



**Water Systems Safety Policy**  
**(To be read in conjunction with NHSGG&C Water Safety Written Scheme and Operational Procedures)**

Lead Manager	Associate Director Facilities & Infection Control Manager
Responsible Director	Director of Property, Procurement and Facilities Management
Approved By	Board Infection Control Committee (BICC) & SCART Steering Group
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## **1.0 Introduction**

NHS GG&C has a duty to protect all patients, employees, contractors, voluntary workers, visitors as well as members of the public from the risk of being infected by bacteria or pathogens which occur naturally in water supply systems and water dispensing equipment

Those that should be considered at risk and vulnerable include:

- Vulnerable patients with suppressed immune systems as defined and agreed by Sector Water Safety Groups and the Board Water Safety Group in all locations.

## **2.0 Scope**

NHSGG&C has established a system of control for the management of water systems that shall ensure the safety of those within its premises by putting in place, both physical and procedural controls.

These controls shall be systematically examined and monitored by the Facilities Directorate, Infection Control, Health and Safety Department and the Board Water Safety Group which is a sub group of the Board Infection Control Committee.

This policy shall apply to all NHSGG&C managed and controlled premises.

## **3.0 Roles and Responsibilities**

### **3.1 Chief Executive – Duty Holder**

The Chief Executive (CE) has ultimate responsibility / accountability for water system safety within NHSGG&C.

The responsibilities of the Chief Executive (CE) include:

- Responsibility for implementation of the relevant mandatory and statutory elements contained in the following documents;
  - Health & Safety Commissions Approved Code of Practice and Guidance L8 (ACOP L8) - “Legionnaires Disease, The control of legionella bacteria in water systems”;
  - HSG 274 Part 2 – “Legionnaires Disease, The control of legionella bacteria in hot and cold water systems”;
  - HSG 274 Part 3 – “Legionnaires Disease, Technical guidance, The control of legionella bacteria in other risk systems”;
  - SHTM 04-01: The control of Legionella, hygiene, safe, hot water, cold water and drinking water systems;
  - CEL 08(2013) water sources and potential risk to patients in high risk units – revised guidance.
  - The implementation of Guidance for neonatal units (NNU’s) (levels 1, 2 & 3) adult and paediatric intensive units ICU’s in Scotland to minimise the risk of Pseudomonas aeruginosa infection from water.

- Ensuring that adequate resources are provided to meet the Water Systems Safety requirements of NHSGG&C estate;
- Ensuring that the Water Systems Safety Policy is being implemented at all levels;
- Reviewing and monitoring the operation of the Water Systems Safety Policy through the Board Corporate Management Team and ensuring that clear guidelines are provided for this tasked with compliance of legislative and statutory standards;
- Appointing the Designated person (Pseudomonas) and Designated person (Water) to assist in the execution of these responsibilities, who for NHSGG&C are the Infection Control Manager (Pseudomonas) and the Director of Facilities (Water).

### **3.2 Director of Property, Procurement & Facilities Management – Designated Person (Water)**

The Director of Property, Procurement & Facilities Management is the Designated Person (Water). He shall be responsible for the following and if required delegate appropriately:

- Ensuring that Facilities staff, through the general management structure, are fully aware of the current statutory and mandatory requirements and standards for the provision and maintenance of safe water systems;
- Ensuring with the Responsible Person (Pseudomonas) that the Water System Safety Policy is regularly reviewed and updated;
- Co-Chair the NHSGG&C Water Systems Safety Group;
- Appointing in writing the Responsible Person (Water) at sector level (Sector Estates Manager), Deputy Responsible Person(s) (Water) at site level (Site Maintenance/Estates Manager) and the Authorised Person (AP) (Water) at site level within the Facilities Directorate Management structure.

The General Manager Estates & Associate Director Facilities will take on board the role of Deputy Designated Person Water and cover the above duties.

### **3.3 Infection Control Manager – Designated Person (Pseudomonas)**

The Infection Control Manager (ICM) supported by the Board Infection Control Doctor is the Responsible Person (Pseudomonas). They shall be responsible for:

- Ensuring that Infection Control Teams are fully aware of current guidance on Legionella control matters and the minimisation of the risk of Pseudomonas aeruginosa infection from water;
- The implementation of Guidance for neonatal units (NNU's) (levels 1, 2 & 3) adult and paediatric intensive care units ICU's in Scotland to minimise the risk of Pseudomonas aeruginosa infection from water;
- Ensuring with the Designated Person (Water) that the Water System Safety Policy is regularly reviewed and updated;
- Co-Chair the NHSGG&C Water Systems Safety Group;

- Appointing in writing the Responsible Person(s) (Pseudomonas) at sector level. This shall be the relevant Infection Control Doctor.

### **3.4 Sector Estates Manager – Responsible Person (Water)**

The Sector Estates Manager (SEM) will be appointed as the Responsible Person (Water) at Sector level by the Director of Property, Procurement & Facilities Management in writing. The Sector Estates Manager is responsible for:

- Ensuring the effective maintenance of engineering controls installed for the purposes of controlling water systems;
- Ensuring that written schemes and risk assessments are in place and reviewed regularly;
- Devising and maintaining procedures to ensure the quality of water on premises is maintained;
- Ensuring operational procedures are carried out and documented;
- Ensuring records are kept of all water systems and their purpose, giving locations recording and maintaining within the Boards estates management system;
- Liaise closely with other professionals to ensure legislative and statutory compliance is maintained by the Board.

### **3.5 Authorising Engineer (AE)**

The Authorising Engineer (AE) is appointed in writing (or as delegated by) the Director of Property, Procurement & Facilities Management and is employed independently of NHS Boards and acts as an independent professional advisor to the healthcare organisation, appointed by the organisation with a brief to provide services in accordance with Scottish Health Technical Memorandum (SHTM) 04-01 guidance.

The AE will have specialist knowledge of large scale domestic and commercial hot and cold water services installations including incoming supplies, fire fighting services, wet risers, etc., and in particular, these installations for which an Authorised person (AP) (Water) will assume responsibility for an appointment.

The AE (Water) is free to comment on the organisational risk basis and give guidance on the numbers of AP (Water) being proposed by NHSGG&C across sites.

The Authorising Engineer will carry out the following main duties:

- act as an assessor, making recommendations for the appointment of Authorised Persons (AP) (Water) in terms of skills, training and site familiarity;
- monitor the performance of the service against ACoP L8, HSG274 and SHTM 04-01 guidance;
- provide an annual audit to the organisation's Designated Person.

### **3.6 Authorised Person (Water)**

The Authorised Person (Water) has the key operational responsibility for the service, qualified, sufficiently experienced and skilled for the purpose. He/she will be nominated by the Authorising Engineer (AE) and be able to demonstrate

- His/her application through familiarisation with the system and attendance at an appropriate professional course;
- A sufficient level of experience;
- Evidence of knowledge and skills.

An important element of the Authorised Person (Water) role is the maintenance of records, quality of service and maintenance of system safety (integrity).

The Authorised Person (Water) will also be responsible for establishing and maintaining the roles and validation of Competent Persons (Water) who shall be suitable trained employees of the organisation or appointed contractors.

Larger sites may require more than one Authorised Person (Water) for a particular service.

### **3.7 Senior General Manager – Property & Capital Planning – Deputy Responsible Person (Water)**

The Senior General Manager – Property & Capital Planning will be appointed as a Deputy Responsible Person (Water) at Board level by the Director of Property, Procurement & Facilities Management or his delegated Manager in writing. The Head of Capital Planning is responsible for:

- Ensuring that any new works undertaken or refurbishment within existing premises shall comply with the requirements of this Policy and the Written Scheme and Operational Procedure for managing Water Safety including The control of legionella, hygiene, 'safe' hot water, cold water and drinking Water systems;
- Ensuring all works are handed over to estates in compliance with the handover protocol for water as identified in the written scheme;
- Ensuring that all potential interfaces between an operating system are new and refurbishment works shall meet the approval of the Responsible Person (Water) and Authorised Person (Water) as to methodology for making that interface;
- Ensuring that any work involving the installation of water services or equipment requiring a water supply shall follow the guidance in SHTM 04-01, HSG274 Parts 2 & 3 and HSE document L8 and shall be certified by the design engineer at to that compliance;
- Ensuring that any works which will affect an operational water service will be discussed with the estates Authorised Person (Water) prior to arranging that work.
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### **3.8 Site Maintenance Manager/Site Estates Manager – Deputy Responsible Person (Water)**

The Site Maintenance Manager/Site Estates Manager shall be appointed in writing by the Director of Property, Procurement & Facilities Management in writing as the Deputy Responsible Person (Water) and will also act as the Designated Person Water in the absence of the Designated Person (Water). The Site Maintenance Manager/Site Estates Manager is responsible for:

- Ensuring building water systems are operated in accordance with the current guidance, and with the assessed risk of the individual systems under their control;
- Ensuring all staff conducting water system maintenance are competent to do so;
- Ensuring water system maintenance records are maintained and kept up-to-date;
- Regularly checking maintenance records;
- Ensuring all work is completed in accordance with the NHS GG&C Estates Procedures.

### **3.9 Acute Services Directors, CH(C)P Directors and Corporate Division Directors**

As Senior Managers, NHSGG&C Directors play an intrinsic role in ensuring that water safety is embedded within the culture of the organisation.

The responsibilities of Directors include:

- Supporting the Designated Persons (Water) and (Pseudomonas) in the development of the Board's overall strategy in relation to water safety and for ensuring implementation within their areas of responsibility;
- Ensuring that all staff are made aware of their requirement to attend Water Safety training at the appropriate frequency, as per the NHSGG&C Water Safety Policy and Operational Procedures which underpin this by facilitating staff release from duties to attend training;
- Support action to address staff who put themselves and/or others at risk from a real or potential water safety incident;

### **3.10 Heads of Service, Departmental Managers, Clinical Managers, Senior Charge Nurse's**

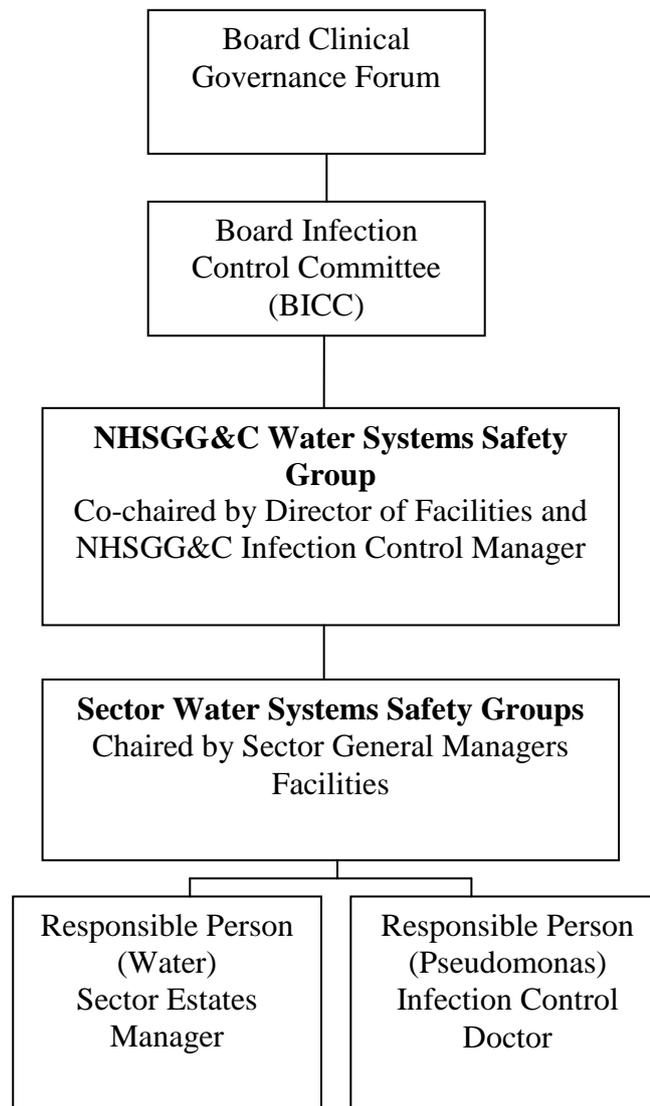
All managers who have a responsibility for the day to day management of facilities, staff or services, and/or premises, have water safety responsibilities that include:

- Familiarise themselves with the NHSGG&C Water Safety Policy and local control measures including any water risk assessments for their area(s) of responsibility;
- Ensuring that persons in the department, clinic or ward are fully aware of their responsibilities and duties in respect of Water Safety, in particular, the

action required of them should the area be defined as High Risk by the local Water Safety Group

- Ensure that persons in the department, clinic or ward are fully aware of the 'Infrequently Used Outlets' definitions and Operating Procedure which underpins the NHSGG&C Water Safety Policy
- Actively promoting Water Safety within the department or ward by maintaining good housekeeping within the department or ward at all times, ensuring that any flushing or documentation as described in the Water Safety Written Scheme and Operational Procedures documentation is completed on time
- Responding appropriately to any water safety concerns that persons in the department, clinic or ward have;
- Nominating a responsible person to complete the Monthly 'Infrequently Used Outlets' Audit for each area, forwarding a copy to the Site Maintenance/Estates Manager, thereby assisting NHSGG&C to meet its statutory and mandatory requirements;
- Ensuring that action is taken on a daily basis to address any access issues identified within the Cleaning Compliance Checklist Sign Off documentation retained in the Facilities Folder.
- Liaising with the estates department as required

#### 4.0 Governance Structure



The governance arrangements described above shall be put in place within NHSGG&C.

The responsibilities of the **Corporate Management Team** include:

- Implementing the Boards overall Water Systems Safety Policy including legislative compliance.
- Liaising with the Infection Control Manager (Designated Person (Pseudomonas)) and the Director of Property, Procurement and Facilities Management (Designated Person (Water)) to ensure the Boards Water Systems Policy is understood and applied across all areas of the Board.
- Formulating with the Infection Control Manager and Director of Property, Procurement and Facilities Management a Water Systems safety compliance programme for both passive and active measures in both existing building and new projects.

- Performing governance responsibility for reviewing operational arrangements effectiveness. The Corporate Management Team will be advised on this by the Boards Infection Control Committee (BICC) with contributions from the Infection Control Manager (Designated Person (Pseudomonas)) and the Director of Property, Procurement and Facilities Management (Designated Person (Water)) via the Board Water Systems Safety Group

## **5.0 Risk Reduction Strategy / Procedures**

Following any assessment of the risk, risk reduction strategies and procedures must be implemented where possible to reduce the likelihood and/or severity of incidents from infection

Risk Reduction strategies/procedures include:

- Policy awareness and implementation;
- Risk assessment both generic and specific;
- Training;
- Local procedure development;
- Reporting and recording;
- Evaluating effectiveness of risk reduction strategies/procedures;
- Reviewing in the light of experience; look at incident investigation and inspection reports. Do they show improvement?
- Re-train staff if required, reading available policies, strategies and procedures;
- Review clinical and workplace risk assessments after reports of any adverse events;
- Implementation of risk reduction strategies as defined by the findings of the risk assessment for the NHSGGC buildings;
- Implementation of a formal review/audit process of the risk reduction procedures;
- Implementation of contractor audit and review procedures.

Sector Water Safety Groups are responsible for ensuring that a multi disciplinary approach is taken to Risk Reduction within the Board at local level.

## **6.0 Operational Arrangements**

Water systems throughout NHSGG&C are subject to a routine planned maintenance system. NHSGG&C shall have in place a site specific Written Scheme and Operational Procedure for Water System Safety

The written scheme and Operational procedure for Water System safety shall be followed for the management of water systems for the prevention of infection

## **7.0 Testing for Legionella**

In keeping with the current HSE guidance, testing for legionella will be carried out within NHSGG&C as follows:-

### **Clinical Risk Areas;**

- It has been agreed with the NHSGG&C Lead Infection Control Doctor that the following area is a 'high-risk clinical area' where immune-compromised patients are present;
  - Transplant units.

The 'clinical high risk areas' will be specifically identified within the site specific 'written scheme';

### **Engineering Risk Areas;**

Due to the 'age' of the current building stock within NHSGG&C it is recognised that there are areas where a 'high-risk' is present due to current water distribution configuration and as such testing will be required. The 'engineering risk areas' are as follows:

- In water systems treated with biocides where water is stored or distribution temperatures are reduced;
- In water systems where the control levels of the treatment regime, eg temperature or disinfectant concentrations, are not being consistently achieved;
- In water systems suspected or identified in a case or outbreak of legionellosis where it is probable the Incident Control Team will require samples to be taken for analysis;
- In areas which have been identified within the current Water Safety Risk Assessment as being of a risk.

The 'engineering high risk areas' will be specifically identified within the site specific 'written scheme'.

## **8.0 Pseudomonas**

NHSGG&C complies with the HFS, HPS and *Pseudomonas aeruginosa* and Water (Scotland) Group guidance document titled '*Guidance for neonatal units (NNUs) (levels 1, 2 & 3), adult and paediatric intensive care units (ICUs) in Scotland to minimise the risk of Pseudomonas aeruginosa infection from water*' version 3 dated May 2018.

## **9.0 Reporting and Monitoring**

If, following a legionella water sample, a reading of legionella bacteria is shown to be present and, following the criteria that the usual control measures to eliminate this legionella bacteria have been undertaken, that should the follow-up reading still record that legionella bacteria is present, then a record of this incident will be made on NHSGG&C's Datix reporting and recording system in line with the NHSGG&C's

Incident Management Policy and Procedure. The Facilities Directorate must be copied into all Datix reported incidents.

Line managers must ensure that a review and investigation of an infection incident which can be demonstrated as originating in a water system is carried out and recorded.

They should be reviewed as a significant adverse event as per the Incident Management Policy and Procedure.

In order to ensure the implementation and effectiveness of this policy all incident reports relating to water management should be reviewed regularly by the responsible manager via the Sector Water Safety Group.

## **10.0 Audit**

The application and effectiveness of this policy throughout the organisation shall be monitored by the Health and Safety Department reporting via the Board Water Safety Group and the Estates Senior Management Team (SMT).

The policy will be reviewed and revised on a regular basis or as a result of changes in legislation and national guidance.

## **11.0 Guidance**

The following references form a compendium of literature available at the present time to which reference should be made –

- Health & Safety at Work, etc. Act 1974
- The Management of Health and Safety at Work Regulations 1999 & (Amendment) Regulations 2006
- The Control of Substances Hazardous to Health Regulations (COSHH) 2002 7 (Amendment) Regulations 2004
- Approved Code of Practice & Guidance, 'Legionnaires' disease: The control of Legionella bacteria in water systems', L8
- Public Health (Infectious Diseases) Regulations 1988
- NHS Estates - Scottish Health Technical Memorandum 04-01 (SHTM 04-01)
- The Chartered Institute of Building Services Engineers (CIBSE) - Technical Memorandum (TM13), Minimising the Risk of 'Legionnaires' Disease'
- Water Regulations Advisory Scheme - Water Supply (Water Fittings) Regulations 1999
- Water Regulations Advisory Scheme - Water Fittings and Materials Directory

- The Water Byelaws 2004 (Scotland).
- Water Supply (Water Quality) (Scotland) Regulations 2001
- Food Safety Act 1990
- BS 8580:2010 Water quality. Risk assessments for Legionella control. Code of practice
- BS 6700; 2006, 'Design, Installation, Testing & Maintenance of services supplying water for domestic use within buildings & their cartilages - Specification',
- BS EN 806; (2010) 'Specification for installations inside buildings conveying water for human consumption'.
- BS 1710; 1984 Specification for Identification of Pipelines and Services
- Thermostatic Mixing Valve Manufacturers Association - Recommended Code of Practice for Safe Water Temperatures
- Guidance for neonatal units (NNU's) (levels 1, 2 & 3) adult and paediatric intensive care units ICU's in Scotland to minimise the risk of Pseudomonas aeruginosa infection from water.
- HSG 274 Part 2 – "Legionnaires Disease, The control of legionella bacteria in hot and cold water systems;
- HSG 274 Part 3 – "Legionnaires Disease, Technical guidance, The control of legionella bacteria in other risk systems;

This policy is not intended to replace or usurp the above documents, which should be consulted for more comprehensive information and guidance.