Code of Practice for the Control of Legionella Bacteria in Water Systems

July 2013

Contents

INTRODUCTION

1. PURPOSE

The aim of this Local Code of Practice (LCoP) is to provide Senior Managers and Governing Bodies with information on the management of the water systems with school premises.

2. WHAT IS LEGIONELLA

Legionella is the term used for infection caused by a group of bacteria commonly known as Legionella pneumophila. Approximately, 45 bacterial pathogens have been identified following the 1976 outbreak in America. Similar outbreaks were later confirmed in the UK in 1986 etc.

3. WHERE IS LEGIONELLA BACTERIA (LD) FOUND?

Legionella bacteria are widespread in natural sources of water e.g. rivers, lakes and reservoirs, usually in low numbers.
They can survive under a wide variety of environmental conditions and have been found in water at temperatures between 20ºC and 60ºC and in some cases the bacteria can remain dormant in cool water and multiply only when the gap between the cold water and hot water temperatures narrows significantly e.g. above 20 ºC and below 60ºC. Temperatures may also influence virulence; legionella bacteria held at 37ºC have greater virulence than the same legionella bacteria kept at a temperature below 25ºC.

Outbreaks of Legionnaires Disease (LD) have been attributed to water services in buildings with cooling towers (air conditioning systems) and spa baths.
All public buildings that have water systems are susceptible to colonisation by LB where water remains stagnant for months especially during hot weather conditions.

4. WHAT ARE THE HEALTH EFFECTS

The bacteria can enter the body via inhalation. Within air conditioning buildings and buildings with shower facilities and spa baths etc, have the ideal environment where water droplets are often expelled into the surrounding atmosphere. The water droplets may contain small amounts of the legionella bacteria which is enough to penetrate the lungs and cause severe flu-like systems.
Legionella Disease outbreaks have been recorded amongst staff, maintenance workers and visitors, however, some people are more susceptible to the disease than others due to existing chronic illnesses, immunosuppressant, smoking etc and it can be fatal.
Investigation into the outbreaks by the Health and Safety Executive (HSE) concluded that whilst the bacteria is ubiquitous, proliferation of the bacteria to the point where an outbreak is likely to occur is avoidable by good management and maintenance of the building management systems.

5. RISK CATEGORIES

High Risk Areas:
Buildings with Cooling Towers
Leisure Centres e.g. swimming facilities, spa baths, showers and heavy water usage.
High rise flats with central storage

Special Schools
Social Services Sheltered Housing

6. LOW RISK AREAS

Schools (including youth centres)
Housing and Hostels (high rise flat with local storage system)
Public Buildings with low density of water services
Commercial and Office Premises
Depots

7. LEGAL REQUIREMENTS

The HSE have issued the following guidance document e.g.

The Control of Legionella Bacteria in Water Systems - Approved Code of Practice L8 (third edition. 2000) and Guidance Notes.
This document provides guidance on the following:-

(a) The requirement to develop of a Comprehensive Risk Assessment Procedural Document.
(b) The development of a Scheme of Work Procedure
(c) The need to Keep Records in a Logbook
(d) To review the risk assessment and subsequent implementation process annually.

8. HOW DO I CARRY OUT A RISK ASSESSMENT (RA)

There are 5 steps to Risk Assessment

(1) Indentify - Arrange for written details of the condition of the Water system including risk factor,
(2) Evaluate - Examine the recommendations and prioritise the actions required to make the system safe.
(3) Control - Implementation of the Recommendations including precautions staff/contractor's should take to prevent harm.
(4) Monitor - Decide on the frequency of checks to ensure that there are no further deterioration (e.g. monthly, quarterly etc.
(5) Review - Decide on the frequency of review e.g. 6 monthly, yearly or bi-annually etc.

9. Property Services (PS) have commissioned a Specialist Contractor called (Hertel) to carry out the Legionella Risk Assessment (LRA).
All schools should have received a copy of the water risk assessment for their school.
Remedial works identified in the risk assessment are prioritised in terms of their imminent **risk and therefore an appropriate remedial action plan should be in place to control the risks**. The action plan should incorporate the "Schedule of Works" table below.
In addition to the risk assessment procedure, regular water testing analysis has been commission by PS for the contractor (Hertel) undertake on a monthly basis.

SCHEDULE OF WORKS TABLE				
No	**TASKS**	**Action**	**Date**	**Signature**
1.	Flushing of infrequently used outlets	Weekly	??	Responsible Person (RP)
2.	Cooling Towers	Weekly		Competent Person (CC)
3.	Test temperatures of hot and cold water outlets (Sentinel taps)	Monthly		RP
4	Visual checks of temperatures settings of calorifiers where applicable	Monthly		RP
5.	Cleaning and disinfection of shower heads	Quarterly		RP
6.	Legionella water sample analysis	Quarterly		CC
7.	Inspection of water storage tanks and disinfected as stated by risk assessment	6 monthly		CC
8.	Clean and chlorinate cooling towers	6 Monthly		CC
9.	Visual Inspection of hot water calorifiers	Annually		RP
10.	Legionella water sample analysis (swimming pools and spa baths)	Annually		CC
11.	Checking other outlets on a rotational basis and recording temperatures in log book	Annually		RP
12.	Review Risk Assessment document	Annually		CC/RP

10. IMPLEMENTING THE REQUIREMENTS

Compliance with the above Approved code of Practice should be considered the minimum standard that is adopted to manage the risk of legionella in any premises. The Local Authority (the landlord) and the Senior Management of the School i.e. the Head Teacher have the "Duty of Care obligations under the Health and Safety at Work Act 1974 to their staff, premises users and the public to ensure their health, safety and welfare insofar as is reasonably practicable.

Where a breach of the above requirements have occurred resulting in someone at work, or not connected with the work activities, contracting the disease, it must be reported to the HSE (under the Reporting of Diseases and Dangerous Occurrences Regulation 1995 (RIDDOR), via the Authority's health and safety Unit at Walthamstow Town Hall, Forest Road, London E 17 4JF.

11. THE CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH) REGULATIO 2002.

The Employers have a duty to identify substances hazardous to the health of their employees and the public through their workplace activities and to institute control measures to minimise the risk so far as is reasonably practicable. Micro-organisms such as Legionella and any chemical that may be considered to manage the risk

are covered by the COSHH regulations.

12 MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS 1999

These regulations impose duties/responsibilities on employers to carry out suitable and sufficient assessment of the risks to the health and safety of their staff and the public from all aspects of the workplace activities.
Having identified the risks, there is then an obligation to develop and manage the risk, by the introduction of safe systems of work to mitigate the identified risks.

The above mentioned HSE L8 guidance document identifies that there is a reasonably foreseeable risk of Legionella from cooling towers, evaporative coolers, hot and cold water systems and other water systems operating above 20ºC and releasing spray or water droplets

Although LBWF buildings do not have cooling towers or evaporative coolers, they do have hot and cold water systems which requires regular maintain.
Some special schools have the added responsibility for the maintenance of additional water operated facilities such as hydro-therapy pools and /swimming pools or spa baths etc.

13 BACKGROUND

Under the School Standards and Framework Act 1998, schools were given additional delegated funds to maintain plant and equipment and carry out repair and maintenance of buildings. Funding has also been devolved for capital improvements.

Some of the functions require the employment of competent contractors to ensure the work is carried out safely and that the risks to the health and safety of staff, pupils and visitors to the school etc is minimised to what is reasonably practicable.
The LEA has a legal duty to provide employees with information on how to comply with health and safety legislation and monitor that these systems are used.

14 The HSW Act places duties upon you and your contractor regarding the health and safety of employees and others (including pupils) who may be affected by the work. Specifically, these duties are as follows:

- **The Headteacher** and the governing body who engage contractors and have premises responsibilities, must take all possible steps to implement this guidance document.

- **The Contractor** has a duty to carry out all operations in a safe manner, and to communicate with the host employer (the school) over issues relating to health and safety, including risk assessments, systems of work, accidents and incidents, emergency procedures and their own health and safety policy and procedures.

15 **Further Advice/information**

Property Service Team on 0208 496 3555/8053
NPS Building Consultancy/Asbestos Management on Tel: 0208 523 6222/6232.
Health and Safety Team on 0208 496 3408/3413