



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

Testlands Sports Hub
Risk Assessment Review
10th January 2018



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Property Name & Description Testlands Sports Hub			Review Date: 10 th January 2018
Responsible Person(s) Name & SCC Appointment: Nathan Newman (Responsible Person) Joe Crook (Deputy)			Last Review: 21 st January 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.
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 have been updated at the time of this 2018 review. <u>Original risk assessment not seen filed in the logbook documentation.</u>
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?			<u>Original risk assessment not seen filed in the logbook documentation.</u>
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 December 2017.
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?	SOME		Some deadleg pipe work removed New showers have been installed
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 January 2016.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?	YES		Staff work room has outlets not being used.
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		Deadleg pipe work, low use outlets Long pipe runs from TMVs in toilet areas.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		<u>Deadleg pipe work, low use outlets ; Long pipe runs from TMVs in toilet areas. Low hot water storage and return temperatures.</u> <u>No.1 calorifier out of use since August 2017</u>

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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
<p>The responsible persons and deputies names along with contact details for the sports hub should be recorded within section 2 of the logbook documentation. High</p> <p>The responsible person and deputy have now been recorded in the logbook documentation. Low</p>		
<p>Look into the removal of the long pipe runs from all TMVs serving communal showers and toilet areas; either fit new showers with TMVs located in the shower or install TMVs as close to outlets as possible to remove long pipe runs with reduced water temperature. Ensure all showers are working correctly. High</p> <p>New showers have now been installed removing long pipe runs from the Ceiling void TMVs which have been removed. Low</p>		
<p>Remove all deadleg pipe work and deadleg areas. High</p> <p>Some deadlegs have been removed but there are still some in place. High</p>		
<p>Replace faulty TMV in the ceiling void serving the ladies toilet area so hot water can be opened up removing the deadleg pipe work which has been caused since being isolated. High</p> <p>Hot water is now back on at the toilet outlets thus removing deadleg pipe work. Low</p>		



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Remedial action to be taken	By Whom	By When
Investigate no hot water flow at outlets within the staff work room. High The hot water outlets are still isolated thus creating deadleg pipe work. High		
Continue to flush all infrequently used outlets on a weekly basis and record when carried out. Medium I was informed no weekly flushing is being carried out on infrequently used or deadleg areas. Medium		
Continue to clean and descale all showerheads and hoses if fitted at least on a quarterly basis or at the rate of fouling; flush showers if not used at least on a weekly basis and record when carried out. Medium This is being carried out on a quarterly basis; last carried out in October 2017. Medium		
Ensure all TMVs are serviced and maintained as recommended by the manufacturers; no records seen for this at the time of this review. Medium No records were seen to indicate this is being carried out. Medium		



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Remedial action to be taken	By Whom	By When
Audit logbook at least on an annual basis. Medium The logbook was last audited in June 2016. 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 deputies 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 Southampton City Council.
Do responsible person(s) keep a log of water system defects and follow up on progress?	Defects are reported to SCC.
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>Original risk assessment not seen filed in the logbook documentation.</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 and amended 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?	Some remedials has been 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?	<u>TMVs in the toilet areas have long pipe runs.</u>
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	At present there are some infrequently used outlets.
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 appeared to be well insulated in the 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?	At present there appears to be ongoing problems with the hot water system; No.1 calorifier is out of use and has been since August 2017; No.2 calorifier had low storage and return temperatures recorded and should be investigated.
Are multiple calorifiers connected in parallel?	Both calorifiers are linked in parallel.
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 On common flow pipe work only Yes No shunt pumps fitted Well insulated distribution and return pipe work
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Local water heaters were found to have satisfactory storage temperatures above 50.0C.
Is there a risk of scalding e.g. in buildings used by infants (under 5 years) the disabled or the elderly?	Always a possibility.
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?	No weekly flushing is being carried out.
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?	TMVs within the sports hub had no record of servicing at the time of this 2018 review.
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 seen to indicate this is 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?	No; deadleg pipe work and areas where outlets are not being used in the staff work room.
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 on a quarterly basis; records seen indicate this was last carried out in October 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 were 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?	Yes temperatures were seen recorded within the logbook documentation.
Is the temperature of the hot water supply to TMV's checked on a monthly basis and records kept in the system logbook?	Yes temperatures were seen recorded within the logbook documentation.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	Yes temperatures 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?	No indication refer to contractors.
Are CWST inlet & outlet temperatures checked on a 6 monthly basis and records kept in the system logbook?	N/A