



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

Shirley Library & Local Housing Office

Risk Assessment Review

19th March 2018



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Property Name & Description Shirley Library & Local Housing Office			Review Date: 19th March 2018
Responsible Person(s) Name & SCC Appointment: Parmjit Thiara (Responsible Person) Christine Sidwell (Deputy)			Last Review: 23rd March 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?	YES		Responsible person and deputy have been nominated in writing within 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?	Yes		System drawings were updated at the time of this 2018.
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	NO	Deadleg only has been removed.
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 March 2018. Weekly flushing has been carried out from 28 th February -3 rd March 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?	YES		Showers not used.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Combination boiler in the mess room area did not achieve 50.0C at the toilet outlets or to the disabled toilet TMV at the time of this 2018 review. Showers not used creating deadleg areas. No water at hot outlet in library work room.



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Remedial action to be taken	By Whom	By When
<p>The responsible person and deputy should be nominated in writing and recorded within the logbook documentation. High This has now been carried out. Low</p>		
<p>Ensure combination boiler is adjusted and achieves at least 50.0c at all outlets in the toilet areas or to the TMV in the disabled toilet. High This does not appear to have been carried out. High</p>		
<p>Consider removal of showers if not used along with all associated pipe work; flush showers at least on a weekly basis. High Showers are still in place and flushing of showers is being carried out only on a monthly basis. High</p>		
<p>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 No records seen for this being carried out at the time of this 2018 review. Medium</p>		



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Remedial action to be taken	By Whom	By When
<p>Service and maintain TMVs as recommended by the manufacturers. Medium No records seen for this being carried out at the time of this 2018 review. Medium</p>		
<p>Flush all infrequently used outlets at least on a weekly basis and record when carried out. Medium Flushing records were seen but only from 28th February to 3rd March 2018. Medium</p>		
<p>Continue to clean and disinfect all shower heads at least on a quarterly basis or as required. Medium This is being carried out on a quarterly basis; last carried out January 2018. Medium</p>		
<p>Clean and descale tap outlets on a regular basis. Medium Assumed this is carried out by cleaners. Medium</p>		
<p>Continue to audit logbook at least on an annual basis. Medium The logbook was seen to have last been audited in June 2017. 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 deputies 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?	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 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 changes were seen recorded in 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?	TMV tap outlet fitted in disabled toilet.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	<u>There are infrequently used outlets within the building; the showers should be flushed on a weekly basis.</u>
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; possible trace heating fitted to hot water pipe work but hidden from view.
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?	<p><u>Combination boiler in the mess room kitchen area did not achieve or maintain 50.0C at the toilet outlets or at the accessible toilet TMV.</u></p> <p>The library work room combination boiler had no water at the hot water outlet.</p>
Are multiple calorifiers connected in parallel?	N/A
<p>Is the calorifier(s) fitted with the following:</p> <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?	N/A
Is there a risk of scalding e.g. in buildings used by infants (under 5 years) the disabled or the elderly?	Always a possibility but should not enter these areas.
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?	Flushing records were seen for 28 th February 2018 – 3 rd March 2018 only.
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 for servicing and maintenance of accessible toilet TMV tap within 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?	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.
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?	N/A
Are showers & other outlets being cleaned at least quarterly and records kept in the system logbook?	Shower heads are cleaned and descaled on a quarterly basis; last cleaned and descaled in January 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?	All outlets are being monitored and 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 appear to be checked on a monthly basis.
Is the temperature of the hot water supply to TMV's checked on a monthly basis and records kept in the system logbook?	<u>This is still being recorded for the ladies and gents toilets; but these areas do not have TMVs fitted.</u>
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