

# GUIDE TO LCA STANDARDS FOR SERVICE DELIVERY

## PURPOSE OF THE STANDARDS

The standards set out the minimum requirements for the delivery of the services listed below related to the control of legionella bacteria in water systems. The standards together with this guide should be read in conjunction with the LCA Buyer's Guide (*LCA/BYG*). All these standards can be downloaded from the LCA website [www.legionellacontrol.org.uk](http://www.legionellacontrol.org.uk).

It is not the role of the LCA or these standards to prescribe particular techniques or technologies for the control of legionella bacteria in a risk system, however, whatever method is employed, the overall programme should be capable of delivering the desired outcomes. These outcomes may be dependent on the nature of the water, the system being treated, the service user's expectations and performance specification, if any.

## LCA STANDARDS

- Legionella Risk Assessment Services
- Water Treatment Services
- Hot and Cold Water Monitoring and Inspection Services
- Cleaning and Disinfection Services
- Independent Consultancy Services
- Training Services
- Legionella Analytical Services
- Plant and Equipment Services
- Facilities Management Services

Each standard contains the following sections:

### A) SCOPE OF SERVICE DELIVERY

This section contains a definition of the service provided and sets out the extent and limits of each service in such a way as to be flexible enough to accommodate legitimate variation and exacting enough to ensure the service is sound.

### B) KNOWLEDGE AND SKILL OF SERVICE PROVIDER STAFF (INCLUDING SUB-CONTRACTORS)

The service providers should confirm and be able to prove to others that all members of their staff are competent to carry out the required tasks.

In cases where the service delivery may involve a number of skill areas, e.g., surveyor, technician, chemist, etc., these are identified in each standard. The level of knowledge and skill required to carry out different aspects of the services may vary and the service provider should identify the knowledge and skills required for the relevant task, provide appropriate training and assess the competence of the operatives to carry out assigned tasks.

Guidance regarding the knowledge and skills required to carry out specific tasks is outlined in the LCA Knowledge and Skills Matrix (*LCA/MAT*).

In addition, the service provider staff attending site should have general health and safety awareness and capability appropriate to the tasks being undertaken. They should have the ability to carry out their work in a safe, efficient and effective manner and have knowledge of: carrying out pre-work safety checks/work-task risk assessments; PPE, its role and uses; portable appliance inspection; confined space entry; lone working ability and awareness; safe use of ladders and steps; procedures for permit to work; and health and safety requirements for asbestos, and other health and safety matters, where relevant.

The service provider company, as required by the LCA, should maintain training records and separate competence assessment records for individuals for each task they perform in delivering the services. These should be made available to the service user on request.

Information on understanding competence, and how to develop and assess it, is described in the LCA Competence Guide (*LCA/COM*).

### **C) SERVICE DELIVERY**

To enable the service provider company to deliver the specific legionella control service in an appropriate and safe manner, the LCA expects the company to have in place procedures to cover and manage the following (where applicable):

- Defining the scope of service
- System survey (information acquisition)
- Programme design
- Programme initiation, execution and management

### **D) SERVICE USER: DUTIES AND RESPONSIBILITIES**

This section details the service user commitments and responsibilities regarding the delivery of the specific services by the service provider. There are certain issues that the service user should address that apply to all services offered. The service user should:

- provide a copy of any existing legionella risk assessment, details of control targets, e.g., temperatures, biocide levels, the written scheme including escalation procedures, written control schemes/procedures, etc.
- provide notification and any necessary instruction on known risks and safety requirements in the areas the service provider will be working, e.g., access to the asbestos register, site induction, etc.
- provide safe access and egress
- provide contacts for communication and escalation

# LCA STANDARD FOR THE DELIVERY OF WATER TREATMENT SERVICES

## A. SCOPE OF SERVICE DELIVERY

This service standard is for those involved in the development and application of a water treatment programme for the control of legionella bacteria in all types of water system, whether by chemical or non-chemical means. This includes the provision of water treatment products, on-site analytical and monitoring services, and the associated corrective action, maintenance, reporting and record keeping.

An appropriate water treatment programme should be capable of controlling not only legionella bacteria and other microbial activity, but also corrosion, scale formation and fouling, and it should include appropriate measures, such as regular monitoring, inspection, physical cleaning and disinfection to maintain system cleanliness.

## B. KNOWLEDGE AND SKILL OF SERVICE PROVIDER STAFF (INCLUDING SUB-CONTRACTORS)

The service provider must ensure that all personnel involved in all aspects of the design, execution, verification and management of the programme are competent to carry out their work with reference to their capability, training, knowledge and experience. Please refer to Section C below and the Guide to the LCA Standards for Service Delivery at the beginning of this document.

## C. SERVICE DELIVERY

To enable the Service Provider to deliver water treatment services in an appropriate and safe manner the LCA expects the company to have in place procedures to cover and manage the following:

### 1. Information Gathering/System Survey

The service provider should have a defined process for gathering the required information to design an appropriate treatment programme, e.g., a survey procedure and structured survey form.

The survey/information gathering should include, as appropriate:

- review of the current legionella risk assessment and management processes (if any) to determine if they are fit for purpose (i.e., suitable and sufficient)
- definition and agreement with the service user of the exact scope of service supply
- agreement of the outcomes between the service provider and service user essentially in line with the HSE's technical guidance HSG274
- a survey process that reviews additional aspects of the system that may or may not be covered within the current assessment, and may include, e.g.:
  - mechanical and operational aspects of the system, e.g., manufacturer, volume of system, recirculation rates, make-up source, half-life, critical heat exchangers, system metallurgy, water usage, etc.
  - chemical and microbiological properties of both the make-up source and system water
  - environmental restrictions with respect to chemical treatments, blowdown, etc.
  - a review of historical maintenance records
  - a review of historical system data in relation to risk management, e.g., current treatment, logbooks, legionella test certificates, cleaning and disinfection records, and also system operation, e.g., failures due to corrosion, scale deposition, process contamination, etc.
  - water system operational details
  - location and suitability of dosing and control equipment
  - review of the fitness for purpose of any existing treatment equipment
  - safe handling of chemicals, delivery, storage and application methods

### 2. Water Treatment Programme design

The service provider should have a procedure to ensure the correct products are selected, e.g., use of product selection guides. Such guides should identify control parameters and highlight any product limitations which may affect the performance of the programme.

Water treatment programme design should include (where appropriate):

- design and selection of pre-treatment and dosing and control equipment
- selection of products or control techniques
- design of the monitoring and testing programme
  - chemical test selection
  - identification of suitable sampling points
  - microbial monitoring regime
  - definition of control limits
  - test methods
  - testing frequency and service schedule
  - interpretation of results
  - corrective action
  - reporting
- cleaning and disinfection regime

### **3. Water Treatment Programme Initiation, Execution and Management**

The service provider should have appropriate processes and procedures to ensure that the water treatment programme is initiated, executed and managed to achieve the agreed desired outcomes.

#### **i) Programme initiation**

The initiation process should ensure that the programme is correctly set up, the role and expectations of both parties is understood and, where appropriate, the service user's staff are given the necessary instruction in the aspects of the programme which they are to implement. It should include (as appropriate):

- explanation of the programme
- details of the schedule of service
- agreement, allocation and documentation of responsibilities between the service provider and the service user regarding testing, monitoring, inspection, etc.
- agreement over lines of communication and reporting
- initial instruction for the service user and/or staff
- identification of training needs
- agreement on the desired outcomes for the programme such that meaningful assessment may be made at regular review meetings
- record keeping, responsibilities and locations of records
- documentation of the agreed outcomes of the programme initiation process

#### **ii) Programme execution**

The service provider should have processes and procedures to ensure that the water treatment programme is executed consistently and effectively. These should include:

- the control of service visits and the monitoring regime
- staff training and competence
- reporting and communication (including standard service reports and specific non-compliance reports if necessary)
- programme reviews with service user (technical and L8/LCA compliance)
- responsibility for, and maintenance of records

#### **iii) Programme verification and quality control**

The service provider should have processes and appropriate procedures to verify that the planned water treatment programme is being executed and managed to the required standard and that one is delivering what one has contracted to do. These should include:

- a management process for checking that required service and monitoring has been done
- quality control sampling to ensure the correct:
  - tests are being carried out
  - control limits are employed
  - interpretation of the results

- corrective actions are advised and that
- joint reviews are taking place

#### **D) SERVICE USER: DUTIES AND RESPONSIBILITIES**

When designing a water treatment programme the service provider requires access to certain operational data to ensure that the correct programme can be supplied and the required level of service and product usage can be assessed.

It is not sufficient to request the provision of water treatment services “in accordance with L8”. Further information should be supplied in order for the service provider to meet your expectations.

The dutyholder should provide system operational details, e.g., flow rates, volumes of system/s, water usage, temperatures, as detailed in Section C1 above.

#### **FOR AND ON BEHALF OF THE LEGIONELLA CONTROL ASSOCIATION**