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Public Health
Wales

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WATER MANAGEMENT PROCEDURE

Introduction and Aim

Public Health Wales is committed to ensuring the health, safety and welfare of its staff and those who are affected by its activities. This procedure supports the Water Management Policy and has been developed in line with the requirements of the Health and Safety at Work etc., Act 1974 and Approved Code of Practice LA8; (*Those in control of premises and those with health and safety responsibilities for others, to help them comply with their legal duties in relation to legionella. These include identifying and assessing sources of risk, preparing a scheme to prevent or control risk, implementing, managing and monitoring precautions, keeping records of precautions and appointing a manager to be responsible for others*). The Health and Safety at Work etc., Act 1974 provides the legislative framework and this overarching procedure sets out Public Health Wales commitment to health and safety, outlining the arrangements for water management within the organisation including general and specific responsibilities of all staff.

The Procedure aims are to:

- outline the requirements of the Health and Safety at Work etc., Act 1974;
- outline the management of Health and Safety arrangements within Public Health Wales;
- minimise the Health and Safety risks within Public Health Wales to all staff and others;
- recognise the obligations imposed under the Health and Safety at Work etc., Act 1974, WHTM 04-01 and ACOP L8 (the control of legionella bacteria in water systems)

Linked Policies, Procedures and Written Control Documents

[All corporate policies and procedures are available on the Public Health Wales website](#)

- Health and Safety Policy
- Water Management Policy
- Infection Control Policy
- Working Safely Policy
- Control of Contractors procedure

Scope

This procedure and any arrangements made under it applies to:

- all the buildings currently owned or occupied (under a full maintenance lease or otherwise) by the Trust;
- All persons employed or engaged by Public Health Wales, including part time workers, temporary and agency workers, those holding honorary contracts and those engaged by the NHS Wales Health Collaborative and Financial Delivery Unit
- All contractors, service users, visitors and volunteers;

Where Public Health Wales provides services with other organisations, including health boards, the policies and procedures of the employing organisation including honorary contract holders will apply. Where appropriate joint working arrangements are agreed for shared premises, a Service Level Agreement/Memorandum of Understanding or alternative agreement will be put in place.

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| Equality and Health Impact Assessment | An Equality, Welsh Language and Health Impact Assessment has been completed and can be viewed on the policy webpages. |
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| Author | Chris Orr, Head of Estates and Health and Safety |

Disclaimer

If the review date of this document has passed please ensure that the version you are using is the most up to date either by contacting the document author or the [Corporate Governance](#).

Summary of reviews/amendments

| Version number | Date of Review | Date of Approval | Date published | Summary of Amendments |
|----------------|----------------|------------------|----------------|---|
| 1 | 30-Sept-17 | 19-Dec-17 | 5-Feb-2018 | Version 1 of procedure |
| 2 | 30-Sept-22 | 05-Dec-22 | 20-Dec-22 | Page 5- Removal of wording 'department of health' and |

| | | | | |
|--|--|--|--|---|
| | | | | <p>update to definition of 'dead leg'.</p> <p>Page 6- Procedure aims and objectives to reflect this policy extends to all PHW properties leased and managed.</p> <p>Page 7- Updated objectives and reference to what the organisation will undertake to achieve aims and objectives.</p> <p>Tables under responsibilities section have been removed and included in Appendices.</p> <p>Page 7- Risk assessment section updated as Building and Environment Group no longer exists and reporting arrangements for Health and Safety Group changed to Quality, Safety and Improvement Committee.</p> <p>Page 7- Written Scheme of control added</p> <p>Page 9- Updated training section to reflect requirements of responsible persons</p> <p>Page 10- Record keeping section included</p> <p>Page 10- Legislation section updated to reflect changes in latest applicable regulations and legislation</p> <p>Page 12- Appendices updated to reflect changes to group names across organisation</p> <p>Page 16- role of Approved Authorised Engineer, Competent Persons, Staff and users included</p> |
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1 Introduction

Public Health Wales NHS Trust (The Trust) provides a wide range of health related services to the people in Wales. The Trust recognises its duties and legal responsibilities to ensure, as far as reasonably practicable, the health, safety and welfare of its employee's and other people who may be affected by its activities and its duty to the environment in which it operates. This document is provided for staff involved in managing water systems used by staff, visitors and service users to minimise the risks associated with exposure to Legionella.

The Welsh Health Technical Memorandum (WHTM 04-01) gives comprehensive advice and guidance to healthcare management, design engineers, estates managers, operations managers, contractors and supply chain on the legal requirements, design applications, maintenance and operation of hot and cold water supply, storage and distribution systems in all types of healthcare premises. It is equally applicable to both new and existing sites.

2 Definitions

| Word Term | Descriptor |
|--------------------|---|
| Responsible Person | A manager, director, or individual with similar status and sufficient authority, competence and knowledge of the installation to ensure that all operational procedures are carried out in a timely manner (as Approved Code of Practice - ACOP L8 para 44) |
| Non-compliance | Failure to meet established requirements (As ACOP L8 and Health Technical Memorandum - WHTM 04-01) |
| Legionella | Gram-negative bacterium which causes Legionnaire's Disease or Legionellosis. It is caught by inhaling aerosols or small droplets of water suspended in the air, containing the bacteria. |
| Dead-end/blind-end | A length of pipe closed at one end through which no water passes. |
| Dead-leg | A length of water system pipework leading to a fitting through which water only passes infrequently when there is draw-off from the fitting, providing the potential for stagnation. |

3 Procedure aims and objectives

This procedure extends to all of the properties currently owned or occupied by the Trust, and applies to all Trust staff connected with the installation, management, operation, maintenance and cleaning of water systems including agency staff, contractors, design advisors and temporary employees. This procedure also outlines how Public Health Wales will discharge its statutory health and safety duties to provide a safe environment for service users, visitors, contractors, staff and others who may be affected by the work of the Organisation.

This procedure aims to identify the management structures for operation and maintenance of all systems where colonisation by Legionella bacteria is likely, and from which persons can be exposed through breathing in aerosols or by aspiration. This is an overarching document and each division of Public Health Wales / hosted bodies of Public Health Wales or Public Health Wales staff hosted within Health Boards, will have a written scheme and local procedure for Legionella control pertaining to their own workplace.

The procedure aims are to:

- outline the requirements of the Health and Safety at Work etc., Act 1974;
- outline the management of Health and Safety arrangements within Public Health Wales in line with the Approved Code of Practice L8 and WHTM 04-01;
- minimise the Health and Safety risks within Public Health Wales to all staff and others;

The procedure objectives are to:

- Implement appropriate arrangements and management protocols, in order to prevent opportunities for Legionella bacteria and other waterborne contaminants to proliferate within the water system;
- secure the health, safety and welfare of people at work;
- protect service users and people other than those at work against risks to their health and safety arising out of work activities;
- establish a culture of co-operation, communication, competency and control for health and safety.

To achieve the aims and objectives of this procedure, and as required by WHTM 04-01 and ACOP L8 the Trust will undertake to:

- Make appointments for responsibility.
- Identify and assess sources of risk through comprehensive Risk Assessments.
- Remove sources of risk whenever possible and only manage risk appropriately if it becomes the only option.
- Consider infection prevention at water system design stage.
- Construct and repair water systems only with materials that have been tested and approved by the Water Research Advisory Scheme (WRAS).
- Prepare a Written Scheme of Control for minimising the risks posed by Legionella and other water borne pathogens.
- Implement, manage and monitor the Written Scheme of Control.
- Sample water for Legionella when indicated necessary through management control measures.
- Train staff to understand the risks posed by Legionella, as well as how to fulfil their roles and responsibilities as identified in the Written Scheme of Control.
- Only use service providers that can demonstrate capability and competence such as membership of the Legionella Control Association (LCA).
- Maintain records in accordance with HSE guidance of all training, policies, schemes of control and associated procedures, risk assessments and monitoring and testing.
- Regularly review performance and provide information to promote continued diligence with water quality protection.

4. Risk Assessment

It is essential that the Trust consider the risk of Legionella in all areas of Trust water systems and suitably assessed in order that effective controls can be developed and implemented.

The Responsible Person (RP) will confirm the risk assessment process through the Deputy Responsible Person (DRP), and Infection Prevention and Control Lead(IPCL). This process will identify risks associated with Legionella for all areas of the Trust where service users, staff and visitors have direct contact with water systems and outlets.

Water Management and/or external advisors, will undertake water and legionella risk assessments under the direction of the RP, DRP and/or IPCL.

Risk assessments will pay particular attention to both environmental (engineering system) and risks associated with the occupants, as per the methodology identified in the Trust's developed risk algorithm: which includes

- degree of immunocompromise of individuals (staff and service users) using the area (where applicable)
- categorisation of the area as clinical or non-clinical or solely used by staff
- water circulation/stagnation/dead-legs/usage/turnover
- water temperature
- aerosol generation
- little used outlets
- number of positive legionella sample detections
- type of outlets water treatment

All risk assessments will be reviewed within the guidance set down in British Standard 8580-1:2019 - Risk Assessment for Legionella Control, and will be considered and agreed by Estates and Health and Safety Team (This function will monitor the Trusts buildings compliance and report to the Health and Safety Group and Quality, Safety and Improvement Committee).

5. Written Scheme of Control

The Written Scheme of Control is a comprehensive risk management document identifying measures taken to control your water systems and reduce the risk of exposure to legionella bacteria. It is also used as a record of all actions taken to implement them. The Trust recognises that there is a reasonable foreseeable risk from the water systems in which the Trust occupies. Therefore, a Written Scheme of Control for controlling the risk shall be designed, implemented and managed for each building where a risk assessment has identified a foreseeable possibility of exposure to legionella.

For properties where the water system is managed by the Trust, this will be designed by the RP. Where Trust services are provided from properties not directly owned or leased by Trust, the Authorised Person (AP) assigned to that property must ensure that it complies with the requirements of this document as a minimum. Confirmation of compliance must be provided by the landlord of the property, to include the Written Scheme of Control and Legionella Risk Assessment.

6. Control Measures

The Trust acknowledges that a range of control measures will be necessary to mitigate the risks of Legionella. These include:

- re-engineering the pipe work and distribution system
- isolating/decommissioning the non-compliant equipment/items
- improving the control of water temperatures
- removing/replacing the non-compliant equipment/items
- hyper chlorination
- pasteurisation
- Chlorine Dioxide dosing
- Copper Silver ionisation
- fitting filters
- relocation of vulnerable/susceptible service users/ staff to areas of lesser risk (where applicable)
- cleaning and flushing water outlets not in regular use
- inspection and cleaning of storage tanks and vessels
- inspection and cleaning of calorifiers

The RP(s) will ensure the operation and maintenance of safe water systems, together with the Estates and Health and Safety team and Infection Prevention Control Team. The operation and maintenance of the water systems will be conducted in accordance with the trust procedures and, will include the management of supply loss incidents of hot and/or cold water supply. Attention will focus on the appropriate cleaning and flushing regimes, particularly in areas where water supply is not subject to regular usage.

The identified/assigned Manager locally for the various sites will ensure that all staff identified with responsibility for flushing carry out routine flushing of all occupied areas in accordance with the Written Scheme of Control which is overseen by the Estates and Health and Safety Team.

6. Resources

Resourcing will be provided through the NHS Wales Shared Services Partnership (NWSSP/SES) Specialist Estates Services or direct contract with suppliers for water management. Health Boards/Landlords where they hold maintenance responsibility will provide resources.

7. Training

The RP & DRP shall ensure that all staff involved in or associated with the management and control of Legionella will undertake regularly scheduled and appropriate in-depth training to ensure they are up to date on new developments in the management and control of water systems.

The appointed RP, AP & Deputies shall have undertaken formal training in the following areas as a minimum specific to ACOP L8, WHTM 04-01 and HSG 274 parts 2 and 3:

- Legionella Awareness;

- Legionella: Role of the Responsible Person

Individual records should be kept for all trained staff. Training records should be signed by the RP. The level of knowledge should be regularly assessed and should be programmed and continuous.

8. Record Keeping

As specified by ACOP L8 and WHTM 04-01, records of all relevant activity, from appointments and risk assessments, to flushing records and corrective actions shall be maintained by those appointed in accordance with this procedure.

Records shall show the date and time of any task or duty undertaken and the name and/or signature of the person(s) carrying out the task, as applicable. Records must be clear and concise, comprehensive and auditable and must be backed-up to ensure continuity in the event of loss for any reason.

Each building shall have a Log Book that contains the following records associated with it:

- Documented appointments for water safety management
- Legionella risk assessment
- Written Scheme of Control
- Schematic drawing of the water system or up-to-date layout drawings
- Results of checks of control measures (water temperatures, shower clean & descale)
- Flushing records
- Non-conformance reports and corrective action records
- Staff training records

9 Legislation/Guidance:

The purpose of this procedure is to ensure that the Trust install, maintain and operate water systems in a safe manner and comply with the following legislation, codes of practice and guidance:

- Health and Safety at Work etc, Act 1974;
- Control of Substances Hazardous to Health 2002;
- The HSE ACOP "The Control of Legionella Bacteria in Water Systems" L8 (4th Edition 2013);
- WHTM 04-01 Safe water in healthcare premises (Parts A and B);
- The Management of Health & Safety at Work Regulations 1999;
- The Public Health (Infectious Diseases) Regulations 1988;
- The Water Supply (Water Fittings) Regulations 1999;
- HSG274 Part 2 Published 2014: The Control of Legionella Bacteria in Hot and Cold Water Systems;

- BS 8580-1:2019 - Water Quality. Risk assessments for Legionella control - Code of Practice;
- BS 8554:2015 Code of practice for the sampling and monitoring of hot and cold water services in buildings;
- BS 7592:2022 Sampling for Legionella bacteria in water systems – Code of Practice;
- BS EN 806-5:2012 Specifications for installations inside buildings conveying water for human consumption. Operation and maintenance

Responsibilities for Water Management

Trust Chief Executive

- Duty holder for water and legionella management
- Hold duty of care over all the Trust's premises and all other organisations occupying premises on Trust sites, to include all co-ordination and liaison relating to the establishment of safe systems of work for water and legionella management.
- Delegate Duty holder tasks to the Executive Director of Operations and Finance
- Appoint in writing a Responsible Person to take day to day management responsibility for controlling the risk of exposure to legionella bacteria

Trust Responsible Director (Executive Director of Operations and Finance)

- Board member with specific responsibility for water and legionella management
- To chair the Trust's Health and Safety Group
- Provide strategic direction to the management of water and legionella and capital and infrastructure investment where identified
- Regular liaison with the Responsible Person/Head of Estates and Health and Safety to ensure existing safe system of work is regularly reviewed
- Undertake delegated duties from the Duty Holder

Trust Responsible Person (RP) / Head of Estates and Health and Safety

- Point of contact for those who supply services, such as water treatment or maintenance services, for any deficiencies in the water system or measures that may pose a significant risk of exposure to legionella bacteria.
- Point of contact for those who supply services, such as water treatment or maintenance services for any limitations in the suppliers own expertise, products or services to ensure that these deficiencies or limitations are addressed.
- Review the Irregular Maintenance Plan the planned maintenance programme, procedures and records in association with the DIPC, Risk Management, DRP and Authorised Persons (APs).
- Regularly review and ensure the competencies of individuals and companies engaged on the management, maintenance and operation of water systems within the Trust. To appoint the APs

after reviewing their competences and training, and assuring their appropriate standard of both engineering and site knowledge.

- To ensure that the Trust's safe system of work is in accordance with the written scheme of control for Legionella and Water Management.
- To ensure that the Trust's reporting lines for Legionella and Water management to the Health and Safety Group, and Responsible Director – Executive Director of Operations and Finance, are robust and continually maintained
- To assure the CEO/Duty Holder and Executive Director of Operations and Finance that safe procedures and systems for Legionella and Water management is in place. That there is a clear understanding of duties, roles and understanding of overall health and safety management structures and procedure by individuals and companies engaged on the management, maintenance and operation of water systems
- Ensure that the written scheme of control for Legionella and Water Management is kept up to date and adhered to.
- Form part of the investigative team under the direction of the DIPC in any incident or episode in conjunction with Legionella or water quality failures.
- Provide professional and technical advice to the Trust's compliance monitoring groups; CEO/Duty Holder, DCEO, other officers and managers of the Trust.
- To oversee the effective running of the Legionella and Water management operations within the Trust.
- Direct all relevant risk assessment processes

Trust Deputy Responsible Person (DRP) / Water Specialist (WSp):

- To deputise for the RP (in respect of his responsibilities under this Procedure) when on leave, sickness or other absences
- To make reasonable enquiries to ensure that organisations such as water treatment companies or advisors, together with personnel from the Trust, are competent and suitably trained and have the necessary equipment to carry out their duties within the written scheme in a safe and adequate manner.
- To arrange suitable training, or refresher training for those Trust staff engaged in the management, maintenance and operation of water systems within the Trust
- To ensure staff engaged in management and maintenance of water systems have a clear understanding of their duties and the overall health and safety management structure and procedure in the Trust as pertaining to water management
- Ensuring the appropriate monitoring of the condition and performance of the water systems
- To monitor the control of the safe supply, treatment, storage and distribution of water in the Trust.
- Investigate any failures in the Trust's procedures concerning the safe supply, storage and distribution of water

- Liaison with Divisional staff, Infection Control, Risk Management and Support Service staff for the supply, storage and distribution of water
- Liaise with local environmental and other authorities to assure appropriate water supply and discharge procedures and communications are maintained
- Ensure the maintenance of adequate records for 5 years
- Provide advice and guidance on safe practices and procedures
- Co-ordination of staff training in the safe supply, treatment storage and distribution of water
- Maintain proper records and reporting mechanisms to support the RP in his duties
- Maintenance and upkeep of water systems drawings
- Prepare procedures and method statements for onsite operations on water systems for approval by the RP
- To review risk assessments and identify reasonably practicable mitigation works where necessary

Executive Director of Nursing and Allied Health Professionals (Executive Lead for Infection Prevention and Control)

- Chief Executive's nominated lead for Infection Prevention and Control
- Chair of Infection Prevention and Control Group (IPCG)
- Liaises regularly with the RP on operational issues concerning legionella and water management
- The Executive Lead has responsibility for deciding when a Legionella Incident Group should be convened

Infection Prevention and Control Lead (IPCL)

The Infection, Prevention and Control Lead provides professional advice in relation to water management and reports operational issues to Head of Estates and Health and Safety and Executive Lead for Infection Prevention and Control. Other responsibilities include:

- Supporting development and review of risk assessments as required
- Managing outbreaks
- In the absence of the Executive Lead for IPC the IPC Lead would deputise
- The IPC Lead will work with clinical colleagues and Estates to identify infrequently used outlets for potential removal
- Liaises regularly with the RP and DRP/WSp on operational issues concerning Legionella and water management
- Assist in the review of relevant procedures
- Advising on related infection control measures
- The IPC Lead will liaise with clinical teams regarding the diagnosis and management of service users suspected of having legionellosis

- The IPC Lead collaborates with the RP and DRP to advise on immediate control measures should an outbreak occur

Trust Authorised Persons (APs)

- Provision of adequately trained and supervised manpower
- To report to the RP on water and Legionella issues
- Appointment of Competent Persons (CPs) – contractor and direct labour staff
- Provision of operation and maintenance task risk assessments and method statements
- Asset schedules of equipment and systems to be maintained
- Arrange planned preventative maintenance inspections and monitoring
- Implement work arising from action plans, preparing risk assessments and method statements
- Monitoring of work undertaken
- Assist DRP on written procedures for maintenance. These procedures include:
 - An operational water management plan for each site/area reflecting the actions from the risk assessment.
 - A written scheme for controlling any identified risks for premises and systems under their control
 - A contingency plan for emergency incidents causing loss of water supply or mains failure.
 - An operating regime to draw off water where stagnation or utilisation is low or alternatively arrange to remove the low usage appliance
 - Record keeping for maintenance, inspection and testing activities

Compliance Manager (CM) – Water Management

- To support the RP, DRP and APs in the execution of their duties
- Specifically to organise the Direct labour staff in their monitoring and maintenance work on water systems
- To report to the APs on water and Legionella issues
- Specifically to organise specialist and other water contractors to undertake necessary works on site in a safe and sufficient manner
- To provide specific local site knowledge and/or investigations of water systems

External Authorising Engineer (AE)

The Trust is required to officially appoint in writing an independent Authorising Engineer to support the Trust in a professional and technical capacity on all aspects of water safety management.

Competent Person (CP) - Contractors

The competent person is the person or organisation designated by the RP/AP to be responsible for the supply, installation, validation and verification of hot and cold water services, and for the conduct of the installation checks and tests. In relation to the control of Legionella, it is essential to ensure that individuals employed by contractors have suitable qualifications (eg. membership of the Legionella Control Association or having Chartered Engineering Status).

Individual Staff

All staff members are responsible for following local instructions and systems of work. Staff should report any issues around water quality, in regards to smell or temperature or taste to the Estates Department.

Users

Those who use the Trusts water systems are asked to report any issues around water quality, in regards to smell or temperature or taste to any Trust staff in the area.