

# **Water Safety and Legionella Policy**

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Applies to (Mark as appropriate)			
Staff	Pupils / Students / Adult Learners	Parents / Carers / Guardians	Contractors
✓	✓	✓	✓
Volunteers	Students on placement	Trustees / LGC / Members	Visitors
✓	✓	✓	✓
Agency Staff	Other	a	a
✓	✓		

Published Locations				
Trust Website	Academy Website	Aldridge Intranet	Student/Parent planners	On-request
		✓		

**Consultation (Complete as appropriate in line with master policy document)**

With	Reason for Consultation	Final Consultation Date	Version No

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# Contents

1. Purpose.....	5
2. Scope and Applicability.....	5
3. Abbreviations and Definitions .....	5
3.1 Abbreviations.....	5
3.2 Definitions.....	5
4. Introduction .....	5
5. Legislation, Standard, Guidance and Codes of Practice.....	5
6. Controlling the Risk .....	6
7. Hot Water and Hot Surfaces .....	6
8. Effective Management of Legionella .....	6
9. Risk Assessment / Water survey.....	6
10. Routine Monitoring of Temperature Checks and Sampling .....	7
10.1 Frequency .....	7
10.2 Routine sampling .....	7
10.3 Monitoring.....	7
11. Regularly flushing of infrequently used outlets.....	7
12. Sampling.....	8
13. Legionella HSE Approved Code of Practice.....	8

## 1. Purpose

To provide a clear policy for the management of legionella.

## 2. Scope and Applicability

This procedure is applicable at all premises, sites or work areas under the control of The Trust

## 3. Abbreviations and Definitions

### 3.1 Abbreviations

ACOP: Approved Code of Practice

COSHH: Control of Substances Hazardous to Health

### 3.2 Definitions

Responsible Person: this is the person who is responsible for the premises or the person with control over the premises, organisation or activity. Please note that the Responsible Person named in the Legionella Arrangements must be a Trust Employee employed in the specific academy. For other smaller Trust establishments, the responsible person must be employed and can be located within an Estates Cluster management arrangement.

## 4. Introduction

Legionella is a type of bacteria which is common in natural and artificial water systems. They survive at low temperatures and thrive at temperatures between 20°C and 45°C. They are killed at higher temperatures and this is the main method used for their control in domestic water systems.

Legionella bacteria are found in wet air conditioning plants, whirlpools and where stagnant water is formed, such as unused shower heads, ponds, open-water tanks. The most common illness caused by legionella is legionnaires' disease. People most at risk are the elderly, smokers, alcoholics and those suffering from cancer, diabetes, chronic respiratory disease or kidney disease.

Most water systems can provide a potential habitat for the organism. The optimum temperature required is 37°C. At temperatures above 37°C the rate of multiplication of legionella, in laboratory tests, decreases and at 46°C falls to zero. Bacteria will survive at higher temperatures but the survival time decreases from a matter of hours at 50°C to one of minutes at 60°C and practically zero at 70°C. Below 37°C the multiplication rate decreases and can be considered insignificant below 20°C. The organism can remain dormant at much lower temperatures and return to active multiplication whenever more favourable temperatures occur. It is this temperature dependence which gives us the main mechanism of prevention of Legionnaires Disease in hot and cold water systems. If we can keep the cold water 'cold' (below 20°C) and the hot water 'hot' (above 60°C when leaving and returning to the calorifier and above 50°C within a minute of running the water) then the bacteria will either not be able to multiply or will be killed. However, even with good day to day control of temperature or scale, corrosion and fouling, and the use of effective biocides, it is essential to clean and sterilise all parts of a water system on a regular basis. The recommended times between this process vary dependent upon the type of system, but the objectives remain the same. The essentials of control are to keep any water system as clean as possible.

## 5. Legislation, Standard, Guidance and Codes of Practice

An Approved Code of Practice and Guidance L8 (ACOP) "The Control of Legionella Bacteria in Water Systems" became effective on 8 January 2001 and employers (and others as defined) are expected to follow the ACOP guidance in controlling Legionellosis in all circumstances where the Health and Safety at Work Act 1974 (HSW) applies. The ACOP provides practical guidance for compliance with certain provisions under HSW and the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended).

In addition to the ACOP a number of other sources of legislation, guidance, codes of practice, etc. are available and are listed below:

- Control of Substances Hazardous to Health Regulations 2002;
- Cold Water Services Water Supply (Water Fittings) Regulations 1999;
- "Safe" Hot Water and Surface Temperatures – Health Guidance Note 1998;
- British Standard Specification BS 6700: 2009 for design, installation and maintenance of services supplying water for domestic use within buildings and their curtilages;
- Health and Safety Executive – Guidance Note EH48 Legionnaires Disease;

The above documents provide a useful source of data for Estates team to manage the control of Legionellosis and should be consulted whenever further information on the subject is required.

## **6. Controlling the Risk**

Where practicable water stagnation should not be allowed to occur. This means removing dead runs in pipework, flush out seldom used shower heads, taps and remaining dead-legs weekly and remove any limescale, fit lids to storage tanks.

## **7. Hot Water and Hot Surfaces**

Scalding can occur at temperatures of 44°C, therefore, appropriate thermostatic mixing valves should be fitted where staff and students access hot water regularly; where there is a risk of injury from hot pipes or radiators and surface should not exceed 43°C when the system is running at the maximum designed output. Also consider guarding radiators and covering pipes where there are difficulties in reducing flow temperature.

## **8. Effective Management of Legionella**

Academies must effectively manage the risk of exposure from legionella. The following control measures should be adhered to - that all tasks and supporting documentation are recorded and documented. This Health & Safety management tool will include the following:

- produce a local management plan
- ensure a risk assessment has been produced and that this is regularly reviewed and updated, along with any changes implemented
- ensure there is a Responsible Person on site (must be a Trust employee) (see Section 2)
- ensure that a current test certificate is available
- ensure that weekly temperature testing takes place, and that these are recorded and reviewed, and appropriate action taken
- ensure that regular flushing out of the systems takes place
- ensure that there are schematic drawings available for the hot and cold-water tanks
- that staff are provided with information and are trained by a competent person

## **9. Risk Assessment / Water survey**

Each Academy and Trust establishment must have a legionella risk assessment or water survey for the site. This must be carried out and reviewed annually by a competent employee or contractor.

This must take account the vulnerability of those who have access to hot water and consider if supervision or locking of rooms is required to prevent scalding or burns.

Where a water taps temperature is not controlled by mixer valves then 'hot water' warning signs must to clearly displayed and replaced when damaged or worn.

Under the Control of Substances Hazardous to Health Regulations 2002, a suitable and sufficient assessment of the risk to health must be undertaken. Schedule 3 and Appendix 2 of the Regulations provides an explanation on how the regulations and ACOP apply to controlling the risks from biological agents such as Legionella.

## **10. Routine Monitoring of Temperature Checks and Sampling**

### **10.1 Frequency**

The frequency and extent of routine monitoring will depend on the operating characteristics of the system and as detailed in the establishments legionella risk assessment, but temperature checks should be completed at least weekly. This is undertaken by the Academy Estates Team. Servicing, maintenance, routine sampling and annual testing is usually contracted out, with each establishment making their own local arrangements.

### **10.2 Routine sampling**

Sampling of water quality is an essential part of the treatment regime. It may be carried out by a service provider, such as a water treatment company or consultant, or by the operator, provided they have been trained to do so and are properly supervised. The type and frequency of tests required will depend on the nature of the system and hot and cold-water systems and will be identified in the legionella risk assessment.

The results of monitoring and testing should be interpreted by a suitably experienced and competent person and any remedial measures, where necessary, should be carried out promptly.

### **10.3 Monitoring**

- The Responsible Person (as defined in Section 3.2 above), or, where appropriate, an external contractor or an independent third party shall ensure that the system is monitored to assess the following:
- checking the performance of the system and its component parts
- inspecting the accessible parts of the system for damage and signs of contamination
- monitoring to ensure that the treatment regime continues to control to the required standard
- review the results of water temperature checks and routine sampling and take action, as required.
- Monitoring records should be recorded.

## **11. Regularly flushing of infrequently used outlets**

Before carrying out the following procedures, consideration should be given to removing infrequently used showers and taps. If they are removed, the redundant supply pipework should be cut back, as far as possible, to a common supply, for example to the recirculating pipework or the pipework supplying a more frequently used upstream fitting.

The risk from legionella growing in peripheral parts of the domestic water system, such as dead-legs off the recirculating hot water system, may be minimised by regular use of these outlets. When outlets are not in regular use, weekly flushing of these devices for several minutes can significantly reduce the number of legionella discharged from the outlet. Once started, this procedure has to be sustained and logged, as lapses can result in a critical increase in legionella at the outlet. Risk assessment may indicate the need for more frequent flushing where there is a more susceptible population present, e.g., in hospitals, nursing homes etc.

Where it is difficult to carry out weekly flushing, the stagnant and potentially contaminated water from within the shower/tap and associated dead-leg needs to be purged to drain before the appliance is used. It is important that this procedure is carried out with minimum production of aerosols, e.g., additional piping may be used to purge contaminated water to drain.

## **I2. Sampling**

Whether all testing is done in-house or not the workers appointed to do the testing must be competent to carry out the tests and have a thorough understanding of legionella and the ACOP. They must also follow the appropriate risk assessments and safe systems of work.

The Director of Estates must be notified of any positive test results for Legionella bacteria.

## **I3. Legionella HSE Approved Code of Practice**

The Trusts Estates teams must follow the HSE approved code of practice for the management of Legionella L8. These books need to be purchased from <http://www.hse.gov.uk/books> Legionnaires' disease: a guide for Employers and Legionnaires' disease: the control of Legionella bacteria in water systems.

More information about Legionella is available from <http://www.hse.gov.uk/legionella>.