

Site Manager Duties for Control of Legionella on Society Sites May 2021

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Section 1

Introduction

This document has been extracted from the Society's Written Scheme sites and identifies the key duties required to be completed by site managers in these sites.

For further information on policy and procedures refer to the:

- Society Water Hygiene Written Scheme
- Society's Water Hygiene Policy
- Site's Legionella Risk Assessment

Legal Requirement

Site Managers have a legal duty to control the risk to health associated with legionella bacteria, under the Health and Safety at Work Act 1974 and Control of Substances Hazardous the Health (COSHH).

The Approved Code of Practice L8 (Fourth edition) gives practical advice on how to comply with the law

Natural History of the Legionella Bacterium

Legionella bacteria are common and can be found naturally in environmental water sources such as rivers, lakes and reservoirs, usually in low numbers.

Water temperatures in the range 20°C to 45°C seem to favour growth. The organisms do not appear to multiply below 20°C and will not survive above 60°C

Legionella infection can cause a pneumonia-type illness called Legionnaires' disease and a mild flu-like illness called Pontiac fever.

Section 2

Management Arrangements

The effective implementation of the aims and policies laid down by the Society requires that individuals understand their responsibility and that their lines of communication are clear.

Site Management

- Completing on-site control tasks as per the Written Scheme and summarised in this document

Property Helpdesk

- Calls relating to non-compliance of Water Hygiene controls will be handled as a Priority 1 call, and appropriate SLA observed

Society Arrangements

- Full details of the Society's Management Arrangement can be found in the Written Schemes and Water Hygiene Policy. Also see **Appendix 2** of this document

Key Contact details

Details of title, position, name and telephone for every position on the Communication Pathway is contained in the Society's Water Hygiene Policy 2019 and is summarised in **Appendix 2** of this document.

Section 3

Site Manager Activities & Responsibilities

Action to be completed in the Site's C365 Compliance Tab	Frequency	Responsibility
Flush little-used outlets; including emergency showers, eyebaths and face-wash fountains, to drain without release of aerosols. Review list of these outlets regularly as they can change	Weekly	Site Management
Check water temperatures at all sentinel taps and outlets Hot water >50°C (>55°C in healthcare premises) after 1 minute Cold water <20°C after 2 minutes	Monthly	Site Management
Where fitted, complete stored temperature checks: Direct storage water heaters @60°C Calorifiers @60°C	Monthly	Site Management
Showers and Spray taps: Where fitted, Dismantle, clean and descale removable parts, heads, inserts and hoses	Quarterly	Site Management

Additional Control Duties

There are a number of additional measures required to control legionella that will be completed by the Society's approved Water Hygiene Contractor. A full list of these duties and frequency for completion can be found in Appendix 2 of the Written Scheme

Definitions

Sentinel Outlets the first and last taps on a recirculating system. For cold water systems (or non-recirculating hot water systems), the nearest and furthest taps from the storage tank.

A full list of definitions can be found in Appendix 1 of the Written Scheme for Sites

Section 4

“How to” guidance for Sites

1. Weekly task - Flushing of infrequently used outlets and shower outlets

The definition of an infrequently used outlet is one that is used **less than once a week**. They will most likely be in areas such as disabled washrooms, first aid rooms, plant rooms and external taps.

When outlets are not in regular use, weekly flushing of these devices for several minutes can significantly reduce the risk of legionella proliferation in the system.

- Infrequently used toilets – flush weekly
- Infrequently used taps/ outlets - run for up to 2 minutes

Once started, this procedure has to be sustained and logged, as lapses can result in a critical increase in legionella at the outlet.

Infrequently used equipment within a water system should be included on the flushing regime.

Infrequently used outlets need to be identified so that they can be regularly flushed to reduce the potential of water stagnating in the systems concerned and a record kept of the flushing activity.

The list of outlets should be reviewed periodically to account for any changes.

Before commencing the flushing operation, the following notes should be observed:

- If the little used outlet is a spray outlet the spray outlet and / or hose must be removed before flushing commences.
- If aerosols are being created wear a face mask covering nose and mouth.
- Ensure each infrequently used outlet is flushed for at least several minutes, depending on length on supply pipework.

2. Monthly task -Temperature monitoring of Water Services

The aim of this task is to ensure that hot and cold water systems on site operate at temperatures where legionella bacteria are dormant or are killed relatively quickly.

Action

Locate Sentinel outlets for temperature monitoring as per the Schematic diagrams within the site's Legionella Risk Assessment, and record temperatures in C365 as below:

Sentinel Outlets

- Open hot tap with thermometer probe in flowing stream of water and observe temperature profile. Record temperature after one minute
- Open cold tap with thermometer probe in flowing stream of water and observe temperature profile. Record temperature after two minutes.

Sentinel Outlets fitted with TMVs and Mixers

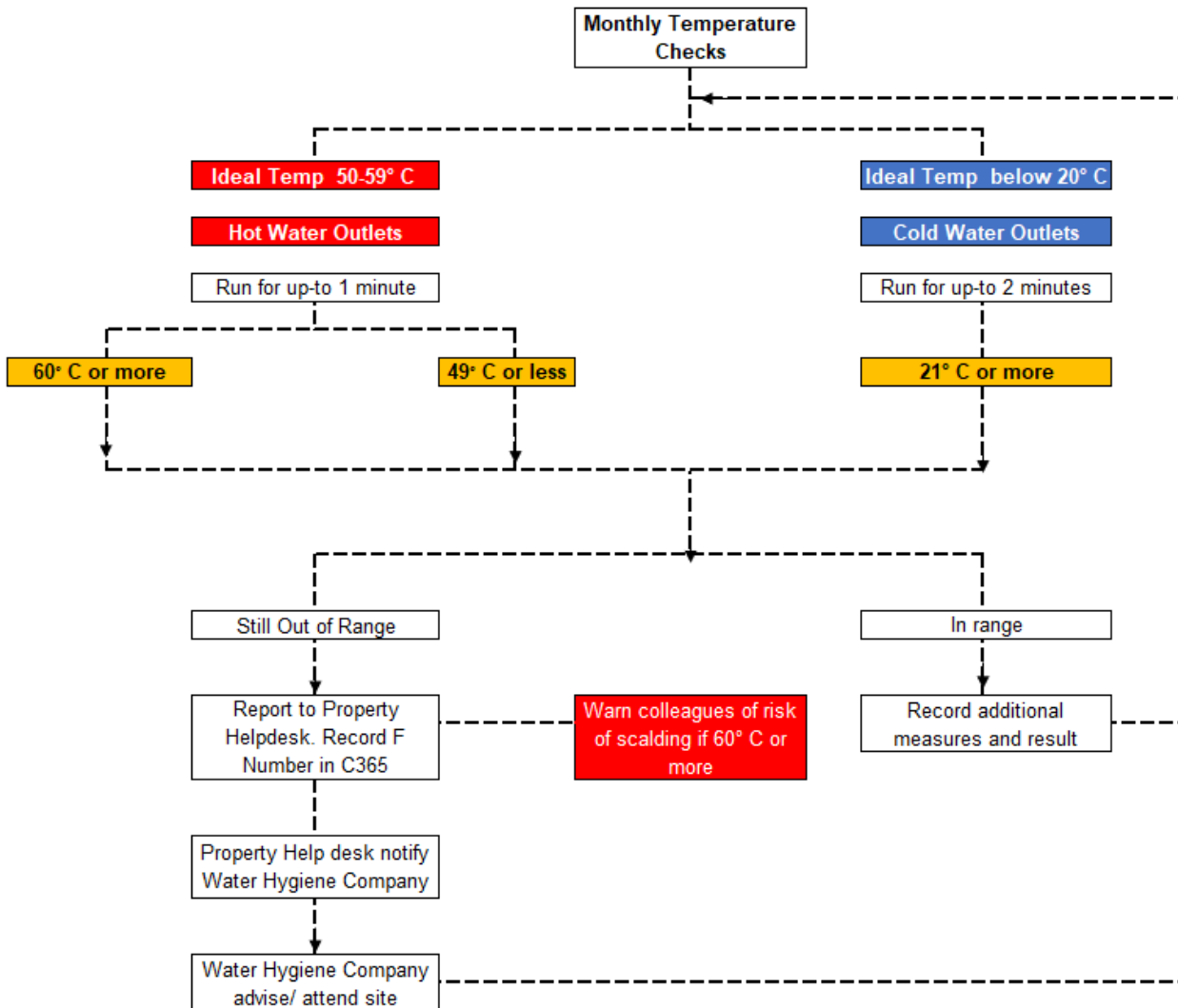
- Take temperatures of hot and cold pipework feeding the taps by holding the probe against the pipework until the reading stabilises.

Sentinel Outlets fitted with Point of Use (POU) or instantaneous hot water heaters

- Typically, these small water heaters (10-15 ltrs. capacity) drain very quickly and so the temperature should be taken of the flowing stream of water within 10-20 seconds.

An example of a schematic diagram can be found in Appendix 3 of the Written Scheme

Sentinel Temperature Monitoring - Activity flow chart



Record all findings and results in C365

Emergency Actions if not using C365 Do Tasks to complete record keeping

- Sentinel Outlets - Excessive Time to reach temperature**
 If outlet takes most of the minute to reach temperature record this detail, and review when next completing activity. If this is repeated at next check, contact Property Services Helpdesk
- Hot Water Sentinel Outlets - below 50 degrees**
 If temperature is below 50 degrees after running for up to 1 minute report to Property Services for follow up action and advice from Water Hygiene Contractor
- Hot Water Sentinel Outlets - above 60 degrees**
 If temperature is above 60 degrees, report to Property Services for follow up action and advice from Water Hygiene Contractor.
 Warn all Colleagues of risk of scalding
- Cold Water Sentinel Outlets - above 20 degrees**
 If temperature is above 20 degrees after 2 minutes on second activity report to Property Services for follow up action and advice from Water Hygiene Contractor.

3. Annual Activity - Temperature Probe Calibration

All sites will have temperature probes checked against calibrated units during the annual contractor review visit or replaced if not within tolerance (+/- 5%).

4. Quarterly Task - Shower and Spray Taps

Handheld shower heads:

- Remove the showerhead from the hose. Be careful not to lose the rubber washer when you do as this stops water from leaking between the head and the hose.
- Put the shower head (and hose if possible) in a bucket or plastic container and cover it with lime scale remover solution, leaving it to soak as per product guidelines.
- Take the shower head and hose out of the solution, rinse it with water and polish with a soft cloth.
- Reattach to the hose and turn on the shower to flush out any remaining limescale.

Fixed shower heads:

- Take a plastic bag that is big enough to fit over your showerhead and half fill it with lime scale remover solution
- Place it over the head until the head is completely submerged in the solution and use some string or an elastic band to tie it in place.
- Leave the shower head to soak as per product guidelines
- Turn on the shower to flush out any deposits left inside the showerhead.
- Repeat the process, if necessary, until all the limescale has gone



Appendix 1 - Calibrate a probe thermometer using an ice bath

Food Stores and Childcare Sites

The easiest way to test the accuracy of any thermometer is in a properly made ice bath. If you do this carefully, your ice bath will be 0°C within $\pm 0.1^\circ\text{C}$. If you are not careful, the ice bath can be off by several whole degrees. (Just a cup with ice water in it can be 12 or more degrees too high.)

Step One: Fill with ice

Making a proper ice bath is all about keeping a proper ice-to-water ratio. Fill a vessel all the way to the top with ice. Crushed ice is preferred because there are fewer gaps between the ice, however cubed ice will also work fine.

Step Two: Add Water

Slowly add water to fill the spaces between the ice. Fill about 1/2" below the top of the ice. Let the mixture sit for a minute or two to allow the temperature of the water to settle. If you see the ice starting to float off the bottom of the vessel, pour off some water and add more ice. Water below the ice will not be at 0°C.

Step Three: Insert the Probe

Once the mixture has rested for a minute or two, insert your probe (or thermometer stem) into the mixture and stir in the vertical centre of the ice slurry. Stirring the probe keeps the sensor from resting against an ice cube, which will affect your reading. Keep the probe tip away from the side walls and don't allow it to rest against the bottom of the vessel. Doing so will give you inaccurate temperature readings. You **MUST** gently stir the probe or you will find colder and warmer spots in the ice bath. Stirring equilibrates the temperature throughout the vessel.

Step Four: Confirm Calibration

Your thermometer should read 0°C in the ice bath. Adjust your dial thermometer as directed by the manufacturer; however, before you attempt to adjust a digital, instant-read thermometer, check that the readings are within the manufacturer's accuracy specifications. (Look for a $\pm^\circ\text{C}$ on the documentation included with the instrument.) If it's within the specified tolerance, don't adjust.

Non-Food Sites

Managers of stand-alone, non-food sites who cannot carry out this calibration procedure, must ensure the probe thermometer is checked against the Water Hygiene Contractor's calibrated unit and replace where out of tolerance (+/- 5%)

Policy Review Schedule

Policy name:	Calibrate probe thermometer	Date of Last Review:	22/1/2019
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Appendix 2 - Communication Flow Chart & Contact Details

Head Office contact number: 01926 516000

