



**MANAGEMENT PROCEDURE & PERFORMANCE STANDARD FOR  
THE CONTROL OF LEGIONELLOSIS INCLUDING LEGIONNAIRES  
DISEASE**

**Issue Date: January 2018**




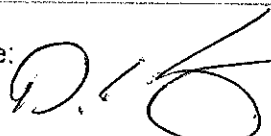
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DOCUMENT HISTORY

Issue	Date	Details
1.	January 2012	Legionella Operational Procedural Document including safe Hot Water, Cold Water, Drinking Water and Ventilation Systems supplied by Hydrop
2.	January 2017	New Document prepared by Tetra Consulting and re-titled: Management Procedure & Performance Standard for the Control of Legionellosis including Legionnaires Disease.
3	January 2018	Amendment to reflect changes to Water Management structure (Section 4)

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## 1.0 Statement and Aim

The University of Kent (the University) recognises and accepts its responsibility under the Health and Safety at Work Act etc. 1974 and the Control of Substances Hazardous to Health Regulation 1999, to take all reasonable precautions to prevent or control the potential of Legionellosis to residents, staff and other persons working at or using its premises.

The University recognises its responsibility to implement, in full, the Codes of Practice and all other relevant and associated documentation, particularly The Health and Safety Commission's Approved Code of Practice – L8 (4<sup>th</sup> Edition)

This Management Procedure and Performance Standards document sits under the University's Health & Safety Policy and provides the management, operations and maintenance details of how the Domestic Water Systems, under the direct responsibility of the University, are maintained to ensure current best practice, complying with all current and relevant guidelines and legislation relating to the management and control of Legionellosis including Legionnaires Disease.

The University will:

- i. identify and assess sources of risk;
- ii. prepare a scheme for preventing, reducing or controlling the risk;
- iii. implement and manage precautions;
- iv. keep records of the precautions implemented and will do so for each of the premises within the University's control.

The University will use temperature as the primary method of Legionella control and water management.

Where required secondary treatment systems will be considered to assist in maintaining a good quality of water. Where installed these will be maintain as per manufacturers guidelines and current Legislation and Guidance.

## **2.0 General Responsibilities**

### **2.1 Employer's Duties**

The University as employer has a general duty under The Health and Safety at Work Act etc. 1974 to ensure so far as is reasonably practicable, the health, safety and welfare of all its employees.

HSWA 2(1) requires employers to:

- i. provide and maintain plant and systems of work that are safe and free from health risks
- ii. make arrangements for ensuring safety and the avoidance of health risks in connection with the use, handling, storage and transportation of articles and substances (HSWA 2(2)b)
- iii. provide such information, instruction, training and supervision to ensure the health and safety at work of their employees [HSWA 2(2)c]
- iv. provide a safe working environment [HSWA 2(2)e]
- v. those in control of premises must ensure that they are safe and that any plant or substance does not endanger health of any persons at work or the general public (HSWA 4)

### **2.2 Employees' Duties**

Employees have a duty under Section 7 of the Health and Safety at Work Act etc. 1974 to take reasonable care for their own health and safety and that of others who may be affected by their acts or omissions at work.

## **3.0 Delegated Responsibilities**

### **3.1 Director of Estates**

- Overall responsibility for the quality of water in the properties that the University are responsible for.
- Nominate, in writing, the Legionella Responsible and Deputy Responsible Persons

### **3.2 Legionella Responsible Person**

- Accept responsibility for Legionella control
- Responsible for the implementation of this document across all properties that the University has responsibility for.
- Review this document when required
- Ensure all water systems are designed in line with the L8 ACoP, HSG274 Part 2 and BS8558:2015
- Manage the Deputy Responsible Persons

- Manage the Legionella Risk Assessment programme keeping records upto date
- Ensure the Persons undertaking the Legionella Risk Assessments are competent
- Ensure the Legionella Management programme is audited on an annual basis
- Ensure the Deputy Responsible Persons and Water Hygiene Team have upto date training with complete records

### **3.3 Legionella Deputy Responsible Persons**

- Accept responsibility for Legionella control
- Responsible for the day to day implementation of this document across all properties that the University are responsible for.
- Implement and maintain the Pre-Planned Maintenance and Monitoring regime (See section 10)
- Ensure the electronic records, from the monitoring, are maintained complete and upto date
- Manage the faults reported, by the Water Hygiene Team, as part of the Pre-Planned Maintenance and Monitoring regime, keeping full records
- Manage the Water Hygiene Team
- Manage the Recommendations made as part of the Risk Assessments keeping full records
- Prepare Monthly Defect Reports from the Monitoring schedule
- Ensure all equipment used by the Water Hygiene Team is in good order, within calibration with upto date records

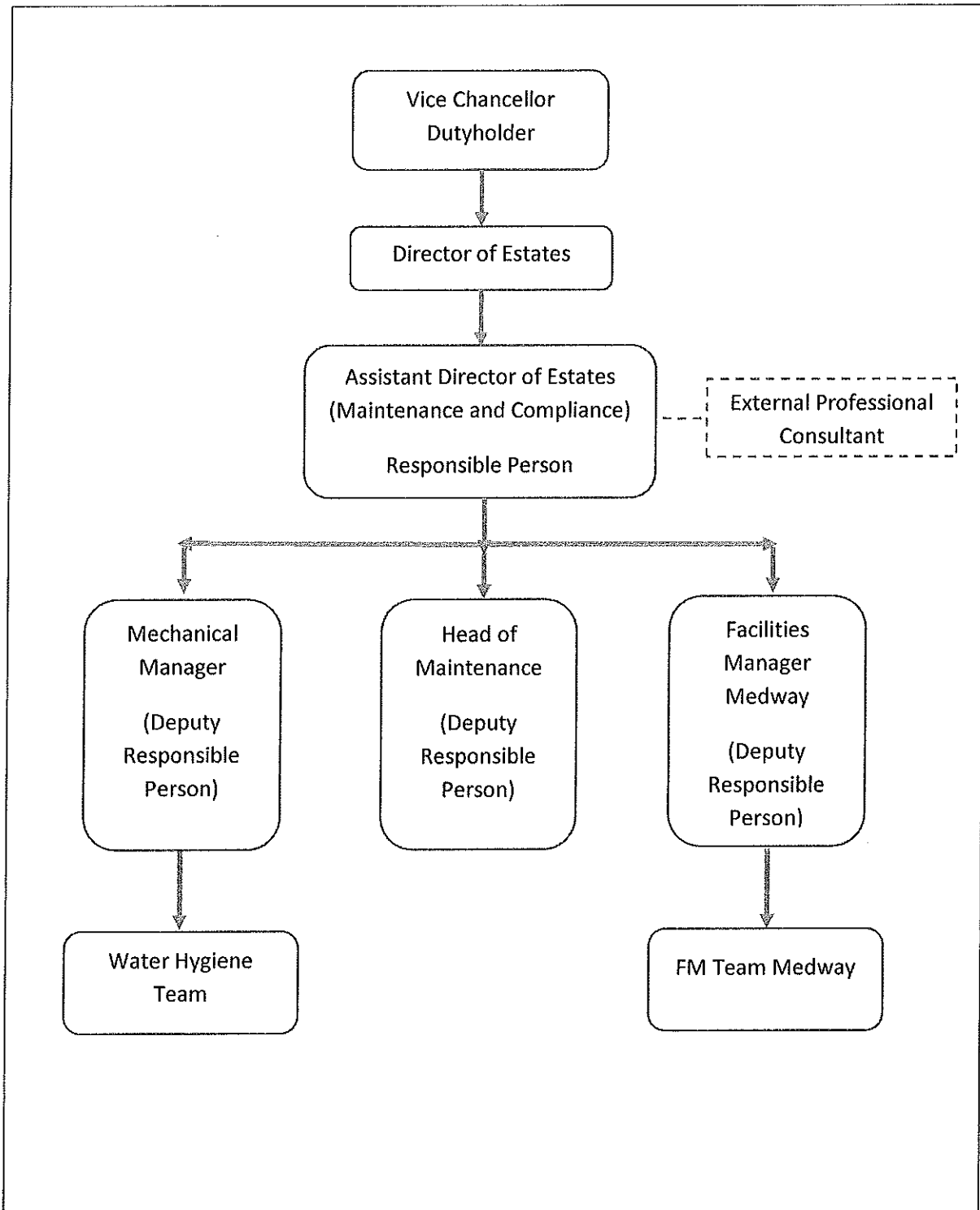
### **3.4 Water Hygiene Team**

- Responsible for carrying out the Pre-Planned Maintenance and Monitoring regime (See section 10)
- Maintain the electronic records upto date from the monitoring programme
- Report all faults, out of specification results and problems to the Deputy Responsible Persons in a timely manner.

### **3.5 External Professional Consultant**

- Undertake the annual independent Audit as detailed in section 8.0
- Available for ongoing consultancy and advice
- Oversee the Legionella Risk Assessments Programme

#### 4.0 Water Management Structure



## **5.0 Water Hygiene Compliance Meetings**

These meetings are held on approximately a 4 monthly basis with the aim to hold 3 per year.

The formal meetings are chaired by the Responsible Person and attended by the Deputy Responsible Persons. Minutes are prepared for each meeting.

## **6.0 Legionella Risk Assessments**

The 4<sup>th</sup> Edition of the L8 ACoP states that a suitable and sufficient assessment must be carried out to identify and assess the risk of exposure to legionella bacteria from work activities and water systems on the premises and any precautionary measures needed.

The assessment should be reviewed regularly and specifically when there is reason to believe that the original risk assessment may no longer be valid.

The Legionella Risk Assessment programme will be managed by the Responsible Person with full records kept.

The remedial works resulting from the Risk Assessments will be managed by the Deputy Responsible Person with full records kept of all actions undertaken.

The Risk Assessments status table will be regularly updated by Tetra Consulting and reproduced in the annual independent audit report.

## **7.0 Training Requirements**

An ongoing training programme is in place with a 3 yearly refresher frequency unless there is a major change to Legislation or Guidance or the Responsible Person deems extra training as being necessary.

The Responsible and Deputy Responsible Persons will complete at least an accredited and tested course.

The Water Hygiene Team will attend a Half Days General Awareness Course with an exam included.

## **8.0 Auditing**

The Responsible Person will procure an annual independent audit of the Legionella and Water management programme in January each year or as soon as possible thereafter. A report will be produced with the findings and recommendations arising from the audit which will also detail the Risk Assessment status table.

The report will be presented at the first Water Hygiene Compliance Meeting after the audit at which time the recommendations will be reviewed and an action plan agreed with timescales for completion. The action plan will be reviewed at the subsequent quarterly meetings with updates from the Responsible Person and Deputy Responsible Persons on actions completed and outstanding.



## 9.0 Little Used Outlet Flushing

The local users of the water services will be encouraged to flush all known little used outlets on a weekly basis. If an outlet is not required they are to advise the Estates Department so removal of the outlet can be considered.

## 10.0 Pre-Planned Maintenance, Monitoring Regime and Control Parameters

The following programme is in operation to help maintain the safe operation of the water services.

### Cold Water Storage Tanks

Task	Task Frequency	Parameters	Responsibility
Temperature monitoring	6 Monthly	Less than 20°C	Water Hygiene Team and Medway FM Team
General visual inspection	6 Monthly	Clean internal surfaces	Water Hygiene Team and Medway FM Team
Clean /Disinfection	As required	L8, HSG274 Part 2 and BS8558:2015	Deputy Responsible Person
Microbiological Sampling (TVC's)	As Required	No increase compared to mains supplies	Responsible Person

### Hot Water Calorifiers

Task	Task Frequency	Parameters	Responsibility
Flow / return	Monthly	Above 60°C for Flow and above 50°C for Return	Water Hygiene Team and Medway FM Team
General visual inspection	3 Monthly	Good condition with no leaks or damage	Water Hygiene Team and Medway FM Team
Clean / disinfection	As required	Clean internal surfaces	Water Hygiene Team and Medway FM Team
Drain flushing	3 Monthly	Clean water	Water Hygiene Team and Medway FM Team
Microbiological analysis	As required	BS7592	Responsible Person

Task	Task Frequency	Parameters	Responsibility
Drain water condition	3 Monthly	Clean water	Water Hygiene Team and Medway FM Team

**Electric Water Heaters, including Cistern Water Heaters (>15 litres)**

Task	Task Frequency	Parameters	Responsibility
Check temperatures	Monthly	Above 60°C for Flow	Water Hygiene Team and Medway FM Team
General visual Inspection-Including integral cold tank section	3 Monthly	Clean internal surfaces	Water Hygiene Team and Medway FM Team

**Point of Use Water Heaters (1-15 litres)**

Task	Task Frequency	Parameters	Responsibility
Check temperatures	6 Monthly	Above 50°C for First draw	Water Hygiene Team and Medway FM Team
General visual Inspection	6 Monthly	Good conditions with no leaks	Water Hygiene Team and Medway FM Team

**Cold and Hot Outlets**

Task	Task Frequency	Parameters	Responsibility
Temperature monitoring (sentinel)	Monthly	Below 20°C after a 2-minute flush for cold. Above 50°C after a 1-minute flush for Hot	Water Hygiene Team and Medway FM Team
Temperature monitoring (representative)	12 Monthly	Below 20°C after a 2-minute flush for cold. Above 50°C after a 1-minute flush for Hot	Water Hygiene Team and Medway FM Team
Clean / disinfection	As required	Clean and scale free	Deputy Responsible Person
Legionella	3 Summer Months (20)	Less than 100cfu/litre	Responsible Person
E. coli and Coliforms	Monthly (20)	0 cfu/100ml of either organism	Responsible Person
Microbiological analysis (TVC's)	Monthly (20)	No increase compared to mains supplies	Responsible Person

**Thermostatic Mixing Valves**

<b>Task</b>	<b>Task Frequency</b>	<b>Parameters</b>	<b>Responsibility</b>
Temperature monitoring	12 Monthly	Maximum of 43°C	Water Hygiene Team and Medway FM Team
General visual inspection	12 Monthly	TMV in good condition	Water Hygiene Team and Medway FM Team
Clean / disinfection	As required	Strainers clean and scale free	Water Hygiene Team and Medway FM Team
Fail-safe testing	12 Monthly	Immediate outlet flow stops when cold feed turned off	Water Hygiene Team and Medway FM Team

**Showers with (thermostatic mixing valves fitted)**

<b>Task</b>	<b>Task Frequency</b>	<b>Parameters</b>	<b>Responsibility</b>
Temperature monitoring	12 Monthly	Maximum of 41°C	Water Hygiene Team and Medway FM Team
General visual inspection	3 Monthly	Clean shower head, scale free	Water Hygiene Team and Medway FM Team
Clean / disinfection	3 Monthly	Clean shower head, scale free	Water Hygiene Team and Medway FM Team
Microbiological analysis	As required	BS7592	Deputy Responsible Person

## Chlorine Dioxide Plant (Keynes College)

Task	Task Frequency	Parameters	Responsibility
General Plant Inspection	Monthly	Plant in good condition, running normally and with good chemical stock levels	Responsible Person
Chemical Level Checks in System	Monthly	0.1 – 0.5ppm	Responsible Person
Legionella Sampling	Monthly	Less than 100cfu/litre	Responsible Person

### 11.0 Legislation and Guidance

The University, in implementing this Management Procedure & Performance Standard will use, as a general source of practical help, the documents listed below:

- Health & Safety Executive Approved Code of Practice 2013 - The Control of Legionella bacteria in water systems (L8)
- Health & Safety Executive Guidance (HSG 274 Parts 2 and 3)
- Health and Safety at Work etc., Act 1974, Sections 2, 3 and 4 (HSW)
- The Management of Health and Safety at Work Regulations 1992 and The Health and Safety (Miscellaneous Amendments) Regulations 2002
- Control of Substances Hazardous to Health Regulations 2002, Regulation 6 (COSHH)
- The Water Supply (Water fittings) Regulations 1999
- The Water Supply (Water Quality) Regulations 2000
- BS 8580:2010 – Water Quality – Risk assessments for Legionella Control
- BS 8558:2015 - Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages.

### 12.0 Record Keeping

#### 12.1 Canterbury Campus

Records relating to most tasks at the Canterbury Campus are held on the University's CAFM system. Defects are managed on a paper based system. All these records can be accessed in the Compliance Office of the Estates Department at the Canterbury Campus. The records of any flushing that the Water Hygiene Team undertake are kept in the Legionella room in the Estates Department at the Canterbury Campus.

#### 12.2 Medway Campus

Records relating to the tasks and defects at the Medway Campus are kept on the Healthy Buildings International – Records for Buildings web based software which can be accessed in the Facilities Management Office, Medway Building, Medway Campus.