



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

# **Schools Library Service Building**

## **Risk Assessment Review**

### **7<sup>th</sup> March 2018**



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<b>Property Name &amp; Description</b> Schools Library Service Building			<b>Review Date:</b> 7 <sup>th</sup> March 2018
<b>Responsible Person(s) Name &amp; SCC Appointment:</b> Kerry Freemantle (Responsible Person) Suzanne Lancashire (Deputy)			<b>Last Review:</b> 8 <sup>th</sup> March 2016
<b>Compliance &amp; Control Measure Checks</b>	<b>Yes</b>	<b>No</b>	<b>Comments/Observations</b>
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?		NO	Responsible person 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	
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 2018 review.
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?	NO		Original Risk Assessment was not seen in the logbook documentation at the time of this 2018 review.
Written Scheme			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Monitoring is being carried out and was up to date as of January 2018.
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		Monitoring is being carried out and is up to date as of January 2018.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?		NO	
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?		NO	
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Kitchen water heater header tank dirty and needs cleaning. Kitchen water heater low hot water storage temperature at the time of this 2018 review. Fire hose reels create deadleg pipe work and are fitted to the live mains water service.



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<b>Risk Was (Circle)</b>	Insignificant	Low	Medium	High	Uncertain
<b>Risk Now (Circle)</b>	Insignificant	Low	Medium	High	Uncertain

<b>Remedial action to be taken</b>	<b>By Whom</b>	<b>By When</b>
<p>Ensure responsible person and deputy are nominated in writing and filed within section 2 of the logbook documentation. High</p> <p>This has now been carried out. Low</p>		
<p>Ensure kitchen water heater is adjusted to store hot water at 60.0c. High</p> <p>The water heater was slightly low at the time of this 2018 review. Medium</p>		
<p>Ensure old fire hose reel system is drained of water and disconnected from any live mains water service. High</p> <p>These are still connected to the live mains water service creating deadleg pipe work. High</p>		
<p>Clean and disinfect water heater cold water header tank and continue annually if required. Medium</p> <p>This has not been carried out. Medium</p>		



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<b>Risk Now (Circle)</b>	Insignificant	Low	Medium	High	Uncertain

<b>Remedial action to be taken</b>	<b>By Whom</b>	<b>By When</b>
<p>Consider insulating domestic water pipe work to help prevent heat gain loss. Medium</p> <p>This has not been carried out. Medium</p>		
<p>Flush any infrequently used outlets weekly. Medium</p> <p>No records were seen for any flushing. Medium</p>		
<p>Continue to audit logbook at least on an annual basis. Medium</p> <p>The logbook was last audited in May 2017. Medium</p>		



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<b>Compliance &amp; Control Checks</b>	<b>Reviewer notes</b>
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 now been nominated in writing.
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 Southampton City Council.
Do responsible person(s) keep a log of water system defects and follow up on progress?	Defects are phoned through to SCC.
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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<b>Risk Assessment, Written Scheme &amp; Property/System Change Checks</b>	<b>Reviewer notes</b>
Does the risk assessment include all water systems in the building(s) including e.g. fire hose reels, spray fountains, dehumidifiers etc?	The Original Risk Assessment was not seen at the time of this 2018 review.
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 2018 review.
Does the Written Scheme contain the following: •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?	Visual pipe work appeared to comply.
Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion?	Domestic pipe work appeared to be copper but is supplied by the galvanised metal mains water service fire main supply.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	N/A
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	All outlets assumed to be frequently used.
Has cold water storage volumes been assessed for turnover (ideally 12 hours) & stagnation risk?	N/A.
Is cold & hot water pipe work kept separated and adequately insulated?	Most pipe work had no insulation fitted.
Are cold water tanks fitted with covers & insect screens, located in a cool well-insulated space, & safely accessible?	N/A.
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
<b>Hot Water Systems</b>	
Is Calorifier storage capacity capable of maintaining a DHW distribution temperature of at least 50°C during maximum demand periods?	N/A
Are multiple calorifiers connected in parallel?	N/A
Is the calorifier(s) fitted with the following: <ul style="list-style-type: none"><li>•Functioning drain valve?</li><li>•Temperature gauges on the flow &amp; return?</li><li>•An access panel?</li><li>•A shunt pump and timer, timed to heat the calorifier to over 60°C for at least an hour a day?</li><li>•Adequate primary &amp; secondary pipe work insulation?</li></ul>	N/A
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Both local water heaters produced more than 50.0C.
Is there a risk of scalding e.g. in buildings used by infants (under 5 years) the disabled or the elderly?	Possible risk.
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.
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?	N/A
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?	N/A.
Are calorifier drains checked on a monthly basis for operation and drained water conditions checked and records kept in the system logbook?	N/A.
How is calorifier internal condition assessed and what is the periodicity of internal inspection?	N/A.
Have outlets that are no longer required been cut back to the nearest main pipe branch?	All outlets appear to be the original fittings.
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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<b>Monitoring</b>	<b>Reviewer notes</b>
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 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?	The kitchen and toilet outlets are monitored monthly.
Is the temperature of the hot water supply to TMV's checked on a monthly basis and records kept in the system logbook?	N/A.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	N/A.
Are calorifier temperatures checked at the base mid-level and top to check for primary heating efficiency and records kept in the system logbook?	N/A.
Are CWST inlet & outlet temperatures checked on a 6 monthly basis and records kept in the system logbook?	N/A.