



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

Bitterne Eastern Library
Risk Assessment Review
5th September 2017



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Property Name & Description: Bitterne Eastern Library			Review Date: 5th September 2017
Responsible Person(s) Name & SCC Appointment: B.P McCaffery			Last Review: 8th September 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?		NO	Responsible person and deputy have still not been nominated in writing within section two 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 KNOW	



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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		Drawings were updated at the time of this 2017 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		Temperature monitoring is being carried out.
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?	YES		
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 August 2017
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		Outside tap low use. Garage tap outlet low usage.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Garage outlet creating long pipe run essentially of deadleg pipe work. Mains water supply to boiler room heating quick fill long pipe run essentially deadleg pipe work; fit non return check valve in baby change area.



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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 and disinfect the local water heater storage header tank and continue annually if required. Medium No records seen to indicate this has been carried out. Medium		
Air conditioning unit's condensate trays and traps should be cleaned and disinfected on a regular basis or as part of a planned maintenance schedule. Medium I was informed this is carried out by contractors. Medium		
Flush any infrequently used outlets weekly and record when carried out. Medium Informed this is carried out and records sent through to the info exchange. Medium		
Clean and descale all tap outlets on a regular basis to prevent the build-up of scale. Medium Assumed carried out by cleaners. Medium		
Audit logbook at least on an annual basis and record when carried out. Medium The logbook has not been audited since 2012. 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 still not been nominated in writing within section two of the logbook documentation.
Are responsible person(s)/deputies contact details available in the event of an emergency?	No responsible person or deputies contact details were seen within section two of 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?	Assumed 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 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 changes have been made.
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. Copper pipe work.
Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion?	All pipe work appeared to be copper.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	Yes
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	Outside tap, garage tap and mains to boiler house pressurisation unit.
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?	No insulation fitted on internal domestic water pipe work.
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?	N/A Water heater maintains a good storage temperature of 60.0C or more.
Are multiple calorifiers connected in parallel?	N/A
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? 	N/A
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Yes the local water heater delivers hot water above 50.0c; records seen indicate normally satisfactory.
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 are only fitted in the staff WC.



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Operation & Maintenance	Reviewer notes
Are low use outlets flushed at least weekly and records kept in the Written Scheme logbook?	I was informed the garage tap and outside tap are flushed and recorded and this is then sent through to the info exchange
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 record of servicing seen for the single TMV fitted.
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?	No outlets appear to have been removed; 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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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?	All 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?	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?	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