



Legionella Risk Assessment Reviewer Guidance – Building Hot & Cold Water Systems
Reference: HSE Control of Legionella Bacteria in Water Systems: Audit Checklists C200

The Warren Centre
Risk Assessment Review
5th January 2017



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Property Name & Description The Warren Centre			Review Date: 5 th January 2017
Responsible Person(s) Name & SCC Appointment: Debbie Haskell (Responsible Person) Mr Kevin Haskell (Deputy Responsible Person)			Last Review: 9 th January 2015
Compliance & Control Measure Checks	Yes	No	Comments/Observations
Have there been changes (or being proposed) to the use of the property in which the water systems are installed?		NO	
Have there been changes (or being proposed) to the water systems or their use?		NO	
Is there new information about potential risks or control measures?		NO	
Do the results of monitoring indicate that control measures are no longer effective?		NO	
Are the roles & responsibilities of all staff involved in control measures clearly defined in writing including responsible persons(s) & contractors?	YES		Responsible persons and deputy have been nominated in writing within section 2 of the logbook documentation.
Have the persons nominated to carry out control measures including responsible person(s) received appropriate training?		NOT KNOWN	No information on who carries out the monitoring control measures within the logbook or training they have received.
Has there been a legionella bacteria incident associated with the water systems in the property?		Not KNOWN	



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Risk Assessment, Written Scheme & Property/System Change Checks			
Risk Assessment	Yes	No	Comments/Observations
Does the Risk Assessment identify foreseeable risks & include an up to date schematic of the water systems?		NO	Drawings have been updated at the time of this 2017 review. <u>Original risk assessment not seen filed within the logbook documentation.</u>
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?		NO	<u>Original risk assessment not seen filed within the logbook documentation.</u>
Written Scheme			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Temperature Monitoring is being carried out.
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?		NO	
Are the records of water system temperature monitoring & flushing representative of control measures, & up-to-date?	YES		Temperature monitoring is up to date as of December 2016.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?		NO	It is assumed the occupancy is variable.
Have changes or modifications to the water systems resulted in low use outlets; dead legs; redundant service equipment or additional fittings e.g. TMV's?	YES		Small Deadleg pipe work still seen on hot water return pipe work in the boiler room. TMVs fitted.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?		No	



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Risk Was (Circle)	Insignificant	Low	Medium	High	Uncertain
Risk Now (Circle)	Insignificant	Low	Medium	High	Uncertain

Remedial action to be taken	By Whom	By When
Investigate hot water system and return pump for correct operation and flow at outlets. High The hot water system return pump now has a good return temperature records indicate this is normally satisfactory. Medium		
Ensure hot water calorifier storage temperature maintains 60.0c or more at all times. High The hot water calorifier was found to have a good storage temperature; records seen indicate this is normally satisfactory. Medium		
Ensure the hot water return system maintains 50.0c or more at all times. High The hot was return was above 50.0C at the time of this 2017 review. Medium		
Remove any deadleg pipe work. High The small deadleg highlighted has not been removed. High		
Clean and disinfect cold water storage tank and continue on an annual basis if required. Medium The water storage tank was last cleaned and disinfected in February 2014. Medium		
Re-route open vent pipe work from the water storage tank to a drain or tundish. Medium The open vent pipe work has not been rerouted. Medium		



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Risk Now (Circle)	Insignificant	Low	Medium	High	Uncertain

Remedial action to be taken	By Whom	By When
<p>Insulate water pipe work within the ceiling voids to help prevent heat gain / loss. Medium</p> <p>The domestic water pipe work within the ceiling voids has not been insulated. Medium</p>		
<p>Maintain and service TMV (blender valves) as per manufacturer’s recommendations. Medium</p> <p>The TMVs are being serviced and adjusted on a six monthly basis; this was last carried out in August 2016. Medium</p>		
<p>Audit logbook at least on an annual basis; consider archiving old log sheets which are filed in the logbook documentation. Medium</p> <p>The log book documentation does not appear to have been audited since November 2013. Medium</p>		



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Compliance & Control Checks	Reviewer notes
Have responsible person(s) considered whether foreseeable risks could be eliminated?	Refer to Southampton City Council.
Have the responsible person(s) & deputies been nominated in writing?	Responsible person and deputy have been nominated in writing within section 2 of the logbook.
Are responsible person(s)/deputies contact details available in the event of an emergency?	No responsible person or deputies contact details were seen within the logbook documentation.
Are the roles & responsibilities of all Council staff, & contractors involved in control & compliance measures identified in writing?	No roles and responsibilities of council and contractors involved in control and compliance measures were seen in writing within the log book documentation.
Have they all received appropriate training?	No training records were seen for any staff or contractors. Refer to Southampton City Council
Has the competence of contractors been checked and appropriate documentation held on file?	Refer to Southampton City Council.
Have other Health & Safety issues been actioned e.g. COSHH/MHSWR assessments for treatment chemicals and flushing routines?	Refer to Contractors used by Southampton City Council.
Do responsible person(s) keep a log of water system defects and follow up on progress?	All system defects are assumed phoned through to Southampton Property Services.
Do the responsible person(s) have a budget for remedial works and are they aware of the programme for completion?	Refer to Southampton City Council.



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Risk Assessment, Written Scheme & Property/System Change Checks	Reviewer notes
Does the risk assessment include all water systems in the building(s) including e.g. fire hose reels, spray fountains, dehumidifiers etc?	<u>Original risk assessment was not seen filed within the logbook documentation.</u>
Does the water system schematic show and identify all equipment & outlets including water softeners, TMV's, pumps, principal valves, stand-by equipment, showers, washbasins, water supply origin & systems out of use etc?	Drawings have been updated at the time of this 2017 review.
Does the Written Scheme contain the following: <ul style="list-style-type: none"> •System operating instructions? •Precautions to be taken when operating the system? •Details of the monitoring checks to be carried out on the system? 	NO YES YES
Have changes to the system been recorded in the water system logbook?	No records were seen within the logbook documentation.
How are changes to the system managed & approved including approval by the responsible person(s)?	Refer to Southampton City Council.
How are remedial works co-ordinated, funded and approved including programme priorities?	Refer to Southampton City Council.



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System Design & Construction	Reviewer notes
Are the water systems designed in accordance with BS6700: 1997 & the Water Supply (Water Fittings) Regulations 1999 as amended by latest WRAS guidance?	Pipe work appeared to be copper but some galvanised pipe work was still seen in the boiler room.
Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion?	Galvanised metal will harbour corrosion build up.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	TMVs fitted all appear to be within 2 metres of the outlets.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	Flushing should be carried out weekly on any infrequently used outlets.
Has cold water storage volumes been assessed for turnover (ideally 12 hours) & stagnation risk?	Single cold water storage tank located within Shirley Warren Primary School nurture room roof void serving the Warren Centre calorifier only.
Is cold & hot water pipe work kept separated and adequately insulated?	Most pipe work appears to run within the ceiling void no insulation was seen.
Are cold water tanks fitted with covers & insect screens, located in a cool well-insulated space, & safely accessible?	Yes located in the Primary School roof void above nurture room.
Are multiple CWST's configured in duty/stand-by mode and not operated in parallel?	N/A



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System Design & Construction	Reviewer notes
Hot Water Systems	
Is Calorifier storage capacity capable of maintaining a DHW distribution temperature of at least 50°C during maximum demand periods?	1 x Santon calorifier appears capable of maintaining temperatures.
Are multiple calorifiers connected in parallel?	No
Is the calorifier(s) fitted with the following: <ul style="list-style-type: none"> •Functioning drain valve? •Temperature gauges on the flow & return? •An access panel? •A shunt pump and timer, timed to heat the calorifier to over 60°C for at least an hour a day? •Adequate primary & secondary pipe work insulation? 	Yes None fitted No Yes Yes plant room distribution pipe work..
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	N/A
Is there a risk of scalding e.g. in buildings used by infants (under 5 years) the disabled or the elderly?	Possible risk to young children.
Have 'Very Hot' water labels been fitted to outlets used by the public including school children?	No Hot water warning labels are fitted.



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Operation & Maintenance	Reviewer notes
Are low use outlets flushed at least weekly and records kept in the Written Scheme logbook?	No record of any flushing seen recorded in the logbook documentation.
What are the procedures for bringing stand-by equipment into service?	N/A
If TMV's are fitted, are they being maintained on a 6 monthly basis and records kept in the system logbook?	This was last carried out in August 2016 and recorded in section 6 of the logbook documentation.
Are CWST's inspected at least annually to include a check that there is cross flow of water and records kept in the system logbook?	No records were seen for water storage tank inspections.
Are calorifier drains checked on a monthly basis for operation and drained water conditions checked and records kept in the system logbook?	No records of calorifier drain purging seen.
How is calorifier internal condition assessed and what is the periodicity of internal inspection?	Refer to Southampton City Council.
Have outlets that are no longer required been cut back to the nearest main pipe branch?	No outlets appear to have been removed.
Are up-to-date O&M manuals for the water system plant held including system valve lists, and pre-start, running, and stopping check off lists?	No records seen.
Are showers & other outlets being cleaned at least quarterly and records kept in the system logbook?	N/A



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Monitoring	Reviewer notes
Do system users carry out daily temperature monitoring checks and place records in the system logbook?	No
Are the temperatures of sentinel hot & cold-water outlets checked on a monthly basis and records kept in the system logbook?	Yes temperatures were seen recorded within the logbook documentation.
Are the hot & cold-water temperatures from all other water system outlets checked on an annual basis and records kept in the system logbook?	Additional outlets are checked monthly.
Is the temperature of the hot water supply to TMV's checked on a monthly basis and records kept in the system logbook?	Yes records of temperature monitoring of the TMVs was seen recorded within the logbook documentation.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	Yes the hot water calorifier flow and return temperatures are being recorded within the logbook documentation.
Are calorifier temperatures checked at the base mid-level and top to check for primary heating efficiency and records kept in the system logbook?	Refer to Contractors carrying out monitoring.
Are CWST inlet & outlet temperatures checked on a 6 monthly basis and records kept in the system logbook?	No record seen to indicate this is being carried out.