



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

Southampton Civic Centre
North Block
Risk Assessment Review
4th June 2018



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Property Name & Description: Civic Centre North Block			Review Date: 4th June 2018
Responsible Person(s) Name & SCC Appointment: Mr Chez Stuart (Responsible Person) Mr W. White (Deputy)			Last Review 6th June 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	Duty holder and responsible person are nominated in writing within the North Block 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		Drawings were updated during this 2018 review.
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?	YES		The complete original risk assessment did not appear to be filed in the logbook.
Written Scheme			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Monitoring is being carried out within the North Block on a monthly basis and recorded.
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?		NO	Deadleg pipe work still in place.
Are the records of water system temperature monitoring & flushing representative of control measures, & up-to-date?	YES		Records were up to date as of June 2018; no flushing records were seen.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?		NO	Variable occupation.
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		Water coolers have been removed and the deadleg pipe work is still in place.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Elevated cold water at the library office kitchen No.27 still being reported on a monthly basis; local water heaters need adjusting to correct storage temperatures.



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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 deadleg pipe work in North Block. High This has not been carried out. High		
Investigate library office kitchen No.27 for repeated elevated cold water temperatures; ensure all long pipe runs are well insulated; flush on a regular basis. High The elevated water temperatures are still being reported monthly. High		
Ensure all local water heaters with a capacity of fifteen litres or less operate at 50.0oC – 60.0oC. High Temperatures checked randomly indicated that water heaters need adjustment. High		
Clean and descale both showerheads in the new police area at least on a quarterly basis or at the rate of fouling and record in logbook when carried out. Medium No records were seen for the cleaning of the police showerheads. High		
Continue to monitor calorifier flow and return temperatures monthly. Medium This is being carried out. Medium		
Continue to monitor calorifier flow and return temperatures monthly. Medium This is being 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
Purge hot water calorifier buffer vessel to drain at least on an annual basis; record when carried out. Medium No records were seen to indicate this is being carried out. Medium		
Service and maintain all TMVs to manufacturer’s recommendations. Medium No records were seen to indicate this is being carried out. Medium		
Carry out Legionella water sampling if temperature monitoring falls outside the recommended parameters. Medium No records were seen to indicate this is being carried out. Medium		
Maintain and service R/O unit in the main boiler room in accordance with the manufacturer’s recommendations. Medium No records were seen to indicate this is being carried out. Medium		
Clean and descale tap outlets on a regular basis to help prevent scale build up. Medium Assumed carried out by the cleaners. Medium		
Flush all infrequently used outlets weekly and record when carried out in the water systems logbook. Medium No records were seen to indicate this is being carried out. 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?	The duty holder and responsible person have been nominated in section two of the logbook documentation.
Are responsible person(s)/deputies contact details available in the event of an emergency?	Yes contact details were seen within the North Block 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 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?	The complete original risk assessment did not appear to be filed in the logbook.
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?	No records were seen within the North Block 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?	Most pipe work appeared to be copper within the North Block.
Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion?	If metal pipe work is fitted this will harbour corrosion which could support bacteriological growth.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	TMVs have been installed in the North Block and all appear to be within 2metres of the outlets with the exception of the ladies toilet room 516.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	There are possible infrequently used outlets within the North block.
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 in boiler room and risers appears to be well insulated.
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>The North Block calorifier is capable of maintaining the domestic hot water systems to at least 50.0c during peak demand times. <u>At the time of this 2018 review return temperature was not satisfactory.</u></p> <p>There are local water heaters fitted ensure all are adjusted to correct storage temperatures.</p>
Are multiple calorifiers connected in parallel?	NO
<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? 	<p>Yes</p> <p>Only on top of calorifier not on return pipe work.</p> <p>No access panels visible.</p> <p>No shunt pumps fitted.</p> <p>Distribution and return pipe work appeared to be well insulated.</p>
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Some Random water heaters checked did not meet the 50.0C at the outlet or to the TMV
Is there a risk of scalding e.g. in buildings used by infants (under 5 years) the disabled or the elderly?	Always a Possible risk to young children.
Have 'Very Hot' water labels been fitted to outlets used by the public including school children?	Yes hot water labels were seen fitted within the North Block.



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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 flushing records were seen in the North Block 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 for any maintenance on TMVs at the time of this 2018 review. Refer to Southampton City Council.
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 within the logbook documentation.
How is calorifier internal condition assessed and what is the periodicity of internal inspection?	No records seen Refer to Southampton City Council.
Have outlets that are no longer required been cut back to the nearest main pipe branch?	Deadleg pipe work was still seen in place where water coolers 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?	No records seen.
Are showers & other outlets being cleaned at least quarterly and records kept in the system logbook?	There are two showers installed in the police area; no records were seen in the logbook for the cleaning and descaling of these showerheads; this must be carried out at least on a quarterly basis and recorded.



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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 North Block 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?	Some additional outlets being monitored within the North block.
Is the temperature of the hot water supply to TMV's checked on a monthly basis and records kept in the system logbook?	Yes TMVs are checked monthly and recorded in the logbook documentation.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	This is being carried out and recorded on a monthly basis in 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?	Not Known no indication given in 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