



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

Regents Park Community College

Risk Assessment Review

25th July 2018



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Property Name & Description: Regents Park Community College			Review Date: 25 th July 2018
Responsible Person(s) Name & SCC Appointment: Mr J Archibald (Responsible Person) Mr Bob Mc Arthur (Deputy)			Last Review: 3 rd August 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		The responsible person and deputy have been nominated in writing within the logbook documentation; no contact details have been recorded.
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 2018 review.
Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks?			The original risk assessment not seen in the logbook at the time of this 2018 review.
Written Scheme			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Monitoring is being carried out. The original risk assessment not seen in the logbook at the time of this 2018 review.
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?	YES		Deadleg pipe work has been removed.
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 July 2018; no records of any flushing seen at the time of this 2018 review.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?		NO	
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		Outlets not used during the holiday periods.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?		NO	



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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 all Deadleg Pipe work. High This has been carried out. Low		
Ensure South Block hot water calorifier is adjusted to store hot water at 60.0c at all times. High This calorifier was extremely hot at 75.0C at the time of this review and should be reduced to 60.0C. High		
Look into the monitoring of a B Block calorifier flow and return as B Block does not have a calorifier and South block calorifier has no return fitted; adjust in logbook records. High It still indicates that South block has a return system but it does not. Medium		
Flush water systems within all buildings at least on a weekly basis especially during the school holiday periods. Medium No records seen for flushing. Medium		
Service and maintain TMVs as recommended by the manufacturers or at least on an annual basis. Medium All TMVs were replaced with new in 2017. Medium		



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Risk Now (Circle)	Insignificant	Low	Medium	High	Uncertain

Remedial action to be taken	By Whom	By When
<p>Insulate domestic water pipe work to help prevent heat loss/ gain. Medium</p> <p>The main building plant room pipe work has now been insulated. Low</p>		
<p>Continue to clean and descale showerheads and hoses quarterly or at the rate of fouling. Medium</p> <p>This is being carried out quarterly but July 18 has not been recorded as being carried out. Medium</p>		
<p>Audit water system logbook at least on an annual basis; consider archiving old record sheets to enable better access into logbook. Medium</p> <p>The logbook was last audited in October 2016; old record sheets are still filed in the logbook. 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 employing contractors.
Have the responsible person(s) & deputies been nominated in writing?	Responsible person and deputy have been nominated in writing within the logbook.
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.
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.
Have they all received appropriate training?	No training records were seen for any staff or contractors.
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?	Refer 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 original risk assessment was not seen filed in the logbook at the time of this 2018 review.
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: •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 old records were seen within 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?	Possible metal pipe work in some areas of the buildings; this will harbour corrosion.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	Swimming pool shower TMVs exceed more than 2 meters to last outlets.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	Assume all outlets get good usage during term time.
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?	Most pipe work is hidden from visual inspection but main building plant room pipe work has been 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?	A Beaumont hot water calorifier is fitted in the main boiler room. It appears to maintain hot water temperatures of at least 50c during high demand periods according to the logbook records. There is a calorifier fitted in South Block plant room this appears capable of maintaining 50.0c during these periods.												
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? 	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Main Building</td> <td style="width: 50%;">South Block</td> </tr> <tr> <td>Not Seen.</td> <td>On Cold feed only</td> </tr> <tr> <td>Yes fitted on flow.</td> <td>Not Fitted</td> </tr> <tr> <td>Not Seen.</td> <td>Not Seen</td> </tr> <tr> <td>No Shunt Pump Fitted.</td> <td>Not Fitted</td> </tr> <tr> <td></td> <td style="text-align: right;">Insulation missing from flow pipe work in plant room</td> </tr> </table>	Main Building	South Block	Not Seen.	On Cold feed only	Yes fitted on flow.	Not Fitted	Not Seen.	Not Seen	No Shunt Pump Fitted.	Not Fitted		Insulation missing from flow pipe work in plant room
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No Shunt Pump Fitted.	Not Fitted												
	Insulation missing from flow pipe work in plant room												
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Refer to temperature monitoring carried out by contractors.												
Is there a risk of scalding e.g. in buildings used by infants (under 5 years) the disabled or the elderly?	TMVs fitted in many areas; but always possible with young children..												
Have 'Very Hot' water labels been fitted to outlets used by the public including school children?	Hot water warning labels are fitted in some areas.												



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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 flushing 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?	No records seen for TMV servicing and maintenance within logbook documentation. I was informed that all TMVs have been replaced with new this was carried out in 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 seen within the logbook documentation.
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?	Yes
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?	Yes records seen within the logbook; last carried in April 2018; July 18 has not been recorded as being carried out..



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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 monitoring records 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 appear to be 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 TMV temperature monitoring is recorded within the logbook documentation.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	Yes calorifier flow and return temperatures are recorded within the logbook.
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