



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

Compass School
Risk Assessment Review
23rd July 2018



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Property Name & Description Compass School			Review Date: 23 rd July 2018
Responsible Person(s) Name & SCC Appointment: J Smith (Responsible Person) R James (Deputy) <u>This is not up to date</u>			Last Review: 26 th July 2016
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 persons and deputy have been nominated in writing within section 2 of the logbook documentation; this needs updating to the correct personell.
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?	YES		System drawings were updated at the time of this 2018 review.
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?	YES		
Written Scheme			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Monitoring is being carried out by contractors on a monthly basis and was seen to be up to date as of July 2018.
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?	SOME		Some deadlegs have been removed but not all.
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 July 2018; flushing is carried out weekly by the site manager but no records were seen.
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?	YES		Some deadleg pipe work highlighted in the 2016 review are still in place.
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
Remove all deadleg pipe work where possible. High Some deadleg pipe work has been removed but some still remains. High		
Start recording monthly water heater flow temperatures to the TMVs in the logbook documentation to ensure hot water is at 50.0°C or more to the TMV. High This is now being recorded. Medium		
Continue to flush infrequently used outlets on at least a weekly basis. Medium I was informed that weekly flushing is carried out but no records were seen recorded. Medium		
Clean and descale tap outlets on a regular basis. Medium Assumed this is carried out by cleaners. Medium		
Open mains water bye-pass in the basement plant room weekly to flush through deadleg pipe work. Medium No record seen to indicate this is carried out. Medium		
Purge both hot water calorifiers to drain at least on an annual basis and record when carried out. Medium No record seen to indicate this is carried out. 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
Clean all inline strainers on a regular basis or as recommended by the manufacturers as ideal areas for bacteria proliferation. Medium No record seen to indicate this is carried out. Medium		
Continue to clean and descale showerheads at least on a quarterly basis or at the rate of fouling. Medium This was last carried out in July 2018. Medium		
Maintain and service TMVs (Blender Valves) as per manufacturer’s recommendations. Medium No record seen to indicate this is carried out. Medium		
Audit logbook at least on an annual basis. Medium No audit has been carried out since May 2014. 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 but needs updating to the correct personell.
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?	All system defects are reported to Southampton City Council.
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?	Yes
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: <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?	None seen recorded 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.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	All appeared to be within 2 meters of outlets.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	Outlets infrequently used are flushed weekly but no records seen for this.
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?	Pipe work seen was insulated in most areas
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?	Both calorifiers appear capable of maintaining at least 50.0c.
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? 	Not fitted Not seen Not fitted Insulation fitted
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Water heaters checked at the time of this 2018 review were satisfactory; records seen indicate good temperatures.
Is there a risk of scalding e.g. in buildings used by infants (under 5 years) the disabled or the elderly?	Always possible but TMVs are fitted.
Have 'Very Hot' water labels been fitted to outlets used by the public including school children?	No hot water warning labels were seen 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?	Flushing is being carried out by the site manager weekly but no records 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?	No records seen at the time of this 2018 review to indicate servicing is being carried out.
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 were seen for this being carried out.
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?	Deadleg pipe work seen.
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 on a quarterly basis; this was last carried out in July 2018.



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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 this was 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 this 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 this was 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