 – 20	Medium	2
0 – 10	Low	3

Influencing factors on growth:

Water should be maintained at less than 20°C or above 50°C (55°C Healthcare) and if this cannot be achieved should be chemically treated to control the growth of bacteria. To ensure it is chemically controlled, a level of 0.4 – 0.6 ppm of free residual chlorine is generally acceptable level in the cold water. For the purposes of this report Category A – Contamination of the risk assessment a minimum of 0.4 ppm at a pH of less than 7.8 has been used for the assessed value to be “chemically controlled”.

Where chlorine is below 0.4 ppm, and the pH is greater than 7.8; the water is classed as being not chemically controlled; but clean and stored / softened. As a guide the minimum chlorine levels are adopted for the following pH levels:

pH	Chlorine (ppm)
7.0	0.2
7.1	0.2
7.2	0.2
7.3	0.3
7.4	0.3
7.5	0.3
7.6	0.3
7.7	0.4
7.8	0.4
7.9	0.5
8	0.6

Maintaining systems clean and free from scale reduces the risk of growth. The presence of biofilm, brown or rusty coloured water is reflected with a score 8 in category A – Contamination. The presence of any legionella bacteria is reflected with a score of 10 in Category A – Contamination.

Failure to maintain 60°C on the storage / flow, above 50°C on return temperatures to the heat source, or below 50°C (55°C Healthcare) on return loops is reflected with a score of 4 or 5 in Category B – Amplification.

Where outlets are 'Not Tested' this means temperatures were not measured. Where reasonably practicable, all outlets are assessed to determine their condition and that they are operational. Where outlets are not temperature tested, they will be given a score in Category B – Amplification, comparable to other outlets on the same distribution leg that have been measured, depending on system design.

At blended water outlets, where reasonably practicable, pre-mix hot and cold water temperatures will be recorded rather than a mixed water temperature. However, as blended water outlets have an inherently higher risk than direct hot and cold outlets, all blended water outlets will be given a score of 5 in Category B – Amplification. This is due to the optimum temperature range for mixer valves falling within this category of the algorithm.

Increasing the usage of water throughput also reduces the risk of legionella growth. For all systems:

- Low turnover is less than once a day
- Moderate turnover is 1 - 3 times a day. i.e every 8 - 24 hours.
- High is entire change in anything less than 8 hours, i.e. more than 3 times per day.

When assessing outlets, the entire length of pipe and its volume is considered.

Influencing factors on contracting disease:

The bacteria must be in an aerosol form, which is readily breathable. There is a higher risk of breathing in infected droplets from a shower or whirlpool than from a wash hand basin. The higher the exposure to a water aerosol the greater the risk of breathing in an infected aerosol. This is reflected in Category D – Transmission.

Exposure to the water will vary significantly. The higher the exposure the higher the risk of inhalation of water droplets or aerosol. Hand wash basins may have a low usage time per person but have high number of uses, such as a public toilet. This is reflected in Category E – Exposure.

Persons exposed to water systems will vary from the very young to elderly and have a varying degree of susceptibility. For office buildings and hotels the susceptibility will be expected to be representative of the general population in respect of their health. In hospitals and care homes the susceptibility will be higher. This is reflected in Category F – Susceptibility.

Poor management would increase the risk of an outbreak of legionellosis. This would be reflected with a score of 4 in Category G – Management Risk.

3.2 Water Tanks

3.2.1 Cold Water Storage Tank 1

Risk Assessment	A	B	C	D	E	F	G	ALARP Risk		8	Low
Scoring Matrix	2	1	1	1	2	1	0	Current Legionella Risk		8	Low
Location of tank:	Roof Plant room					Tank serves:			All toilets WCs WHBs Kitchenettes and consultant rooms		
Locations served:	All toilets WCs WHBs Kitchenettes and consultant rooms					Is tank currently on-line?			Yes		
Is tank easily accessible:	Yes					How many compartments in the tank:			1		
Is the flow between the tanks balanced	Not Applicable					Tank supplied from:			Mains cold water supply (MCWS)		
Raw or soft water:	Raw					Does the tank have associated water treatment equipment?			No		
Does the cold water tank supply drinking water outlets?	Yes					Type of Inlet Valve:			Ballcock Float Valve		
Current Storage Volume (Litres):	3,600					Dimensions HxWxL (metres)		1.5 x 1.5 x 2.0	% of volume stored:	80	
Tank construction material	GRP (pre-insulated glass reinforced plastic)					Is the tank material Regulation 4 approved?			Yes		
Is the tank fitted with open end pipe supports?	No					Is there a lid:			Yes		
Is the tank lid and sides adequately insulated:	Yes					Material of lid construction:			GRP		
Is the lid constructed of Regulation 4 approved material	Yes					Does the lid incorporate an air vent:			Yes		
Is the lid air vent screened:	Yes					Does the lid sufficiently block light ingress:			Yes		
Local pipe work insulated:	Yes					Is tank linked to other tanks:			No		
Specify how:	Not Applicable					Is the tank supply also connected to F&E tank:			No		
Is it “Up Stream” Or “Down Stream” and at what distance:	Not Applicable					Do expansion pipes enter the tank:			No		
Is the tank fitted with an overflow pipe:	Yes					Is the overflow pipe suitably screened:			Yes		
Is the tank fitted with an overflow warning pipe:	Yes					Is the overflow warning pipe suitably screened:			Yes		
Does the overflow warning pipe discharge in a conspicuous location:	Yes					Is the inlet opposite the outlet:			Yes		
Is there evidence of stagnation in the tank:	No					Is there evidence of corrosion in the tank:			No		

Is there settled inorganic sediment in the tank:	No	Are strainers installed on associated visible pipework?	Yes
Is there evidence of slime / biological contamination:	No	Is the tank in good physical condition:	Yes
Are there booster pumps associated with the tank:	Twin pumps	Incoming supply temperature (°C):	13.2
Stored water temperature (°C):	13.1	Ambient temperature (°C):	17.0
Tank room temperature (°C):	17.0	Is there an expansion vessel associated with the booster system:	No



Example of Cold Water Storage Tank 1



Example of Cold Water Storage Tank 1 internal view



Example of twin pumps associated with Cold Water Storage Tank 1

3.3 Storage Calorifier

3.3.1 Calorifier 1

Risk Assessment	A	B	C	D	E	F	G	ALARP Risk	8	Low
Scoring Matrix	2	1	1	1	2	1	0	Current Legionella Risk	8	Low
Location of calorifier:	Roof Plant room					Calorifier serves:			All toilets WCs WHBs Kitchenettes and consultant rooms	
Locations served:	All toilets WCs WHBs Kitchenettes and consultant rooms					Calorifier type:			Indirectly Heated	
Orientation:	Horizontal					Capacity (Litres):			Unknown	
Calorifier supplied from:	Boosted cold water tank									
Is the calorifier easily accessible:	The calorifier is easily accessible					Primary method of heating:			LTHW	
Calorifier on line:	The calorifier was in service					Is A HWS “Return” fitted:			The hot water system operates on a flow and return system.	
Are circulation pump(s) fitted and working?	Not Applicable					How many circulation pumps are fitted?			One	
Where are the circulation pump (s) fitted:	The circulation pump is installed in the return pipework to the calorifier					How many pumps are active?			None	
How many pumps are inactive	None					Are the duty and standby pumps alternated weekly:			Not Applicable	
Is there a non return valve fitted on the cold water feed?	Not seen					Are non return valves installed on the discharge side of the pumps			Not Applicable	
Is the associated pipe work insulated:	All pipework associated with the calorifier is adequately insulated.					Calorifier hours of operation:			Unknown	
Anti-stratification measures in place:	Not Applicable					Is the calorifier adequately insulated:			Yes	
Are anti-stratification measures operating correctly:	Not Applicable					Anti-stratification hours of operation:			Unknown	
Are temperature gauges fitted on the pipework:	Not Applicable					Is temperature stratification present:			Not Applicable	
Is there a drain fitted:	Yes					Are the temperature gauges working correctly:			Not Applicable	
Is drain point easily accessible:	Yes					Where is the drain fitted:			Base of cylinder in return pipework	
Initial drain temperature (°C):	Not Tested					Is drain valve operational:			Not Tested	
Is the calorifier linked to other calorifiers:	The calorifier return pipework join to form a common return.					Condition of drain water:			Not Tested	
Are strainers installed on associated visible pipework?	No									
Calorifier set temperature (°C):	Unknown					Is the calorifier set at a suitable temperature?			Not Applicable	

Calorifier storage / flow Temperature (°C):	60.2	Is the calorifier storage / flow at a suitable temperature?	The hot water supply temperature from the calorifier was correct, being at 60°C
Return Temperature (°C):	51.5	Is the calorifier return at a suitable temperature?	The hot water return temperature to the calorifier was correct, being above 50°C .



Example of Calorifier Cylinder 1

3.3.2 Calorifier 2

Risk Assessment	A	B	C	D	E	F	G	ALARP Risk	8	Low
Scoring Matrix	2	1	1	1	2	1	0	Current Legionella Risk	8	Low
Location of calorifier:	Roof Plant room					Calorifier serves:			All toilets WCs WHBs Kitchenettes and consultant rooms	
Locations served:	All toilets WCs WHBs Kitchenettes and consultant rooms					Calorifier type:			Indirectly Heated	
Orientation:	Horizontal					Capacity (Litres):			Unknown	
Calorifier supplied from:	Boosted cold water tank									
Is the calorifier easily accessible:	The calorifier is easily accessible					Primary method of heating:			LTHW	
Calorifier on line:	The calorifier was in service					Is A HWS “Return” fitted:			The hot water system operates on a flow and return system.	
Are circulation pump(s) fitted and working?	Yes					How many circulation pumps are fitted?			One	
Where are the circulation pump (s) fitted:	The circulation pump is installed in the return pipework to the calorifier					How many pumps are active?			One	
How many pumps are inactive	None					Are the duty and standby pumps alternated weekly:			Not Applicable	
Is there a non return valve fitted on the cold water feed?	Not seen					Are non return valves installed on the discharge side of the pumps			Not Applicable	
Is the associated pipe work insulated:	All pipework associated with the calorifier is adequately insulated.					Calorifier hours of operation:			Unknown	
Anti-stratification measures in place:	Not Applicable					Is the calorifier adequately insulated:			Yes	
Are anti-stratification measures operating correctly:	Not Applicable					Anti-stratification hours of operation:			Unknown	
Are temperature gauges fitted on the pipework:	Not Applicable					Is temperature stratification present:			Not Applicable	
Is there a drain fitted:	Yes					Are the temperature gauges working correctly:			Not Applicable	
Is drain point easily accessible:	Yes					Where is the drain fitted:			Base of cylinder in return pipework	
Initial drain temperature (°C):	Not Tested					Is drain valve operational:			Not Tested	
Is the calorifier linked to other calorifiers:	The calorifier return pipework join to form a common return.					Condition of drain water:			Not Tested	
Are strainers installed on associated visible pipework?	No									
Calorifier set temperature (°C):	Unknown					Is the calorifier set at a suitable temperature?			Not Applicable	

Calorifier storage / flow Temperature (°C):	60.6	Is the calorifier storage / flow at a suitable temperature?	The hot water supply temperature from the calorifier was correct, being at 60°C
Return Temperature (°C):	51.5	Is the calorifier return at a suitable temperature?	The hot water return temperature to the calorifier was correct, being above 50°C .



Example of Calorifier 2

3.4 Plate Heat Exchanger

3.4.1 Plate Heat Exchanger 1

Risk Assessment	A	B	C	D	E	F	G	ALARP Risk	8	Low
Scoring Matrix	2	1	1	1	2	1	0	Current Legionella Risk	8	Low
Location of plate heat exchanger:	Roof Plant room					Plate heat exchanger serves:			Two Calorifiers	
Locations served:	Two Calorifiers					Is the plate heat exchanger easily accessible:			The Plate Heat Exchanger is easily accessible	
Plate heat exchanger supplied from:	Cold water storage tank					Plate heat exchanger on line:			The Plate Heat Exchanger was in service	
Is the associated pipe work insulated:	All pipework associated with the Plate Heat Exchanger is adequately insulated.					Is the plate heat exchanger adequately insulated:			Yes	
Is the plate heat exchanger linked to other calorifiers:	Yes					Plate heat exchanger temperature (°C):			70.0	
Plate heat exchanger set temperature suitable	Yes					Plate heat exchanger flow/supply temperature (°C):			70.0	
Plate heat exchanger flow/supply temperature suitable	The thermostat on the Plate Heat Exchanger was set at the correct temperature of 60°C					Plate heat exchanger return temperature (°C):			60.0	
Plate heat exchanger return temperature suitable	Yes					Is A HWS “Return” fitted:			The hot water system operates on a flow and return system.	
If there is a return, is circulation pump fitted:	The return pipework is fitted with a single pump to aid circulation					Where are the circulation pump (s) fitted:			The circulation pump is installed in the return pipework to the plate heat exchanger.	
Are the duty and standby pumps alternated weekly:	Not Applicable					Is there a non return valve fitted on the cold water feed?			Not seen	
Are non return valves installed on the discharge side of the pumps	Not Applicable					Is there an expansion vessel associated with the booster system:			No	
Plate heat exchanger serves additional comments:	Two Calorifier cylinders									



Example of Plate Heat Exchanger 1

3.5 Other Sources

A Contamination		B Amplification		C Through-flow		D Transmission		E Exposure		F Susceptibility		G Management Risk	
0	Chemically controlled	1	Cold <20C Hot Storage & Flow >60C Hot distribution >50C (>55C Healthcare) Return >50C	0	High turnover	0	Still or smooth flowing	1	Brief and few	1	General	0	Confident
1	Wholesome	4	Warm or cool >20-31C, 43-50C; Hot Storage & Flow <60C Hot distribution <50C (<55C Healthcare) Return <50C	1	Moderate turnover, flushed or exercised	1	Splashing	2	Brief and numerous or moderate	5	Some susceptibility selection	4	Not confident
2	Clean and stored or softened							4	Prolonged and numerous				
4	Exposed to contamination									5	Excessive		
8	Contamination	5	Near optimum 32-42C	4	Low or no turnover, excessive bleed	4	Aerosol generating	5	Excessive	8	Substantial susceptibility selection	4	
10	Legionella present												

Location	Asset	Sources Type	Sources present	Individual Risk Categories								Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G														
1st floor Accessible toilet	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium	Hot supply 60.5			✓	✓	✓	✓	✓		One WC present in room	

Location	Asset	Sources Type	Sources present	Individual Risk Categories							Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G													
1st floor Baby Change	Blended Water Outlet	Wash Hand Basin	1	4	1	1	1	2	5	0	14	Medium	Medium	Not Tested Cold supply 19.8 Blended 41.0			✓		✓	✓	✓		One WC present in room
1st floor Consulting room 10	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 11	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 12	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 13	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 14	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 1	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium										
1st floor Consulting room 2	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium			✓							No access in patient use
1st floor Consulting room 3	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium										No access in patient use
1st floor Consulting room 4	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use

Location	Asset	Sources Type	Sources present	Individual Risk Categories							Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G													
1st floor Consulting room 5	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 6	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 7	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Consulting room 8	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium	Not Tested Cold supply 19.4 Blended 40.8			✓			✓			No access in patient use
1st floor Consulting room 9	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium										
1st floor Sluice room	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	1	0	8	Low	Medium										
1st floor Sluice room	Boosted Cold Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low										
1st floor Sluice room	Hot Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low										

Location	Asset	Sources Type	Sources present	Individual Risk Categories							Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G													
1st floor Staff toilet 	Blended Water Outlet	Wash Hand Basin	2	2	1	1	1	2	1	0	8	Low	Medium	Hot supply 60.5 Cold supply 42.5 Blended 19.8			✓		✓	✓			
1st floor Treatment room	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
1st floor Unisex toilet 	Blended Water Outlet	Wash Hand Basin	1	4	1	1	1	2	5	0	14	Medium	Medium	Not Tested Cold supply 19.2 Blended 40.5			✓		✓		✓		One WC present in room
2nd Floor Accessible toilet	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium										
2nd Floor Consulting room 17	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
2nd Floor Consulting room 18	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
2nd Floor Consulting room 19	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
2nd Floor Consulting room 1	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use

Location	Asset	Sources Type	Sources present	Individual Risk Categories							Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G													
2nd Floor Consulting room 20	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
2nd Floor Consulting room 21	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium										
2nd Floor Consulting room 22	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	1	0	8	Low	Medium				✓						No access in patient use
2nd Floor Consulting room 23	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
2nd Floor Consulting room 2	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium				✓						No access in patient use
2nd Floor Shower room	Blended Water Outlet	Wash Hand Basin	1	4	1	1	1	2	1	0	10	Low	Medium	Hot supply 59.0 Cold supply 19.5 Blended 40.8			✓			✓	✓		One WC present in room
2nd Floor Shower room 	Mixer Shower hot	Shower	1	2	4	1	4	1	1	0	13	Medium	Medium	Cold supply 19.5 Blended 42.5									

Location	Asset	Sources Type	Sources present	Individual Risk Categories							Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G													
2nd Floor Sluice room	Blended Water Outlet	Wash Hand Basin	1	4	1	1	1	2	1	0	10	Low	Medium	Not Tested Cold supply 19.8 Blended 41.0			✓				✓		
2nd Floor Sluice room	Boosted Cold Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low	19.8									
2nd Floor Sluice room	Hot Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low	59.8									
2nd Floor Staff room	Boosted Cold Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low	19.2	✓					✓			
2nd Floor Staff room 	Hot Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low	58.5	✓					✓			One dishwasher washer, one HWB and one water cooler located in room
2nd Floor Staff toilet 	Blended Water Outlet	Wash Hand Basin	2	4	1	1	1	2	5	0	14	Medium	Medium	Hot supply 60.3 Cold supply 19.7 Blended 41.6			✓	✓		✓	✓		Two WC present in room
2nd Floor Unisex toilet Baby change	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium										No access out of order

Location	Asset	Sources Type	Sources present	Individual Risk Categories							Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G													
2nd Floor Unisex toilet	Blended Water Outlet	Wash Hand Basin	1	4	1	1	1	2	5	0	14	Medium	Medium	Cold supply 19.8 Blended 41.2			✓			✓	✓		One WC present in room
Ground Floor Accessible toilet	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium	Hot supply 59.5 Cold supply 19.8 Blended 40.5			✓	✓		✓			One WC present in room
Ground Floor Cleaners room	Boosted Cold Water Outlet	Butler Sink	1	2	1	1	1	2	1	0	8	Low	Low	19.2									
Ground Floor Cleaners room	Hot Water Outlet	Butler Sink	1	2	1	1	1	2	1	0	8	Low	Low	60.2									
Ground Floor Conference room 1 and 2	Hot Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low										
Ground Floor Conference room 1 and 2	Mains Cold Water Outlet	Sink	1	1	1	1	1	2	1	0	7	Low	Low										
Ground Floor Staff room	Hot Water Outlet	Sink	1	2	1	1	1	2	1	0	8	Low	Low	59.8	✓								

Location	Asset	Sources Type	Sources present	Individual Risk Categories							Total Score	Current Legionella Risk	ALARP Risk	Temp.	Sentinel outlet	TMV	TMT	Inline Strainers	Flexible Hose	Aerators	Scaled Outlet	Partially Closed Valves	Observations
				A	B	C	D	E	F	G													
Ground Floor Staff room 	Mains Cold Water Outlet	Sink	1	1	1	1	1	2	1	0	7	Low	Low	19.0	✓					✓			One HWB and one water cooler located in room
Ground Floor Unisex toilet (office area) 	Blended Water Outlet	Wash Hand Basin	2	2	1	1	1	2	5	0	12	Medium	Medium	Hot supply 59.0 Cold supply 19.7 Blended 43.3			✓	✓		✓			Two WC present in room
Ground Floor Unisex toilet	Blended Water Outlet	Wash Hand Basin	1	2	1	1	1	2	5	0	12	Medium	Medium	Hot supply 58.9 Cold supply 19.7 Blended 40.2			✓			✓			One WC present in room
Roof Plant room 	Deadleg 2	Deadleg	1	2	1	4	0	1	1	4	13	Medium	Medium										Refer to Deadlegs / Blind Ends Section in this report *
Roof Plant room 	Deadleg 4	Deadleg	1	2	1	4	0	1	1	4	13	Medium	Medium										Refer to Deadlegs / Blind Ends Section in this report *

Actions marked with a "*" are outstanding from the previous assessment.

Asset	Blended Water Outlet
Location	Ground Floor - Unisex toilet (office area)



Example of strainers.

Asset	Mains Cold Water Outlet
Location	Ground Floor - Staff room



Example of a hot water boiler.



Example of water cooler drinking water dispenser.

Asset	Blended Water Outlet
Location	1st floor - Staff toilet



Example of flexible hoses.

Asset	Hot Water Outlet
Location	2nd Floor - Staff room



Example of a Dishwasher.

Asset	Mixer Shower hot
Location	2nd Floor - Shower room



Example of a Mixer Shower

Asset	Blended Water Outlet
Location	2nd Floor - Staff toilet



Example of scale present on tap outlet and aerator.

3.6 Deadlegs/Blind Ends

Location	Photo
Roof - Plant room Deadleg 1	 Example of Deadleg 1. (Bypass pipework)
Roof - Plant room Deadleg 4	 Example of Deadleg 2. (Bypass pipework)

3.7 Management of Legionellosis and Scheme of Control

3.7.1 Management

Requirement	Present Yes /No	Requirement	Present Yes /No
Is there a written log book or electronic log book available for site?	Yes		
Responsible people			
Is there an up to date Nominated Responsible Person?	Yes	Name of Nominated Person	Casper Fons
Is there an up to date Nominated Deputy Responsible Person?	Yes	Name of Nominated Deputy Person	Laura Baker
Are those with responsibility for Legionella control and their deputies provided: (Maintenance staff / Water Treatment Contractors)?	Yes	Are their contact details provided?	Yes
Is there an up to date Duty Holder	Yes	Name of Duty Holder	Pier Health Group
Are their roles and responsibilities provided?	Yes	Are lines of communication provided?	Yes
Are Lines of Communication up to date and adequate?	Yes	Are there up to date personal training records or summaries provided?	Yes
Are Training Records adequate?	Yes	Is there a log detailing visits by contractors, consultants and other personnel?	Yes
Is there a Water Safety Group in place?	Not Applicable	Is the membership of the Water Safety Group proportionate to the services provided and complexity of the systems present?	Not Applicable
Does the Water Safety Group have an appropriate ‘Terms of Reference’?	Not Applicable	Is there an appropriate Water Safety Plan?	Not Applicable
Is there evidence of required calibration/ validation of thermometers used on site?	Yes		
Scheme of control systems			
Does the water log book contain written “Scheme Of Control”	Yes	Are all systems included in the scheme of control?	Yes
Is the log book and scheme of control in use?	Yes	Is the Scheme of Control considered adequate?	Yes
Are elements in the scheme of control assigned to individuals:	Yes	Are system operating control parameters provided?	Yes
Are action plans provided for when control parameters are exceeded?	Yes	When control parameters are exceeded, have actions been recorded?	Not Applicable
Are shut down and start up procedures provided?	Not Applicable	Are there schematic drawings of the water systems available?	Yes
Are schematic drawings up to date and adequate?	Yes	Was the previous risk assessment available and reviewed as part of this assessment?	Yes

Requirement	Present Yes /No	Requirement	Present Yes /No
Have all actions from the previous risk assessment been completed?	No	Are records kept and retained throughout the period for which they remain current and for at least two years after that period?	Yes
Records of any monitoring, inspection or downtime should be retained for at least five years	Not Applicable	Are there Method Statements available for all tasks undertaken relating to legionella control?	Yes
Are Method Statements considered adequate for the tasks undertaken on the water systems?	Yes	Is equipment brought on to site by a 3 rd party considered in the Scheme of Control?	Not Applicable
Asset & Outlet Records			
Are the cold water storage tank water temperatures being recorded at least annually (summer)?	Yes	Are there records to show the cold water storage tank is being inspected at least annually?	Yes
Are there records to show that the turnover in the tanks is being checked annually; or are water meter readings being checked?"	No	Are calorifier flow water temperatures being recorded monthly?	Yes
Are Calorifier return water temperatures being recorded monthly?	Yes	Is there a record to indicate that the calorifier drain condition has been assessed annually?	Yes
Are Plate Heat Exchanger return water temperatures being recorded monthly?	Not Applicable	Are Plate Heat Exchanger flow/supply water temperatures being recorded monthly?	Not Applicable
Are there records of flushing of the low usage outlets each week as a minimum?	Not Applicable	Are records of sentinel cold water temperatures being kept?	Not Applicable
Are records of the sentinel mains water temperatures being kept?	Not Applicable	Are records of sentinel hot water temperatures being kept monthly? (circulating system)	Yes
Are records of sentinel hot water temperatures being kept monthly? (non circulating system)	Not Applicable	Are records of subordinate loop temperatures being kept quarterly? (circulating systems)	Not Applicable
Are records of tertiary loops temperatures being kept on representative loops annually (circulating systems)	Not Applicable	Is there a record to show the clean and descale of showerheads and hoses quarterly?	Yes
Are records of representative hot and cold water temperatures being taken annually?	Yes	Are taps free from scale build up?	No
Are tap aerators present free from sediment build up?	No	Are TMVs inspected, cleaned / descaled and fail safe tested?	Yes
Are cistern type water heaters header tanks being inspected?	Not Applicable	Are there records to indicate that the expansion vessels have been flushed through and purged to drain?	No
Are there records to show that the water softener brine tank salt levels have been checked?	Not Applicable	Are there records to show that the water softener has been checked for correct operation?	Not Applicable
Are there records to show that the water softener has been checked for hardness?	Not Applicable	Are there records to show that the water softener bypass has been flushed weekly?	Not Applicable
Are there records to show that the water softener has been regenerated manually based on hardness tests?	Not Applicable	Are there records to show that the water softener has been serviced regularly?	Not Applicable

Requirement	Present Yes /No	Requirement	Present Yes /No
Are there records to show that the water softener resin has been disinfected / replaced?	Not Applicable	Are there records of inline filters and strainers being cleaned?	No
Were accessible isolating valves / regulating valves checked and found to be in the open / in the normal operational position (not partially / fully closed).	Yes	Are flexible hoses Regulation 4 approved and being inspected / tested to identify any degradation (via routine sampling)	To be confirmed
Cleaning and Samples			
When was cleaning and disinfection last undertaken?	01-02-2025	Are cleaning and disinfection certificates present?	Yes
Chemical or Microbiological Results – When were samples last taken?	20-03-2025	Are cleaning and disinfection procedures provided?	Yes
Was the Cleaning and Disinfection carried out in line with current guidance?	Yes	Are results of chemical or microbiological checks present?	Yes
Additional comments	No additional comments		

3.7.2 Recommended Control Regime :**Cold Water Storage Tanks**

Task	Minimum Frequency Required:	Task Currently Allocated To:
Temperature monitoring	Annual (in summer)	Kimera
General visual inspection	Annual	Kimera
Clean /Disinfection	As required	Kimera
Flush bypass	As required	Kimera
Flush expansion vessel	6 monthly	Kimera
Microbiological Sampling	6 monthly	Kimera
Drop test	Annual	Kimera
Microbiological analysis	As required	Kimera

Hot Water Calorifiers

Task	Minimum Frequency Required:	Task Currently Allocated To:
Flow / return	Monthly	Kimera
General visual inspection	Annual	Kimera
Clean / disinfection	As required	Kimera
Drain flushing	6 monthly	Kimera
Flush expansion vessel	6 monthly	Kimera
Microbiological analysis	As required	Kimera
Drain water condition	Annually	Kimera

Plate Heat Exchangers

Task	Minimum Frequency Required:	Task Currently Allocated To:
Flow / return temperatures	Monthly	Kimera
Clean / disinfection	As required	Kimera
General visual inspection	Annual	Kimera

Hot Outlets

Task	Minimum Frequency Required:	Task Currently Allocated To:
Temperature monitoring (sentinel)	Monthly	Kimera
Temperature monitoring (representative)	Annual	Kimera
Clean / disinfection	As required	Kimera
Microbiological analysis	As required	Kimera
Dead Leg/ Little Used Outlet Flushing	Weekly	Kimera

Cold Outlets

Task	Minimum Frequency Required:	Task Currently Allocated To:
Temperature monitoring (sentinel)	Monthly	Kimera
Temperature monitoring (representative)	Annual	Kimera
Clean / disinfection	As required	Kimera
Microbiological analysis	As required	Kimera
Dead Leg/ Little Used Outlet Flushing	Weekly	Kimera

Mains Outlets

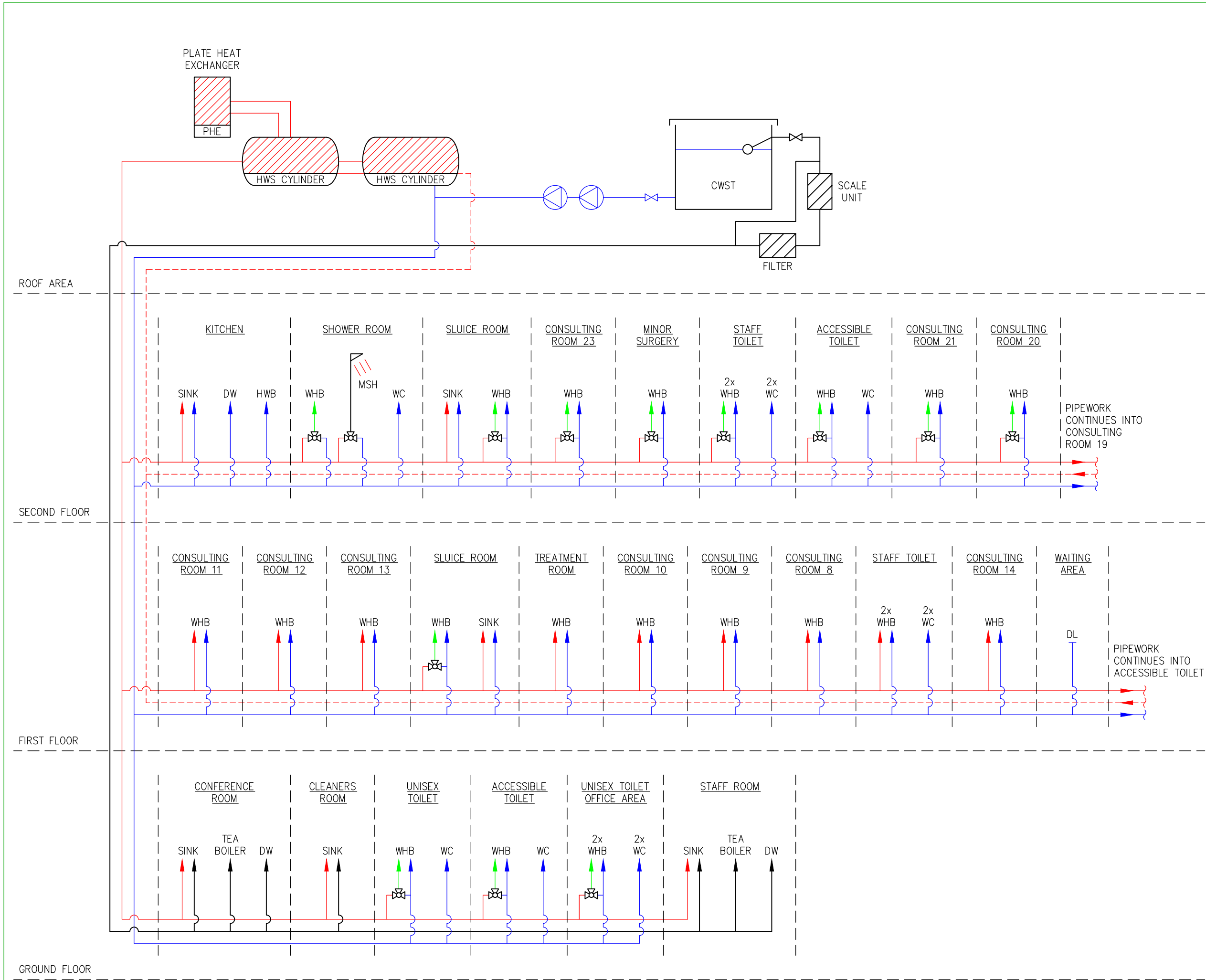
Task	Minimum Frequency Required:	Task Currently Allocated To:
Temperature monitoring (sentinel)	Monthly	Kimera
Temperature monitoring (representative)	Annual	Kimera
Clean / disinfection	As required	Kimera
Microbiological analysis	As required	Kimera
Dead Leg/ Little Used Outlet Flushing	Weekly	Kimera

Thermostatic Mixing Valves

Task	Minimum Frequency Required:	Task Currently Allocated To:
Temperature monitoring	Annual	Kimera
General visual inspection	Annual	Kimera
Clean / disinfection	Annual	Kimera
Fail-safe testing	Annual	Kimera

Mixer Shower

Task	Minimum Frequency Required:	Task Currently Allocated To:
Temperature monitoring	As required	Kimera
General visual inspection	Monthly	Kimera
Clean / disinfection	3 monthly	Kimera
Microbiological analysis	As required	Kimera



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KEY :

WHB	WASH HAND BASIN
WC	TOILET
UR	URINAL
MSH	MIXER SHOWER
TMSH	THERMOSTATIC MIXER SHOWER
ESH	ELECTRIC SHOWER
EMSH	EMERGENCY SHOWER
TMT	THERMOSTATIC MIXING TAP
HT	HYDRO TAP
CWD	CHILLED WATER DISPENSER
IM	ICE MACHINE
CM	COFFEE MACHINE
VM	VENDING MACHINE
WM	WASHING MACHINE
DW	DISH WASHER
CWST	COLD WATER STORAGE TANK
CAL	CALORIFIER
PU	PRESSURISATION UNIT
CTWH	CISTERN TYPE WATER HEATER
HVWH	HIGH VOLUME WATER HEATER
POUH	POINT OF USE HEATER
IWH	INSTANTANEOUS WATER HEATER
PHE	PLATE HEAT EXCHANGER
HWB	HOT WATER BOILER
CB	COMBINATION BOILER
DL	DEAD LEG
OV	OPEN VENT
F+E	FEED & EXPANSION TANK
CV	CHECK VALVE
DCV	DOUBLE CHECK VALVE
IV	ISOLATION VALVE
PRV	PRESSURE REDUCING VALVE
RPZ	REDUCED PRESSURE ZONE VALVE
SV	SOLENOID VALVE
TMV	THERMOSTATIC MIXING VALVE
ST	Y TYPE STRAINER
EXPANSION VESSEL	PUMP
WATER METER	TEMPERATURE GAUGE
NEAR SENTINEL	FAR SENTINEL

THIS SCHEMATIC DRAWING IS FOR GUIDANCE ONLY AND IS INTENDED ONLY AS A SIMPLIFIED ILLUSTRATION OF THE PIPEWORK AND APPLIANCES

LANDLORD:

KIMERA FACILITIES MANAGEMENT
UK LTD

PROJECT No.

L-428625

SITE:

168 MEDICAL, LOOKING ROAD,
WESTON-SUPER-MARE

TITLE:

WATER SURVEY

DRG. No.

DW/L-428625/01

DATE DRAWN:

19.06.25

REPORT ISSUE No

1

DRAWN BY

CDV

REVISION No

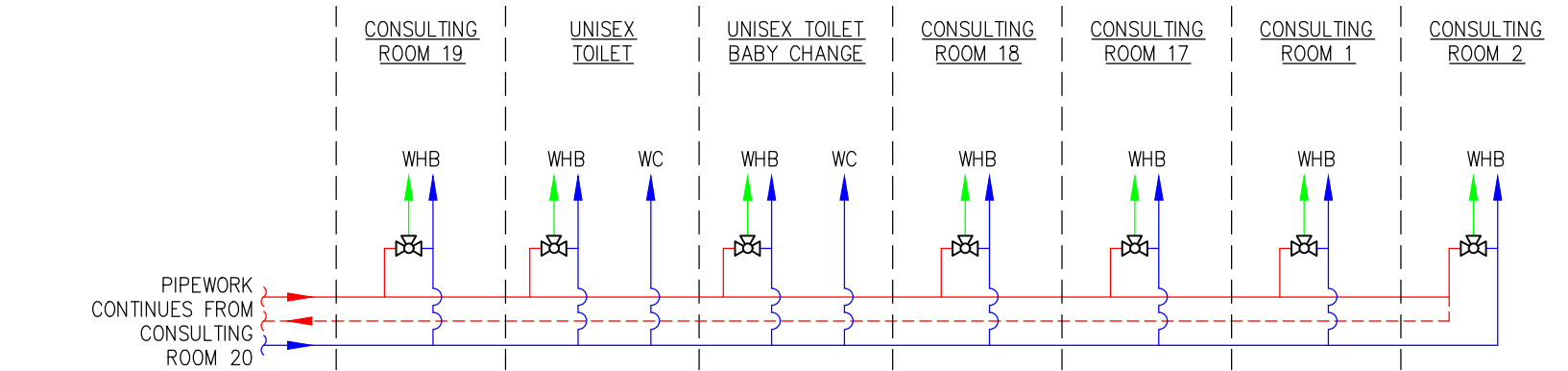
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DATE REVISED

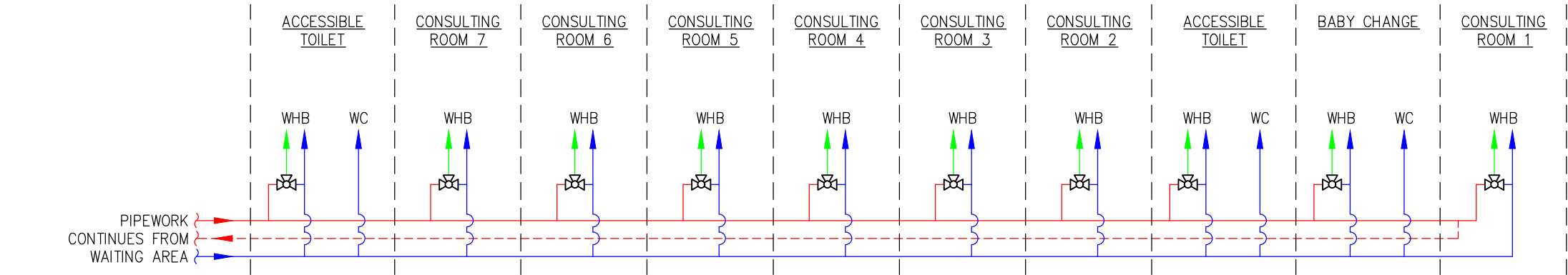
19.06.25

N.T.S. (DO NOT SCALE)

ROOF AREA



SECOND FLOOR



FIRST FLOOR

GROUND FLOOR

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CONSULTING LTD

KEY :

WHB	WASH HAND BASIN
WC	TOILET
UR	URINAL
MSH	MIXER SHOWER
TMSH	THERMOSTATIC MIXER SHOWER
ESH	ELECTRIC SHOWER
EMSH	EMERGENCY SHOWER
TMT	THERMOSTATIC MIXING TAP
HT	HYDRO TAP
CWD	CHILLED WATER DISPENSER
IM	ICE MACHINE
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VM	VENDING MACHINE
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SV	SOLENOID VALVE
TMV	THERMOSTATIC MIXING VALVE
ST	Y TYPE STRAINER
EXPANSION VESSEL	PUMP
WATER METER	TEMPERATURE GAUGE
NEAR SENTINEL	FAR SENTINEL

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DRAWN BY

CDV

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.

DATE REVISED

.

N. T. S. (DO NOT SCALE)

4.0 Appendices

4.1 Water System Description

Building is a medical centre with areas for doctors consultation, toilets and staff areas.

Building consists of a ground floor, first floor, second floor and roof area.

Hot water is served via two calorifier cylinder, these cylinder are heated via a plate heat exchanger.

Cylinders serve hot outlets on a flow and return system.

Cold water is served via the mains cold water supply and one cold water storage tank, this tank serves the system via twin booster pumps.

Hot water cylinders and cold water storage tank are located in roof plant room.

Building has one mixer shower.

4.2 Consultant Training & Experience

Personal Profile

Christian is a Water Hygiene Consultant at Tetra Consulting and an Associate member of the Water Management Society.

Christian began his career as a Water Hygiene Engineer and progressed in to Legionella Consultancy, which has been his main role since 2011. Christian has sound experience in domestic hot and cold water systems as well as having worked in multiple sectors including Commercial, Leisure, Healthcare, Residential, Education and Industrial.

Christian's experience and professional approach aims to assist you with your building's compliance requirements in a simple, practical and cost-effective way.

Areas of Expertise

- Legionella Management and Consultancy, including:
 - ▶ Risk Assessments
 - ▶ Review Audits
 - ▶ Schematic Drawings
 - ▶ Legionella and Potable Water Sampling
 - ▶ Preparation of Policy and Procedural Documents

Professional Memberships & Qualifications

- City & Guilds: Practical Legionella Risk Assessment Hot and Cold Water Systems
- WMSoc: Practical Legionella Risk Assessment Hot and Cold Water Systems Advanced
- Associate Member of the Water Management Society (A.W.M.Soc)

4.3 Legislation

In undertaking this risk assessment, the requirements, practice and guidance of the following legislation and publications have been taken into account, where appropriate. All documents are the current / up to date versions.

1. Health and Safety at Work etc Act
2. Management of Health and Safety at Work Regulations (MHSWR)
3. The Control of Substances Hazardous to Health Regulations (COSHH)
4. The Notification of Cooling Towers and Evaporative Condensers Regulations
5. Legionnaires' Disease – The control of legionella bacteria in water systems. Approved Code of Practice & Guidance L8 (Fourth Edition)
6. HSG274 Part 2: The control of legionella bacteria in hot and cold water systems
7. BS 8580-1: Water quality – Risk assessments for Legionella control – Code of practice
8. Health Technical Memorandum 04-01: Safe water in healthcare premises. Part A Design, installation and commissioning
9. Health Technical Memorandum 04-01: Safe water in healthcare premises. Part B Operational Management
10. Health Technical Memorandum 01-05 Decontamination in primary care dental practices
11. BS 8680 Water quality – Water safety plans – Code of practice
12. HSG 220 – Health and Safety in Care Homes
13. HSG 282 – Control of Legionella and other infectious agents in spa-pools systems
14. The Water Supply (Water Quality) Regulations
15. The Water Supply (Water Fittings) Regulations
16. BS 8558:2015 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within building and their curtilages – Complimentary guidance to BS EN 806
17. BS 7592 Sampling for Legionella bacteria in water systems – Code of practice
18. PD 855468 Guide to the flushing and disinfection of services supplying water for domestic use within buildings and their curtilages

4.4 Allocation of Responsibilities

4.4.1 Duty holder

Whether all aspects of Legionella policy and its implementation are carried out by individuals employed directly or contracted, the Duty Holder has a responsibility, under the Health and Safety at Work act 1974, to ensure those individuals are provided with adequate resources and that the chain of command, lines of communication and management control between the company and the individuals concerned are in place and effective.

The Duty Holder is responsible on behalf of the employer for all aspects of the Legionella policy, whether by direct employees, under contract or subcontract:

- The carrying out of a legionellosis risk assessment.
- The elimination of the risk wherever it is reasonably practicable.
- Where elimination is not reasonably practicable, devising and implementing a scheme of precautions to control the risk.
- The maintenance, monitoring and management of the precautions controlling the risk, including reviewing the risk assessment if there has been any material change and at intervals not exceeding two years.
- The procurement of competent help as required and ensuring that the organisations and individuals deployed are competent.
- The appointment of a Responsible Person to oversee and coordinate the control of the risk of legionellosis.
- The keeping of records.
- Notifying the relevant enforcing authority of any work-related cases of legionellosis

4.4.2 Responsible person

Much of what is required of the Duty Holder is usually delegated to the Responsible Person for implementation, either as a direct employee or under a contract and that individual therefore needs to have an up to date and overall working knowledge of the control of legionellosis at the premises under their control. It is probable the Responsible Person would consult the Duty Holder before making major decisions, either as a matter of routine (such as appointing a contractor or authorising a subcontractor), or in a crisis (such as in the event of an outbreak of legionellosis), but this person also needs to have the authority to act alone if necessary.

The legionellosis risk assessment and a system for receiving current relevant information (for example, a summary reporting procedure or regular audit, etc.) can be used by the Responsible Person to provide their working knowledge. Their technical competence needs to be sufficient to enable them to:

- appraise the competence of others, including any specialist advisors
- ensure that faults and anomalies are identified
- ensure that corrective action is suitable and implemented effectively.

It may prove impracticable for the Responsible Person to gain and maintain a detailed technical knowledge of legionellosis control, so there needs to be a comprehensive scheme of precautions incorporating control limits and action plans for correcting deviations, with staged trigger points where appropriate.

4.4.3 All

Under the Health and Safety at Work act 1974 every individual with responsibilities in the scheme of Legionella control is responsible for maintaining vigilance in carrying out their work and for drawing matters of evident concern to the attention of the appropriate person.

4.4.4 Record Keeping

The client is responsible for ensuring that all records, relating to water and Legionella management, are kept up to date at all times.

Under the L8 Approved Code of Practice and Guidance all monitoring records need to be kept for a minimum period of 5 years (Paragraph 67).

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