



Water Quality Management Policy

Contents

1.	Statement of Aims and Objectives.....	2
2.	Purpose of the policy	3
3.	Definitions of Legionella	3
4.	Responsibilities.....	5
5.	The Duty Holder	5
6.	Procedure	9
7.	Risk Assessment.....	9
8.	Education and Training.....	11
9.	Monitoring compliance.....	11
10.	Audit and Review (evaluating effectiveness)	12
	References.....	12



1. Statement of Aims and Objectives

- 1.1. South East Coast Ambulance Service NHS Foundation Trust (the Trust) is committed, through the Board of Directors and all levels of management, to **ensure so far as is reasonably practicable that:**
- 1.2. All employees' health, safety and welfare are safeguarded whilst at work.
- 1.3. Contractors, volunteers and visitors entering our premises are protected from exposure to any health and safety risks during the course of their business or visit.
- 1.4. There are operational procedures in place to ensure safe water systems throughout the Trust's premises.
- 1.5. This policy has been developed to ensure compliance with legislation and adherence with the Health and Safety Executive's Approved Code of Practice and guidance on the Control of Legionella Bacteria in Water Systems, known as *L8*. As well as taking into account: *HSG 274-Legionnaires' Disease: Technical Guidance*. This guidance provides practical advice on conforming with the ACOP; as well as compliance with the *Health and Safety at Work etc. Act 1974*; the *Control of Substances Hazardous to Health Regulations 2002*, concerning the risk from exposure to Legionella; and compliance with the relevant parts of the *Management of Health and Safety at Work Regulations 1999*; and *RIDDOR 2013*.
- 1.6. The Trust is committed to complying with The *Health and Safety at Work etc. Act 1974*; the *Control of Substances Hazardous to Health Regulations 2002* and the Approved Code of Practice and guidance on the Control of Legionella Bacteria in Water Systems (*L8*).
- 1.7. The Trust is committed to complying with the *Health and Safety at Work etc. Act 1974* and with the *Management of Health and Safety at Work Regulations 1999*, with regard to the risk of scalding.
- 1.8. The Trust is committed to complying with the *Water Supply (Water Fittings) Regulations 1999*, regarding all domestic water installations, meeting with the conditions laid down by the *Water Regulations Advisory Scheme*.
- 1.9. This policy sets out the scope of responsibilities for specific employees, as shown in the *South East Coast Ambulance Service NHS Foundation Trust Water Quality Management Structure* organisational chart [Section 7.18].
 - 1.9.1. **This policy is also applicable to:**
 - Directors, Heads of Service and Senior Managers, who have responsibilities as set out in the Health & Safety Policy (V7.00).



Any employees with responsibilities for the management of Trust premises or those with responsibilities for overseeing contractors working on and maintaining services within Trust premises.

- 1.9.3. All employees who design and oversee work to water systems on Trust premises or those who commission consultants and contractors to design and oversee work to water systems on Trust premises.

2. Purpose of the policy

- 2.1. The health and safety of anyone affected by the work of the Trust is a responsibility that is taken seriously. This document sets out the Trust's policy for protecting its employees and other users of the Trust's premises, against Legionella and other waterborne contaminants, as well as protecting them from the risk of scalding. The Trust recognises the following keys factors in fulfilling the Trust's obligations and this policy sets out effective mechanisms to ensure that these are achieved.
- 2.2. The safe operation of water services. This includes all planned and reactive maintenance of existing water systems; as well as design, installation and commissioning of new water systems.
- 2.3. Adequate training for all employees involved in any aspect of water quality management on behalf of the Trust. As well as adequate management and supervision.
- 2.4. Competency of any *Responsible Person(s)* appointed by the Trust to fulfil the designated role; including assessment and/or management of risks.
- 2.5. Competency of risk assessors, contractors/sub-contractors, designers *competent help* etc. appointed by the Trust to undertake works or services associated water systems on any Trust premises.
- 2.6. Effective communication of roles and responsibilities.
- 2.7. Clear procedures that are communicated effectively.
- 2.8. Ongoing assessment and mitigation of risks.

3. Definitions of Legionella

- 3.1. Legionella is a common bacterium which can be found naturally in water sources such as ponds, rivers, lakes, streams and reservoirs. Since this are widespread in the environment, it can contaminate and grow (multiply)in water systems such as cooling towers and hot & cold-water services if not controlled and managed.



South East Coast Ambulance Service **NHS**

The optimum temperature range for Legionella bacteria growth is between 20°C to 45°C. Water temperature below 20°C seems to inhibit growth and it does not survive over 60°C.

- 3.3. The presence of sediment, sludge, scale and other material in the system can act as a source of nutrients for Legionella bacteria, as can the presence of organisms within the water, such as algae, amoebae and other bacteria.
- 3.4. Stagnation within the water system also creates favourable conditions for Legionella growth, together with the formation of biofilms (layers of micro-organisms which can create a protective later around Legionella and other bacterial colonies within the system, allowing them to flourish).
- 3.5. Legionella can cause severe respiratory disease, including a potentially fatal form of pneumonia called Legionnaires Disease. Anyone can be infected, but some groups are at higher risk e.g. those over 45 years of age, smokers, heavy drinkers, those suffering from chronic respiratory disease, those suffering from kidney disease, those with a compromised immune system. Males over 45 years of age have been found to be more susceptible than females of the same age group.
- 3.6. Legionnaires Disease is contracted by the inhalation of water droplets (aerosols) contaminated with Legionella bacteria. After an incubation period ranging from two to ten days, the characteristic symptoms begin with a high fever, chills, headaches and muscle pain. A dry cough develops, frequently accompanied by breathing difficulties. Left untreated, the disease may progress to respiratory failure and death. The fatality rate for sporadic cases is approximately 10%. However effective treatment can be achieved using antibiotics.
 - 3.6.1. **Water systems affected by this policy include:**
 - Water systems incorporating a cooling tower (e.g. air conditioning).
 - Water systems incorporating an evaporative condenser.
 - Hot & cold water systems.
 - 3.6.2. Any other plant or system containing water that is likely to exceed 20°C and which may release a spray or aerosol (i.e. a cloud of droplets) during operation or when being maintained.
 - 3.6.3. **Other risk systems that may produce aerosols include:**
 - Stored water systems e.g. rainwater harvesting & storage etc.
 - Vehicle washers.
 - Paint spray preparation equipment.



- Fire, dust and odour suppression systems.
- Sprinkler and hose reel systems.
- Non-disposable nebulisers, used for respiratory therapy.
- Emergency showers, eyebaths and face wash fountains.

4. Responsibilities

- 4.1. The Trust recognises that responsibilities should be well defined in writing and understood by all concerned. This policy aims to ensure that lines of communication are clear, unambiguous and audited regularly to ensure they are effective.

5. The Duty Holder

- 5.1. The Chief Executive Officer, as Duty Holder, is accountable for all aspects of the quality and safety of the water supplies and systems throughout the Trust.
- 5.2. The CEO, as Duty Holder, is responsible for making adequate funds and resources available, to ensure that this policy is fully implemented.
- 5.3. The CEO, as Duty Holder, is responsible for nominating, in writing, the specific role of an appointed competent person, known as the *Responsible Person*.
- 5.4. The CEO, as Duty Holder, is responsible for ensuring that the appointed Responsible Person(s) are suitably informed, instructed and trained and that their suitability is assessed. Regular refresher training should be given and the Responsible Person(s) should have a clear understanding of their role and the overall health and safety management structure and of the Trust's policy.
- 5.5. The CEO, as Duty Holder, should also ensure that all employees involved in work that may expose an employee or other person to legionella are given suitable and sufficient information, instruction and training.
- 5.6. The CEO, as Duty Holder, with the help of the Responsible Person(s) should make reasonable enquiries to ensure that all parties involved with water management and Legionella prevention, on behalf of the Trust, are competent, suitably trained and have the necessary equipment to carry out their duties safely and adequately.
- 5.6.1. **This includes but is not limited to:**



- Employees.
- Water Treatment companies.
- Consultants/Competent help.
- Contractors.
- Trainers.
- Risk Assessors.
- Laboratories.

5.6.2. The CEO, as Duty Holder, is responsible for ensuring that appropriate lines of communication are in place.

5.6.3. The CEO, as Duty Holder, is responsible for ensuring that emergency and contingency planning are in place.

5.6.4. The CEO, as Duty Holder must be aware of their responsibilities as set out in the Trust's Water Management Policy, the Trust's Health & Safety Policy and all associated guidance and legislation.

5.7. **The Responsible Person**

5.7.1. It is important for the appointed Responsible Person to have sufficient authority, competence and knowledge of the installations and system to ensure that all operational procedures are carried out in a timely and effective manner.

5.7.2. The Estates Manager, as Responsible Person, has responsibility for working together with the Water Safety Group [WSG]. The WSG is Chaired by the Head of Health, Safety and Security

5.7.3. The Estates Manager, as Responsible Person has responsibility for assisting with managing and co-ordinating the WSG, including day to day management of the allocation and supervision of contractors/sub-contractors, consultants and other *competent help*.

5.7.4. The Estates Manager, as Responsible Person has responsibility for ensuring water risk assessments are carried out (by a competent person) for all Trust premises, that risk assessments are reviewed, kept up to date and that effective control measures are implemented and managed.

5.7.5. The Estates Manager, as Responsible Person must ensure that there is effective communication regarding risks, so that those risks are managed and controlled effectively.



The Estates Manager, as Responsible Person has responsibility for ensuring there is a written scheme in place for Trust premises where required, including communicating recommendations for improvements and obtaining approval for budgeting accordingly.

- 5.7.7. The Estates Manager, as Responsible Person must ensure that the Appointed Person(s) is provided with sufficient resources and support to fulfil their designated role(s).
- 5.7.8. The Estates Manager, as Responsible Person must ensure that the Appointed Person(s) receives Legionella Awareness Training and that training records are kept.
- 5.7.9. The Estates Manager, as Responsible Person must ensure that a responsibility chart and record book are provided to all Trust premises.
- 5.7.10. The Estates Manager, as Responsible Person has responsibility for ensuring, via the Central Health and Safety Committee, that this policy is being implemented, monitored and reviewed efficiently.

5.8. The Appointed Persons – Projects

5.8.1. **The Head of Estates, as Appointed Person** - should liaise with the Estates Manager/Responsible Person regarding any work on Trust premises where: part or all of a system and or its associated plant are replaced, partially replaced or where significant changes are made; or where a new building has a hot and cold water system or plant installed. **This type of planned work includes but is not limited to:**

- Water systems incorporating a cooling tower (e.g. air conditioning).
 - Water systems incorporating an evaporative condenser.
 - Hot and cold-water systems.
- 5.8.2. Any other plant and systems containing water which is likely to exceed 20°C and which may release a spray or aerosol (i.e. a cloud of droplets) during operation or when being installed, maintained or removed.
- 5.8.3. The Head of Estates, as Appointed Person, has responsibility for ensuring water quality management and prevention of legionella is taken into account during the planning, pre-construction and construction phases of planned works, in any new or refurbished building, with reference to Health Technical Memorandums and the **following guidance and standards:**
- *Minimising the risk of Legionnaires disease CIBSE TM13 2013.*
 - *BS8558:2015 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages – Complementary guidance to BS EN 806.*

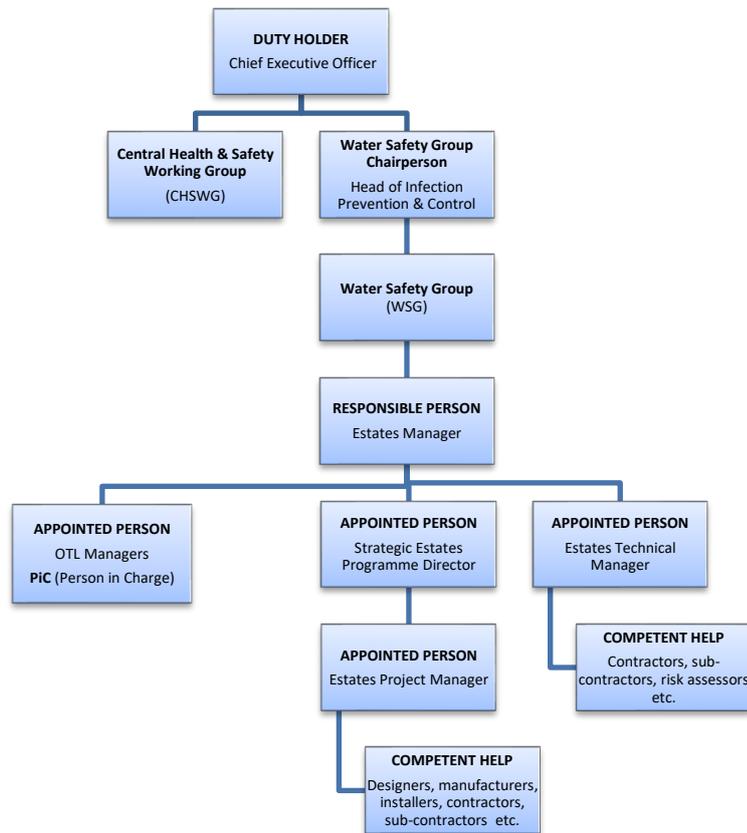


- *BS8580:2010 Water quality – Risk assessments for Legionella control – Code of practice.*
 - *Health Technical Memorandum 04-01 (2016) Safe water in healthcare premises: Part A: Design, installation and commissioning.*
 - *Health Technical Memorandum 04-01 (2016) Safe water in healthcare premises: Part B: Operational management.*
 - *Health Technical Memorandum 04-01 Supplement (2017) Safe water in healthcare premises.*
 - *Performance specification D 08: thermostatic mixing valves (healthcare premises).*
- 5.8.4. The Head of Estates, as Appointed Person, has responsibility for ensuring that relevant plans, relating to water services on Trust premises, are shared with the Estates Manager/Responsible Person and the Water Safety Group (WSG), prior to any works being commenced, contracts awarded or invitations to tender issued.
- 5.8.5. The Head of Estates, as Appointed Person, should ensure through design and construction, that effective maintenance, repair and monitoring of the water systems and associated services, can be achieved through the lifetime of a building. This should include the provision of adequate asset information and detailed O&M manuals for the maintenance of new services and equipment, as well as effective communication with the Estates Manager/Responsible Person and the Water Safety Group (WSG) throughout commissioning and handover.
- 5.8.6. **Project Managers, as Appointed Person(s)**, should support the Head of Estates to ensure compliance across all project/refurbishment works at all times.
- 5.8.7. **Appointed Person(s)** – Minor Works and BAU.
- 5.8.8. **PiC (Person in Charge) OTL Managers, as Appointed Person(s)**, should monitor and report to Estates any areas of concern, lack of maintenance, lack of up to date information on site.
- 5.8.9. **The Head of Infection Prevention and Control as Appointed Person** will act as independent support to the Chair of the WSG.
- 5.8.10. Estates Technical Managers, as Appointed Person(s), should support the Estates Manager to ensure compliance across all minor works, planned maintenance activities, and monitor records and information on the FM contractor on line portal to assist with ensuring the prompt response to any potential areas of non-compliance.



- 5.8.11. The Estates Manager, as Responsible Person and the Incident Reporting Group are responsible for the ongoing effectiveness of this policy.
- 5.8.12. The Trust's Central Health & Safety Committee will be the main forum for communication, consultation and involvement of water safety, issues supported by the Water Safety Group and the regional Health & Safety Groups, chaired by Operational personnel.

- **South East Coast Ambulance Service NHS Foundation Trust Water Quality Management Structure is as follows:**



- 5.8.13. All employees are responsible for adhering to this policy.

6. Procedure

- 6.1. This Policy must be read and adhered to in conjunction with the Trust's *Water Quality Management Procedure (V 2.0)*

7. Risk Assessment

- 7.1. A competent person must be appointed to undertake risk assessments and, along with those appointed to draw up an implement precautionary



measures, should have ability, experience, instruction information, training and resources to enable them to carry out their tasks competently and safely.

7.1.1. In particular, they should know the following:

- Potential sources of legionella bacteria and the risks they present.
- What measures and precautions to adopt to protect the people concerned, and their significance.
- Understand the significance of effective control measures and what action to take to ensure that control measures remain effective.

7.1.2. Communication is a key factor in the risk assessment process. The risks need to be identified and communicated to the Responsible Person(s) to allow them to prioritise remedial actions and to implement control measure accordingly.

7.1.3. The following factors constitute a Legionella risk:

- The presence of Legionella bacteria in sufficient numbers.

7.1.4. Suitable conditions for the proliferation of Legionella bacteria:

- Sources of nutrients (scale, corrosion, sludge, algae and other organic matter); stagnation (lack of use, oversized water storage, dead legs etc); water temperature between 20°C - 45°C.
- A means of creating an aerosol (breathable droplets) e.g. a shower or a cooling tower.
- The presence of people who could be exposed to breathable droplets.
- Therefore, all Trust premises with water systems which could release aerosols should be subject to a risk assessment.

7.1.5. Where the assessment demonstrates there is no reasonably foreseeable risk or that risks are insignificant and unlikely to increase, and are properly managed, no further assessment or measures are needed. However, if the situation changes, the assessment should be reviewed and revised, if any changes are needed.

7.1.6. The review of a water risk assessment is necessary when one or more of the following criteria applies:

- When there is a change to the water system or its use.



- When there is a change to the use of the building where the system is installed.
- When a new water system is installed into a new building.
- When there is new information available about risks or control measures.
- When the results of checks indicate that control measures are no longer effective.
- When there are changes to key personnel.
- When there is a case of legionnaire's disease/legionellosis associated with the system.
- When construction work is expected to be carried out.

8. Education and Training

- 8.1. All employees involved with water management and Legionella prevention, on behalf of the Trust, should receive sufficient training to ensure they have an understanding of why they are performing their tasks, to enable them to perform those tasks with the required expertise and to have an understanding of the implications of poor or inadequate performance.

9. Monitoring compliance

- 9.1. The Estates Manager as Responsible Person, is responsible for monitoring compliance with this policy and with the Trust's *Water Quality Management Procedure (V 2.0)*
- 9.2. The Trust has appointed an outsourced Facilities Management contractor to carry out all planned maintenance and compliance checks. The contract for these services has been carried out using the Trust's procurement guidance and delegated authority to comply with all regulations referred to in item 1, and controls have been included as part of the contract agreement.
- 9.3. Monthly reporting on compliance and routine checks is in place. The contractor uplifts all information relating to water checks, water risk assessments and all records to their on line portal, Planet. This information is accessible to the Estates Manager, Technical Managers and Health and Safety.
- 9.4. Compliance quality checks are made on a regular basis in line with the programme of work.



Estates Manager reports to Health and Safety Working Group and the Water Management Group with reference to Legionella control on the risk register.

- 9.6. If non-compliance is identified this is reported to the FM contractor for immediate rectification; the Head of Estates; the Head of Health and Safety for consideration to be included on the risk register.

10. Audit and Review (evaluating effectiveness)

- 10.1. This policy and procedures will have its effectiveness audited by the Water Management Group annually, but initially six months after this policy and procedure is approved and disseminated.
- 10.2. Effectiveness will be reviewed using the tools set out in the Trust's Policy and Procedure for the Development and Management of Trust Policies and Procedures (also known as the Policy on Policies).
- 10.3. This document will be reviewed in its entirety every three years or sooner if new legislation, codes of practice or national standards are introduced, or if feedback from employees indicates that the policy is not working effectively.
- 10.4. All changes made to this policy and procedure will go through the governance route for development and approval as set out in the Policy on Policies.

References

- 10.5. **The associated documents referenced are listed as follows:**

- *Water Supply (Water Fittings) Regulations 1999*
https://www.legislation.gov.uk/ukxi/1999/1148/pdfs/ukxi_19991148_en.pdf
- Health and Safety Executive documents *L8* and *HSG 274 Part 2*
<https://www.hse.gov.uk/pubns/books/hsg274.htm>
<https://www.hse.gov.uk/pubns/books/l8.htm>
- Health and Safety at Work etc. Act 1974
<https://www.legislation.gov.uk/ukpga/1974/37/contents>
- Control of Substances Hazardous to Health Regulations 2002
<https://www.legislation.gov.uk/ukxi/2002/2677/regulation/7/made>
- Management of Health and Safety at Work Regulations 1999
<https://www.legislation.gov.uk/ukxi/1999/3242/contents/made>



- RIDDOR 2013
<https://www.legislation.gov.uk/ukxi/2013/1471/contents/made>
- *Minimising the risk of Legionnaires disease CIBSE TM13 2013*
<https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q200000817IfAAC>
- *BS8558:2015 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages – Complementary guidance to BS EN 806*
<https://www.britishstandard.org.uk/pub/bs-85582015-9780580863141.aspx>
- *BS8580:2010 Water quality – Risk assessments for Legionella control – Code of practice*
<https://www.britishstandard.org.uk/pub/bs-85802010--water-quality.-risk-assessments-for-legionella-control.-code-of-practice-9780580671135.aspx>