



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

Mansbridge Primary School

Risk Assessment Review

24th July 2017



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

Property Name & Description: Mansbridge Primary School			Review Date: December 24th July 2017
Responsible Person(s) Name & SCC Appointment: Mr Sheehan (Head) Mr Frank Curtiss (Site Manager)			Last Review: December December 2010
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 was seen recorded in the SCC logbook. 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	No information on who carries out the monitoring control measures within the logbook or training they have received.
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

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?			Original risk assessment not seen at the time of this 2017 review.
Written Scheme			
Are inspection & maintenance measures identified in the Risk Assessment being carried out?	YES		Temperature Monitoring is being carried out. Original risk assessment not seen at the time of this 2017 review.
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 May 2017.
Property & System Changes			
Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure?		NO	School running at full capacity.
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		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		No hot flow and return temperatures monitored on water heater / calorifiers in toilet and pre-school areas.



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

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
Ensure all water heater/calorifiers are adjusted to store hot water at 60.0c at all times and maintain 50.0c or more on the return system at all times. High Still low storage and return temperature's recorded. High		
Start monthly temperature monitoring of the hot flow and return temperatures on the three state water heater / calorifiers and record in the logbook. High This is not being carried out. High		
Remove all deadleg pipe work. High This has not been carried out. High		
Continue to flush all infrequently used outlets weekly and record when carried out. Continue during shut down periods and school holidays. Medium Flushing carried out but not recorded. Medium		
Fit insulation to all hot and cold water pipe work especially on calorifier distribution and return pipe work. Medium Insulation not fitted to the three state water heater pipe work. Medium		



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

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
Maintain and service blender valves as per manufacturer's recommendations. Medium No records seen to indicate this is being carried out. Medium		
Continue to audit logbooks on a quarterly basis to determine all monitoring is being carried out correctly. Medium No audits appear to have been carried out. Medium		



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

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.
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?	Original risk assessment not seen at the time of this 2017 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 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? 	This is in the SCC logbook which is not being used. NO YES YES
Have changes to the system been recorded in the water system logbook?	The logbook documentation is not being used.
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?	None visible.
If TMV's are fitted are they sited within 2m of the outlet(s) served?	TMVs are fitted in some areas 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 and recorded when carried out.
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 runs were not seen as they are running in ceiling voids where there is no access.
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
Hot Water Systems	
Is Calorifier storage capacity capable of maintaining a DHW distribution temperature of at least 50°C during maximum demand periods?	1 x State gas fired calorifier capable of maintaining temperatures. 3 x State water heaters capable of maintaining temperatures; adjustments required and start monitoring on a monthly basis.
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? 	Boiler Room Calorifier Yes On flow only Yes No
Do electrically heated hot water heaters deliver water instantaneously at 50°C or above?	Refer to contractors temperature monitoring records. <u>No storage and return temperatures monitored on the toilet and pre-school area water heater / calorifiers.</u>
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?	Hot water labels are fitted in some areas.



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

Operation & Maintenance	Reviewer notes
Are low use outlets flushed at least weekly and records kept in the Written Scheme logbook?	Yes infrequently used outlets are being flushed by the site manager on a weekly basis; this is not being recorded when 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 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?	Deadleg pipe work was seen at the time of this 2017 review.
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



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

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 seen recorded in the site managers test and servicing folder original SCC logbook not being used.
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 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 in the site managers test ad servicing folder.
Are calorifier flow & return temperatures checked on a monthly basis and records kept in the system logbook?	Yes records of the hot water flow and return temperatures are being recorded but only on the main boiler room calorifier. <u>Water heater / calorifiers in toilet and pre-school areas flow and returns are still not being monitored.</u>
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