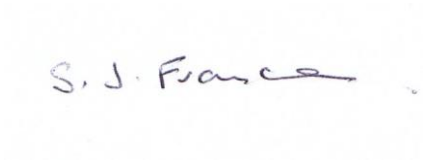
Policy for water hygiene and the control of Legionnaires' disease



Signed	Dated 12 May 2020
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Print Name	Review Date

Subject to review, monitoring and revision by Girlguiding Royal Berkshire

1. Introduction and Science

Legionella bacteria are common and can be found naturally in many environmental water sources, usually in low numbers.

Water temperatures in the range of 20C to 45C favour growth. They also require a supply of nutrients to grow. Sources of which include algae, sediment, sludge, scale, etc.

As Legionella bacteria are commonly encountered in environmental water sources they may eventually colonise poorly maintained and vulnerable water systems such as cooling tower systems, hot and cold water systems and other plant which use or store water.
When colonisation occurs in significant numbers within a system capable of producing a water mist, spray or droplets, (e.g. humidifiers, spa baths, cooling towers and shower systems, etc.) the bacteria can become airborne and be subsequently inhaled by an individual.

On average there are approximately 200-250 reported cases of Legionnaires' disease a year in the UK. (It is anticipated that there is a hidden population that is not always correctly diagnosed).

2. Scope of Policy

The Health and Safety Executive (HSE) Approved Code of Practice (ACOP) L8 entitled "The Control of Legionella Bacteria in Water Systems" establishes the water hygiene standards to be adopted in order to comply with legal responsibilities under the Health and Safety at Work Act and the Control of Substances Hazardous to Health Regulations.

To meet the requirements of (ACOP) L8 this policy defines and introduces a Management Plan and procedures and identifies those with defined responsibilities under (ACOP) L8.

This policy will apply to all premises that are directly managed by Girl Guiding Royal Berkshire (referred to as the Association in the remainder of this document) and other properties owned (lease or freehold) or jointly shared with others by any Division, District or Unit.

This policy is provided to Management Committees as guidance. Managers of these properties are strongly advised to implement it or to meet its standards in an adopted policy within premises under their direct control or jointly shared control.

Whilst the policy applies to the management of all hot and cold water systems it also relates to other "at risk" systems including, for example

- Cooling towers and evaporative condensers
- Humidifiers and air washers
- Spa baths and pools where the water is deliberately agitated
- Other plant and systems containing water likely to exceed 20C that can release a spray or aerosol.

Therefore where the term "hot and cold water system" is used it should be read as including the above definitions.

3. Legionnaires' Disease Management Plan

The Association accepts its responsibilities as outlined in (ACOP) L8 and associated guidance and will aim to eliminate or reduce, as far as is reasonably practicable, the risks from legionella bacteria. In support of this the Association will adhere to the following Management Plan:

3.1. The property's Management Committee will appoint a person (an authorised officer) to be managerially responsible for implementing this Management Plan and L8.
3.2. Identify and assess sources of risk by implementing a programme of water hygiene risk assessments of the Association's managed buildings in order to locate and identify the conditions which encourage bacteria to multiply.
3.3. Prepare and maintain a written scheme for preventing and controlling the water hygiene risk presented in the buildings.
3.4. Implement, manage and monitor all precautions following a water hygiene risk assessment.
3.5. Specify necessary routine water hygiene tasks and checks for the building.
3.6. Commission only competent and appropriately qualified contractors to complete the water hygiene risk assessments.
3.7. Provide training for all building managers and staff engaged in routine water hygiene tasks and checks
3.8. Provide an appropriate level of information and training for those with responsibilities under this policy.
3.9. Review risk assessments on a recommended and codified 2-yearly basis where this is found to be necessary.
3.10. Create a written schematic of the hot and cold water systems for the building.

4. Water Hygiene Risk Assessments

The Association's managed premises will be subject to a water hygiene risk assessment. Assessments will be carried out be a competent and experienced analytical person.

The assessments will be conducted in accordance with L8. The order and timescales for assessments will be prioritised based on the risks presented. This will be determined by the age of the building, its occupancy and use and any pre-existing data available on Legionella bacteria.

The risk assessment will identify the remedial actions necessary in order of priority to ensure the risk of Legionnaires' disease is minimised to an acceptable level.

Following each risk assessment of the premises a re-assessment date will be set as required (usually 24 months).

A copy of the risk assessment (and any review) and written scheme of control will be held on site and a copy retained by the Management Committee. Access to the online system accessible to relevant members of the Management Committee.

5. Written Scheme of Control

As part of the water hygiene risk assessment a site specific written scheme of control will be established by the Risk Assessor to minimise the risks of legionella bacteria and ensure good water hygiene for the premises. The scheme will include:

- A detailed schematic of the hot and cold water system.
- A description of the correct and safe operation of the system.
- Precautions to be taken.
- The required routine water hygiene risks and checks for the building to ensure the system is functioning efficiently. (These will be listed within the water hygiene site log book)
- Remedial action to be taken in the event that the scheme is shown not to be effective.
- Whether routine water testing/monitoring is required for the system e.g. legionella bacteria, other general bacterial testing, e.g. Total Viable Count (TVC) etc.

6. Reviewing Risk Assessments

Following completion of the building's water hygiene risk assessment the Management Committee will review the recommendations and risk assessment provided by the assessment consultant and decide on an appropriate course of action.

7. Testing for Legionella Bacteria and Microbiological Monitoring

On-going monitoring of general bacterial numbers Total Viable Count (TVC) of hot and cold water systems will not normally be carried out unless there are reported, or suspected changes in the water system e.g. taste, odour, colour etc.

Testing for legionella bacteria will normally be completed (in accordance with L8) where:

- It is identified as necessary within the water hygiene risk assessment.
- Water storage and distribution temperatures are reduced from those recommended in L8.
- An outbreak of legionella is suspected.
- Controls of a system e.g. temperatures/biocide levels cannot be consistently achieved.
- It may be required by inspectorate bodies such as CSCI as part of any registration process.

Analysis of water samples will only be carried out be a UKAS accredited laboratory.

Implementation of remedial action following the results of any test will be prioritised on the action levels contained within L8.

8. Water Temperatures

Temperature control is an effective means to ensure the risks from legionella bacteria are minimised.

Operation of the hot and cold water system should therefore be designed to restrict bacterial growth (legionella proliferates between 20C and 50C) by keeping:

- Calorifier temperatures above 60C
- Cold water temperatures (taps and storage) below 20C
- Hot water temperatures at taps above 50C (after one minute). The scalding dangers presented by water above 50C need to be seriously considered. Water temperatures should be controlled not to exceed 43C by the installation of fail-safe thermostatic mixer taps/shower.
- Water softeners and filters maintained according to manufacturer's instructions.

Older water systems that are unable to achieve required temperatures will have an alternative means of controlling growth of bacteria defined within the written scheme of control.

9. Water Hygiene Site Log Book

Following a risk assessment a water hygiene log book will be obtained for each building. The log book will contain details/frequency of the necessary water hygiene task that must be completed by the building manager or other appointed person at the site.

10. Responsibilities

10.1 The Guide County Commissioner will:

- Lead on and manage the process for all of the Association's managed buildings and oversee this policy.
- Nominate appropriately trained and competent representative(s) to advise building managers on the necessary remedial action to take following water hygiene risk assessments.
- Arrange for any necessary two-yearly water hygiene risk assessment reviews.
- Arrange for the monitoring of the effectiveness of necessary remedial works following water hygiene risk assessments and water testing.

10.2 Management Committees will:

- Identify necessary resources to take remedial action to reduce the risks presented by Legionnaires' disease within the premises managed by them.
- Ensure that all steps set out below in 10.3 are followed.

10.3 Those in control of premises will:

- Allow reasonable access to enable the water hygiene risk assessment and any remedial works to take place.
- Liaise with the Management Committee on the management of Legionnaires' disease within their premises and the commissioning of any remedial works.
- Ensure no repair, maintenance or alteration work takes place on the hot and cold water system within the building(s) they are responsible for without making an assessment as to the potential water hygiene impact on the system.

- Nominate an individual(s) who will be responsible for completing the routine water hygiene tasks and checks for the premises as detailed with the Water Hygiene Log Book.
- Ensure that the necessary routine water hygiene risks and checks as described in the premises Water Hygiene Log Book are completed at the required frequencies and recorded in the log book.
- Report any changes in water quality to the Management Committee.
- Advise the Management Committee where funding is required to comply with L8 or to resolve areas of concern.
- Implement the water hygiene checklist at Appendix 1 of this policy.

10.4 Those who design or commission work on hot and cold water systems must:

- Adhere to the Association's regulations on contracts and tenders.
- Ensure that any changes to the system are designed and constructed to ensure that the system, will be safe and without risks to health.
- Ensure that L8, the Water Regulations 199 and the CIBSE guide TM2002 "Minimising the risk of Legionnaires' Disease!" and other relevant standards are strictly followed.
- Consult the water hygiene risk assessment and written schematic for the building as part of the planning process.
- Comply with all relevant British standards.
- Aid safe operation of the system by making water circuits as simple and short/direct as possible. "Deadlegs" will be avoided.
- Aid cleaning and disinfection to ensure those parts of the system that require routine/regular cleaning are easily accessible.
- Reduce stored cold/hot water to a minimum needed to meet peak demands.
- Minimise heat gain/loss by ensuring water pipes and storage tanks are insulated. Hot and cold pipes should be suitably separated to prevent heat transfer.
- Update existing schematics.
- Select materials which do not support bacterial or fungal growth e.g. polythene construction.
- Lag calorifiers and hot water pipes to ensure water temperatures reach 60C and 50C respectively and make appropriate arrangements to prevent scalding of those using the system outlets.
- Minimise the ingress of organic material into water storage tanks by having close fitting lids and insect screens fitted to overflow pipes.

10.5 Those who work on, or repair hot and cold water systems will:

- Ensure a risk assessment has been completed and that relevant health and safety precautions are in place for the work. (If the work is to be carried out by a contractor ensure a method statement and risk assessment is obtained from them prior to carrying out the work and that it is reviewed by a competent person prior to work starting)
- Record any changes/repairs made to the system (however minor) and record them within the Water Hygiene Log Book. Where necessary the schematic will also need to be updated.
- Ensure that ACOP L8, the Water Regulations 1999 and the CIBSE Guide TM13 2013 "Minimising the risk of Legionnaires' disease" and other relevant standards are strictly followed.

10.6 Water Hygiene Consultants (Risk Assessors) will:

- Ensure all work is in accordance with the ACOP L8
- Ensure that those engaged in the risk assessment process are suitable qualified and competent.
- Provide a suitable method statement and general risk assessment for the work to ensure the safety of their workforce for review and acceptance before work begins.
- Programme the water hygiene risk assessments as part of the Association's management plan.
- Prepare a full and detailed water hygiene risk assessment of the hot and cold water systems at the premises.
- Prepare a specific written scheme of control for minimising the risk from legionella bacteria and to ensure good water hygiene at the premises risk assessed.
- Prepare a full and detailed written schematic of the hot and cold water system at the premises risk assessed.
- Provide both a written and computer–based record of the risk assessment, scheme of control and schematic of the water system.
- Provide the building manager with a Water Hygiene Log Book and suitable digital thermometer to test water temperature.
- Provide the building manager with adequate information, instruction and training to carry out the required local water hygiene tasks and checks listed in the Water Hygiene Log Book.

10.7 Users of the building will:

- Immediately report to the Management Committee any changes in the water quality within the building.

11. Conversion to Aid Understanding

All figures shown in Celsius can be converted to Fahrenheit as follows:

20C = 68F 45C = 113F 50C = 122F 60C = 140F

Building Managers' Water Hygiene Checklist

Action Point 1
Make sure you have a current (within the last 2 years) water hygiene risk assessment for your building.

Action Point 2
Following risk assessments make sure appropriate remedial actions have been taken (or programmed) to minimise the risk of Legionnaires' disease.

Action Point 3
Ensure that a site specific written scheme of control exists for your building and you have a Water Hygiene Log Book.

Action Point 4
Nominate an individual(s) for your premises who will be responsible for carrying out the routine water hygiene tasks for the building (this may be you?). List them within the written scheme of control and Log Book.

Action Point 5
Never permit any changes to the building hot or cold water system, e.g. additional taps, showers, removal of sinks, reducing water temperatures etc. without firstly carrying out the procedures stated in 10.4 and 10.5 of this policy.

Action Point 6
Make sure any agreed changes to the building's water system are included on the schematic within the risk assessment and also included within the written scheme of control.