



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

Red Lodge Horticultural Compound

Risk Assessment Review

3rd August 2018



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| Property Name & Description Red Lodge Horticultural Compound | | | Review Date: 3 rd August 2018 |
|---|------------|-----------|---|
| Responsible Person(s) Name & SCC Appointment: John Horton (Responsible Person) N.Yeats (Deputy) | | | Last Review: 17 th 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? | YES | | Recycled wash system appear to have no Legionella control in place. |
| 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 have been nominated in writing but this needs updating as the responsible person has since retired |
| 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. 2012 risk assessment not seen filed in the logbook documentation. |
| Does the Risk Assessment include the measures & precautions to be taken to control foreseeable risks? | YES | | 2012 risk assessment not seen filed in the logbook documentation. |
| Written Scheme | | | |
| Are inspection & maintenance measures identified in the Risk Assessment being carried out? | YES | | Temperature Monitoring is being carried out. Recycled wash system has no Legionella control in place. |
| Have remedial works identified in the Risk Assessment & subsequent reviews to minimise foreseeable risks been completed? | | NO | Recycled wash system still has no Legionella control in place. |
| 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 seen for flushing. |
| Property & System Changes | | | |
| Have changes to property occupancy resulted in fewer occupants, intermittent occupation, or partial closure? | | NO | It is assumed the compounds 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 | | Old pesticide container outlets no longer used thus creating deadleg pipe work. TMVs fitted. |
| Are there any other aspects of the water system including its design, operation & maintenance that have increased foreseeable risks? | YES | | Recycled wash system still has no Legionella control in place. |



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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 |
|--|----------------|----------------|
| Determine who is overall responsible for the recycled wash down system and put Legionella control measures in place as soon as possible and start monitoring and checks at the earliest opportunity. Ensure a logbook is in place for this system. High This has not been carried out. High | | |
| Treat system with chlorine dioxide or chlorine tablets; clean and disinfect recycled underground storage tank areas and hose reels at the start of each season or at least on an annual basis. High This is not being carried out. High | | |
| I would recommend that monthly Legionella water sampling be taken from the recycled wash down system to ensure system remains under control. High This is not being carried out. High | | |
| Remove any deadleg pipe work. High This has been carried out. Low | | |
| Continue to monitor domestic water system and record in logbook documentation. Medium This is being 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 |
|--|----------------|----------------|
| Ensure all tap outlets are kept clean and free from scale build up to maintain a good flow of water through the systems. Medium Tap outlets appeared to be clean > medium | | |
| Continue to maintain and service TMVs (Blender Valves) as per manufacturer’s recommendations. Medium This has not been carried out since January 2016. Medium | | |
| Audit logbook at least on an annual basis. Medium Last audit was carried out in August 2016. Medium | | |
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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 and recorded in writing but needs updating to the correct people. |
| 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 assumed reported 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. |



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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? | 2012 risk assessment was not seen filed in the logbook documentation. |
| 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 were seen in 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? | Pipe work appeared to be copper and galvanised within the building. |
| Do any of the materials used in pipe systems & fittings support bacterial growth or corrosion? | Galvanised metal will harbour corrosion build up. |
| If TMV's are fitted are they sited within 2m of the outlet(s) served? | TMVs fitted are within 2 metres of the outlets. |
| 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. |
| Is cold & hot water pipe work kept separated and adequately insulated? | Pipe work is insulated in some areas. |
| 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? | All hot water is by local water heaters. |
| Are multiple calorifiers connected in parallel? | N/A |
| 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? | Records indicate temperatures are normally satisfactory. |
| 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 warning labels are not 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 were 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? | Last serviced and adjusted in January 2016. |
| 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? | 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? | Old pesticide container outlets and water heater are no longer used and still in place. |
| 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 this was 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 checked. |
| 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? | 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. |