



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

# **Mansel Park Primary School**

## **Risk Assessment Review**

### **26<sup>th</sup> July 2017**



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

<b>Property Name &amp; Description: Mansel Park Primary School</b>			<b>Review Date: 26<sup>th</sup> July 2017</b>
<b>Responsible Person(s) Name &amp; SCC Appointment:</b> Mr Jon Powell (Site Manager)			<b>Last Review: July 2015</b>
<b>Compliance &amp; Control Measure Checks</b>	<b>Yes</b>	<b>No</b>	<b>Comments/Observations</b>
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 deputies have been nominated in writing. No roles and responsibilities were seen in the logbook documentation this includes contractors.
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	



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

<b>Risk Assessment, Written Scheme &amp; Property/System Change Checks</b>			
<b>Risk Assessment</b>	<b>Yes</b>	<b>No</b>	<b>Comments/Observations</b>
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		
<b>Written Scheme</b>			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Temperature Monitoring is being carried out by contractors BSA Regal.
Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed?	SOME		
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 June 2017.
<b>Property &amp; System Changes</b>			
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		Possible deadleg pipe work seen. TMVs fitted.
Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks?	YES		Some local water heater remain switched off. Hot water calorifier not being monitored for storage and return temperatures.



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

<b>Risk Was (Circle)</b>	Insignificant	Low	Medium	High	Uncertain
<b>Risk Now (Circle)</b>	Insignificant	Low	Medium	High	Uncertain
<b>Remedial action to be taken</b>		<b>By Whom</b>		<b>By When</b>	
Start monthly temperature monitoring of the hot water calorifier flow and return and record in the logbook documentation. High This is still not being carried out. High					
Ensure all local water heaters above 15 litres are set to store hot water at 60.0°C. High Most local water heaters are switched off possibly creating deadleg areas. High					
Investigate all deadleg pipe work highlighted in the original risk assessment and remove where practicable or flush on a regular basis. High Some deadleg pipe work has been removed; the old water tank room possible deadleg pipe work still in place. High					
When carrying out monthly monitoring ensure sentinel hot water temperatures to TMVs are also taken and recorded along with the outlet temperatures within the logbook. Medium TMV temperatures are now being recorded. Medium					
Ensure the logbook is maintained in a good order and all monitoring is recorded in the correct areas. Ensure log sheets are available for showerhead records, TMV temperature monitoring, calorifier flow and return temperatures and large capacity water heaters. Medium The logbook is in a poor condition, no monitoring for calorifier and showerhead cleaning record sheets seen. High					



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

<b>Risk Was (Circle)</b>	Insignificant	Low	Medium	High	Uncertain
<b>Risk Now (Circle)</b>	Insignificant	Low	Medium	High	Uncertain

<b>Remedial action to be taken</b>	<b>By Whom</b>	<b>By When</b>
All TMVs within the building should be serviced and maintained to the manufacturer’s recommendations. This should be recorded within the logbook when carried out. Medium This is not being carried out. Medium		
Continue to flush infrequently used outlets on a weekly basis and record when carried out. Medium Weekly flushing is being carried out and recorded. Medium		
Continue to clean and descale showerhead at least on a quarterly basis or as the rate of fouling and record when carried out. Medium No records seen to indicate this is being carried out. Medium		
Ensure all staff involved with Legionella control for the school have adequate training; file all certification within the logbook documentation. Medium It is assumed BSA Regal are adequately trained to carry out Legionella control. Medium		
Domestic water system schematic drawings for the school should be updated when any changes are made to the water systems. Medium Schematic drawings have been updated at the time of this 2017 review. Medium		



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

<b>Compliance &amp; Control Checks</b>	<b>Reviewer notes</b>
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 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 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.



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

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 2017 review.
Does the Written Scheme contain the following: <ul style="list-style-type: none"> <li>•System operating instructions?</li> <li>•Precautions to be taken when operating the system?</li> <li>•Details of the monitoring checks to be carried out on the system?</li> </ul>	NO YES  YES
Have changes to the system been recorded in the water system logbook?	No records 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.



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

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 mainly copper.
Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion?	Galvanised metal pipe work if still fitted will harbour corrosion.
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 outlets.
Cold Water System	
Have low use outlets been installed upstream of high use outlets?	Flushing should be carried out weekly on infrequently used outlets and during school holidays and shut down periods.
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?	No insulation was seen on any of the domestic pipe work within the school except for the boiler room.
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





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

System Design & Construction	Reviewer notes
<b>Hot Water Systems</b>	
Is Calorifier storage capacity capable of maintaining a DHW distribution temperature of at least 50°C during maximum demand periods?	<p>1 x Boss gas fired calorifier capable of maintaining temperatures.no hot water available at the time of this review shut down for school holidays.</p> <p><u>Calorifier is not being monitored on a monthly basis as recommended in the ACoP L8.</u></p>
Are multiple calorifiers connected in parallel?	No
<p>Is the calorifier(s) fitted with the following:</p> <ul style="list-style-type: none"> <li>•Functioning drain valve?</li> <li>•Temperature gauges on the flow &amp; return?</li> <li>•An access panel?</li> <li>•A shunt pump and timer, timed to heat the calorifier to over 60°C for at least an hour a day?</li> <li>•Adequate primary &amp; secondary pipe work insulation?</li> </ul>	<p>Calorifier</p> <p>Yes</p> <p>Flow only</p> <p>Yes</p> <p>No</p> <p>Yes boiler room only.</p>
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Refer to contractors temperature monitoring records. Most water heaters switched off at time of review.
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.



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

<b>Operation &amp; Maintenance</b>	<b>Reviewer notes</b>
Are low use outlets flushed at least weekly and records kept in the Written Scheme logbook?	Flushing is being carried out weekly.
What are the procedures for bringing stand-by equipment into service?	No standby equipment.
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 any servicing and maintenance.
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?	No further outlets appear to 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?	No records wer seen at the time of this 2017 review to indicate when the showerhead was last cleaned and descaled.



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

<b>Monitoring</b>	<b>Reviewer notes</b>
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 seen recorded in 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 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 records of temperature monitoring of the TMVs was seen recorded within the logbook documentation.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	The hot water calorifier is not being monitored this should be addressed at the earliest opportunity.
Are calorifier temperatures checked at the base mid-level and top to check for primary heating efficiency and records kept in the system logbook?	The calorifier is not being monitored monthly.
Are CWST inlet & outlet temperatures checked on a 6 monthly basis and records kept in the system logbook?	N/A.