

Water Management Policy

Approved on: 11 November 2014

By Health & Safety Management Group

Implementation Date: 1 December 2014

BIELD HOUSING AND CARE

Registered Office: 79 Hopetoun Street, Edinburgh EH7 4QF

Scottish Charity No SC006878

WATER MANAGEMENT POLICY

Purpose

This Policy sets out the process by which Bield Housing and Care will meet its landlord duties in respect of Water Management

Related Policies

- Management of Health and Safety Policy
- Control of Substances Hazardous to Health

Equality & Diversity

Bield Housing and Care will ensure that all contractors and suppliers have an equality and diversity policy in place which adheres to the principles contained within Bield's Equality & Diversity Policy. Bield Housing and Care will ensure that all contractors and suppliers do not allow discrimination of any type.

Responsibilities

All managers should be aware of the Water Management Policy and that they have particular responsibility for ensuring that all staff under their control are aware of the policy and that they understand and carry out their duties in accordance with this policy.

Implementation/Training

Online Legionella Awareness Training is available on "Grapevine".

BIELD HOUSING AND CARE

POLICY STATEMENT

WATER MANAGEMENT

STATEMENT

The purpose of this policy statement is to define the requirements of the Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH), and the Approved Code of Practice & Guidance (ACOP): 'The Control of Legionella in Water Systems Approved Code of Practice & Guidance 2013 and Bield Housing and Care's method of dealing with these requirements and assessing and controlling the risk of scalding.

The scope of this policy statement affects all Bield Housing and Care property.

DEFINITION OF THE REQUIREMENTS

INTRODUCTION

This policy statement is a summary of the requirements of the Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH) and the actions to be taken to meet those requirements, together with further action for implementing the requirements of the Approved Code of Practice (ACOP) - The Control of Legionella in Water Systems Approved Code of Practice & Guidance 2013.

There is a potential conflict between the temperature requirements for control of Legionellosis and the risk of scalding for vulnerable persons¹.

DEFINITIONS

The ACOP applies whenever water is stored and used and where there is a means of creating and transmitting water droplets which may be inhaled, thereby causing a reasonably foreseeable risk of Legionellosis and, in particular, to the following plant and systems whenever the Health and Safety at Work etc. Act 1974 applies:

- hot and cold water services irrespective of size in premises where occupants are particularly susceptible;
- hot water services generally
- spa baths and pools in which warm water is deliberately agitated and recirculated;

¹ NHS Estates Health Guidance Note (HGN) '*Safe' hot water and surface temperatures* 1998 edition(file 357) (Scottish version is Scottish Health Guidance Note (1999) recommends how to meet employer's legal duty of care in respect of the risk of scalding and burning from hot water.

- other plant and systems containing water which is likely to exceed 20°C and which may release a spray or aerosol (a cloud of water droplets and/or particles) during operation or when being maintained;

While this is not an exhaustive list, it identifies those systems with greatest potential to cause infection.

RESPONSIBILITIES

The ACOP places responsibility on Bield Housing and Care and others to:

- identify and assess the risk;
- prepare a scheme for preventing or controlling the risk;
- implement and manage precautions;
- keep records of the precautions implemented;
- appoint a person to be managerially responsible.

The ACOP also sets out the responsibilities of manufacturers, importers, suppliers and installers of products and services, who should provide adequate information for the user on correct operation and means of controlling the risk.

IDENTIFICATION AND ASSESSMENT OF RISK

All schemes shall be assessed to determine whether or not the water systems are susceptible to colonisation by legionella and incorporate a potential means for creating and disseminating water droplets. The risk should be identified and the risk they present should be assessed.

Risk should be assessed not just for the routine operation or use of the system but also in relation to breakdown, abnormal operation, commissioning or unusual circumstances.

The assessment should take account of:

- the potential for droplet formation;
- hot and cold water temperatures;
- the likely risk to those who will inhale water droplets;
- means of preventing or controlling the risk.

In assessing the risk and drawing up precautions particular attention should be paid to circumstances where:

- the population contains a high proportion of susceptible people as, for example, in many hospitals or nursing homes; or
- the number of people at potential risk is high as, for example, in densely populated areas.

ASSESSMENTS

Individual schemes will be risk assessed taking into account the factors set out in the preceding paragraph.

Where this initial assessment shows a risk of Legionellosis, then a full risk assessment will be carried out to determine the extent of the risk, and where appropriate, Bield's Hot and Cold Water Services Risk Management Programme will be introduced.

RISK ASSESSMENTS

Full Risk Assessments will be carried out by consultants who are able to demonstrate the necessary skills and experience in this field of work. The Risk Assessments will be reviewed at least every 24 months.

HOT AND COLD WATER SERVICES RISK MANAGEMENT PROGRAMME

This programme sets out a regime of inspection, maintenance, cleaning and testing with the primary intention of avoiding conditions which permit legionella to proliferate.

Proliferation may be avoided by:

- avoiding water temperatures between 20°C and 45°C. Water temperature is a particularly important factor in the control of risk of Legionellosis;
- avoiding water stagnation. If water is allowed to stand for long periods in a warm building its temperature will settle between 20°C and 45°C and encourage the growth of biofilm which can harbour legionella;
- avoiding the use of materials in the system that can harbour or provide nutrient for bacteria or other organisms;
- keeping the system clean so as to avoid the build up of sediments etc, which may harbour bacteria or provide nutrients for them;
- the use of water treatment, where it is appropriate and safe to do so;
- ensuring that the system operates safely and correctly and is well maintained.

Confirmation that the systems are working is obtained by periodic sampling and analysis.

MANAGEMENT AND THE RESPONSIBILITIES AND COMPETENCE OF PERSONNEL

Inadequate management, lack of training and poor communication have all been identified as contributory factors in outbreaks of legionnaires disease. It is therefore important that those people involved in assessing risk and applying precautions are competent, properly trained and aware of their responsibilities.

One named person should be appointed as being responsible for overseeing the assessment and implementation of precautions (The Responsible Person). This person should be a manager, or have similar status with sufficient authority to ensure that measures are carried out effectively.

Staff responsibilities and lines of communication must be properly defined and clearly set out. The implementation and effectiveness of the precautions must be monitored and arrangements should be made to allow for staff who leave or are absent from duties so that precautions are still implemented.

RECORD KEEPING

To ensure that precautions continue to be carried out and that adequate information is available for checking what is done in practice, a record should be kept showing the information specified in the Approved Code of Practice (ACOP).

Precautionary measures and treatments, monitoring results and remedial work should be logged and signed or initialled by the person who carried out the work. Sufficient information (dependent upon the type and complexity of the system) should be recorded to show what measures have been taken and how they have been monitored.

BIELD HOUSING AND CARE - METHODS OF IMPLEMENTATION

Responsible Person

The person(s) appointed as being responsible for overseeing the assessment and implementation of precautions shall be Bield's Director of Asset Management.

Identification and Risk Assessment

The various water system types to be found in Bield's premises have been assessed as follows:-

- Existing office accommodation, with the exception of Dundee and BR24 which are located within housing schemes, present a reasonably foreseeable risk of legionellosis. The Dundee and BR24 office water systems will be risk assessed as part of the scheme within which they are located;
- Housing comprising individual flats with self contained hot and cold water systems may present a risk of legionellosis and should be the subject of individual risk assessment to determine the level of risk and whether or not individual schemes fall within the scope of this policy;
- Housing with communal hot and cold water systems do present a reasonably foreseeable risk of legionellosis.

Initially, legionella risk assessments which also consider the scalding risks shall be carried out by a specialist water quality consultant on all of the Schemes/Offices and thereafter subject to periodic review and re-assessment.

Implementation of Precautions/Remedial Work

Reports will be submitted to the Service Contracts Officer for necessary action to be taken at each Scheme as each assessment is completed.

Record Keeping and Monitoring

All persons involved in any aspect of the prevention and control of Legionellosis, and the control of scalding risk shall maintain and keep adequate records to show the actions which have been taken. The records must be kept available for inspection at any time either by line managers, or other interested parties.

Logbooks containing relevant information and forms will be retained within each scheme where the property has been assessed as presenting a risk of Legionellosis.

Staff Responsibilities and Monitoring

The responsibilities of, and lines of communication between staff at all levels shall be as set out in Appendix 1

Training

Online Legionella Awareness Training is available on “Grapevine” for all staff who may be involved in identifying, assessing, implementing, recording or monitoring the water hygiene programme. All scheme staff and their line managers must complete this training and a requirement to carry this out will also be introduced and included in the induction training for new staff. Additional training may also be arranged where required.

Escalation Procedure

The Responsible Person has the key role of monitoring the effectiveness of the risk assessments and control strategies in their respective areas. The early identification of a failure in the risk assessment / control strategy process is a fundamental part of the water management system.

This three level system of ‘Infection Levels’ is designed to provide the Responsible Person with a formalised system for the determination of the level of risk with respect to the failing in question. Each ‘Infection Level’ is accompanied by a corresponding list of Action Requirements, which the Responsible Person must implement.

1 INFECTION LEVEL ONE

The following criteria denote that an Infection Level 1 issue has arisen:

- a. An aerobic count of 1,000 and up to 10,000 cfu/ml.²
- b. Where the water temperatures are occurring outside the design parameters and these fall within the temperature range of 20° – 45°C
- c. Where a control procedure is demonstrably failing

² cfu/ml – colony forming unit / millilitre

Actions required:

The Responsible Person carries out an immediate review of the risk assessment and the current control strategy.

Where the Responsible Person cannot devise an improved control strategy that will reduce the Infection Level criteria, then consultation must take place with the relevant Contractor or External Advisor.

The Responsible Person sends out an Information Notice email to the Duty Holder³ detailing the issues that have arisen. A copy of the Information Notice is retained on file.

2 INFECTION LEVEL TWO

The following criteria denote that an Infection Level 2 issue has arisen:

- a. A Legionella bacteria count at or above the level of detection but below 1000 cfu/ml.
- b. An aerobic count of 10,000 and up to 100,000 cfu/ml.

Actions required:

Sampling of the water system within 48 hours if possible

Notification to the Duty Holder, Occupational Health Department (if relevant) and the relevant contractor of the issue.

Disinfection and cleaning of the entire water system.

A review of the risk assessment and the effectiveness of the current control measures by the Responsible Person.

3 INFECTION LEVEL THREE

The following criteria denote that an Infection Level 3 issue has arisen:

- a. A Legionella bacteria count above 1000 cfu/ml.
- b. An aerobic count above 100,000 cfu/ml.
- c. A case of ill-health that a Doctor considers to have been potentially caused by exposure to legionella bacteria.

³ Duty Holder – the employer; where the risk from their undertaking is to their employees or to others (ACOP Paragraph 23(a))

Actions required:

Immediate shutdown of the system to prevent the potential for infection or further infection.

Implementation of controlled access procedures to the area or equipment.

Immediate notification to the Statutory Duty Holder.

Immediate consultation with the Duty Holder, External Advisor and Contractors to establish a plan for further water sampling, disinfection, cleaning and re-sampling.

Responsible Person to notify the Occupational Health Department of the issue and risks.

4 Legionnaires' Disease is notifiable in Scotland under the Public Health (Notification of Infectious Disease)(Scotland) Regulations 1988.⁴

⁴ ACOP Appendix 2 paragraph 1

CROSS REFERENCE

Further information on this area may be obtained from the following documents copies of which will be held in the Department of Human Resources.

- Management of Health and Safety statement;
- Control of Substances Hazardous to Health statement;
- IACL27 Legionnaires' Disease – A guide for employers
- Health and Safety at Work Act 1974-Section 3 - Duty to others.

Appendix 1
LINES of COMMUNICATION

Name	Brian Logan
Company	Bield Housing and Care
Title	Chief Executive
Location	79 Hopetoun Street Edinburgh
Responsibilities	Statutory Duty Holder
Name	Stuart Dow
Company	Bield Housing and Care
Title	Director of Asset Management
Location	Craighall Business Park, 7 Eagle Street, Glasgow G4 9XA
Responsibilities	Responsible Person
Name	Jim Grant
Company	Bield Housing and Care
Title	Service Contracts Officer
Location	Craighall Business Park, 7 Eagle Street, Glasgow G4 9XA
Responsibilities	Implementation of Hot and Cold Water Systems Risk Management Programme
Name	Property Officer (Named)
Company	Bield Housing and Care
Title	Property Officer
Location	Various
Responsibilities	Oversee and implement corrective actions in their schemes where requested by the Service Contracts Officer and act as main site contact for all related works
Name	Scheme Manager (Named)
Company	Bield Housing and Care
Title	Scheme Manager
Location	Scheme address
Responsibilities	Record water temperatures as outlined in the Hot and Cold Water Systems Risk Management Programme. Flush little used outlets.
Name	Scheme Depute or Assistant Manager (Named)
Company	Bield Housing and Care
Title	Scheme Depute or Assistant Manager
Location	Scheme address
Responsibilities	Record water temperatures as outlined in the Hot and Cold Water Systems Risk Management Programme in absence of Scheme Manager. Flush little used outlets.
Name	Anne Connor
Company	Severn Trent Services
Title	Key Account Manager
Location	Strathclyde Business Park, Glasgow
Responsibilities	Advice on water hygiene, provision of consultancy services, and carrying out a regular programme of water sampling, tank inspection and shower disinfection as directed by Bield Housing and Care.

Appendix 2

BIELD HOUSING ASSOCIATION LIMITED

HOT and COLD WATER SERVICES

RISK MANAGEMENT PROGRAMME

TASK	PRIORITY RATING	BY WHOM	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Record temperature at calorifier.	1	Scheme Manager	*	*	*	*	*	*	*	*	*	*	*	*
Record hot water temperature at outlets.	1	Scheme Manager	*	*	*	*	*	*	*	*	*	*	*	*
Record cold water temperature at outlets	1	Scheme Manager	*	*	*	*	*	*	*	*	*	*	*	*
Record temperature in cold water storage tank.	2	Consultant		* C						* C				
Carry out weekly flushing of little used outlets	1	Scheme Manager	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly
Take samples of potable water for Total Viable Count analysis.	2	Consultant								*				
Complete Online Awareness Training Programme on Grapevine	2	All staff												
De-scale and disinfect shower heads Communal (C) Tenants (T)	2	Consultant / Contractor		*(C) *(T)			*(C)			*(C) *(T)			*(C)	
Take samples of water for Legionella analysis.	3	Consultant								*				
Drain, clean, & disinfect system	1	Consultant	As and when inspection results indicate work is necessary.											
Inspect cold water storage tank	2	Consultant	* C							* C				
Enter results in log book and Property Management Scheme Folder – section Four (Water Hygiene)	2	All	*	*	*	*	*	*	*	*	*	*	*	*
Audit results	1	Consultant		*						*				

Appendix 3

Hot and Cold Water Services Risk Management Programme Scheme Manager, Care Manager, Housing Officer and Property Officer - Guidance

Note

Requirement	Target	
Record temperature at calorifier – take reading from thermometer located on heater	Minimum of 60°C	No tolerance If temperature recorded is less than 60°C – report to Property Services. If temperature is above 70°C – report scalding risk to Property Services Reference form 4.5 and 4.6 ; Monthly water Supplies Temperature Checks
Record hot water temperature at outlets – test to be carried out on rotation at taps <u>with no</u> temperature control	Minimum of 50°C	No tolerance If temperature less than 50°C after running for one minute – report low temperature to Property Services If temperature is above 70°C– report scalding risk to Property Services Reference form 4.5 and 4.6 ; Monthly water Supplies Temperature Checks
Record hot water temperature at outlets – test to be carried out on rotation at taps <u>with</u> temperature control	Maximum of 43°C	Tolerance of $\pm 1.5^{\circ}\text{C}$ If temperature less than 41.5°C – report blending valve fault to Property Services. If temperature higher than 44.5°C – report blending valve fault to Property Services, alert staff to scalding risk and prevent tenants from using tap. Reference form 4.5 and 4.6 ; Monthly water Supplies Temperature Checks
Record cold water temperature at furthest point on system location	Below 20 ° C	No tolerance If temperature recorded is higher than 20 ° C – report to Property Services Reference form 4.5 and 4.6 ; Monthly water Supplies Temperature Checks
Carry out and record weekly flushing of little used outlets		This must be carried out every week. Scheme managers should review the frequency of usage of outlets on each occasion Reference form 4.7 ;Weekly Flushing of Little Used Outlets
Record known locations of showers in scheme		Reference form 4.3 ; Shower Inventory Form
Contractor to de-scale and disinfect shower heads and shower hoses Quarterly	To disinfect showerheads and shower hoses where water may stagnate.	Service Contracts Officer will instruct contractor to visit and remove and dismantle all shower heads and shower hoses. All component parts should be placed in an anti-bacterial bleach solution (sodium hypochloride) for at least 1 hour. On completion, rinse in cold water and flush through again when re-fitted to shower. Contractor will return to re-assemble parts and re-fit to showers.
Enter all visits, actions and outcomes in Property Management Scheme Folder Section Four (Water Hygiene)		

Appendix 4

Hot and Cold Water Services Risk Management Programme Consultant / Contractor Guidance Note

Requirement	Target	Method, Tolerance and Remedial Action
Contractor to take Legionella Samples		Service Contracts Officer to instruct contractor to take annual Legionella samples from water system
Contractor to carry out TVC analysis of water system		Service Contracts Officer to instruct contractor to take annual TVC samples from water system
Contractor to Inspect cold water storage tank(s) Once a year	To ensure required standards for water storage are being achieved.	Service Contracts Officer to instruct contractor to inspect cold water storage for compliance with Byelaw 30 and evidence of contamination either from bacteria or foreign bodies. Works orders must be issued to appropriate contractors where contamination is suspected.
Contractor to Record temperature in cold water storage tank(s) twice a year	Maximum of 20°C	Service Contracts Officer to instruct contractor to take temperature of stored cold water. Where temperature is 18°C or higher, the reason for the high temperatures must be ascertained and appropriate remedial works put in hand immediately
Contractor to de-scale and disinfect shower heads Quarterly	To disinfect showerheads where water may stagnate.	Service Contracts Officer will instruct contractor to visit and remove and dismantle all shower heads. All component parts should be placed in an anti-bacterial bleach solution (sodium hypochlorite) for at least 1 hour. On completion, rinse in cold water and flush through again when re-fitted to shower. Contractor will return to re-assemble parts and re-fit to showers.
Enter all actions and outcomes in Property Management Scheme Folder Section Four (Water Hygiene)		