

LEGIONELLA MANAGEMENT POLICY



EAST CAMBRIDGESHIRE DISTRICT COUNCIL

ISSUE STATUS – DRAFT
DATE OF ISSUE –
REVISION DATE –

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1.0 Introduction

East Cambridgeshire District Council accepts it has a responsibility to protect employees, members of the public and others who may be affected by its business operation against the risk of *Legionella* infection (legionellosis), arising from plant, equipment, facilities, work or work-related activities and will implement the procedures in this document to ensure this responsibility is met.

2. Purpose and Scope

This Policy and Procedure sets out the strategy East Cambridgeshire District Council will follow and includes the framework of the procedures for achieving and maintaining it. This framework defines the stages and describes the objectives at each stage, specifies the management, operational and specialist responsibilities, and lays down a clear management and communication structure to ensure that it is effective and that it fails safe, wherever practicable.

3. Legislation

It is the Policy of East Cambridgeshire District Council to comply in full with the HSE guidance entitled Legionnaire's Disease: The Control of Legionella bacteria in water systems, Approved Code of Practice and Guidance (known as L8).

It is the Policy of East Cambridgeshire District Council to comply with the following other applicable Legislative controls.

- Health and Safety at Work Act 1974
- Control of Substances Hazardous to Health Regulations 2002
- Management of Health and Safety at Work Regulations 1999
- Reporting Injuries, Disease and Dangerous Occurrences Regulations 2013
- Notification of Cooling Towers and Evaporative Condensers Regulations 1992
- Safety Representative and Safety Committee Regulations 1977
- The Health and Safety (Consultation with Employees) Regulations 1996
- British Standards and all applicable guidance for the control of Legionella and the installation of water systems.
- The Corporate Manslaughter and Corporate homicide Act 2007

4. Definitions

For the purposes of this policy and procedure, the following definitions apply.

Aerosol means minute droplets of water or the residue from their evaporation, which are so small as to remain suspended in air with negligible falling velocity.

Cooling tower and evaporative condenser mean heat rejection devices as defined in the *Notification of Cooling Tower and Evaporative Condensers Regulations 1992*:

"Cooling tower means a device whose main purpose is to cool water by direct contact between that water and a stream of air".

"Evaporative condenser means a device whose main purpose is to cool a fluid by passing that fluid through a heat exchanger which is itself cooled by contact with water passing through a stream of air".

Duty holder means the senior executive with management responsibility, for and on behalf of an organisation, for ensuring the activities of that organisation do not constitute an undue risk to health, safety and welfare and that the organisation does not breach any related legal duties.

Fail safe means a practice, procedure, precaution or other stratagem, which is designed to default to a safe condition.

L8 means the combined Health and Safety Commission approved code of practice and Health and Safety Executive guidance *Legionnaires' disease the control of legionella bacteria in water systems*.

Legionella means any bacteria of the *Legionella* genus

Legionellosis means an infection caused by *Legionella* and includes Legionnaire's Disease, Pontiac Fever and Lochgolihead Fever.

Responsible Person means the head of the division/service that holds the day to day responsibility for ensuring the delivery of the content of this policy across the organization.

Responsible Manager means the operational officer for managing the implementation and services for the control of *Legionella* across the organisations property portfolio and instructing building managers and relevant persons in the council's procedures and controls.

5. Responsibilities

Lines of Responsibility

East Cambridgeshire District Council's duty to maintain and implement the Legionella Policy falls under the remit of the **Facilities Team**. The responsible manager will implement the control schemes as detailed in this document reporting to the duty holder.

Duty Holder

The Duty Holder has a responsibility to support this policy by ensuring the allocation of resources including an adequate budget, suitable and sufficient equipment, personnel, time and training.

In particular they will:

- Eliminate Risk where possible
- Appoint appropriate "Responsible Persons" to oversee, control and coordinate the control of the risk of legionellosis
- Ensure that there are adequate resources available to control the risk of legionellosis

The Duty Holder is: The Chief Executive, **John Hill**

The Chief Executive

East Cambridgeshire District Council
The Grange
Nutholt Lane
Ely

Cambridgeshire
Tel: 01353 665555

The Responsible Person

The Responsible Person has been given their authority by the Duty Holder. The position carries with it the authority to put into effect such measures as are required to control the risk of legionellosis, both as a matter of routine and in the event of a crisis. The Responsible Person has a duty to ensure that Approved Code of Practice (ACOP) L8 and all relevant legislation associated with the management and control of legionellosis are adhered to. The Responsible Person also has a responsibility to ensure records are kept to confirm that this policy has been implemented.

The Responsible Person has the overriding authority for the control of *Legionella* to ensure that all East Cambridgeshire District Council sites meet the requirements of Legislation and this policy. The “Responsible Person” is required to ensure that nominated ECDC staff are trained and competent to carry out the prescribed task on their behalf and to ensure that the “Responsible Person” tasks and requirements are duly met.

The Responsible Person for the control of *Legionella* within East Cambridgeshire District Council property portfolio is: **Director Commercial, Emma Grimmer.**

Responsible Manager

The Responsible Manager has been given their authority by the “Responsible Person” to act on their behalf to oversee the day to day management of *Legionella* control for East Cambridgeshire District Council. This person has responsibility for overseeing and co-ordinating the *Legionella* Policy and Procedure. This position carries with it the authority to put into effect such measures as are required to control the risk of legionellosis, both as a matter of routine and in the event of a crisis. The Responsible Manager also has a responsibility to ensure records are kept to confirm that this policy has been implemented.

They have the responsibility for the day-to-day management including ensuring that the scheme of precautions to control the risk of legionellosis is implemented fully by competent persons, whether directly employed by East Cambridgeshire District Council, contracted or subcontracted.

In particular they will:

- Oversee the control and management of legionellosis on behalf of the Duty Holder.
- Ensure that legionellosis risk assessments are carried out on behalf of the Duty Holder.
- Eliminate risk where reasonably practicable.
- Control risk where elimination is not reasonably practicable, by devising and implementing a scheme of precautions.
- Arrange maintenance, monitoring and management of the precautions controlling the risk, including reviewing the risk assessment if there has been any material change and at intervals not exceeding two years.
- Arrange the procurement of competent help, as required, including ensuring that the organisations and individuals deployed are competent and appropriately trained and experienced.
- Keep records.

The Responsible Manager is: **Open Spaces and Facilities Manager, Spencer Clark.**

Operators

May be designated site staff and/or contractors with designated duties.

Operators have responsibility for the safe operation of plant, equipment and facilities, implementing the scheme of precautions and doing so using safe working practices.

In particular they will:

- Perform with integrity the given tasks that they have been trained to perform
- Maintain records as required
- Inform the Responsible Manager of any problems, discrepancies or anomalies
- Attend regular training events to maintain the required level of competency to perform their given tasks.

Water Treatment Service Provider

The Water Treatment Service Provider (contractor) has responsibility for the supply of water treatment chemicals, information on their application, an analytical service and such advice and support as may be necessary to ensure safe and effective water treatment.

The Water Treatment Service Provider also has responsibility for carrying out routine cleaning and disinfection of relevant plant, equipment and facilities, or accepting that this has been carried out satisfactorily by others.

The Water Treatment Service Provider may also be requested to carry out the routine tasks such as temperature recording or flushing of little used outlets. They will record these findings and submit them to the responsible manager to maintain the records for East Cambridgeshire District Council.

Advisors who are directly employed by East Cambridgeshire District Council, provided by a contractor with other responsibilities or appointed separately in an independent capacity have responsibilities to supply relevant, accurate and up to date information within their field of expertise via the established lines of communication to facilitate and support the control of legionellosis.

6. Assessment of the Risk of Legionellosis

The Responsible Manager will commission a risk assessment in line with the Health and Safety Commission's ***Approved Code of Practice (ACOP L8): Legionnaires' disease – The Control of Legionella Bacteria in Water Systems*** with an appropriately competent contractor to assess the risk of legionellosis, on all plant, equipment, facilities, and, as appropriate, work and work-related activities. This risk assessment shall provide the information required by the Responsible Manager, under the authority of the Duty Holder, to decide:

- Where the risk is negligible and likely to remain so.

- Where the risk is significant but can be eliminated.
- Where the risk is significant but can be controlled.
- Where the risk is significant but cannot be controlled.

IF THE RISK ASSESSMENT IDENTIFIES SIGNIFICANT RISK OF LEGIONELLOSIS, WHICH CANNOT BE CONTROLLED, THE PLANT, EQUIPMENT, FACILITY, WORK OR WORK-RELATED ACTIVITY SHALL BE SUSPENDED UNTIL A SAFE MEANS OF OPERATION HAS BEEN DEvised AND IMPLEMENTED.

Where suspension of the plant, equipment, facility, work or work related activity is required, the Responsible Manager will issue formal notification to the site management of any required remedial actions on behalf of the Responsible Person. The Responsible Manager and the site management will formulate an action plan to manage site conditions, including staff and public awareness as required. The requirement of both site management and staff to adhere to both the Responsible Persons and the Responsible Managers instructions is absolute. The Responsible Manager will issue further formal notification that any suspended plant, equipment, facility, work or work related activity can be re-used, once any issues are satisfactorily resolved.

The legionellosis risk assessment shall be carried out in a methodical and structured way to comply with the requirements ACOP L8 and shall include consideration of the following:

- The likelihood of *Legionella* contamination at source, or on site;
- The conditions prevailing to take account of the likelihood of *Legionella* proliferating;
- Aerosol generation, dissemination and exposure; and
- The likely susceptibility of those exposed.
- A full schematic drawing of the water system.
- An asset list of all the water services referenced against the council's property asset as provided by Facilities

7. Elimination of the Risk of Legionellosis

Where the risk assessment identifies a risk that is significant, all reasonably practicable (see HSE website for further definition reasonably practicable) measures shall be taken to eliminate that risk.

Reasonable practicability includes consideration of what is practicable (feasible) and, in relation to all actions that are practicable, whether they are reasonable when the quantum of the assessed risk is measured against the sacrifice (whether in money, time or trouble) involved in the feasible measures necessary to eliminate the risk.

8. Control of the Risk of Legionellosis

Where the risk assessment identifies a risk that is significant and it is either not practicable (not feasible) or practicable but not reasonable to eliminate that risk, a written scheme of precautions shall be devised and implemented to control that risk.

Domestic Cold and Hot Water Systems

Risk

The ideal growth temperature range for *Legionella* bacteria is 20-45°C. Temperatures between 20-45°C are not unusual in poorly managed or poorly specified water systems. The combination

of the above temperature range with the presence of scale, debris and stagnation within a hot water system will result in *Legionella* growth.

Control

ECDC adopts temperature control as its primary control measure, maintaining water temperatures and throughput, configuration and cleanliness so as to avoid conditions under which *Legionella* can proliferate. All water systems will be maintained to ensure that cold water temperatures below 20°C and hot temperatures above 50°C are supplied to outlets. All stored water will be maintained at temperatures of 60°C or above.

Where temperature control cannot be maintained an engineering solution will be sought if this is not viable then alternative methods of control such as dosing with chlorine dioxide may be a suitable alternative.

Cooling tower systems and evaporative condensers

Routine cleaning and disinfection in strict accordance with guidance in L8, hardness control, corrosion control, total dissolved solids control, suspended solids control (where necessary) and microbiological control.

Where systems or parts of systems are not in continuous use, precautions are required to guard against stagnation.

A service contract will be set up with a Water Treatment Services Contractor to monitor and treat the water system in accordance with the ACOP L8 guidelines. Weekly checks will be carried out with the report being delivered to the Responsible Manager to determine adequate controls are being maintained.

Monthly *Legionella* samples will be taken whilst cooling tower systems and evaporative condensers are in operation. Whilst not in operation all systems will be cleaned and drained down and not put back into use until the approved start up procedures and service contract have been put in place.

Other water Systems

In other water systems, specifically designed legionellosis control schemes are required depending on the findings of their risk assessments.

Legionella Testing

The testing for *Legionella* bacteria will not be carried out as a standard measure except for cooling towers and properties that have increased or perceived greater risk of being colonized and/or where there is a recognised higher risk group of users within or using those premises. *Legionella* testing will also be carried out at properties where the usual control measures have failed and/or at premises which have had a previous test result returned as positive for the *Legionella* bacteria.

9. Management Control

The risk assessment, elimination of risk, devising and implementing the scheme of precautions and co-ordinating competent individuals for each aspect shall be effected by the Responsible Manager.

All foreseeable contingencies are to be considered and procedures are to be devised which fail safe, rather than unsafe, wherever practicable. (For example, unused plant may be drained, not stored full of stagnant water, which requires remedial rather than precautionary disinfection prior to re-commissioning).

For each foreseeable significant deviation from normal and satisfactory operation, there is to be a plan of action for correcting the fault and demonstrating that this has been effective.

Training

The Responsible Person will ensure that time and allocation of resources are provided to the Responsible Manager to keep up to date with all current legislation and recommendations of statutory responsibility.

The Responsible Person will ensure that the Legionella Policy is distributed to all within East Cambridgeshire District Council who have a duty to manage premises or may have cause to carry out works or actions that may affect water systems or the management thereof.

The Responsible Manager will organise Legionella awareness-training to ensure the Jointly Accountable Responsible Persons are appropriately trained.

10. Monitoring and Review

Where the risk assessment identifies a risk, which is negligible and likely to remain so, that risk assessment shall be reviewed in two years.

Where the risk assessment identifies a risk which is significant and can be eliminated, that risk assessment shall be reviewed once the elimination has been effected.

Where the risk assessment identifies a risk, which is significant and can be controlled, that risk assessment shall be reviewed once the controls have been implemented or whenever there is a change, which may affect the risk.

Where elimination of a negligible risk is practicable (feasible) but not reasonable for reasons of cost, that reasonability study shall be reviewed whenever significant expenditure (such as for renovation) is considered.

Risk assessments, practicability studies and schemes of precautions where there is no reason to suppose there has been any relevant change shall be reviewed (but not necessarily repeated or redrafted) in two years.

Those with responsibilities within this policy (Operators, Water Treatment Service Provider, Advisors, Responsible Manager, Responsible Person and Duty Holder) shall report via the lines of communication to ensure that control measures are implemented, monitored to confirm their effectiveness and managed to maintain control of the risk of legionellosis and that risk assessments, practicability studies and schemes of precautions are reviewed in accordance with this policy.

Unless particular local conditions or findings of the risk assessment demand otherwise, monitoring shall be as advocated by:

- The HSE in ACOP L8 (Table 1 and Checklists 1, 2 and 3).

11. Emergency Procedures

The following procedures are to be followed in the event of the following occurrences:

1. *Failing Temperature control:* Where it has been recorded that the temperature control for water systems have fallen outside the agreed parameters the Responsible Manager will investigate and action. Where a one off fault has been identified and the rectification has resulted in the correct temperatures being achieved no further action will be taken. If temperature control consistently fails and the fault cannot be rectified the responsible manager will report to the Responsible Person.

Legionella sampling will be instigated and maintained until the system fault can be rectified or until an approved alternative control measure has been implemented and shown to be working.

2. *Shutdown/mothballing of premises:* Where premises are not used for prolonged periods then they should not be occupied again until a re-commissioning process has occurred.

3. *Legionella Bacteria associated with a system:* Where a test for the *Legionella* has been carried out and returned as positive for a premises then the responsible manager shall notify the responsible person immediately they are aware. They will carry out a risk assessment of the building and its users to determine the next course of action which could be but not limited to, a complete flush through of the water system, pasteurization of the water system, chlorination of the water system, engineering solutions to remove potential problem to the system. Where a positive result has occurred sampling for the *Legionella* bacteria will continue until at least two clear samples have been received. The amount and intervals between the samples will be as directed by the Responsible Manager following the risk assessment of the premises and its users.

12. Record Keeping

The Responsible Manager (on behalf of the Duty Holder) shall keep appropriate records to confirm that the risk assessment; elimination or control of the risk has been effected fully by competent individuals. All records shall be signed by the person who did the work and dated.

13. Procedures for Projects

All new water systems or modifications will be designed, constructed and installed in accordance with current legislation.

In order to ensure a consistent and compliant standard of delivery for all alterations to the council's property portfolio, all projects that affect water services will be notified to the Responsible Manager. Works that constitute a material change to the water services/system will require a new *Legionella* risk assessment to be carried out as part of the project.

14. Policy Monitoring and Review

The Responsible Manager has overall responsibility for taking all reasonable steps to ensure that this policy is complied with and will conduct audits on a yearly basis to measure compliance on all East Cambridgeshire District Council sites and record the results.

The policy will be formally reviewed and updated every two years by the Responsible Manager, or sooner if deemed appropriate, or by reasonable request.

Any subsequent amendments brought about by a review will be submitted to East Cambridgeshire District Council's Health and Safety Forum for sanction.

Appendix 1

Frequencies recommended by the L8 Approved Code of Practice

Services	Task	Frequency	By Whom
All Water Services	<p>A risk assessment on each system should be carried out and reviewed at least every two years or earlier if:-</p> <ul style="list-style-type: none"> • Significant changes have been made to a system, e.g. remedial works have been implemented. • Significant changes have occurred in the way a system is being used, e.g. a formerly occupied building is now only partially occupied. • Changes have been made to the management and/or maintenance of the system, e.g. 6 months after a new maintenance company has been appointed. • The results of checks indicate that control measures are no longer effective. • A case of Legionnaires' disease is associated with the system. • There is new information about risks or control measures. 	<p>Initial Risk Assessment</p> <p>Reviewed every year (two years maximum)</p>	Facilities / Specialist contractor
Hot water services	Arrange for samples to be taken from hot water calorifiers in order to note condition of drain water	Annually	Specialist contractor
	Check and record temperature in flow and return pipe work at calorifiers	Monthly	On site staff/or specialist contractor
	Check and record water temperature by running the water for up to one minute to see if it has reached 50°C in the sentinel taps. If TMV's are present then temperature must be taken from the hot supply pipework that feeds the TMV.	Monthly	On site staff/or specialist contractor
	Check and record representative number of taps for temperature (as above) on a rotational basis. If TMV's are present then temperature must be taken from the hot supply pipework that feeds the TMV.	Monthly	On site staff/or specialist contractor
	Visual check on internal surfaces of calorifiers for scale and sludge. Check	Annually	Specialist contractor

	representative taps for temperature as above on a rotational basis. Check thermostat settings and adjust if required Check pump/s for correct operation.		
Cold water services	Check and record water temperature remote from ball valve and mains temperature at ball valve. Note maximum temperatures recorded by fixed max/min thermometers where fitted.	Six monthly	Specialist contractor
	Check and record that temperature is below 20°C by running the water from tap for up to two minutes in the sentinel taps.	Monthly	On site staff/or Specialist contractor
	Check and record representative number of taps for temperature (as above) on a rotational basis.	Monthly	On site staff/or Specialist contractor
	Visually inspect cold water storage tanks and carry out remedial work where necessary.	Annually	Annually
Thermostatic Mixing Valves (TMV's)	TMV's should be serviced annually and a representative number checked monthly on a rotational basis to ensure they are operating with the design specifications	Monthly	On site staff/or Specialist contractor
Shower heads	Dismantle, clean and de-scale shower heads and hoses	Quarterly or as necessary	On site staff/or Specialist contractor
Little-used outlets	Flush through and purge to drain, or purge to drain immediately before use, without release of aerosols	Weekly	On site staff/or Specialist contractor

Set up Log Book (One per site)	To set up on site log book as laid down within ACOP L8	Specialist contractor
Calorifiers & random showers	To carry out quarterly <i>Legionella</i> sampling(if considered necessary)	Specialist contractor
Cold water storage tank Sentinel outlets Random outlets	To carry out six monthly bacteriological sampling.	Specialist contractor

Please note. All tasks noted as 'on site staff/specialist contractor' are considered suitable to be carried out by on site staff, but may be contracted out where premises are not able to carry out this work or prefer to contract it back to the specialist contractor. On site staff will only be allowed to carry out these functions if they have received appropriate specialist training organised by Facilities.

Definitions

Sentinel Taps

- For Hot water services this is the first and last taps on a re-circulation system.
- For cold water systems these are (or non re-circulating hot water systems), the nearest and furthest taps from the storage tank/mains supply.

The choice of sentinel taps may also include other taps that are considered to represent a particular risk.

Appendix 2

Legionella Sampling

Action levels and required responses following positive results from *Legionella* testing of water systems.

Type of bacteria	Number of bacteria	Action	Response
<i>Legionella pneumophila</i> serogroup 1	>1000 cfu/l (cfu colony forming units)	System shut down and disinfect	Immediate when notification is received
	>100 <1000 cfu/l	Shut down shower Systems. Pasteurise hot water systems and flush through all water outlets. Disinfect hot & cold water systems.	Within 48 hours
	<100 cfu/l	Pasteurise hot water systems and flush through all water outlets	Within 72 hours
Any other <i>Legionella</i> species	>1000 cfu/l	Pasteurise hot water systems and flush through all water outlets	Within 48 hours
Ongoing actions		Resample system until two consecutive sets of clear samples are received.	Initial actions to be completed immediately, try to identify the cause of the contamination and set up a remedial course of measures to prevent re-occurrence.

Appendix 3

East Cambridgeshire District Council structure chart for the control of *Legionella*

