**CUNNINGHAME HOUSING ASSOCIATION LTD**

**WRITTEN SCHEME FOR CONTROLLING THE RISK OF EXPOSURE TO**

**LEGIONELLA BACTERIA IN CUNNINGHAME HOUSING ASSOCIATION LTD PREMISES**

The following written scheme is issued in accordance with HSC Approved Code of

Practice L8, and contains a summary of the Associations requirements.

**(a) Schematic Diagram**

The schematic diagram for the particular premises is contained in the Water Services

Log Book, located on the CHA Health & Safety SharePoint Page under Housekeeping Inspections.

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**(b) Description of correct and safe operation of systems**

The water services systems at the Associations premises operate under the following conditions of temperature:

Cold water storage cisterns: below 20°C

Hot water storage: 60–65°C

Hot water distribution: 60–65°C

Hot water service return: 50°C or above

Hot water to be heated to 60–65°C before first draw-off takes place

All outlets to be flushed weekly unless used more frequently

Hot water outlets with blending valves set to 41-46°C as appropriate

**(c) Precautions to be taken**

Design and construction of new systems and alterations to be in accordance with HSC

ACoP L8, BS6700, and the water monitoring contract.

New and modified pipework to be disinfected and sampled as per BS6700.

Hot water outlets at JMC which pose a scalding risk to be fitted with thermostatic mixing valves

within 2 metres of point of draw-off or mechanical mixing valves with high temperature

limit stops, depending on the risk assessment for the particular outlet and persons at risk.

Shower at Head office shall be flushed each week during the Health & Safety Housekeeping Inspection in a manner that removes the possibility of creating

an aerosol**.** With flexible shower hoses, the spray head should be lowered temporarily

to face the drain outlet and flush through for 1 minute and the water allowed to drain that way without creating an aerosol.

**(d) Checks to be carried out to ensure efficacy of scheme**

Checks, their frequency and the persons responsible for carrying them out are to be in

accordance with Table 1 of this document. A record of each water monitoring visit is to be electronically sent to the Association’s Health & Safety Manager (John Scott jscott@chaltd.org) and copied to the Head Office Health & Safety Administrator to allow the Association to comply with the requirements of The Control of Legionella Bacteria in Water Systems ACOP L8 as noted in paragraph 67 under Record Keeping.

**(e) Remedial actions to be taken**

The expected results of the checks set out in Table 1, and the actions to be taken in the

event of non-compliance, are listed below under the reference number for each check.

(1) No reporting appropriate.

(2) Temperature at blended outlets should be nominally 43°C but specifically in the range

39°C for bidets, 41-43°C for showers, washbasins and unattended baths, and 46°C for

attended baths. Record discrepancies, call in Maintenance Contractor and request

adjustment or replacement.

(3) Temperatures at sentinel taps should be within range and times stated in Table 1.

Record discrepancies and report to the Health & Safety Administrator at the

Property for investigation and remedial action.

(4) Temperatures at calorifiers should be within range stated in Table 1. Record

discrepancies and report to the Association’s Health & Safety Manager or Health & Safety Administrator at the Property and for investigation and remedial action.

(5) If shower roses and hoses cannot be cleaned or descaled effectively, the Water Monitoring

Maintenance Contractor should replace the shower rose or hose and inform the Health & Safety Administrator at the Property.

(6) Temperatures at incoming main and storage tanks should be below 20°C in all cases.

Record discrepancies and report to Health & Safety Administrator at the Property for investigation and remedial action.

(7) Cold water temperature rise should be less than 2-3°C under constant flow

conditions. Record discrepancies and report to Health & Safety Administrator at the Property for investigation and remedial action.

(8) Water from calorifier drains should be clean and free from visible debris. Record

discrepancies and report to Health & Safety Administrator at the Property and also to our Head Office in Ardrossan for investigation and remedial action.

(9) Calorifier should be clean internally and free from sludge or heavy scaling. Record

Any discrepancies and report to Health & Safety Administrator at the Property for investigation and remedial action.

(10) Compare temperature of water from taps checked with original values measured at

Risk Assessment. If any differ by more than 5 degrees or fall outside the control

parameters in Table 1 (3) above, record discrepancies and report to Health & Safety Administrator at the Property for investigation and

any remedial action.

(11) Cold water storage cisterns should be serviced in accordance with the requirements

of the agreed Maintenance Service Contract. Record work done and discrepancies,

and report to Health & Safety Administrator at the Property and also to our Health & Safety Manager located at the Association’s Head Office in Ardrossan for investigation and remedial

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| **Frequency** | **Action** | **Responsibility** |
| 1. Weekly | Flush little-used outlets to drain without release of aerosols. Record. | **H&S Administrator** |
| 2. Weekly | Check and record blended water temperatures from thermostatic mixing valves where fitted. Confirm that stable temperature is attained within one minute. | **H&S Administrator** |
| 3. Monthly | Check water temperatures at sentinel taps. Hot water >50oC after 1 minute, cold water <20oC after 2 minutes. Record. | **H&S Administrator** |
| 4. Monthly | Check calorifier temperatures. Flow >60oC, return >50oC. Record. | **H&S Administrator** |
| 5. Quarterly or as necessary | Dismantle, clean and descale shower heads and hoses. Record. | **Maintenance****Contractor** |
| 6. Six monthly | Measure incoming water temperature to cold water cisterns and water temperature remote from float valve. Record. | **Maintenance****Contractor** |
| 7. Six monthly(January andJuly) | Measure cold water temperature rise between incoming main and most distant outlet (Sentinel Tap). Should be less than 2-3°C. Record. | **Maintenance****Contractor** |
| 8. Annually | Take sample and record condition of water from HWS calorifier drains.Record. | **Maintenance****Contractor** |
| 9. Annually | Open and inspect internal surfaces of each HWS calorifier for scale and sludge and clean or descale as necessary. Record. | **Maintenance****Contractor** |
| 10. Annually | Check and record temperatures at a representative number of taps throughout the system, on a rotational basis.Record. | **Maintenance****Contractor** |
| 11. Annually | Inspect cold water cisterns and carry out remedial work as necessary. Record work done and report outstanding defects.Record. | **Maintenance****Contractor** |
| 12. Annually | Physically inspect the hot and cold water systems and check accuracy of schematic drawings. Note changes.Check for under-used fittings and report recommendations. | **Maintenance****Contractor** |
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**Table 1**

**Notes**

1) Water monitoring may be undertaken by the Water Monitoring Maintenance Contractor. However, the person responsible must be clearly defined by the Association. Currently this is carried out the Health & Safety Administrator for low risk premises.

**Monthly Checks**

CFRC – Jordan Easton

MLCE – Carol-Ann Rennie

Head Office – Kirsteen Wyllie

JMC – Carol-Ann Rennie

FSCE – Alison Stewart

Dumfries Office – Alan Sommerville

Direct Works – Scott McFarlane

**Water Monitoring Maintenance / Service Contract** is used for any higher risk properties and would be undertaken at premises in line with the requirement of **Table 1**

**Quarterly, Six Monthly and Annual Checks**

None at present

2) Temperature checks shall be carried out using a simple digital thermometer with immersion probe.

3) Hot Water readings are to be taken from fitted temperature gauges.

4) Monthly temperature checks should be done using digital thermometer.

Sample points are to be

* Cold Water - the nearest tap to the incoming main, and the most distant tap.
* Hot Water - the nearest tap to the water heater, and the most distant tap.

It is good practice to have sample points permanently labelled to identify them.

5) Where appropriate water samples for analysis, are to be taken along with a visual survey. Samples will be taken at a greater frequency, if the water supply is obtained from a private source.

**Definitions and explanations**

**Sentinel tap:** a 'sentinel' is a sentry who stands guard over something, watching

and keeping an eye on safety, and the term is used to describe the taps which

are used regularly to monitor, sample and check the water quality and

temperature. Basically, the sentinel taps are defined as the first and last ones on

the system. For the cold water, they will be the taps nearest to and furthest from

the incoming cold water main or cold water storage cistern, and for the hot water,

they will be the nearest to and furthest from the hot water source, be it calorifier,

vessel or water heater. All buildings have a minimum of two mains cold water sentinel taps, and two stored cold water, identified on the water service schematic. For our larger buildings, there may be more sentinel taps, which are identified by reference to the water services schematic diagram for the site. Once identified and labelled, the sentinel tap locations will not change unless some major alterations are done to the water systems. Schematic diagrams have been prepared and formal Risk Assessment has been carried out for each premises. As part of the Associations ongoing Health & Safety review programme, re-surveys and updates will be carried out depending on the initial perceived risk for each site.

**Calorifier:** a calorifier is nothing more than an industrial-size version of the

Indirect domestic hot water cylinder found in houses. We have no calorifiers is fitted

in our premises pose fewer risks as the water system is taken directly from the cold water main supply with no storage and water is heated by a mains driven central heating boiler.

Calorifier rely on thermal

stratification where the hot water collects at the top and is drawn off for use. A

pumped circulation main is often fitted in larger premises, and the returning

slightly cooler water is injected back into the calorifier cylinder part way up. Cold

feed water from a tank enters at the bottom. Close control and monitoring of the

temperatures in and around the calorifier and pipework is necessary to ensure

that water is heated to and held at 60degC before being drawn off, in order to kill

any bacteria present in the feed water.

**Contact and further advice**

John Scott - CUNNINGHAME HOUSING ASSOCIATION LTD.

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