



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

Start Point Sholing
Risk Assessment Review
2nd March 2017



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Property Name & Description: Start Point Sholing			Review Date: 2nd March 2017
Responsible Person(s) Name & SCC Appointment: Anne Downie (Responsible Person) Debra Cook (Deputy) Mark Rowden (Site Manager)			Last Review: 4th March 2013
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?		NO	Responsible person and deputy were seen 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 were updated at the time of this 2017 review. <u>Only part of the Original Risk Assessment was seen filed in the logbook documentation at the time of this 2017 review.</u>
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?	YES		<u>Only part of the Original Risk Assessment was seen filed in the logbook documentation at the time of this 2017 review.</u>
Written Scheme			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Temperature Monitoring is being carried out. <u>Only part of the Original Risk Assessment was not seen filed in the logbook documentation at the time of this 2017 review.</u>
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?			Some deadleg remedial works have been carried out.
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 February 2017.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?		NO	Occupancy 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		Some deadleg pipe work still seen. TMVs fitted. Infrequently used outlets.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Low hot water calorifier storage and return temperatures Deadleg pipe work still seen in place Isolated sinks and drinking fountain creating deadleg areas.



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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
Locate original risk assessment and file within the water systems logbook documentation. High Only part of the original risk assessment was seen filed. High		
Remove all deadleg pipe work. High Some deadleg pipe work has been removed but some was unable to be removed due to access problems. High		
Ensure all domestic water long pipe runs be insulated to help prevent heat gain / loss. Medium Pipe runs were seen insulated in Springwell classroom area only. Medium		
Continue to clean and disinfect showerheads at least on a quarterly basis or as required. Medium The showerheads are both being cleaned and descaled quarterly last carried out in January 2017. Medium		
Continue to flush all infrequently used outlets weekly and record when carried out. Continue during shut down periods and holiday periods. Medium Weekly flushing is being carried out and recorded in the front of the logbook documentation. Medium		
Ensure all tap outlets are kept clean and free of scale build up to maintain a good flow of water through systems and prevent aerosol creation. Medium Assumed carried out by cleaners. medium		



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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
Continue to service and adjust TMVs as per manufacturer’s recommendations. Medium TMVs are being serviced and adjusted on a six monthly basis this was last carried out in January 2017. Medium		
Continue to audit logbook at least on an annual basis; consider archiving old log sheets which are filed in the logbook documentation. Medium The logbook was last audited in June 2016; old record sheets have not ben archived. Medium		



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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.
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>Only part of the Original Risk Assessment was seen filed in the logbook documentation at the time of this 2017 review.</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?	Some records were seen within the logbook documentation for deadleg removal.
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 metal pipe work possibly still on water systems.
Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion?	Metal pipe work will corrode internally this will support bacteria.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	TMVs fitted appear to be within 2 meters of outlets <u>with the exception of the Springwell classroom outlets.</u>
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	Flushing should be carried out weekly on infrequently used outlets and during holidays and shut down periods.
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 is hidden from visual inspection unable to access ceiling voids.
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
Hot Water Systems	
Is Calorifier storage capacity capable of maintaining a DHW distribution temperature of at least 50°C during maximum demand periods?	The hot water calorifier was found to have low storage and return temperatures at the time of this 2017 review; this has been reported to Southampton City Council for the past two months on fault sheets; this should be addressed at the earliest opportunity.
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 Yes No Some insulation still missing on distribution pipe work in boiler room.
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?	Hot water warning labels were seen fitted within the building.



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Operation & Maintenance	Reviewer notes
Are low use outlets flushed at least weekly and records kept in the Written Scheme logbook?	Flushing of infrequently used outlets is being carried out weekly and recorded in the logbook.
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?	Yes this is being carried out on a six monthly basis; last carried out in January 2017.
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?	No records of calorifier drain purging seen within the logbook documentation.
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?	Some deadleg pipe work was still seen at the time of this review 2017.
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?	Showerheads are being cleaned and descaled quarterly last carried out January 2017.



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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 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 records of temperature monitoring of the Calorifier flow and Return were seen 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?	N/A.