

Policy Document Control Page

Title

Title: Legionella Management Policy

Version: 1

Reference Number: CO113

Supersedes

Supersedes: N/A

Description of Amendment(s):

Originator

Originated By: Andrew Walch

Designation: Operational Engineer

Equality Impact Assessment (EIA) Process

Equality Relevance Assessment Undertaken by: S D Palmer

ERA undertaken on: February 2016

ERA approved by EIA Work group on:

Where policy deemed relevant to equality-

EIA undertaken by

EIA undertaken on

EIA approved by EIA work group on

Approval and Ratification

Referred for approval by: Environmental Management Group (EMG)

Date of Referral: 13th May 2016

Approved by: Environmental Management Group (EMG)

Approval Date: 13th May 2016

Date Ratified by Executive Directors: 6th June 2016

Executive Director Lead: Director of Finance

Circulation

Issue Date: 6th June 2016

Circulated by: Performance and Information

Issued to: An e-copy of this policy is sent to all wards and departments

Policy to be uploaded to the Trust's External Website? Yes

Review

Review Date: May 2018

Responsibility of: Steven Palmer

Designation: Head of Operational Estate Services

This policy is to be disseminated to all relevant staff.

This policy must be posted on the Intranet.

Date Posted: 6th June 2016

INDEX

SECTION	CONTENT	PAGE NUMBER
1	INTRODUCTION	4
2	POLICY STATEMENT	4
3	POLICY / SCOPE	5
4	DEFINITIONS	5
5	RESPONSIBILITIES	6
6	RISK ASSESSMENT AND REDUCTION	8
7	CORPORATE PROCEDURES	10
8	TRAINING	11
9	POLICY REVIEW	11
10	APPENDIX 1 - MANAGEMENT AND PROCEDURES	13
11	WATER SAFETY GROUP GUIDANCE	21

1. INTRODUCTION.

Legionella bacteria can be found naturally in environmental water sources such as rivers, lakes and reservoirs. Consequently, they may commonly be found in purpose built water systems that may include Notifiable Devices such as cooling towers, evaporative condensers and whirlpool spas.

Where conditions allow the bacteria may multiply to levels that present an increased risk of contracting Legionnaires disease. Legionnaires' disease is a form of pneumonia that primarily affects people who are susceptible because of age, pre-existing illness, immunosuppression, smoking etc. Infection is attributed to inhaling the aerosolised water containing legionella bacteria.

The effective management of water systems has public health significance in that the risk of infection may extend beyond the Trust. The Trust has a duty to identify and assess all potential risks and implement precautions to minimise any identified risks as part of an effective management regime with appropriate records being maintained.

Risk can be accurately assessed and actively controlled by maintaining prevention measures as outlined in:

- Health Technical Memorandum 04-01, : The control of Legionella, hygiene, "safe" hot water, cold water and drinking water systems.
- Legionnaires' disease. The control of Legionella bacteria in water systems. Health and Safety Executive Approved Code of Practice L8 (2013)

2. POLICY STATEMENT.

PCFT recognises a duty to take all reasonable measures necessary to prevent the exposure of patients, visitors, staff and the local communities to risks associated with contaminated water systems.

The Trust will ensure a robust management system is in place to identify, assess, document and control all potential hazards related to water systems in accordance with current legislation.

3. POLICY SCOPE.

The implementation and monitoring of this policy will ensure that PCFT's water management systems protect patients, visitors and staff, and the local community from exposure to risk.

The PCFT will:

1. Identify and assess sources of risk.
2. Prepare a scheme for preventing or controlling the risk.
3. Ensure suitable and sufficient resources are available.
4. Implement, manage and monitor all precautionary control measures identified.
5. Keep records of all such measures and discuss at Water Safety Group meetings
6. Nominate employees and others with responsibility for implementing this policy.
7. Review this policy at least every 2 years or as new guidance becomes available.

4. DEFINITIONS

Water Management Regime

Document(s) including "Legionella Control and Management Procedures" containing method statements, risk assessments and planned maintenance tasks for the work required by the Trust maintenance staff and external contractors to ensure the Trust complies with current legislation.

Planet FM

Planet FM is an electronic facilities management system used by the CIES Team to log and report on Planned Maintenance duties and Reactive maintenance tasks.

Aqua Adept

Is a Web portal that contains Trust records for the management and control of Water systems.

MICAD

A web portal that contains Estate record drawings for various Building Services.

5 RESPONSIBILITIES

PCFT will manage the operation and maintenance of its Domestic and Process Water systems in line with current guidance.

5.1 The Chief Executive

The Chief Executive is the organisations statutory duty holder and has the overall responsibility for ensuring that effective arrangements for the management of the control of Legionella are put in place.

5.2 The Director of Capital Investment & Estates Services

The Director of Capital Investment & Estates Services is responsible for ensuring that an appropriately trained and competent Responsible Person for the control of Legionella is appointed. The appointment should be confirmed in writing to the appointed RP and incorporated as part of the Trust organisational structure.

5.3 Head of Estates Operations

The Estates Operations Manager is responsible for ensuring that the requirements of this policy are observed and adhered to in all estates related work carried out by staff and external Contractors.

5.4 The Head of Capital & Design

The Head of Capital & Design is responsible for ensuring that the requirements of this policy are observed in all capital project work and other contract works managed by the Estates Capital Projects Department.

5.5 Responsible Person (Legionella)

The Director of Capital Investments & Estates Services will appoint from within the estates operational management team a Responsible Person (Legionella) and a deputy, confirming the appointments in writing.

The RP is responsible for ensuring that water management systems are maintained in accordance with the current guidance.

The RP is responsible for the ongoing assessment and updating of policies, procedures directly linked to the effective management for the Control of Legionella on all Trust property.

The RP shall possess adequate professional knowledge and appropriate training to manage the necessary procedures that will ensure that the quality and safety of

water and their systems in healthcare premises are maintained.

5.6 Deputy Responsible Person.

The RP is to appoint a deputy to who delegated responsibilities may be given. The deputy shall act for the RP on all occasions when they are unavailable.

5.7 Infection Prevention and Control Team

Infection Prevention and Control Team are the persons nominated by management to advise on infection control policy and to liaise with the responsible person on the maintenance procedures in regards to maintaining water quality.

5.8 Competent Persons.

The Competent Persons are responsible for the hands-on, day to day safe operation, maintenance and monitoring of water system water hygiene issues.

They are also responsible for ensuring that all Maintenance Staff strictly adhere to the requirements of this policy and associated procedures for the effective management of Legionella and that appropriate records are kept.

A Competent Person will be designated as such following satisfactory completion of a Trust approved training course.

5.9 Departmental Managers

Departmental Managers are responsible for ensuring that their staff are aware of procedures and protocols for the control of legionella and for notifying Estates Operations and the Infection Prevention and Control Team of any changes to services or the environment for which they have control.

5.10 All Staff

All staff have a personal responsibility to ensure that they comply with procedures and protocols for the control of Legionella contained within this policy appropriate to their area of work.

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.

6. RISK ASSESSMENT & REDUCTION.

Risks associated with water hygiene across the Trust's premises are subject to assessment by an external contractor who is a member of the Legionella Control Association. This is a fully documented risk audit that is to be completed for each of the Trust's premises in accordance with current guidance.

6.1 Risk Factors

The method of risk assessment takes account of the principle parameters which govern the risk associated with each water source in all Trust properties. Selective and planned water sampling may also be carried out to confirm the absence of Legionella. Sampling is not something that would be carried out by the Estates maintenance Team but if deemed necessary by the IPCT in conjunction with the Responsible person then it would be carried out by specialist contractors.

Assessment parameters and risk factors have been developed to derive a numerical risk value and overall risk rating.

The 6 categories for risk rating include:

- Formation of droplets.
- Water condition
- Water temperature
- Water turnover
- Susceptibility of exposed persons
- Population density of the building

The overall risk rating is calculated by the addition of each of the risk parameters of each source and a weighting parameter if applicable.

The overall risk rating for each source is then evaluated in conjunction with other influences observed during the course of each survey and with consideration for the factors highlighted in the Approved Code of Practice (L8), i.e. system breakdowns, abnormal operations, commissioning and other unusual circumstances.

Any alterations to plant or systems will be recorded and record drawings updated to reflect the changes made.

An updated risk assessment will be required whenever: -
Changes are made to the plant or water systems or its use.
The use of the building in which the water services are installed changes.
New information about risks or control measures becomes available.
Results of checks indicate that control measures are no longer available.
An incident or changes to legislation requires a review of the current risk assessment.

The potential risk associated with new developments, refurbishments and service reconfiguration will be considered and addressed by design / planning leads in consultation with the Estates Department Capital Projects Section.

Departmental managers must inform the Estates Maintenance & Operations Department when water services are infrequently or no longer used and where changes or adaptations to water services, fixtures and fittings are required. The Estates Department will assess the associated risks and implement the necessary control measures to manage the identified risks.

The Estates Maintenance and Operations department are responsible for the flushing of sporadically used outlets which have been identified by the departmental managers. This will then be assessed by the Responsible person and his/her deputies as to whether these outlets are kept or removed.
Information and records will be recorded on Planet FM and Aqua Adept.

6.2 Risk Control measures.

Risk control measures will be documented in the Legionella Management and control Procedures Document maintained by the Estates Maintenance & Operations Department. This Procedures Document identifies specific water management tasks to be completed and details the schedule of works. The frequency of these tasks are pre-set and automatically generated by the Estates Operations Department work management system (Planet FM).

The RP will undertake to organise the tasks and duties described within the Water Management Regime Documentation and will maintain accurate and comprehensive records of all work undertaken whilst managing water systems.
Any risks identified will be reported back to the Duty Holder as necessary and the IPCT at the IPCT meeting.

6.3. Records Management

Work completed by maintenance staff is recorded on the Planet FM system. Work carried out by external contractors is recorded on the Aqua Adept system. Both of these systems are to be used together but Aqua Adept is the main source of Legionella Record documentation.

Work completed on a water system by maintenance staff in accordance with the Water Supply (Water Fittings) Regulations 1999 to be fully documented by the member of staff completing the works.

External assessment reports and associated documentation from the specialist contractor are to be maintained and recorded on the Aqua Adept system.

Records of all maintenance, inspection and testing activities will be kept up to date and properly stored. Records will be retained for a minimum of 5 years.

Recorded information will include:

- a. The names and positions of those responsible for performing the various tasks under the written scheme.
- b. A Legionella risk assessment and a written scheme of actions and control measures.
- c. Details of precautionary measures that have been carried out, including sufficient detail to identify that the work was completed correctly and when the work was carried out.

Any alterations to plant or systems will be recorded and record drawings updated to reflect the changes made.

All completed records entries will be signed for and provide a complete audit trail for testing and remedial works.

Results of testing and maintenance tasks together with completed remedial works will be reviewed annually with the appointed specialist external contractor. An additional review will take place following any significant change in legislation or installed systems.

All risks identified by the specialist contractors site risk assessment are to be reviewed and assessed and acted upon accordingly.

7 CORPORATE PROCEDURES

All Legionella Control Procedures are recorded in the Legionella Management and Control Procedures Document. Including but not exclusive to:

- Sporadically Used Outlet Flushing

- Vacated Premises Flushing
- Showerhead Maintenance
- Water Temperature Monitoring
- Air Handling Unit Maintenance
- Action to be taken on suspicion of an incident or outbreak of Legionella

8. TRAINING

The correct training will be provided to reflect the level of responsibility and involvement with the Legionella risk assessments, risk prevention and day-to-day management of the water systems.

Staff training and competency records are maintained by the Trust.

Following ratification of the policy by the IPC Committee the policy will be displayed on the Trust's intranet. The raising of Policy awareness will be carried out via induction and Core & Essential Skills mandatory training, Risk Management, Environmental & Cleanliness Meetings.

9. POLICY REVIEW

This Policy will be reviewed every 2 years or as new guidance becomes available by the Environmental Management Group and sent for notification to the IPCC.

Reference List.

- The Approved Code of Practice and Guidance on the Regulations L8 – Legionnaires' Disease. The control of legionella bacteria in water systems.
- HTM 04-01 ~ The Control of Legionella, Hygiene, "safe" hot water, cold water and drinking water systems.
- HSG 274 Part 2 ~The control of Legionella bacteria in hot & cold water systems.
- Section 7 of the Health and Safety at Work Act etc. 1974

Legionella Management & Control Procedures

Contents Page

_Toc4454514061 .Introduction	1
1.1 Primary Method of Bacterial Control	1
1.2 Scope.....	1
2. System & Plant Design, Installation & Maintenance (Capital & Maintenance Works).....	1
2.1 General Design and Installation Considerations.....	1
2.2 System Design & Independent Advice.....	2
2.3 Cold Water Storage Tanks.....	3
2.4 Hot Water Calorifiers.....	3
2.5 Hot and Cold Water Distribution Systems.....	4
2.6 Air Handling Units.....	5
3. Installation and Commissioning.....	5
4. Risk Assessments.....	7
4.1 Cold Water Services ~ Storage.....	8
4.2 Cold Water Services ~ Distribution.....	8
4.3 Hot Water Services ~ Generation and Storage.....	8
4.4 Hot Water Services ~ Distribution.....	8
4.5 Air Handling Units.....	9
4.6 Risk Assessment Status & Updating Requirement.....	10
4.7 Action Plan for Risk Reduction.....	10
4.8 Risk/Work Done Recording.....	10
5. Maintenance & Care of Water Systems.....	10
5.1 Non PPM Control Processes.....	10
5.2 PPM Program of Works.....	12
5.3 Cold Water Outlets.....	12
5.4 Hot Water Outlets.....	12
5.5 Thermostatic Mixing Valve Tap Outlets.....	13
5.6 Water Storage Tanks.....	13
5.7 Hot Water Storage Calorifiers.....	13
5.8 Showerheads.....	13
5.9 Air Handling Units.....	13
Other items of equipment.....	14
6. Major Outbreak Plan.....	14
7. PCFT Employees relevant certification is stored on G Drive.....	14
8. Documentation.....	14

1 Introduction.

It is the responsibility of any person employed by the Trust in whatever capacity to comply with the requirements of this Procedural Document. This Procedural Document must be used in conjunction with the current version of the Trust's Legionella Management Policy as it provides the infrastructure for the implementation of the Legionella Policy.

The following personnel are to comply with this procedural document, all Trust employees, occupiers on all Trust sites, and all appointed contractors, in whatever capacity they are employed either with or without contractual agreements. As part of the Trust's commitment to provide a fully compliant service, it is necessary that all regular tests and checks set out in this document shall be carried out even if they cause minor disruption to hospital services so that comprehensive records can be maintained.

1.1 Primary Method of Bacterial Control.

The Trust employs water temperature control as the primary method of biological control to manage and control the risk of bacterial proliferation.

This is achieved by maintaining cold water at temperatures of less than 20°C, stored hot water at temperatures of $\geq 60^{\circ}\text{C}$ and distributed hot water at $\geq 55^{\circ}\text{C}$ at the return.

In order to ensure maximum efficiency of the control measures employed, it is important to keep all systems clean and well used at all times and the correct temperatures maintained.

Estates Operations will continue to consider employing new developments and improvements in the field of Legionellosis Management & Control to ensure that any risks are kept to a minimum.

1.2 Scope.

This Procedural Document will extend to but not be limited to the following:

Domestic Cold Water Services ~ Storage & Distribution.

Domestic Hot Water Services ~ Generation, Storage & Distribution.

All points of use including taps, showers, bib-taps etc.

Thermostatic Mixing Valves, Thermostatic Mixing Taps.

Emergency Showers.

Dental Chairs.

Air Handling Units

2. System & Plant Design, Installation & Maintenance (Capital & Maintenance Works).

In addition to making reference to standards and guidelines, this section also confirms some general requirements regarding the environment in which the equipment may be installed and generating some best practice principles.

This information should be issued to design teams and contractors for reference on future projects and maintenance tasks.

2.1 General Design and Installation Considerations.

All designs must be carried out and presented in accordance with all relevant and

current guidelines, European & British Standards, Health Technical Memoranda, Health Guidance Notes and National Health Service Model Engineering Specifications.

The systems shall be designed to minimise aerosol production and excessive water contained within a system.

They shall be designed and installed in such a way that all components which require regular maintenance or enable isolation and service of devices are readily accessible.

Only approved materials that comply with the requirements of the Water Supply (Water Fittings) Regulations 1999 shall be used in the water distribution and storage systems.

The list of products materials that have been assessed for compliance with the Water Supply (Water Fittings) Regulations 1999 are detailed in the current edition of Water Fittings and Materials Directory which is updated every 6 months. Further information on the selection of materials can be found in:

BS8558:2011, Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages – Complementary guidance to BS EN806.

BS6920-4:2001, Suitability of non-metallic products for use in contact with water intended for human consumption.

HTM04-01 The Control of Legionella, hygiene, 'safe' hot water and drinking water systems 2006.

HTM03-01 Specialised ventilation for healthcare premises.

All Thermostatic Mixing Valves installed must be compliant with the NHS Model Engineering Specification D08 – Thermostatic mixing valves (Healthcare Premises) and the TMV3 approved scheme and be installed in accordance with the relevant and current guidelines as listed above.

All TMV's installed should be of the type where the strainers are easily accessible and can be inspected and cleaned without the need to dismantle pipework as is the case with some designs.

If at all possible then no flexible pipework hoses shall be installed on any of the domestic water distribution pipework systems and if found on existing systems they should be replaced with solid pipework wherever possible. Where flexible hoses have to be retained (e.g. adjustable mobility baths) then they must be lined with an alternative material to EPDM as well as being WRAS approved (Water Research Advisory Scheme).

All distribution pipe-work (both hot & cold water) shall be suitably insulated and fitted with ID banding and direction arrows. Insulation should be continuous from the source to the outlet and fitted as close to the draw off point as possible.

The thickness of insulation shall comply with BS5422:2009 Environmental Thickness Tables.

All insulated pipe-work shall be fitted with self-adhesive ID banding and flow direction arrows to BS1710:2014 & BS4800.

2.2 System Design & Independent Advice.

On domestic water installation schemes the appointed design engineer will comply with the requirements of BS8558:2011, HTM 04-01 and HSE L8 4th Edition 2013 ~ the Approved Code of Practice and guidance on regulations for The control of Legionella Bacteria in Water Systems.

The Trust's independent Legionella Consultants shall provide an updated risk

assessment and certificate of compliance for new water systems including major modifications/refurbishments. The risk assessment shall be carried out upon commissioning of the project and prior to occupation. The risk assessment is to be carried out when the system is fully operational and at the required operating temperature.

2.3 Cold Water Storage Tanks.

As with all other items on the water system the cold water storage tanks are to be made from a WRAS approved non-deleterious material.

The tanks shall be designed and installed in accordance with the current Water Supply (Water Fittings) Regulations 1999 and installed in suitable locations as per the manufacturer's instructions and to facilitate inspection and maintenance.

Where sectional tanks are to be used then they will have external assembly flanges and self- draining profiles to promote easy cleaning of the internal surfaces.

Cold water storage tanks shall be protected from the ingress of light, insects and bats and fitted with screens over any overflow outlets.

They should be sized to minimise the retention time of stored cold water with approximate capacity duration of 12 hours after loss of supply.

Stored water temperature shall be maintained at $<20^{\circ}\text{C}$

Cold water storage tanks are to be subject to an annual inspection with remedial work being carried out where necessary ~ as detailed in HTM04-01Part B, Section 7 Table2.

2.4 Hot Water Calorifiers.

Ideally, if new domestic hot water plant is being installed then plate heat exchangers would be the Pennine Care NHSFT preferred option for the type of premises and the level of maintenance required.

Where Duplex hot water calorifiers are installed then they shall be installed in parallel and the flows balanced to ensure equal throughput through each calorifier and at a generated temperature of $\geq 60^{\circ}\text{C}$.

Check valves shall be installed in the cold feed to ensure warm return water cannot enter the cold feed.

It is now not permitted to terminate expansion pipes over the water storage tank but they must discharge to drain over a separate tundish arrangement with a Type 'A' air gap. All expansion pipes must be protected by a vermin screen to prevent contamination of the water system.

Calorifiers shall be fitted with a de-stratification pump that is controlled to run for 1 hour every 24 hours during periods of low demand.

A single secondary domestic hot water pump will be installed in the return pipework close to the calorifier(s) and fitted with a non-return valve to ensure that warm water cannot be drawn back down the return pipework during periods of high demand.

The following domestic hot water temperatures are to be maintained at all times:

- Stored & Flow $\geq 60^{\circ}\text{C}$
- Return $\geq 50^{\circ}\text{C}$

Supply to the furthestmost draw-off point to be $\geq 55^{\circ}\text{C}$.

Buildings that are not continuously occupied are to have domestic hot water temperatures maintained at the above temperatures at all times.

Where possible then the building management system is to be used to continuously monitor and record the calorifier storage temperature together with the hot water flow

and return temperatures. It should also record nearest and furthest temperatures on the distribution system together with the incoming mains cold water temperature together with the water storage tank temperature(s).

Calorifier drain valves should be fitted to enable quarterly blowdown to remove sludge, loose debris & scale as detailed in HTM04-01 part B para 7.74.

2.5 Hot and Cold Water Distribution Systems

The design and installation of the hot and cold water distribution system shall comply with BS8558:2011, the Water Supply (Water Fittings) Regulations 1999 and HTM04-01.

All cold water distribution pipework, mains and water tank down feeds shall be installed in such a manner as to minimise heat gain from the local environment.

Pipework shall not be routed through hot ducts or adjacent to heat sources.

All pipework shall be insulated except for exposed final connections adjacent to outlets and installed in such a way to eliminate dead-legs.

All outlets, pipework accessories, branch pipework etc. to be fitted with service isolation valves that are mounted in accessible positions.

No flexible pipework connections are to be used.

The final cold water outlet on the end of a cold water pipework run should be an often frequented flush toilet or similar high use outlet that will ensure a regular draw on the system. The aim shall be to promote turnover of water by means of the design circuitry of the system, adequate usage and avoidance of “disused” areas.

Risk of scalding in patient occupied areas shall be controlled by the installation of Type 3 D08 Specification Thermostatic Mixing Valves on all patient accessible outlets.

Control settings for the TMV's shall be:

- 41°C for showers
- 41°C for basins
- 43°C for baths
- 46°C for assisted baths
- 38°C for bidets
- 55°C minimum for all kitchens, pantries, slop sinks etc. (55°C is the minimum required for food hygiene and decontamination purposes.)

In non-patient areas the risk of scalding will be controlled by a combination of TMV's (where the risk of scalding is considered to be high) and general “Warning! Very Hot Water” notices in public and staff areas.

Where TMV's are installed then the length of pipework between the TMV and the outlet will not exceed 2metres and the overall length between the hot water circulating mains and the outlet will not exceed 3metres (see HTM04-01 Part A 9.49).

All TMV's are to be mounted in an accessible position given the amount of maintenance and testing to which they are subjected.

In addition to only fitting TMV3's, they must also be of the type where the strainers can be accessed for cleaning without the need for the dismantling of any pipework. i.e. TMV3's with in-line strainers are not to be fitted.

All TMV's are to be inspected and maintained in accordance with the manufacturer's instructions and all maintenance completed tasks are to be documented.
All TMV's must be installed in areas accessible for maintenance.
The strainer inspection is initially to be at 3 months after commissioning (refer to manufacturer's instructions) and thereafter the period is to be extended or reduced depending on the degree of contamination found.

2.6 Air Handling Units (AHU's)

All AHU's shall be maintained in a good and clean condition and free from excessive corrosion and contamination.

Wet AHU's (units which include Chiller batteries or humidification) shall be design so that there is no retention of water/condensation and any liquid generated is discharged quickly to drain.

All AHU drip trays must be designed so that they are easily accessible for cleaning and disinfection.

The drip tray drain assembly must be fitted with a suitable glass trap and installed with a Type 'A' airgap prior to connection to a central drainage system.

3. Installation and Commissioning.

Correct commissioning is vitally important for the satisfactory operation of the hot and cold water systems. The designer shall prepare a commissioning brief for use by the contractors commissioning engineer. This brief shall specify fully and clearly the extent of the commissioning and the objectives which must be achieved, and shall include:

Full design data on temperatures, water flow rates and pressures

Plant & equipment data

Commissioning procedures for thermostatic mixing valves in accordance with specification MES D08

Drawings and schematics

A list of test and commissioning certificates to be provided.

The designer shall prepare for inclusion in the contract documents a list of tests and measurements that are to be taken and recorded by the contractor. These tests will be witnessed and approved by the contract supervising officer or project manager.

The installation on completion shall be operated by the contractor as a whole and subject to functional or performance tests as specified by the designer.

The commissioning manual shall be prepared by the contractor and be submitted for approval to the clients commissioning advisor prior to being issued in final form.

Typical schedules of checks and performance tests shall be included in the commissioning manual together with record sheets. Once the clients commissioning advisor is satisfied that the system meets the design intent, the final record sheets shall be completed.

If performance is not acceptable, the matter shall be dealt with in accordance with the contract requirements. The project manager will witness all commissioning and testing and countersign all relevant test documentation.

As installed record drawings, schematic diagrams, operating and maintenance

instructions must be supplied at the time of handover both in hard and electronic copy. This documentation is also to include records of pressure testing and disinfection.

Pressure testing must be carried out before disinfection and insulation. Temperature testing shall be performed prior to contractual handover and bringing the system into use.

The commissioning brief shall detail maximum times that will be allowed between disinfection and bringing the system into use, any delay in bringing the system into use is to trigger a documented flushing programme to maintain temperatures and usage/ turnover throughout the system. This flushing programme will be maintained until the system is brought into full use by the occupants.

Temperature testing shall be performed and documented prior to bringing the system into use. The system is to be fully operational and to simulate typical draw-off water.

Tests shall include:

Measuring the incoming mains cold water temperature at the main water meter
Testing the inlet, outlet and surface water temperature of cisterns and feed/header tanks for the hot water calorifiers/ plate heat exchangers The temperature shall be $\leq 2^{\circ}\text{C}$ that measured at the incoming mains cold water meter.

Testing the flow and return temperatures to hot water calorifiers/plate heat exchangers, these shall be $\geq 60^{\circ}\text{C}$ and $\geq 50^{\circ}\text{C}$ respectively.

Testing the temperature in branch pipework from the main domestic hot water flow and return pipework to ensure that the system has been properly balanced and that under “no draw-off” conditions 55°C is achieved in the circulating system at outlets furthest from the calorifier/plate heat exchanger.

Testing single hot water outlets and inlets to mixing valves to ensure that a minimum of 55°C is achieved within 1 min. (see Note 1).

Note 1: L8 permits a period of 1 minute on hot water outlets and inlets to mixing valves to achieve an equilibrium temperature of 50°C . A minimum of 55°C may be required for the operation of certain mixing devices required to provide “safe” hot water at the upper limit of the recommended range. Hot water at 55°C is required in many cases for reasons of food hygiene or decontamination requirements, for example in kitchens and sluice rooms. In a properly balanced hot water circulating system, with the circulation taken close to the draw-off point achieving temperature should be almost instantaneous. At a typical flow to a wash-hand basin of $4.5\text{l}/\text{min}$, 1 min to achieve temperature would indicate a 25m dead-leg of 15mm pipe or that system is out of balance.

Testing single cold water outlets and inlets to mixing valves to ensure that temperature equilibrium below 20°C is achieved within 2 min. (see Note 2)

Note 2: L8 permits a period of 2 minutes on cold water outlets to achieve an equilibrium temperature below 20°C . Achieving this minimum requirement would be indicative of an under-utilised water system in an unoccupied building. During commissioning therefore it is essential to encourage draw-off to simulate normal usage. At a typical flow to a wash-hand basin of $4.5\text{l}/\text{min}$, 2 minutes to achieve temperature would indicate a 50m long dead-leg of 15mm pipe or that stagnation is occurring.

As a minimum for new installations or major refurbishments the contract shall require the following documents and drawings to be supplied:

Review and updating of the Trusts Legionella Risk Assessment

Full records and certificates of pressure tests for all sections of pipework

Settings of balance valves with readings of flow rates where applicable

Full details of each item of plant including arrangement drawings and appropriate test certificates

Full as fitted drawings showing clearly the location of balancing valves with flows and settings; isolation valves and drain valves

Schematic drawings for location in plant areas showing all valves and items of plant.

Detailed confirmation of disinfection procedures to BS8558:2011 and results of post disinfection microbiological analysis.

Full records confirming that all materials and fittings hold WRAS accreditation.

4. Risk Assessments

In accordance with the ACOP L8~ The Control of Legionella Bacteria in Water Systems paragraph 28, "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 Duty Holder is responsible for ensuring the risk assessment is carried out".

The Duty Holder is either:

The employer, where the risk from their undertaking is to their employees or others;
or

A self-employed person, where there is a risk from their undertaking to themselves or others;
or

the person who is in control of premises in connection with work, where there is a risk from systems in the building, e.g. where a building is let to tenants, but the landlord keeps responsibility for its maintenance.

HTM 04-01 Part B Section 2 Management Responsibility ~

2.1 Management has overall responsibility for implementation procedures to ensure that safe, reliable hot and cold water supply, storage and distribution systems operate within the organisation. The Approved Code of Practice and guidance - entitled ' Legionnaires' disease: The control of Legionella bacteria in water systems (L8) requires that there must be a written scheme in place in respect of controlling Legionella in water systems.

2.2 The procedures should demonstrate that any person on whom the statutory duty falls has fully appreciated the requirement to provide an adequate supply of hot and cold water of suitable quality. Though compliance with this guidance may be delegated to staff, or undertaken by contract, accountability cannot be delegated. The duty holder should appoint a person to take day-to-day responsibility for the control of the hot and cold water services and to be responsible for assessing and controlling any identified risks from Legionella.

2.3 A risk assessment for the water services will be necessary to identify potential problems in the system, for example excess storage capacity, temperature distribution problems, low water usage, inappropriate materials etc. The risk assessment should be carried out by a competent person.

It is recommended that companies/individuals that carry out risk assessments should be members of the Legionella Control Association.

A standard specification for, and guidance on, water risk assessment can be found in BSRIA's (1999) FMS 4/99 'Guidance and the standard specification for water services risk assessment'.

2.4 Management procedures must ensure compliance is continuing and not notional. The prime purpose of the assessment is to be able to demonstrate that management has identified all the relevant factors, has instituted corrective or preventative action, and is monitoring the plans being implemented.

2.5 This guidance should be applied to all healthcare premises, however small, where there is a duty of care under the 'Health & Safety at Work Act 1974'.

2.8 All regular tests and checks set out in this document should be carried out even if they cause minor disruption to hospital services, and comprehensive records should be maintained.

Risk assessments shall include risk analysis on the following areas of the systems;

4.1 Cold Water Services ~ Storage

Physical condition and hygiene standard of all associated Water Storage Tanks

Design and configuration of all associated water storage tanks

Capacity requirements and available storage capacities of all associated water tanks

Temperature profiles of all associated water storage tanks

Water Supply Regulations parameter compliance of all associated water storage tanks including location and accessibility

4.2 Cold Water Services ~ Distribution

Physical condition of all associated distribution pipework.

Design and configuration of all associated distribution pipework.

Temperature profiles of all associated distribution service outlets.

Presence of dead-legs and areas of suspected low flow in the distribution system

Standard and extent of insulation

4.3 Hot Water Services ~ Generation and Storage

Physical condition of all associated hot water generating plant.

Design and configuration of the above plant

Temperature profiles of the hot water generating plant including flow, return & drain temperatures.

Capacity requirements and available storage capacities

Presence of temperature stratification within water storage calorifiers

4.4 Hot Water Services ~ Distribution.

Physical condition of hot water distribution pipe-work

Design, configuration and accessibility of all associated distribution pipework

Temperature profiles of all associated distribution services and outlets

Presence of dead-legs and presence of suspected low flow sections within the associated distribution services

Usage consideration of all the associated distribution services

Presence and effect of space heating within the distribution system location

Condition, temperature profiles and operation of all showerheads etc.

Condition, temperature profiles, accessibility and operation of all thermostatic mixing

valves within the system.

Excessive lengths of blended water pipework, condition and extent of insulation

4.5 Air Handling Units.

The AHU should be subject to regular inspection where the internal components are inspected and cleaned and disinfected as required, together with the glass traps.

The inspection is also to include filter condition and arrangement, condition of seals to prevent bypass of particulate matter, seals on access doors, cleanliness of frost, chiller and re-heat batteries and any signs of corrosion, dampness and contamination.

The level of water in any glass trap fitted is to be regularly checked and maintained and if the plant is located externally then any trace heating used to keep the glass trap and drainage pipework from freezing is to be regularly checked for correct operation.

All works completed is to be documented and records maintained.

4.6 Risk Assessment Status & Updating Requirement

A full list of all current risk assessments is to be available for inspection at any time. The risk assessment should be reviewed and updated when any minor or major capital or maintenance project have taken place and when there has been a change in the water distribution or storage system.

4.7 Action Plan for Risk Reduction

On completion of the Risk Assessments the Responsible Person Water shall undertake the following:

Develop schemes for risk reduction and control in order of priority whilst taking cost and difficulty to complete into account.

Prepare a list of all buildings and systems in priority order of non-compliance and potential risk.

Produce an action plan which identifies resources and timescales to reduce risk.

Implement the action plan and review at 6 monthly intervals recording progress in implementing the works. All changes to the water systems shall be recorded and the work evaluated.

4.8 Risk/Work Done Recording

The Aqua Adept web portal which is assessable by Estates management team and external contractor (WHS) contains all risk assessments, monitoring results and is used by the responsible person to monitor and control maintenance tasks and ensure compliance with relevant guidelines and procedures.

5. Maintenance & Care of Water Systems.

In order to ensure that the risk management program is effective in minimising risk and controlling Legionella Bacteria, the Trust will undertake a number of risk management processes including the periodic inspection and monitoring of plant, systems and equipment.

In addition to the PPM Program of Works then there are also a number of Non PPM Control Processes that have to be followed as and when the need arises depending on local operating conditions.

5.1 Non PPM Control Processes.

Flushing of Sporadically Used Outlets

Systems or individual outlets that are not frequently used allow the development of stagnant water conditions which increases the potential for bacterial growth and proliferation. To reduce the risk of stagnation it is important to introduce a flushing program at the earliest opportunity in areas where the water usage is reduced. Once introduced then the flushing program must be maintained until normal usage returns in the area concerned.

If an area of a building has been cleared whilst a capital scheme or maintenance works are completed, the Estates Dept. would only be too aware of the works being carried out and would be responsible to introduce and document a flushing policy.

If an area of a building is subject to reduced usage as staff or clients are moved

around and areas become vacant, then it is the responsibility of the departmental manager to introduce and document the flushing policy for this area.

In occupied areas, outlets that can be identified as being underused by departmental staff are to be included on a local flushing program until the usage increases or until they can be removed from the water system (where not required).

An outlet is considered underused if it remains unused within a period of 7 days and should be included on a flushing regime. (L8 ~ Table 2.1)

E-mailed documentary evidence that flushing is read will be sent to the Estates department on a weekly basis and held as a permanent record.

All systems shall be frequently used (at least daily), or suitably flushed to provide the necessary water usage, a regular turnover of water will help avoid stagnant water. The Estates Operation & Maintenance Team shall support the “users” of buildings who will undertake regular assessments of usage implement controls with local flushing requirements and provide information to the Estates & Maintenance Team to confirm that the correct actions are regularly monitored, documented and reported upon.

During normal occupation water draw-off should form part of the daily cleaning process.

During temporary closure of wards and departments the Estates Dept need to be informed and the outlets will be flushed for a period of 3+ minutes on a twice weekly cycle together with flushing WC cisterns etc. (HTM04-01 Part B Para 5.12 & 5.13).

The flushing process for little used outlets shall include the following operations:

Ensure that the purging of water from the outlets does not cause an unnecessary amount of aerosol, at least no more than would be created during normal operation.

Purge the hot water and cold water in turn for a minimum of 3 minutes or for a period of time to draw water of the correct temperature from the outlet. Where necessary hold a clear plastic bag with one corner removed over the shower rose, the water will discharge from this as a continuous stream rather than an aerosol.

This will be longer than 3 minutes where TMV's have been installed combined with spray taps and electronic tap controls due to the restrictions caused by TMV strainers, solenoid operated valves and tap outlet strainers.

When flushing is carried out by ward staff the Flushing record sheets are to be retained on the Ward/Dept. for their own records and a copy sent to the Estates Maintenance Dept. on a weekly basis.

5.2 PPM Program of Works.

The planned preventative maintenance system will detail the tasks to be performed and the frequency at which they are to be completed.

Records must be kept of the maintenance tasks performed, results obtained, the named individuals carrying out the work and any remedial works required and completed.

All temperature monitoring equipment used to complete these maintenance tasks shall be subject to regular calibration to the relevant standards as recommended by the relevant manufacturer; the calibration certificates are to be held on file.

All temperature monitoring checks to be made using an electronic thermometer that has a valid in date calibration certificate and using suitable contact or immersion probes depending upon the test being completed.

The serial numbers and details of test equipment are to be entered on an equipment database together with details of equipment calibration certificates.

All results of distribution and outlet temperature monitoring checks are to fully documented, dated, signed for and retained for future reference.

Where maintenance tasks involve the use of disinfection and/or descaling solution then only approved chemicals are to be used in accordance with the manufacturer's instructions.

The Infection Control Team will supply advice on the type of disinfectants to be used.

Where external contractors are used to complete certain aspects of the work then only companies who are members of the Legionella Control Association are to be employed.

All tasks are only to be carried out using the appropriate personal protective equipment.

5.3 Cold Water Outlets

Sentinel outlets (nearest & furthest) to be checked monthly.

All outlets to be checked over a 12 month period.

The water temperature should drop to below 20°C within 2 minutes of the outlet being operated.

5.4 Hot Water Outlets

Sentinel outlets (first & last on the circuit) to be checked monthly.

All outlets to be checked over a 12 month period.

The water temperature should be >50°C within 1 minute of the outlet being operated.

The temperature of the hot and cold water at a TMV can to be measured by contact thermometer on the TMV supply pipework.

5.5 Thermostatic Mixing Valve Tap Outlets.

In service testing of TMV tap outlet temperature and cold water isolation tests will initially be carried out every 6 months and the test time interval adjusted for the area concerned depending of the findings from the tests i.e. Strainer condition, speed of response to cold water isolation and accurate control of set temperature.

Control settings for the TMV's shall be:

- 41°C for showers
- 41°C for basins
- 43°C for baths
- 46°C for assisted baths
- 38°C for bidets
- 55°C minimum for all kitchens, pantries, slop sinks etc. (55°C is the minimum required for food hygiene and decontamination purposes).

5.6 Water Storage Tanks

Check temperature every 6 months in a position that is remote from the ball valve. The cold water storage tanks are to be visually inspected annually and any remedial works carried out as required.

Visual inspections are to include all aspects of tank location and conditions including: Scale, corrosion, deposits, rodent infestation, surface dirt, oil, insects, leaks, insulation, correct fitting of lid, rodent screens etc.

5.7 Hot Water Storage Calorifiers.

Check flow and return temperatures on a monthly basis.

Flow and return temperatures should be continuously monitored by BMS (building management system) where available.

Whenever the calorifier is opened up for inspection then checks should be made for internal corrosion and scale

Quarterly calorifier draining will minimise the accumulation of sludge in the base of the unit.

If the calorifier has to be taken out of service at any time it should be refilled, drained ,refilled again and the entire contents brought up to 60°C and held at that for one hour before being put back on line. (HTM04-01 Part B para 7.74)

5.8 Showerheads.

Dismantle, clean and descale every 3 months or more frequently as required using the appropriate descaling and disinfectant and in line with the showerhead cleaning method statement as supplied and agreed with the external contractor where necessary. (see under HTM04-01 Part B 7.91 Table 2)

5.9 Air Handling Units.

Observe the colour and condition of the water in the glass traps on a monthly basis and respond accordingly. The colour of the water in the trap gives an indication of

the condition of that part of the plant from which the trap is collecting moisture. (see Table 3 in HTM03-01 Para 5.7).

Glass traps to be removed and cleaned/disinfected annually and the process documented.

Complete a visual inspection of the external and internal condition of all air handling units at 3 monthly intervals and report on the condition of the drip trays, heater batteries, chiller batteries, external air intake grille (where accessible), and drain traps etc.

On inspection Air handling units are to be vacuumed out as required to remove any accumulations of dust/dirt.

Check also the condition of any fan motor drive belts that are fitted and change or adjust as required.

Replace the air filters on a 6 monthly basis and preferably at the beginning and the end of the heating season.

Cleaning of the internal sections of the AHU, changing filters and cleaning of glass traps requires the correct PPE to be worn. All dirty filters removed are to be handled and disposed of with regard to the latest information.

Other items of equipment.

Other items of equipment that may pose a risk include:

~ Water fountains

~ Ice making machines

~ Portable air conditioning and cooling units.

Providing the Estates Dept. have been kept fully aware of the installation of such items of equipment then Estates are responsible for retaining all documentation and service information for the equipment and to ensure they are installed and maintained in accordance with the manufacturer's instructions.

For information on Ice making machines and drinking water fountains see also HTM04-01 Part B 8.8 to 8.13.

6. Major Outbreak Plan

The Estates Team will engage with, advise and assist the Infection Control Team in development and implementation of their plan.

7. PCFT Employees relevant certification is stored on G Drive.

All staff training records are stored by the Estates department on a shared trust server in electronic format.

8. Documentation

Appendix 1: Flushing PM Part 1 and 2

Appendix 3: Maintenance Task/ Action Sheet

Appendix 3: Flushing Sheet Occupied/Vacated

Appendix 4: TMV Check Sheet

Appendix 5: Little Used Outlet Form for Department Managers

Work Order for Estates Department

WO No: 184834

<p>Region: UK</p> <p>Due: 08/12/2015</p> <p>Appointment: None Made</p> <p>Time Slot:</p>	<p>Person Code: James Fone</p> <p>Trade: PLANNED OP</p> <p>Work Order Type: PM</p> <p>Activity: PM</p>
--	--

Location / Object	TAMESIDE G Tameside General Hospital	Address:	Tameside General Hospital
	BUCKTON Buckton Building		Fountain Street
	DECANT Decant Ward		Ashton - U - Lyne
			Lancashire
			OL6 9RW

Job Information

Description Water Flush Vacated Dept. Pt 1 / Water Flush Vacated De

Procedure HTM

Instructions

PLEASE NOTE: TWICE WEEKLY. THIS IS PART 1 OF 2

Flush all unused outlets for a minimum of 3 minutes

Has the flushing record sheet been filled out and signed Y [] N []

During temporary closure of wards and departments the outlets should be flushed for a period of 3+ minutes on a twice weekly cycle together with flushing WC cisterns etc. (HTM04-01 Part B Para 5.12 & 5.13).

Asbestos Warning

There are Asbestos Containing Materials in or near the area you are working in. You must check the Asbestos Register or with the local Health & Safety Officer before commencing any work which could disturb the material.

Information

Interval 1/Week

Priority C

Est. Hours 1:00

No. of People 1

Contract

Special Instructions

COSHH Warning

COSHH items are either used or stored in this location. Please refer to the COSHH register for more information before proceeding with this work.

Customer Sign Off

Sign: _____ **Print:** _____ **Date/Time:** ____/____/20____ ____:____

Work Order Sign Off

Started: ____/____/20____ ____:____

Completed: /____/20____ ____:____

Total Time Worked: _____Hrs _____Mins **Engineer:** _____ **Approved:** _____

Work Order for Estates Department

WO No: 184834

<p>Region: UK</p> <p>Due: 08/12/2015</p> <p>Appointment: None Made</p> <p>Time Slot:</p>	<p>Person Code: James Fone</p> <p>Trade: PLANNED OP</p> <p>Work Order Type: PM</p> <p>Activity: PM</p>
--	--

Location / Object	TAMESIDE G Tameside General Hospital	Address:	Tameside General Hospital
	BUCKTON Buckton Building		Fountain Street
	DECANT Decant Ward		Ashton - U - Lyne
			Lancashire
			OL6 9RW

Job Information

Description Water Flush Vacated Dept. Pt 1 / Water Flush Vacated De

Procedure HTM

Instructions

PLEASE NOTE: TWICE WEEKLY. THIS IS PART 1 OF 2

Flush all unused outlets for a minimum of 3 minutes

Has the flushing record sheet been filled out and signed Y [] N []

During temporary closure of wards and departments the outlets should be flushed for a period of 3+ minutes on a twice weekly cycle together with flushing WC cisterns etc. (HTM04-01 Part B Para 5.12 & 5.13).

Asbestos Warning

There are Asbestos Containing Materials in or near the area you are working in. You must check the Asbestos Register or with the local Health & Safety Officer before commencing any work which could disturb the material.

Information

Interval 1/Week

Priority C

Est. Hours 1:00

No. of People 1

Contract

Special Instructions

COSHH Warning

COSHH items are either used or stored in this location. Please refer to the COSHH register for more information before proceeding with this work.

Customer Sign Off

Sign: _____ **Print:** _____ **Date/Time:** ____/____/20__ ____:____

Work Order Sign Off

Started: ____/____/20__ ____:____

Completed: /____/20__ ____:____

Total Time Worked: _____ Hrs _____ Mins **Engineer:** _____ **Approved:** _____

MAINTENANCE TASK FAULT / ACTION SHEET

WORK ORDER/ PM NUMBER

TASK DESCRIPTION

DATE

SITE

WARD / AREA

MAINTENANCE OPERATIVE(S)

FAULTS

1

2

3

4

5

6

7

8

9

10

ACTIONS

1

2

3

4

5

6

7

8

9

10

DATE

SUPERVISOR

SIGNED

WATER SAFETY GROUP GUIDANCE DOCUMENT

BACKGROUND

All healthcare organisations have an explicit duty under the Health and Safety at Work Act 1974 to assess and manage the risks posed by water systems on their premises.

The Healthcare organisations Chief Executive is responsible for having systems in place to manage and monitor the control of infection.

In order to manage the risks Pennine Care are required to carry out risk assessments and consider the susceptibility of patients within their environment.

HTM 04-01 Part C recommends that a Water Safety Group (WSG) is established.

This document focuses on the specific measures to control/ minimise the risk of *P. aeruginosa* and other pathogens such as *Stenotrophomonas*, *maltophilia*, *Burkholderia*, *cepacia* and atypical mycobacteria.

However it also states that the operational processes within the document will assist in the implementation of HTM 04-01 Part B: The control of Legionella, hygiene, "safe" hot water, cold water and drinking water systems.

WATER SAFETY GROUP RECOMMENDATIONS OUTLINED IN HTM 04-01 Part C

1. The WSG is a multidisciplinary group formed to undertake and develop the commissioning of the Water Safety Plan. The WSG may be a sub group of the Infection Prevention and Control committee Membership would typically comprise:
 - Director of Infection prevention and control (DIPC)
 - Infection, prevention and control team (IPC)
 - Consultant medical microbiologist
 - Estates and Facilities Teams
 - Senior Nurses
 - The chair of the group will be a local decision.
2. The group is responsible for ensuring it identifies microbiological hazards, assesses risks, identifies and monitors control measures and develops incident protocols.

3. Episodes of colonisation or infection that could be related to the water system should be reported to the chair of the WSG by the IPC.
4. The WSG should act in an appropriate and timely manner.
5. The WSG should include representatives from areas where water may be used in therapies, medical treatment or decontamination processes.

PROPOSAL FOR PENNINE CARE FOUNDATION TRUST WSG

PURPOSE

The PCFT WSG has been set up to assist the trust in meeting its legal requirements in regards to Infection control within its water systems. PCFT does not have augmented care units but still endeavours to meet the guidelines where applicable as recommended in: HTM 04-01 Part C.

ACCOUNTABILITY

PCFT's Chief Executive is accountable if the trust fails to assess and manage the risks posed by water systems in regards to infection control.

The Chief Executive can delegate the duty to the Deputy Chief executive, Director of Infection Prevention and Control and Director of Capital Investment and Estates services are accountable if the trust fails to assess and manage the risks posed by water systems in regards to infection control.

The WSG is responsible for developing and implementing the trusts water safety policies and procedures.

The WSG is authorised by those accountable to investigate any matter within the terms and reference of:

- HSE document Approved code of Practice L8
- HTM 04-01 - Part A, Part B, Part C
- Department of Health Guidance for "Water sources and potential pseudomonas aeruginosa contamination of taps and water systems", advice for augmented care units.

MEMBERS

The total membership of the group is:

- Head of Estates Operations – Steven Palmer (Responsible Person for Legionella)
- IPC Members (Nominated by DIPC)

- Operations Engineers – Andrew Walch, Warren Duffy (Deputy Responsible Persons for Legionella)
- Modern Matrons
- IPC Champions
- Head of Capital Estates Services – David Lees
- Head of Facilities – Martin Eastwood
- Facilities Manager
- Estates Operations Manager- Stephen Doyle
- Water Safety Contractor – Ben Baldwin / Steve Sykes
- Secretary – (For minute taking, releasing notice of meetings, Writing out the agenda with the Chair)
- All persons accountable under the recommended guidelines may turn up without invitation.
- Any employee of the trust may be invited as necessary.

The group will meet on a quarterly basis.

There will be a sub group within estates, which the minutes of must be made available to all members of the WSG.

DUTIES

- To monitor the trusts water safety testing and report any issues of non-compliance.
- Review TMV Testing results
- Ensure Trust Little Used Outlet flushing records are up to date
- Submit quarterly reports to the trusts IPC Team including the minutes of the WSG meeting.
- Review trust policy and procedures documents.
- Recommend alternative solutions where problems are encountered
- Keep up to date on outside guidance and ensure the trust responds accordingly.

Once Ratified the WSG guidance document should be reviewed every 2 years.