



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

Tudor House
Risk Assessment Review
13th March 2018



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Property Name & Description Tudor House			Review Date: 13 th March 2018
Responsible Person(s) Name & SCC Appointment: Steve Nevil (Responsible Person) Hanna James (Deputy)			Last Review: 14 th 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 persons and deputy have been nominated in writing and recorded 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		Drawings have been updated at the time of this 2018 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 and was up to date as of March 2018.
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		Monitoring is being carried out and is up to date as of March 2018.
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		King Johns Palace toilet not being regularly used. Kitchen food prep outlets are not being used.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Low storage temperature on kitchen wash up area water heater.



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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
The responsible person and, deputy should be nominated in writing along with all contact details in section 2 of the logbook documentation. High This has now been carried out. Low		
Continue the Legionella control for this building and continue to record in the logbook documentation. High Legionella control monitoring is being carried out monthly. Medium		
Remove deadleg pipe work. High Deadleg pipe work has been removed but deadleg areas are still in place. Medium		
Ensure the kitchen wash up area local water heater is adjusted to store hot water at 60.0c at all times. High The kitchen water heater was still found to have a low storage temperature at the time of this 2018 review. High		
Flush all infrequently used outlets weekly and record when carried out; include King Johns Palace toilet and mains by-pass in plant room in flushing regime. Medium No flushing records were seen within the logbook documentation. 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 from scale build up to maintain a good flow of water through the systems; consider removal of tap inserts in the café toilets to help increase flow at outlets. Medium</p> <p>Assumed tap outlets are cleaned by cleaners. Medium</p>		
<p>Ensure garden water feature is maintained in a good clean and algae free condition; ensure aerosols are not created when in use. Medium</p> <p>Not known if this water feature is being cleaned and maintained. Medium</p>		
<p>Maintain and service TMV taps (Blender Valves) as per manufacturer’s recommendations. Medium</p> <p>No records seen to indicate TMV taps are being serviced and maintained. Medium</p>		
<p>Audit logbook at least on an annual basis. Medium</p> <p>No record seen to indicate an audit of the logbook has been carried out since April 2014. 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 deputy 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?	Defects are phoned through 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?	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: <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 seen within 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?	Pipe work appeared to be copper within the building.
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?	TMV taps are fitted in both disabled toilets.
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?	N/A. Fire suppression system water storage tank only.
Is cold & hot water pipe work kept separated and adequately insulated?	Pipe work is well insulated within the cellar area.
Are cold water tanks fitted with covers & insect screens, located in a cool well-insulated space, & safely accessible?	N/A. Fire suppression system water storage tank only.
Are multiple CWST's configured in duty/stand-by mode and not operated in parallel?	N/A Fire suppression system water storage tank only.



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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?	N/A
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?	N/A
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Yes
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 flushing records seen at the time of this 2018 review.
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 were seen for the service and maintenance of TMVs 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. Fire suppression system water storage tank only.
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 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?	N/A



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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 all outlets are monitored.
Is the temperature of the hot water supply to TMV's checked on a monthly basis and records kept in the system logbook?	Yes recorded in the logbook documentation.
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.