



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

Glen Lee Care Home
Risk Assessment Review
21st August 2017



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Property Name & Description Glen Lee Care Home			Review Date: 21 st August 2017
Responsible Person(s) Name & SCC Appointment: Leanne Parsons Home Manager			Last Review: 27 th August 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?	YES		Responsible person and deputy were seen nominated in writing within the logbook documentation; this requires updating to the correct personnel.
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 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		Monitoring is being carried out by contractors on a monthly basis and was seen to be up to date as of August 2017
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?		NO	
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?	YES		Some empty rooms; these should be flushed twice weekly.
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 have been fitted throughout in all rooms. Empty rooms result in infrequently used outlets. Infrequently used bath and possibly showers. Deadleg pipe work still seen.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Both calorifiers had low storage temperature at the time of this 2017 review.



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Risk Was (Circle)	Insignificant	Low	Medium
Risk Now (Circle)	Insignificant	Low	Medium

Remedial action to be taken	By Whom	By When
Remove all deadleg pipe work. High This has not been carried out. High		
Monitor both hot water calorifier storage temperatures monthly and record. High This is now being carried out. Medium		
Ensure a weekly flushing regime is put in place and all infrequently used outlets including all empty rooms are flushed; record in logbook when carried out. Medium Flushing is being carried out by house keeping this should be carried out twice weekly. Medium		
Continue to clean and descale all showerheads and hoses 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 quarterly; showers are being used. Medium		
Purge both hot water calorifiers at least on an annual basis; record when carried out. Medium No records seen to indicate this is 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
<p>Ensure all tap outlets are kept clean and free of scale build up to maintain a good flow of water through systems and prevent aerosol creation. Medium</p> <p>Assumed this is carried out by house keeping. Medium</p>		
<p>Clean / change inline strainers fitted in laundry and Malibu baths on a regular basis or as part of a maintenance schedule as ideal area for bacteria proliferation. Medium</p> <p>Assumed this is carried out by contractors as part of servicing schedules. medium</p>		
<p>Continue with current regime to service and adjust TMVs continue to record in logbook when carried out. Medium</p> <p>This was last carried out in May 2017 and is carried out on a six monthly basis. Medium</p>		
<p>Continue to audit logbook; I would recommend at least on an annual basis. Medium</p> <p>The logbook has not been audited since November 2014. Medium</p>		
<p>Archive all old record sheets in water systems logbook to enable better access into logbook as it is expanding. Low</p> <p>This has not been carried out. Low</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 within the logbook documentation but requires 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 staff 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 assumed phoned through to SCC 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?	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?	New hot water calorifiers were installed at the end of 2014; new water tank installed in September 2016 not recorded within the logbook.
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?	Galvanised metal pipe work can harbour corrosion.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	All TMVs appeared to be within 2 meters of the outlets.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	There are infrequently used outlets including empty rooms within the home. All infrequently used outlets should be put on a twice weekly flushing regime and recorded when flushed.
Has cold water storage volumes been assessed for turnover (ideally 12 hours) & stagnation risk?	New water tank fitted in the laundry area serving boosted cold water to both washing machines.
Is cold & hot water pipe work kept separated and adequately insulated?	Most pipe work is hidden from visual inspection; long pipe runs in ceiling voids appeared to be insulated.
Are cold water tanks fitted with covers & insect screens, located in a cool well-insulated space, & safely accessible?	No insulation fitted to laundry water tank.
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 two hot water calorifiers are capable of storing hot water at 60.0c and maintaining 50.0c during peak periods; but were found to have low storage temperature at the time of this 2017 review which has been reported.
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? 	<p>Yes base of each vessel.</p> <p>Gauges fitted to flow and return pipe work.</p> <p>No access panel visible</p> <p>Shunt pumps are fitted on both calorifiers.</p> <p>Pipe work is well insulated on both calorifier systems.</p>
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 elderly.
Have 'Very Hot' water labels been fitted to outlets used by the public including school children?	Labels are fitted in areas where the water is not blended.



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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 that flushing is being carried out and recorded on sheets left in rooms and are then filed in the main reception office.
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 are being serviced and maintained on a six monthly basis; this was last carried out in May 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?	Water tank fitted September 2016, no cross flow of water through this tank.
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 within the logbook documentation 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?	<u>Deadleg pipe work was still seen and is highlighted in the review report.</u>
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 and descaled on a quarterly basis; this was last carried out in July 2017.



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Monitoring	Reviewer notes
Do system users carry out daily temperature monitoring checks and place records in the system logbook?	Site staff temperature monitor for health and safety and not legionella control.
Are the temperatures of sentinel hot & cold-water outlets checked on a monthly basis and records kept in the system logbook?	Yes this is being carried out 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?	Yes this is being carried out and 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 this is being carried out and recorded within the logbook documentation.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	Yes this is being carried out and 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?	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?	This has not been carried out on the laundry water storage tank.