



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

Clovelly Sure Start Centre

Risk Assessment Review

8th March 2017



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Property Name & Description Clovelly Sure Start Centre			Review Date: 8 th March 2017
Responsible Person(s) Name & SCC Appointment: Herjinder Chahal (Responsible Person) Rufia Begum (Deputy)			Last Review: 11 th March 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 persons and deputy have been nominated in writing and recorded within the logbook documentation; but the deputy needs updating.
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?		NO	Drawings have been updated at the time of this 2017 review. <u>Original risk assessment not seen in logbook at the time of this 2017 review.</u>
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?		NO	<u>Original risk assessment not seen in logbook at the time of this 2017 review.</u>
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 February 2017. No flushing is being carried out therefore no records were seen.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?		NO	It is assumed the occupancy is variable.
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		TMVs fitted. Cleaners room infrequently used. Deadleg pipe work and areas.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		<u>Hot water calorifier constantly low storage and return temperatures reported ten times since February 2016 and should be investigated.</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>Ensure calorifier hot water storage is maintained at 60.0c and the return maintained at 50.0c or more at all times and record in logbook monthly. High</p> <p>The calorifier has had constantly low storage and return temperatures and has been reported ten times since February 2016; this should be investigated. High</p>		
<p>Remove deadleg areas. High</p> <p>Some deadlegs still remain. High</p>		
<p>The cold water storage tank should be cleaned and disinfected; ensure a good turnover of water through tank by flushing showers in ground floor toilets to prevent stagnation from occurring. High</p> <p>I was informed the water storage tank has now been removed along with all associated pipe work; I was unable to access this area. Low</p>		
<p>Consider the removal of the water storage tank and serve the shower outlets directly from the mains water services; this would remove the risk of stored water. High</p> <p>was informed the water storage tank has now been removed along with all associated pipe work; I was unable to access this area. Low</p>		
<p>Flush all infrequently used outlets weekly and record when carried out. Medium</p> <p>No flushing is being carried out therefore no records were seen. Medium</p>		



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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>Ensure all showerheads are continued to be cleaned and disinfected quarterly or as required; record when carried out. Medium The showerheads have now all been removed. Low</p>		
<p>Continue to maintain and service TMVs (Blender Valves) as per manufacturer’s recommendations. Medium The TMVs were last serviced in January 2017. Medium</p>		
<p>Continue to audit logbook at least on an annual basis; consider archiving old log sheets which are filed in the logbook documentation. Medium The logbook has not been audited since February 2015; this needs updating to the current standard logbook. High</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 deputy have been nominated in writing and recorded within the logbook documentation; deputy needs updating.
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 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 phoned through to Southampton Property Services.
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>The original risk assessment was not seen in the logbook at the time of this 2017 review.</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 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 written scheme seen in the logbook documentation; this logbook should be updated to the current standard logbook.
Have changes to the system been recorded in the water system logbook?	No records were seen within logbook documentation for works recently carried out.
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?	Pipe work appeared to be copper.
Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion?	No.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	TMVs are fitted all appear to be within 2 metres of the outlets with the exception of the family room which exceeds more than 2 meters as it is supplied from the health room TMV.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	Flushing should be carried out weekly on any infrequently used outlets.
Has cold water storage volumes been assessed for turnover (ideally 12 hours) & stagnation risk?	I was informed the cold water tank has been removed; I was unable to access this area at the time of this review as no key was available.
Is cold & hot water pipe work kept separated and adequately insulated?	Most pipe work appears to run within the ceiling voids and was seen to be 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?	The calorifier has constant problems with the storage and return temperatures; this has been reported ten times since February 2016 and should be investigated and acted upon as soon as possible.
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? 	Yes None Fitted Not Seen No Yes in plant room on the distribution and return pipe work.
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?	Possible risk to young children.
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 record of any flushing seen.
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?	Yes serviced and adjusted on a six monthly basis last carried out in January 2017.
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 of calorifier drain purging seen.
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?	Water boiler still in place creating deadleg pipe work and deadleg behind the dishwasher in the crèche kitchen..
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?	Showers have now all been removed.



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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 sentinel outlets 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?	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 records of temperature monitoring of the TMVs was seen recorded within the logbook documentation. Temperatures were seen to be low due to the hot water calorifier.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	Monitoring of the calorifier flow and return temperatures was seen recorded within the logbook documentation. Calorifier storage and return temperatures are constantly low and needs addressing.
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