

HOUSING SOLUTIONS LIMITED

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	VERSION: 3.0
	OWNER: Group Customer Services Director
	DATE APPROVED: July 2015
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Housing Solutions Limited

Water Hygiene & Legionella Safety Policy and Management System

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FOREWARD

This procedure provides guidance on the methods by which Housing Solutions Limited will endeavour to control Water hygiene, Legionnaires disease, and safety in the premises or systems it manages and over such systems that it has reasonable control.

Basic information is provided on Legionella and the procedure summarises the methods by which Housing Solutions Limited must address its responsibilities. If you have any doubts or questions about this policy or procedures, please contact your manager who will be able to provide you with advice or further information.

This document has been produced in partnership with Watson, Wild & Baker Ltd, who have acted as Housing Solutions Limited's external health and safety advisers on Legionella.

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POLICY STATEMENT

Housing Solutions Limited will take all reasonable steps to manage and establish effective systems to manage the risk of Legionellosis within our properties.

- Housing Solutions Limited will maintain an open information policy and will work with tenants, residents, staff groups, contractors and statutory bodies to agree and deliver solutions to Legionellosis issues.
- Housing Solutions Limited will implement its Water hygiene & Legionellosis management strategy by empowering designated operational staff with the appropriate training, skills and resources needed to safely manage Legionellosis.
- If Legionellosis poses a serious or imminent risk to the health of persons Housing Solutions Limited will take all practical measures as soon as possible to control the risk of Legionellosis.
- If there is a risk of Legionellosis is present, but it is not a serious or imminent risk, Housing Solutions Limited will take all reasonably practical measures to control the risk of Legionellosis.
- Whilst the risk of Legionellosis is present Housing Solutions Limited shall ensure that it is managed in such a manner so that the risk to the health of our customers, employees, contractors, visitors and other peoples using our premises is minimised.

All work to prevent or the control risk of Legionellosis shall be carried out in accordance with the current legal standards using the best working practices.

SCOPE OF THIS PROCEDURE

The scope of this policy is applicable to all group managed and maintained non-domestic buildings. The following buildings are deemed to be non-domestic premises.

Non Domestic Premises
Housing Solutions Limited Offices & Administrative buildings Registered care homes Sheltered Housing – Communal facilities Common parts of multi-let buildings

Domestic properties will have a generic risk assessment based on the type of water system. There will be no site specific survey or written scheme for any domestic premises.

POLICY DEVELOPMENT

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This policy has been developed to allow Housing Solutions Limited to comply with the Control of Substances Hazardous to Health Regulations 2002, and has regard to Approved Code of Practice L8 'Legionnaires' disease: The control of Legionella bacteria in water systems.'

BACKGROUND INFORMATION ABOUT LEGIONELLOSIS

Legionellosis is an infection caused by the bacterium *Legionella pneumophila*. The infection has two distinct forms:

- Legionnaires' disease, the more severe form of infection which includes pneumonia
- Pontiac fever, a milder illness.

Legionnaires' disease acquired its name in 1976 when an outbreak of pneumonia occurred among persons attending a convention of the American Legion in Philadelphia. Later, the bacterium causing the illness was named Legionella.

People of any age may get Legionnaires' disease, but the illness most often affects middle-aged and older persons, particularly those who smoke cigarettes or have chronic lung disease. Also at increased risk are persons whose immune system is suppressed by diseases such as cancer, kidney failure requiring dialysis, diabetes, or AIDS. Those that take drugs that suppress the immune system are also at higher risk.

Persons with Legionnaires' disease usually have fever, chills and a cough, which may be dry or may produce sputum. Some persons also have muscle aches, headache, tiredness, loss of appetite, and, occasionally, diarrhoea. Laboratory tests may show that these patients' kidneys are not functioning properly. Chest X-rays often show pneumonia. It is difficult to distinguish Legionnaires' disease from other types of pneumonia by symptoms alone; other tests are required for diagnosis. Several types of tests are available. The most useful tests detect the bacteria in sputum, find Legionella antigens in urine samples, or compare antibody levels to Legionella in two blood samples obtained 3 to 6 weeks apart.

Persons with Pontiac fever experience fever and muscle aches and do not have pneumonia. They generally recover in 2 to 5 days without treatment. Pontiac fever most commonly occurs in persons who are otherwise healthy.

The time between the patient's exposure to the bacterium and the onset of illness for Legionnaires' disease is 2 to 10 days; for Pontiac fever, it is shorter, generally a few hours to 2 days.

Legionella are bacteria that are common in natural (rivers and lakes etc) and artificial water systems, e.g. hot and cold water systems (storage tanks, pipe work, taps and showers). However, the bacteria reproduce to high numbers in warm, stagnant water (20°C and 45°C), such as that found in certain plumbing systems and hot water tanks, cooling towers and evaporative condensers of large air-conditioning systems, and whirlpool spas. High temperatures of 60°C and over will kill them.

Outbreaks of Legionellosis have occurred after persons have breathed mists that come from a water source (e.g., air conditioning cooling towers, whirlpool spas, showers) contaminated with

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Legionella bacteria. Persons may be exposed to these mists in homes, workplaces, hospitals, or public places. Legionellosis is not passed from person to person.

As the annual risk of legionnaire's disease at 1 in 500,000 is remote no special measures are required to prevent and control this risk in the general housing stock, other than to ensure that hot water storage water vessels are correctly set up, to store water at above 50 °C, when they annually serviced. This is to be done with the annual gas inspection.

LEGISLATION

Criminal liability for a Legionellosis outbreak or individual deaths or illness from Legionellosis would fall under the following laws:

- Health and Safety at Work etc Act 1974, s2-7
- Control of substances hazardous to health regulations 2002

The Health and Safety at Work etc Act 1974 and its supporting do not apply to domestic premises. Failure to comply with these laws is a criminal act that could result in unlimited fines for Housing Solutions Group and possibly fines and imprisonment for directors and senior managers found to be individually culpable.

The HSE has reissued the approved code of practice L8 Legionnaires' disease: the control of Legionella bacteria in water systems - approved code of practice and guidance ISBN 0 7176 1772 6. However, in many ways what is potentially is of greater relevance to Housing Solutions Ltd is the following two leaflets:

- Legionnaires Disease - Essential information for providers of residential INDG376
- Controlling Legionella in nursing and residential care homes IND (G) 253L

These leaflets are of direct relevance to Housing Solutions Ltd's operations and indicate that HSE are taking an interest in this topic in the social housing sector and are likely increase enforcement action on this topic.

In addition to the criminal liability, there would be potential liability for breach of contract and for negligence. These could result in withdrawal or limitation of insurance cover.

SPECIALIST ADVICE

This document is not intended to provide detailed technical guidance on handling and dealing with legionellosis. Staff should refer to the appropriate HSE guidance. Lists of all current HSE publications may be obtained from the HSE Website. Lead staff will be trained to be competent to manage legionellosis in buildings. Copies of all relevant publications will be issued to all staff trained by Housing Solutions Limited.

The Health and Safety Executive has produced a number of Approved Codes of Practice and a number of Technical Guidance Notes. Compliance with all relevant regulations and guidance is

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necessary so that all work involving legionellosis containing materials can be carried out safely without any risk to any person.

RESPONSIBILITY OF INDIVIDUALS

Group Customer Services Director	<p>Group Customer Services Director is responsible to the Executive Team for this policy.</p> <p>He is to ensure that:</p> <ul style="list-style-type: none">– The Executive Team is informed of the resources needed to implement this policy;– The Executive Team is informed of the implementation of this policy and procedures;– Ensure that all persons are provided with the necessary information, instruction and training to fulfil their roles and responsibilities under this policy and procedures.– The Executive Team is immediately informed of any incidents that may affect the image or reputation of Housing Solutions Limited , or may lead to enforcement action, criminal prosecution or civil action being taken against Housing Solutions Limited; and– Measures are taken to ensure that this policy and procedures are fully implemented.
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Head of Asset Management and Housing Manager - Community Services	<p>The Head of Asset Management and Housing Manager-Community Services are responsible to the Group Customer Services Director. To prevent exposure to legionella bacteria in Housing Solutions Limited owned or managed properties within their operational and business stream.</p> <p>The Head of Asset Management and Housing Manager – Community Services are to ensure that:</p> <ul style="list-style-type: none"> – Technical and Maintenance Staff, Property Managers and Contractors fully comply with these policy and procedures; and – The Group Customer Services Director is fully informed with regards to: <ul style="list-style-type: none"> • Any training or resources needed to implement the policy; and • Any difficulties in the implementation of this policy. – All persons including contractors are working safely and in accordance with Housing Solutions Ltd.'s policies and procedures; – All Technical and Maintenance Staff, Property Managers have received adequate information, instruction and training on the prevention and control of legionella bacteria in Housing Solutions Ltd Premises;
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Head of Asset Management and Housing Manager-Community Services Cont...	<ul style="list-style-type: none"> – All Technical and Maintenance Staff, Property Managers and site staff are provided with information, instruction and training so that they: <ul style="list-style-type: none"> • Can carry out routine monitoring; • Take simple preventative and precautionary measures; and • Know what actions to take in the event of an emergency. – If Technical and Maintenance Staff, Property Managers, or Contractors are not working safely or are not complying with Housing Solutions Ltd's policies and procedures, immediate action is taken as is appropriate to rectify the matter. – Group Customer Services Director is immediately informed of any incidents that may affect the image or reputation of Housing Solutions Limited, or may lead to enforcement action, criminal prosecution or civil action being taken against Housing Solutions Limited.
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Property Managers Energy Services Manager Asset Investment Manager Community Maintenance Manager	<p>Property managers are those members of the technical, maintenance and site staff with management responsibility for the property. For example technical staff may be responsible for the water systems whilst the site manager is responsible for day to day activities. In this case there is more than one property manager for the site.</p> <p>Property Managers are responsible to the Head of Asset Management and the Housing Manager – Community Services for the daily implementation of these policies and procedures.</p>
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Operations Manager Gas/Plumbing Supervisor Supported Services Team Leader Community Services Team Leader Community Housing Officers	<p>The Property Manager is responsible for ensuring on a day-to-day basis that:</p> <ul style="list-style-type: none"> – Routine precautionary and preventative measures are taken; – Routine monitoring is carried out; and – Faults, deficiencies and deviations from the normal in monitoring results are reported to maintenance staff. <p>The Property Manager is to designate one or more persons to carry out any tasks detailed in the site water hygiene manual and ensure that those tasks are carried out.</p> <p>The Property Manager is to ensure that:</p> <ul style="list-style-type: none"> – Site Staff and contractors fully comply with these policy and procedures; and – Any person who is designated to carry out any task must be provided with suitable and sufficient training so that: <ul style="list-style-type: none"> • They know and understand all of the relevant information regarding the control of water borne infection Inc. <i>legionella bacteria</i> in that property; and
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Property Manager Cont...	<ul style="list-style-type: none">• They can carry out routine monitoring tasks and take any necessary routine preventative and precautionary measures; and• Know to report faults, errors and deviations from the normal in monitoring results to their manager.– If Site staff or a contractor are not working safely or are not complying with Housing Solutions Ltd.'s policies and procedures, appropriate action is immediately taken.– The Head of Asset Management is immediately informed of any incidents that may affect the image or reputation of Housing Solutions Limited, or may lead to enforcement action, criminal prosecution or civil action being taken against Housing Solutions Limited.
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STAFF TRAINING

The Group Customer Services Director is to ensure that all persons are provided with the necessary information, instruction and training to fulfil their roles and responsibilities under this policy and procedures.

All technical staff providing technical services to high risk properties are to attend Water hygiene and Legionella awareness training at least once every three years.

Legionella awareness training shall include the following topics in appropriate detail, by means of both written and oral presentation, and by demonstration as necessary:

- the health risk from water borne infections including Legionellosis;
- the facts affecting the risk of growth and infection by water borne infections including Legionella sp;
- the general procedures to be followed to deal with an emergency; and
- how to avoid the risks from water borne infections including Legionellosis.

NOMINATED COMPETENT PERSONS

Watson, Wild & Baker Ltd are nominated to provide advice on the management of *legionella bacteria* in Housing Solutions Limited properties.

RISK ASSESSMENTS

The purpose of risk assessments is to establish the risk of water borne infections including *Legionella* sp. Domestic properties will have a generic risk assessment based on the type of water system. There will be no site specific survey or written scheme for any domestic premises. The risk in other buildings is to be carried out in two parts:

- A preliminary risk assessment; and
- A Site inspection where required.

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PRELIMINARY RISK ASSESSMENTS

The property manager responsible for each non-domestic property is to inform the Group Customer Services Director, on 1st April each year, whether the property:

- Contains cooling towers, whirlpools, spa's, fountains, evaporative coolers, showers or other devices likely to generate significant water mists in non-domestic parts of the property.
- Is used by people who are vulnerable to infection; e.g. people of pensionable age, persons who are ill or undergoing treatment for TB, cancer, or HIV infection.

These are to be recorded in a "legionella register." Where these are present in a property, the Group Customer Services Director is to instruct the Head of Asset Management to arrange a site inspection of the hot and cold water storage and distribution systems, and for a risk assessment to be produced for the property unless one has previously been carried out within the last 5 years.

SITE INSPECTIONS

The Head of Asset Management is to arrange for a site inspection of the hot and cold water storage and distribution systems, and for a risk assessment to be produced for all properties, where there is a need for a full site survey and risk assessment.

Site inspections and risk assessments must be carried out by a competent specialist water hygiene consultant or other competent person.

Water treatment companies are not to be appointed to carry out the site survey or risk assessment as there is a potential conflict of interest, when recommending remedial works.

The inspection shall comply with the requirements of L8 - Approved Code of Practice and Guidance: Legionnaires Disease: The control of Legionella bacteria in water systems and BSRIA Guide to Legionellosis - Risk Assessment Application Guide AG 20/2000.

The Head of Asset Management is to instruct the specialist water hygiene consultants to:

- Carry out a site inspection of the hot and cold water systems in the non-domestic parts of designated premises to:
 - Produce a risk assessment having regard to the occupancy of the premises
 - Prepare a detailed written scheme to manage the water installation at the premises that includes a schematic diagram of the hot and cold water systems
- Make recommendations about:
 - Measures needed to remedy deficiencies in the hot and cold water systems.
 - The preventative and precautionary measures needed to prevent *legionella bacteria* growth and distribution
 - The specific monitoring scheme required at the premises

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WRITTEN SCHEME

Where the water consultant concludes that the risk of water borne infections including legionellosis is insignificant and that no further works are required then this shall be recorded in the water hygiene and Legionella register.

Where the water consultant concludes that there is a significant risk of water borne infections including legionellosis, the findings of the inspection and risk assessments are to be recorded in a written scheme for the property. This written scheme is in the form of a log book and will include:

- ✓ Details of hot and cold water systems and wet air conditioning systems, including up-to-date plans or schematic diagrams;
- ✓ Details of who is responsible for managing the property and carrying out maintenance works;
- ✓ Details of the safe and correct operation of relevant systems;
- ✓ Details of what control methods and precautionary measures are to be taken; and
- ✓ Details of the frequency and type of checks that are required.

The written scheme is to be available in the property and is to be kept up to date at all times. All persons with any duty in the written scheme including contractors are to be informed of the presence and location of the written scheme.

REMEDIAL ACTIONS

The Head of Asset Management is to ensure that the system is maintained in good repair and kept clean. The Property Manager is to ensure that all routine measures detailed in the written scheme are implemented, in accordance with the required time intervals, and that accurate, complete and up to date records are kept.

If the Head of Asset Management decides, upon the findings of a site inspection, that the risks are insignificant then this shall be recorded in the legionella register.

If risks are identified then staff must be provided with information, instruction and training to implement the written scheme for that property and resources must be allocated to ensure proper controls are introduced. Specific controls for at risk properties will be detailed in the log book for that property. Controls may include taking any of the following measures to prevent the growth of Legionella within the water system:

- ✓ Carrying out maintenance or remedial works on the system;
- ✓ Disinfecting of the system
- ✓ Keeping water cisterns covered, insulated, clean and free of debris;
- ✓ Ensuring water cannot stagnate anywhere in the system, e.g. remove redundant pipe work, run taps/showers in unoccupied rooms;
- ✓ Insulating pipe work;
- ✓ Maintaining the correct temperature at the hot water cylinder;
- ✓ Advising personnel working on the system about the risks and how to minimise them; and
- ✓ Advising tenants about the risks, the control measures and precautions that can be taken, such as flushing through showers following a period of non-use.

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All routine measures detailed in the written scheme are to be implemented, in accordance with the required time intervals. Accurate, complete and up to date records are to be kept.

LEGIONELLA RISK REGISTER

The Group Customer Services Director is responsible for maintaining a register of all preliminary risk assessments for all non-domestic properties in Housing Solutions Ltd.

The Head of Asset Management shall record the findings of any site inspection and risk assessment in the Legionella Risk Register.

REVIEW OF RISK ASSESSMENTS & WRITTEN SCHEMES

The Head of Asset Management is to ensure that the risk assessment and written scheme are reviewed, and amended as appropriate, when:

- Significant changes are planned or have been made to a system, e.g. remedial works or planned modifications have been implemented
- Changes have been made to the management and/or maintenance of the system, e.g. 6 months after a new maintenance company has been appointed.
- Significant changes have occurred in the way a system is being used, e.g. a formerly fully occupied building is now only partially occupied.
- In the event of any reported water borne infections to persons

CONTRACTORS

Group Customer Services Director is to ensure that there is a list of approved contractors who are capable of competently carrying out:

- Risk assessments and provision of written schemes for the prevention and control of the risks from water borne infections including Legionella;
- Plumbing and engineering works on air conditioning and hot and cold water systems; and
- The cleaning of water systems and chemical treatment of water supplies; and
- Bacterial and chemical water testing and analysis.

Only competent contractors are to be used by Head of Asset Management. The Head of Asset Management is to ensure that contractor's works are regularly inspected and reviewed. Contractors who do not produce works to an acceptable standard are to be removed from the approved list and may not be used for any further works.

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ACTION TO BE TAKEN IN EVENT OF AN OUTBREAK

In event of being notified of an outbreak the Property Manager is to immediately notify the following persons:

- The Group Customer Services Director
- The Head of Asset Management and
- Housing Solutions Limited Health and Safety Officer

Group Customer Services Director is to take control to control the outbreak and is responsible for appointing a person to take control and to coordinate activities with the HSE and other relevant bodies. Housing Solutions Ltd.'s H&S officer/responsible person is to notify the HSE upon receipt of a diagnosis of a water borne infection including Legionellosis.

All other persons are to follow instructions of the Group Customer Services Director or his designated representative. No person is to make contact with the press or make any interviews unless authorised by the press office.

PRIVATE WATER DISTRIBUTION NETWORKS

LEGISLATION

In January 2010, the Private Water Supplies Regulations 1991 were replaced with new Regulations in order to meet the requirements of European Council Directive 98/83/EC in respect of private drinking water supplies. **The Private Water Supplies Regulations 2009** have been designed to provide improved health protection for consumers of private water supplies and consumers of food produced or prepared using private water supplies.

DEFINITION AND IDENTIFICATION

A private distribution network (PDN) is classified as a potable water network within the boundary of a private site – a 'network' being a water supply pipe that has rising mains in more than one building, and 'wholesome water' being that used for drinking, cooking and washing. If the supply pipe connected to the water company main feeds a single building then this is not a network however if it goes on to supply additional buildings around a site then the new regulations may apply.

Housing Solutions will work with the Local Authority Environmental Health Team to identify PDN and a list of PDN can be found at Appendix 2. The list will be reviewed annually by the Head of Asset Management.

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RISK ASSESSMENT

The Head of Asset Management or appointed deputy is to work the Local Authority Environmental Health Team to produce a risk assessment for any private water distribution network managed by Housing Solutions Limited.

The results of any risk assessment will be recorded in a register. The outcome of the risk assessment will determine the type and frequency of sampling and analysis required.

SAMPLING AND ANALYSIS

The Property Manager will implement any sampling and analysis required as the result of any risk assessment. Any difficulties in implementing this will be immediately reported to the Head of Asset Management who will inform the Group Customer Services Director.

ACTION TO BE TAKEN IN EVENT OF AN OUTBREAK

In event of being notified of a problem with water supply the Property Manager is to immediately notify the following persons:

The Group Customer Services Director

The Head of Asset Management and

Housing Solutions Limited Health and Safety Officer

Group Customer Services Director is to take control of the situation and is responsible for appointing a person to coordinate activities. Upon instruction from the Group Customer Services Director Housing Solutions Group's H&S officer/responsible person is to notify relevant bodies.

All other persons are to follow instructions of the Group Customer Services Director or his designated representative. No person is to make contact with the press or make any interviews unless authorised by the press office.

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HOT WATER SAFETY- SCALDING

BACKGROUND INFORMATION

Housing Solutions, in its role as a reputable landlord, has added this section on Hot Water Safety and Scalding to this policy to provide a framework to reduce the risk of scalding.

LEGISLATION AND GUIDANCE

Housing Corporation Standards (prior to TSA) recommended the installation of Thermostatic Mixer Valves (TMVs (type 2) to housing association baths outlets in general needs dwellings and to the bath, basin and shower of dwellings for the elderly. NHS Guidance, Care Standards Act 2000 and Care Homes Regulations (2001) recommend installation of TMVs (type 3) to bath, basin and shower outlets in NHS and private nursing homes. It is worth noting that up until April 2010 the only regulatory *requirement* (as opposed to *recommendation*) to install TMVs relates to young person's care homes, schools and NHS hospitals. There is no specific guidance related to supported living dwellings.

With effect from 6 April 2010, a revised Part G (covering sanitation, hot water safety and efficiency in new build properties) of the Building Regulations came into force. Within this update is a requirement to eliminate the risk of scalding in domestic homes by imposing a maximum temperature of 48 degrees on water delivered to baths. In order to achieve this objective, Part G requires that TMVs be installed for all bath taps in new build homes. Whilst Part G does not stipulate the type of TMV required, it states that it must conform to BS EN 1111 and BS EN 1287, or other appropriate device, that cannot be easily altered by the user.

Although separate from the guidance above regarding scalding from hot water outlets the HSE safety alert Scalding risk from domestic hot water systems has been considered in adopting this approach.

RESPONSIBILITY OF INDIVIDUALS

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Head of Asset Management and Housing Manager - Community Services	The Head of Asset Management and Housing Manager - Community Services are responsible to the Group Customer Services Director for the routine operational management to prevent exposure to the risk of scalding in Housing Solutions owned or managed properties within their operational and business stream. The Head of Asset Management and Housing Manager - Community Services are to ensure that: <ul style="list-style-type: none"> - Technical and Maintenance Staff, Property Managers and Contractors fully comply with these policy and procedures; and - The Group Customer Services Director is fully informed with regards to: <ul style="list-style-type: none"> • Any training or resources needed to implement the policy; and • Any difficulties in the implementation of this policy. - All persons including contractors are working safely and in accordance with Housing Solutions policies and procedures; - All Technical and Maintenance Staff, Property Managers have received adequate information, instruction and training on the prevention and control of the risks of scalding in Housing Solutions Premises;
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Head of Asset Management and Housing Manager - Community Services Cont...	<ul style="list-style-type: none"> - All Technical and Maintenance Staff, Property Managers and site staff are provided with information, instruction and training so that they: <ul style="list-style-type: none"> • Can carry out routine monitoring; • Take simple preventative and precautionary measures; and • Know what actions to take in the event of an emergency. - If Technical and Maintenance Staff, Property Managers, or Contractors are not working safely or are not complying with Housing Solutions policies and procedures, immediate action is taken as is appropriate to rectify the matter. - Group Customer Services Director is immediately informed of any incidents that may affect the image or reputation of Housing Solutions, or may lead to enforcement action, criminal prosecution or civil action being taken against Housing Solutions.
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Property Managers Energy Services Manager Supported Services Team Leader Community Services Team Leader Community Housing Officers	<p>Property managers are those members of the technical, maintenance and site staff with management responsibility for the property. For example technical staff may be responsible for the water systems whilst the site manager is responsible for day to day activities. In this case there is more than one property manager for the site.</p> <p>Property Managers are responsible to the Head of Asset Management and The Housing Manager - Community Services for the daily implementation of these policies and procedures.</p> <p>The Property Manager is responsible for ensuring on a day-to-day basis that:</p> <ul style="list-style-type: none"> - Routine precautionary and preventative measures are taken; - Routine monitoring is carried out; and - Faults, deficiencies and deviations from the normal in monitoring results are reported to maintenance staff. <p>The Property Manager is to designate one or more persons to carry out any tasks detailed in the site hot water safety manual and ensure that those tasks are carried out.</p> <p>The Property Manager is to ensure that:</p> <ul style="list-style-type: none"> - Site Staff and contractors fully comply with these policy and procedures; and - Any person who is designated to carry out any task must be provided with suitable and sufficient training so that: <ul style="list-style-type: none"> • They know and understand all of the relevant information regarding the control of hot water and the risk of scalding associated with it in that property.
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Property Manager Cont...	<ul style="list-style-type: none"> • They can carry out routine monitoring tasks and take any necessary routine preventative and precautionary measures; and • Know to report faults, errors and deviations from the normal in monitoring results to their manager. <ul style="list-style-type: none"> – If Site staff or a contractor are not working safely or are not complying with Housing Solutions policies and procedures, appropriate action is immediately taken. – The Head of Asset Management is immediately informed of any incidents that may affect the image or reputation of Housing Solutions, or may lead to enforcement action, criminal prosecution or civil action being taken against Housing Solutions.
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INITIAL RISK ASSESSMENT

The Group Customer Services Director has carried out an initial risk assessment of each property group (Care/Supported/Sheltered/General Needs). This assessment will be reviewed annually by the Head of Asset Management.

The initial assessment considers the overall risk of scalding from hot water outlets posed in different types of property (Care/Supported/Sheltered/General Needs). This initial high level risk assessment will:

- Consider the need for individual risk assessment for the resident which will highlight where individual management controls (e.g. supervised bathing/ manual temperatures checks);
- Details the need for mechanical controls (e.g. Thermostatic Mixer Valves (TMV)) to manage the risk posed as a safeguard in the event of failure of management controls.

The results of the initial assessment for the risk from hot water outlets are below:

	Management Risk Control	Mechanical Risk Control
Care	Individual risk assessment required.	TMV 3 all outlets unless individual assessment identifies otherwise
Supported	Individual risk assessment required.	TMV 3 all outlets unless individual assessment identifies otherwise

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Sheltered	Individual risk considered as part of personal support plan.	TMV2 valves to bath/shower facilities only upon refurbishment or void from April 2011. As a minor adaptation (within 31 days) if required by individual assessment
General	Publicity regarding scalding risk and option to request adaption.	TMV2 valves to bath/shower facilities only upon refurbishment. As a minor adaptation (within 31 days) if required by individual assessment

Where hot water is stored and vented into a plastic cold water storage tank or held under pressure additional risk exists. These risks have also been assessed and are controlled as per the table below:

	Risk Control
Hot water cylinder with part or full electric heating vents into CWST which collapses-greatest risk above a bedroom	<ul style="list-style-type: none"> • CWST base is checked on annual gas check or annual property check • Publicity to residents on typical warning signs • Thermal cut outs to all immersion heater checked on gas safety or annual property check
Vents for hot water held at pressure	<ul style="list-style-type: none"> • Any discharge pipe should terminate no more than 100mm from any hard standing and if in an area where children play a cage should be provided. • checked annually on the gas safety or annual property check.

INDIVIDUAL ASSESSMENTS

Individual assessments are highlighted as being required for residents in Care/Supported and Sheltered type properties.

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In Care and Supported environments the lease for the property or the service agreements covering support and/or nomination will specify the responsibility for carrying out such an assessment. The Housing Manager will be responsible for auditing the approach to give reasonable assurance that care and support providers are meeting requirements. Where a risk assessment indicates that the mechanical control detailed in the initial risk assessment is not required it will be considered by the Housing Manager and a copy of the risk assessment along with the decision taken as a result will be kept on file.

In Sheltered Housing properties residents will be assessed by the Community Housing Officers as part of the personal support plan at start of tenancy. Changing needs will be considered during ongoing meetings as part of the personal support plan. If a mixer valve need is identified in the risk assessment then the Community Housing Officers will report this to the Asset Management Team where it will be handled as an adaptation request.

In general needs property individual assessments will not be carried out unless a request to complete one is received.

MONITORING AND SERVICING

TMVs require servicing in line with the manufacturers' instructions. This is likely to include performance based interval servicing of type 3 valves and annual checks of type 2 valves. The Property Manager is responsible for servicing and should inform the Head of Asset Management immediately if they encounter any problem in doing so.

Where annual checks are required to prevent the risk of scalding from stored water these will be organised by the property manager annually and usually as part of the ongoing gas safety or annual property check. The Property Manager is responsible for arranging these checks and should inform the Head of Asset Management immediately if they encounter any problem in doing so.

The Head of Asset Management will inform the Group Customer Services Director of any problems in implementing the risk controls.

ACTION TO BE TAKEN IN EVENT OF A SCALDING INCIDENT

In event of being notified of a scalding incident the Property Manager is to immediately notify the following persons:

- The Group Customer Services Director
- The Head of Asset Management and the Housing Manager
- Housing Solutions Group Health and Safety Officer

Group Customer Services Director is to take control of the situation and is responsible for appointing a person to coordinate activities. Upon instruction from the Group Customer Services Director Housing Solutions Limited H&S officer/responsible person is to notify relevant bodies.

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All other persons are to follow instructions of the Group Customer Services Director or his designated representative. No person is to make contact with the press or make any interviews unless authorised by the press office.

AUDIT

The Water Hygiene & Legionella Safety Management procedures will be audited as per the following table:

Audit Type	Frequency	Responsible Person
10% Sample Check	Monthly	Energy Services Manager
Property check*	Quarterly	Head of Asset Management
Internal audit by appointed H&S consultant	Annually	Group Customer Services Director
External audit carried out by external auditors	Bi-annually	Group Customer Services Director

* To ensure that all properties that require a risk assessment are recorded on the master database with a date for re-inspection.

The Group Customer Services Director must record the findings of an audit. The system should be amended to incorporate the findings of an audit.

All persons are to ensure that proper records are maintained and available on demand for inspection by internal auditors.

Audits are to be conducted using the current edition of Control of Legionella bacteria in water systems: Audit Checklists. ISBN 0-7176-2198-7

RECORDS

Group Customer Services Director is to ensure that all records are to be kept for five years from the date of the last entry.

KEY PERFORMANCE INDICATORS

The Head of Asset Management will be responsible for reporting the following key performance indicators through the Quarterly Directors Health and Safety Report.

All sites have a valid legionella Risk Assessment as per the policy - 100%

COMPLAINTS

All customer complaints relating to Water Hygiene and Hot Water safety will be logged as per the company's complaints policy and procedures.

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ADDITIONAL INFORMATION AND LINKS

The Health and safety executive Website:
<http://www.hse.gov.uk/legionnaires/index.htm>

Public Health Laboratory Service (PHLS) Website:
http://www.phls.org.uk/topics_az/legionella/menu.htm

APPENDIX 1 - LEGIONELLA RISK ASSESSMENTS

Risk assessments are required by law to methodically and systematically identify, evaluate and control risks to health and safety arising from work. Section 3(1) of the Health and Safety etc Act 1974 requires that:

"It shall be the duty of every employer to conduct his undertaking in such a way as to ensure, so far as is reasonably practicable, that persons not in his employment who may be affected thereby are not thereby exposed to risks to their health or safety."

In *Langridge v Howletts & Port Lympe Estates*¹ it was held that the Act is not seeking to legislate as to what work could or could not be performed, but is properly concerned with the manner of its doing. In *R v Board of Trustees of the Science Museum*² it was held that risk is the possibility of danger. In *Paris v Stepney Borough Council*³ it was held that there are two factors in determining the magnitude of a risk – the seriousness of the injury and the likelihood of the injury being in fact caused. In *Edwards v National Coal Board*⁴ it was held that "Reasonably practical" is a computation of risk against time, trouble and expense and only where it can be shown that the risk is insignificant in relation to sacrifice has the burden been met. In *R v Porter*⁵ it was held that the prosecution had to prove that the risk was a real risk as opposed to a fanciful or hypothetical risk and that unless it could be said that the person was exposed to a real risk by the conduct of the undertaking no question as to the reasonably practicable measures taken to meet risk arose.

Regulation 3 of the Management of Health and Safety at Work Regulations 1999 requires that:

¹ *Langridge v Howletts & Port Lympe Estates* [1996] EWHC Admin 282

² *R v Board of Trustees of the Science Museum* [1993] ICR 876

³ *Paris v Stepney Borough Council* [1951] AC 367, HL

⁴ *Edwards v National Coal Board* [1949] 1 KB 704, CA

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Every employer shall make a suitable and sufficient assessment of-

(a) the risks to the health and safety of his employees to which they are exposed whilst they are at work; and

(b) the risks to the health and safety of persons not in his employment arising out of or in connection with the conduct by him of his undertaking,

for the purpose of identifying the measures he needs to take to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions.

Where the employer employs five or more employees, he shall record -

(a) the significant findings of the assessment; and

(b) any group of his employees identified by it as being especially at risk.

As legionella bacteria are a biological agent that may cause infection, they are classified as a hazardous agent, as defined by the Control of Substances Hazardous to Health Regulations 2002 (as amended). Regulation 6 of these regulations requires that:

The risk assessment shall include consideration of—

(a) the hazardous properties of the substance;

(b) information on health effects;

(c) the level, type and duration of exposure;

(d) the circumstances of the work, including the amount of the substance involved;

(e) activities, such as maintenance, where there is the potential for a high level of exposure;

(f) any relevant occupational exposure standard, maximum exposure limit or similar occupational exposure limit;

(g) the effect of preventive and control measures which have been or will be taken;

(h) the results of relevant health surveillance;

(i) the results of monitoring of exposure;

(j) in circumstances where the work will involve exposure to more than one substance hazardous to health, the risk presented by exposure to such substances in combination;

(k) the approved classification of any biological agent; and

⁵ R v Porter (James Godfrey) [2008] EWCA Crim 1271

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- (l) *such additional information as the employer may need in order to complete the risk assessment.*

To assess the risks to the health and safety of persons the first stage is to identify events (i.e. exposures to legionella bacteria) that may cause injury; then the second stage is to evaluate the severity and likelihood of injury; and the third stage is to identify the measures required to comply with the regulations.

To cause infection, legionella bacteria normally need to be inhaled or aspirated. The inhaled particles should be small enough to penetrate down to, and be retained in the alveoli but large enough to contain at least one bacterial cell. Particles of 1-3 μm satisfy these criteria. These particles are too small to be seen by eye and can remain suspended in air for prolonged periods of time. It is a common misconception that a water spray is an aerosol and that *legionellae* have to be contained within a wet droplet.

Any mechanical action that causes the surface of a liquid containing bacteria to be broken up may cause the production of small droplets containing bacteria suspended in them. If these droplets are small enough, the water may rapidly evaporate leaving the dry droplet nuclei containing the bacteria, so forming an aerosol. Humidifiers, spa pools, whirlpool baths and evaporative cooling towers can all generate aerosols that may cause infection. There is mixed evidence from epidemiological studies as to whether showers reduce or increase the risk of legionellosis.

It is not known how domestic water systems become contaminated; however it is known that legionella bacteria occur in natural waters such as streams, rivers and lakes. It is probable that contamination by legionella bacteria occurs after water treatment, directly through damaged or defective mains water supplies and by access by birds and rats to open water storage tanks, and indirectly through windblown soil contamination of open water storage tanks.

Legionella bacteria once inside the water system may multiply if there are suitable environmental conditions; there are presence of nutrients, a bio-film and protozoa, a temperature range between 20-45 °C, and time to multiply. The minimum infectious dose for legionella bacteria is unknown.

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For infection to occur, legionella bacteria must be inhaled by a susceptible person. Persons at increased risk are predominantly male (75%), over 40 years of age (90%), a heavy smoker or drinker, or have compromised immune system or with an underlying diseases such as diabetes or cancer.

The Health Protection Agency states that in the UK, there were an average of 112 Community acquired confirmed cases, and an estimated average 14 deaths from these exposures, per year for the years between 1980 and 2008. This means that the individual annual risk of death from community acquired legionnaires disease is around 1 in 4,000,000 and the individual annual risk of legionnaire's disease is around 1 in 500,000 given a population of 60,000,000.

Based on the above, the annual risk of legionnaire's disease at 1 in 500,000 (and the risk of death from community acquired legionnaires disease at 1 in 4,000,000) is remote.

It is not recommended that any measures be taken to prevent and control this risk in the general housing stock, other than to ensure that hot water storage water vessels are correctly set up, to store water at above 50 °C, when they annually serviced. This is to be done with the annual gas inspection.

Where persons are at higher risk, because of their age or an underling medical condition, a site-specific risk assessment must be carried out of schemes housing older and vulnerable persons to that considers:

- The activities being carried out that potentially expose persons to aerosols containing legionella bacteria;
- The potential for contamination of the water system and multiplication of legionella bacteria;
- The susceptibility of the occupants to infection by legionella bacteria.