



POLICY DOCUMENT FOR THE MANAGEMENT AND CONTROL OF LEGIONELLOSIS INCLUDING LEGIONNAIRES DISEASE

1.0 PURPOSE

1.1 MANAGEMENT POLICY STATEMENT AND AIM

London School of Hygiene & Tropical Medicine (LSHTM) accepts its responsibility under the Health and Safety at Work Act etc. 1974 and the Control of Substances Hazardous to Health Regulation 2002, to take all reasonable precautions to prevent or control the harmful effects of contaminated water (i.e. Legionellae) to students, staff and other persons working at or using its premises.

1.2 UNDERTAKINGS

LSHTM recognises its responsibility to implement in full, all requirements described in current relevant guidelines and legislation relating to the management and control of Legionellosis including Legionnaires' Disease, particularly, the Health and Safety Commission's Approved Code of Practice – L8.

LSHTM will undertake to:

- i. Appoint a Responsible Officer and a Deputy Responsible Officer to enable the implementation of the requirements of this Policy.
- ii. Identify and assess sources of risk from all water and air systems found within all the buildings within the Estate.
- iii. Prepare a "Written Scheme – Procedural Document" for preventing, reducing or controlling the risk.
- iv. Implement and manage precautions.
- v. Keep records of the precautions implemented of the premises within LSHTM's control.

2.0 SCOPE

2.1 THE ESTATE

For the purposes of this Policy, the Estate comprises all the buildings currently owned or occupied (under a full maintenance lease or otherwise) by LSHTM. A full list of properties/buildings and status of occupation is available on request from the Estates Department.

This Policy APPLIES to:

1. All Cold Water Systems: Including Mains (boosted or otherwise) or local tanked fed supplies, distribution systems and outlets.
2. Domestic and Emergency Showers: Including tank fed showers, mains fed showers with direct electrical heaters, emergency dowsing showers and eye wash stations.
3. Domestic Hot Water Systems: Including all direct and indirect calorifiers (primary heating coil, electric immersion heater or otherwise), cistern-type



water heaters and instant water heaters (plate heat exchanges, Angellery, electric or otherwise).

4. Ancillary Plant: Process and any other plant which is liable to encourage Legionella growth and/or create an aerosol.
5. Air Conditioning Plant: Ducted systems which include chiller batteries and/or humidification and excludes local "split units".

There are no wet cooling towers fitted and this Policy forbids their introduction on any site owned and/or occupied by LSHTM. It is a Policy of LSHTM that:

- a) All new water systems shall be designed, installed and operated in such a way as to minimise, avoid or prevent the risk of Legionellosis.
- b) All existing water systems shall be operated and maintained in such a way as to minimise or control the risk of Legionellosis.

No new water systems shall be introduced and no changes shall be made to water systems unless they have first been authorised by the relevant Appointed Legionella Responsible Officer.

2.2 LSHTM SERVICE PROVIDERS

For the purposes of this Policy, the Service Providers are organisations that supply LSHTM with services pertaining to "Legionellosis Management & Control", whether accommodation, and or Facilities Management, Water Treatment, Consultancy, etc.

3.0

REFERENCE

LSHTM, in implementing this policy, will use as a general source of practical guidance, the documents listed below:

- i. L8 – The Control of Legionella bacteria in water systems – Approved Code of Practice & Guidance 2001.
- ii. Health and Safety at Work etc. Act 1974, Sections 2, 3 and 4 (HSW).
- iii. Control of Substances Hazardous to Health Regulations 2002 (COSHH).
- iv. The Public Health (Infectious Diseases) Regulations 1988.
- v. The Water Supply (Water fittings) Regulations 1999.
- vi. Water Supply (Water Quality) Regulations 2000.
- vii. BS 6700:1997 - Specification for Design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages.
- viii. Food Act 1990.
- ix. LSHTM Health and Safety Policy and procedures.



4.0 DEFINITIONS

- 4.0 Responsible Officer – person who has sufficient technical training, knowledge and experience to enable him/her to understand fully the dangers of Legionella bacteria contamination and Legionellosis infection.
- 4.1 HSE – Health and safety Executive.
- 4.3 L8 – The control of Legionella bacteria in water systems, including Legionnaires disease.

5.0 PROCEDURE

5.1 INTRODUCTION

Legionella pneumophila, a member of family Legionellaceae, is found in water, both natural and man made. Legionnaire's disease is an illness characterised mainly by pneumonia and is considered to be acquired by means of inhalation of small droplets carrying the bacteria. In environmental surveys, Legionella is found most commonly in hot water systems, particularly in calorifiers and in cooling water systems serving air conditioning plants, cooling water towers, whirlpool spas, individual wall mounted humidifiers and nebulisers using tap water.

Water Stored in the 25-45 degrees Celsius range encourages the growth of legionellae, hence attention must be given to ensuring that water is not stored within these limits or contact with water stored within these limits is eliminated as far as is reasonably practical. Contaminated water presents the greatest risk when it is dispersed into the air as an aerosol.

Legionella may be present in many water systems in very low concentrations but can be prevented from multiplying by careful control measures:-

5.2 RESPONSIBILITY

Council delegates to The Director of Estates, responsibility for the implementation of this Policy. In practice, the responsibility is designated to the Estates Operations Manager, who has the responsibility for Legionellosis Management & Control.



5.2.1 LEGIONELLOSIS MANAGEMENT & CONTROL ORGANISATIONAL FLOW-CHART



5.2.2 THE DIRECTOR SHALL

- i. Have overall responsibility for all aspects of the quality of water supplies within ALL LSHTM properties.
- ii. Nominate, in writing, a Legionella Responsible Officer and Deputy Responsible Officer.

5.2.3 APPOINTED LEGIONELLA RESPONSIBLE OFFICER AND DEPUTY RESPONSIBLE OFFICER SHALL

- i. Accept management responsibility for Legionella control.
- ii. Prepare and implement an Operational Policy on Legionella control.
- iii. Carry out Risk Assessments and Reviews on all water systems and air conditioning plant in line with the Guidelines and checklist in Section 5.0. in the Procedural Document.
- iv. Carry out remedial work highlighted during Risk Assessment.
- v. Ensure records of Risk Assessment and associated precautions are implemented are maintained.
- vi. Implement maintenance and inspection routines, as described in the Risk Assessment (or Risk Assessment Review) for the control of Legionella as required in L8 and other relevant and associated guidance documents.
- vii. Keep maintenance and monitoring records and make available for inspection. records to be kept for 7 years.
- viii. Ensure record drawings of systems are available and kept updated.
- ix. Ensure the competence of staff or external contractors used for any aspect of monitoring and/or maintaining the precautions for Legionella control.



- x. Put in place arrangements for reporting an outbreak or suspected outbreak of Legionella.
- xi. Audit Precautions on the Control of Legionella.
- xii. Assess the training needs for training of staff in Control of Legionella.
- xiii. Liaise between suitable training establishments, Consultants to provide approved courses on Control of Legionella.
- xiv. Ensure personal training records are kept up to date.

5.2.4 LSHTM EXTERNAL CONSULTANTS SHALL

- i. Supply training, advice and assistance in all Legionellosis Management & Control and Safe Water Management matters, including Risk Assessments, On-going auditing, PPM Programming, Log-Book system and all relevant Management Manuals maintenance.
- ii. Carry out a System and Process Audit, as instructed by LSHTM Appointed Legionella Responsible Officer.

5.2.5 TRAINING REQUIREMENTS

In order to allow the associated persons to act as effectively and cost-effectively as possible, all relevant and associated members of staff should be offered scheduled and appropriate training. In addition, LSHTM Responsible Officer, with the assistance of others, will provide as necessary in-house training for all managers so that the procedures adopted to cope with high hazard units on their site is understood.

All relevant staff and contractors of LSHTM shall receive "Refresher" training every two years or when there have been changes to the relevant legislation.

The training should cover relevant topics such as:

- i. General knowledge on the Management and Control of Legionellosis.
- ii. Legal responsibilities.
- iii. The Policy.
- iv. COSHH including fit testing/leak testing of respiratory protective equipment (RPE).
- v. On-going Monitoring.
- vi. On-going maintenance.
- vii. Disinfection Procedures.
- viii. On-going inspections.
- ix. Logging required.
- x. Emergency procedures.

Staff with specific responsibilities for actions to control the "Risk" should be given additional training in how to carry out those particular tasks. In addition, persons who deputise should receive equivalent training to the person whose function they are covering. The training required will vary from individual to individual according to their background and responsibilities.

Individual records should be kept for these staff, and staff should not be allowed to perform their duties without supervision until their training is completed. The level of knowledge should be regularly assessed and should be programmed and continuous rather than sporadic.

The Responsible Officer shall also assess the training status of all contractors who operate on LSHTM buildings within their control. Where the level of training of these persons is assessed to be lower than required, the Responsible Officer shall advise



the contractor of any further training requirements.

A Skilled-Persons Register shall be drawn-up and held by the Personnel Department staff development unit.

5.2.6 OPERATION AND MAINTENANCE

To prevent the growth of Legionella, water services shall operate at the following temperatures:

- Cold water distribution and storage at 20°C or below.
- Hot water distribution – at least 50°C attainable at taps within two minutes of running.
- Hot water storage (calorifiers) at 60°C.

Where there is a risk of scalding from taps at 50°C e.g. to children, elderly people and those with sensory loss, the use of local thermostatically controlled mixing valves will allow water systems to be run safely at the higher temperatures.

6. DOCUMENTATION

6.1 POLICY RATIFICATION

It is LSHTM Policy, to manage the operation and maintenance of all its Domestic Water and Air Handling systems in line with current best practice, complying with all current and relevant guidelines and legislation relating to the management and control of Legionellosis including Legionnaires' Disease.

Measures to be taken to attain this objective include:

- A. The appropriate selection, design, installation and maintenance of plant.
- B. The appointment of a "Responsible Officer" competent to:
 - i. Liaise with all other organisations that supply LSHTM with services pertaining to Legionellosis Management & Control, whether accommodation, facilities management, water treatment, consultancy etc.
 - ii. Identify and assess the risk of Legionellosis resulting from work activities to include breakdowns and abnormal situations.
 - iii. Develop, implement and maintain appropriate and suitable Management Systems, Personnel Training Programmes and plant treatment procedures.
 - iv. Develop and maintain adequate records in order to demonstrate compliance with best practice and fulfil legal obligations.
 - v. Ensure compliance with this Policy.
- C. The regular monitoring of all implemented Management Systems, Training Programmes and treatment procedures, to establish and ensure their continuing efficacy and legislation compliance.

LSHTM recommended standards, which are to be held in LSHTM Policy, have been prepared in consultation with competent persons on the interpretation and understanding and practical application of legal requirements described in current legislation, guidance and ACoPs listed above.

Issued by:



Date of Policy:

Review Date:

Reviewing Officer: Name:

Signed for on behalf of LSHTM: Signature:

Name:

Signature:



6.2 LETTER OF APPOINTMENT

I nominate Estates Operations Manager as the "Appointed Legionella Responsible Officer" and Maintenance Supervisor as the "Deputy Responsible Officers (Legionella)" for LSHTM and approve the composition of the Policy which includes the following measures to be taken to attain his objective:

1. The appropriate selection, design, installation and maintenance of plant.
2. Identification and assessment of the risk of Legionellosis resulting from work activities;
3. Development, implementation and maintenance of appropriate and suitable Management Systems, Personnel Training Programmes and plant treatment procedures;
4. Development and maintenance of adequate records in order to demonstrate compliance with best practice and fulfil legal obligations, and;
5. Regular monitoring of Management Systems, Training Programmes and treatment procedures, to establish and ensure their continuing efficacy and legislation compliance.
6. Compliance with LSHTM Policy.

Issued by:

Date of Policy:

Review Date:

Reviewing Officer: Name:

Signed for on behalf of LSHTM: Signature:

Name:

Signature:



6.3 PPM PROGRAMME DWATEROCUMENTATION

Please refer to Procedures document for details of PPM programme for controlling Legionella bacteria in water systems and workflow of worksheets and faults. LSHTM aim is to implement a computerised/PDA system for the Legionella associated PPM programme.

6.4 REVIEW

This policy shall be reviewed annually by the Estates Sub-Committee and the Safety Committee. The Estates Sub-Committee will monitor the operational details and the Health and Safety Committee will monitor compliance with the Policy and relevant legislation.