



LEGIONELLA RISK ASSESSMENT



Prepared By Nathan Hawker

Issue Number 1.

Date 20^h June 2022

For

Core Projects

At

Limemead Farm

Halstock Leigh

nr Yeovil

BA22 9QU

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Issue Register

Registered Holders

Issue Number	Recipient
1.	Rebecca Boulert (Core Projects)
2.	
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10.	

Amendment Record

Brief record of all amendments are incorporated in the Table Below

Amendment Number	Summary of Alteration	Name & Signature	Date
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Introduction

The Approved Code of Practice and Guidance Note entitled 'Legionnaires disease -The control of legionella bacteria in water systems - (L8)' became effective on the 8th January 2001. L8 gives practical guidance with respect to complying with the Health and Safety at Work Act Control of Substances Hazardous to Health (COSHH) Regulations.

This document forms the Management Plan in order to comply with the responsibilities to control the proliferation of legionella bacteria in water systems within assets under his control. It must be adhered to by all staff, consortium partners (including their Supply Chain) and all persons charged with the responsibility for water systems.

The LMP covers the following key requirements:

- Formalised appointment of a Duty Holder, Responsible Person, and MMO as defined in ACoP L8.
- To undertake detailed risk assessment of all water systems, including production of system schematics. • Implementation of recommended works and on-going maintenance control regimes from the risk assessments.
- Putting into place a Written Scheme of Inspections & Testing by Competent Persons to monitor and audit that the control measures are effective.
- Alert all stakeholders of any Legionella readings or analysis which justifies the removal of water outlet(s) from use.
- Keeping & retaining adequate testing & inspection records.
- Carrying out regular formal reviews of the Management System and amending inspections & testing regimes as necessary.

Contents

- 1. Executive Summary**
- 2. Management of Legionella Risk**
- 3. Description of Building**
- 4. Schematic Drawings**
- 5. System Description**
- 6. Survey Report**
- 7. Non-Conformance**
- 8. Control Scheme**
- 9. Action in the event of a Legionella Outbreak**
- 10. Appendix**

1. Executive Summary

The following summarises the findings of the Legionella Risk Assessment undertaken on 8th June 2022 by Nathan Hawker of CHG South West Ltd on behalf of Core Projects.

This report relates to observations made and information supplied at the time of the inspection. Whilst every effort was made to ascertain the correct information regarding the site layout and system plant information, the assessor must rely on site staff knowledge and any available system drawings

Every effort has been made to trace and examine as much of the water system as possible, although some areas such as distribution pipe work beneath floors or behind walls may not have been inspected due to restricted access.

Lack of such knowledge or information may lead to assumptions, on the part of the assessor, and has been stated as such in this report.

The building has not previously had a Legionella risk assessment carried out; the site has no logbook in place. This assessment aims to bring the building in line with the L8 ACoP and establish control of the water system.

There is currently no management structure regarding the control of Legionella in the buildings water systems.

The buildings consist of the Cabin and Barn each with 1 no. water system. The system consists of a rising mains water which feeds all the cold-water outlets.

The mains also feed point of use hot water systems to the building.

This water systems would be considered moderate/low risk in respect of Legionella Assessments, reduced to low if appropriate control measures were put in place.

In view of the main findings of this report:

- Hot water outlet temperatures were above the minimum of 50°C, except for the barn sink which could not be tested as the point of use heater was not working and awaiting a part and the cabin basin in the shower room which is restricted via a temperature control device which could not be identified as the risk of scolding was considered to be more of a risk than Legionella.
- Cold water outlet temperatures recorded were below the recommended maximum of 20°C.
- There is 1 no. shower present in the property, which is infrequently used, the head is clean and in good condition.
- There is a no Duty Holder or Responsible person appointed.
- A legionella logbook was not present.

The inspection identified 6 areas of concern, which require attention.

- i. Revised Control Scheme.
- ii. Maintain records of inspections, remedial works etc.
- iii. Provide an up-to-date schematic drawing
- iv. The hot water at the cabin WC basin was of particular concern and should be addressed as soon as is possible.
- v. The hot water to the barn sinks needs to be repaired and tested as soon as is possible
- vi. Legionella Contingency Plan Required.

Subject to actioning the areas of concern listed above the residual risk could be reduced to low level in respect of Legionella.

The Legionella Risk Assessment should be reviewed on a regular basis and specifically when the risk assessment may become invalid. The reasons for review may include:

- If there are changes to the water system or its use.
- If there are changes to the property use.
- If updated or new information becomes available regarding risks or control measures
- If the results of checks being carried out by the responsible person indicate that the existing control measures are no longer effective.
- If a case of Legionnaires disease/Legionellosis is associated with the system.
- If there is reason to suspect that the assessment is no longer valid.

2. Management of Legionella Risk

Names of People Responsible:

Duty Holder: Alasdair Green

Responsible Person: Rebecca Boulert

Deputy Responsible Person(s):

Risk Assessor: Nathan Hawker

Company: CHG South West Ltd.

Water Treatment Company: TBA

Implementation

(Monitoring etc.)

Name

Duties

Rebecca Boulert	Monitoring
Rebecca Boulert	Flushing
TBA	Sampling
TBA	Cleaning/ Disinfection

Competence of Personnel

Site Address: Max Gate		Action required (Yes / No)
Have staff attended a Legionella training course	No	Yes
Are training records available	No	Yes
Are refresher courses included	No	Yes
Are all staff fully trained in operation of plant and equipment	No	Yes
If any precautionary measures are carried out by contractors, what steps have been taken to assess their staff competence	No	Yes
Observations Staff require Legionella Awareness training, with records kept on-site for inspection. Following initial training, regular refresher training should be undertaken. Relevant Contractors competencies should be checked and verified.		

Management and Record Keeping

Site Address: Max Gate		Action required (Yes / No)
Is a previous risk assessment available	No	Yes
Is it current	NA	NA
Is there a written scheme of control in place	No	Yes
Are there control measures in place	No	Yes
Are operating manuals available for operation of system equipment	No	Yes
Do manuals include cleaning and disinfection procedure	No	Yes
Is Calorifier cleaning carried out annually and results recorded	NA	NA
Are tanks inspected annually and results recorded	NA	NA
Are temperatures of water outlets checked and results recorded	No	Yes
Are Calorifier temperatures checked, and results recorded monthly	NA	NA
Is there a contingency plan if Legionella is discovered	No	Yes
Observations Risk Assessment undertaken June 2022. Scheme of Control included with Risk Assessment. Legionella Contingency Plan included with Risk Assessment.		

3. Description of Building

Building Use:

Core Creative Education, is a community interest company and runs a successful Outdoor Environmental Education Programme for young people at Limemead Farm in Halstock, Dorset. We deliver courses for children in the holidays and 1:1 Mentoring for young people in school time and after school.

Type of Occupation (age/male/female):

Male/Female 6 to 70 years old.

Level of Occupation:

Term time 08:00am to 18:00pm Monday to Friday

Open selected holiday periods.

Periods left Unoccupied:

Overnight, weekends and out of term

Number of Floors

One

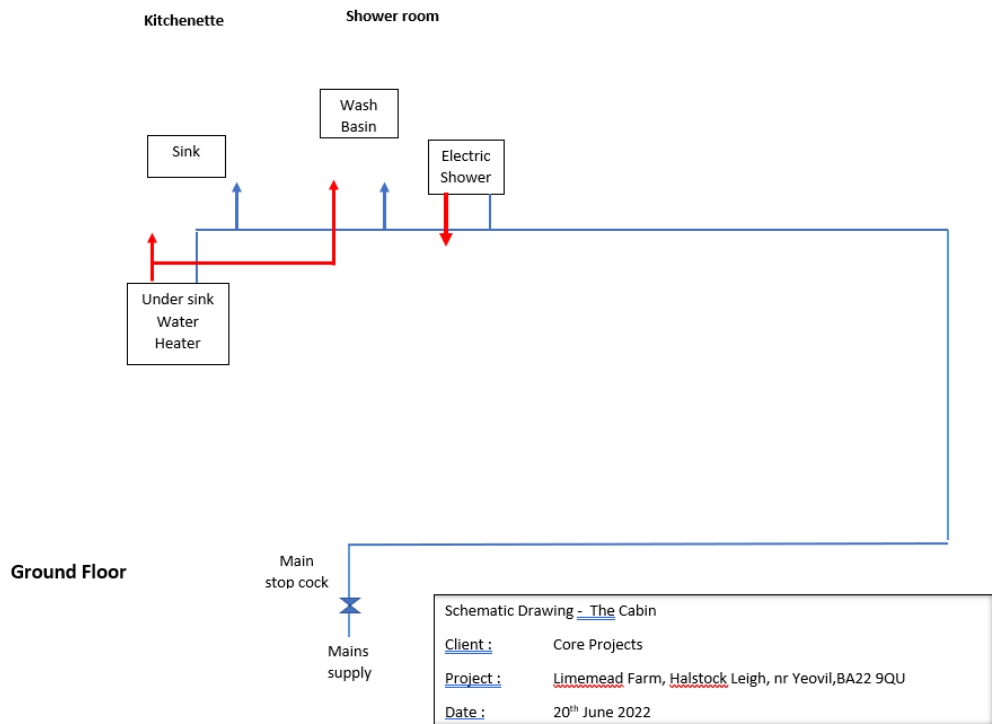
Exclusions

Farm House and older buildings

4. Schematic Drawings

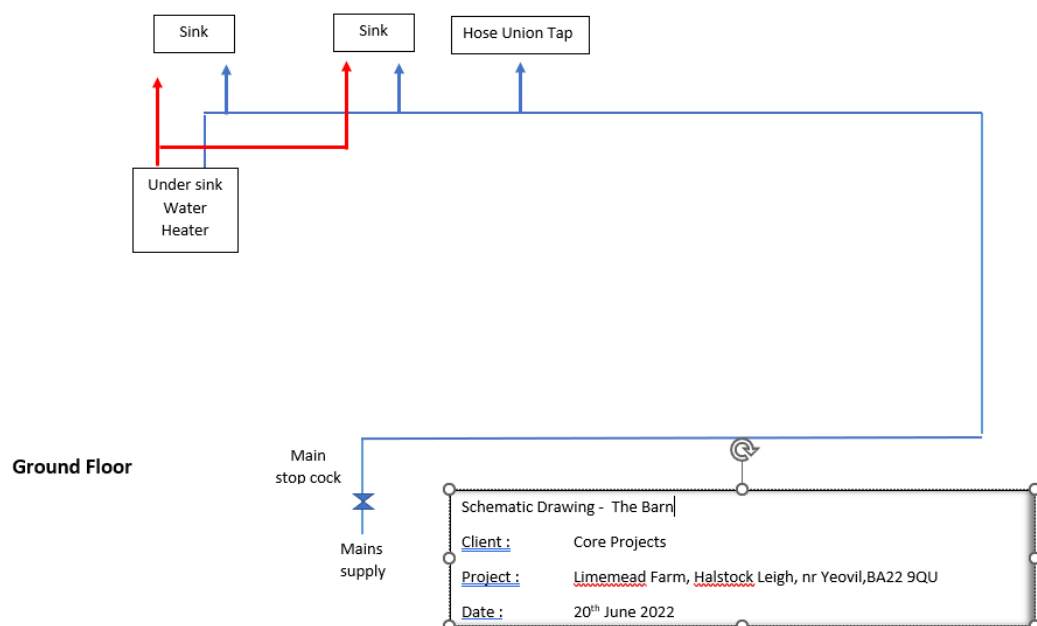
KEY

-  Isolation Valve
-  Mains Cold Water
-  Gravity Cold Water
-  Primary Hot Water
-  Point of use Hot Water



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5. System Description

Cold water inlet

Size: 28mm Material: MDPE

Temperature at outlet: 15.5 °C

Location of outside stop valve

Grass verge to right hand side of entrance gate.

Location of inside stop valve

Cabin - Under kitchen sink

Barn - To left hand side of double sink unit.

Number and Locations of Storage Cisterns

NA

Water Softener

NA

Calorifier

NA

Cold Water System

Mains fed to all supplies to kitchens and WC's

Hot water System

All hot water provided by electric point of use heaters and showers.



Photo 1



Photo 2



Photo 3

Hot water heater under double sink unit in Barn (currently inoperable).

Hot water heater under kitchen sink in Cabin serves kitchen sink and WC basin.

Electric shower in Cabin WC

Outlets



Photo 1

Double sink unit in Barn



Photo 2

Kitchen sink in The Cabin



Photo 3

Dishwasher in Cabin kitchen



Photo 4

Wash hand basin in The Cabin WC



Photo 5

Electric shower in Cabin WC

6. Survey Report/Asset Register

Max Gate - System Monitoring Schedule 2022

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly Calorifier Check						NA						
Monthly Outlet Temperature Check						CHG 20/06						
Quarterly Showerhead Clean						N/A						
Monthly Tank Inspection						N/A						
Annual Calorifier Drain						N/A						
Tank Clean (Where required)						N/A						
TMV Servicing						N/A						
Legionella RA Review						CHG 20/06						

System Monitoring – Monthly Outlet Temperature Check NB: Cold water temperature taken after running for 2 minutes should not exceed 20.0°C Hot water temperature taken after 1 minute should exceed 50.0°C													
Outlet		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cabin – Kitchen sink	Hot						59.0°C						
	Cold						15.5°C						
Cabin WC/Shower Room - Basin	Hot						34.0°C						
	Cold						15.5°C						
Cabin WC/Shower Room - Shower	Hot						52.0°C						
	Cold						15.5°C						
Barn – Kitchen Sink Left Hand	Hot						TBC						
	Cold						15.8°C						
Barn – Kitchen Sink Right Hand	Hot						TBC						
	Cold						15.8°C						
Barn – Hose Union Tap	Hot						Cold Only						
	Cold						15.5°C						

(1). L8 requires that the cold water should be below 20oC within 2 minutes of running the water.

(2). L8 requires that the hot water should be at least 50oC within a minute of running the water

System Monitoring – Quarterly Showerhead Clean Record													
Shower Ref. or Location		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Shower Room – Ground Floor							Shower Head Clean						

Summary

The readings taken for the temperatures are well within the recommended limits specified in HSG274 Part 2. However, it should be noted that these readings were taken in June, and these could be higher and could possibly exceed recommended limits during the summer months when high temperatures for sustained periods are experienced.

Sampling Results

No water samples were taken from outlets throughout the property, as these were considered to be of a low risk.

Hot and cold-water temperatures were measured at all outlets throughout the property including all sentinel outlets.

Key

WHB	-	Wash Hand Basin
U	-	Urinal
MWS	-	Mains Water Service
CWDS	-	Cold Water Down Service
BCWS	-	Boosted Cold Water Service
HWS	-	Hot Water Service (Tank fed supply to hot water cylinder)
SHWS	-	Subordinate Hot Water Service
TMV	-	Thermostatic Mixing Valve
DW	-	Dishwasher
WM	-	Washing Machine

7. Non-Conformance

Ref. 01

Priority: High

Defect

Revise/update Control Scheme

Recommendation

Implement scheme in section 8. Of report

Ref. 02

Priority: High

Defect

Lack of records for inspections, monitoring and any remedial works required

Recommendation

Records to be placed on site or completed electronically by attendees and collated by Duty Holder/Responsible person, see forms in section 10. Appendix.

Ref. 03

Priority: Medium

Defect

Provide up to date system schematic

Recommendation

See section 4. Of report, schematic updated

Ref. 04

Priority: Medium

Defect

Hot water to Cabin WC/Shower room does not meet minimum 50°C, possibly/probably restricted by blending valve to reduce scolding risk.

Recommendation

If possible, find temperature control and override once a week to achieve minimum temperature.

Ref. 05

Priority: Medium

Defect

Hot water in Barn unable to test as water heater is not in operation.

Recommendation

Hot water heater to be repaired and tested as soon as is possible.

Ref. 06

Priority: Medium

Defect

No Legionella Contingency Plan in place.

Recommendation

See section 9. Of this report.

8. Control Scheme

i) Record/Log Keeping

To ensure that the necessary control measures continue to be applied and that adequate information is available, a record of the assessments, precautionary measures and treatments shall be kept.

ii) Monitoring/Flushing/Cleaning and Disinfection

Service	Task	Frequency
Hot water services	Check water temperature up to one minute to see if it has reached 50°C in the sentinel taps	Monthly
Cold water services	Check that temperature is below 20°C after running the water for up to two minutes in the sentinel taps	Monthly
Little-used outlets	Flush through and purge to drain, or purge to drain immediately before use, without release of aerosols	Weekly
Shower Heads	Dismantle, clean and descale shower heads and hoses	Quarterly or as necessary
NB: Monthly/weekly tasks will be difficult and costly and will be difficult to carry out in all properties due to access issues and would/should be the responsibility of the tenant/owner of the individual flat.		

Note: Sampling of water for the presence of Legionella or total bacteria is not specifically recommended by the HSE except where an outbreak is suspected or where there are 'at risk' persons who may be immorally compromised. Maintaining the conditions to prevent proliferation is the priority.

Any sampling should only be done as an extra reassurance that control is effective or if control cannot be achieved, in this instance sampling may be preferable as the introduction of regular control and monitoring may be difficult and costly.

9. Action in the event of a Legionella outbreak

An outbreak is defined by the Public Health Laboratory Service (PHLS) as two or more confirmed cases of Legionellosis occurring in the same locality within a 6 month period.

It is the responsibility of the Proper Officer (appointed by the local authority) for the declaration of an outbreak and implementation of the incident plans to investigate major outbreaks of Legionellosis.

The local authority, CCDC or EHO often with the relevant officer from the enforcing authorities (HSE) may make a site visit.

As part of the outbreak investigation and control, the enforcing authority may:

- Shut down any processes which are capable of generating and disseminating airborne water droplets until sampling procedures and any remedial cleaning or other work has been done. Clearance to restart the system may be required.
- Take water samples before any emergency disinfection is undertaken.
- Request staff health records to discern undiagnosed cases of illness and to help prepare case histories of the people affected.
- Investigate any plant that may be suspected of being involved in the cause of the outbreak. This may involve:
 - tracing pipework runs,
 - scrutiny of operational records,
 - statements from plant operatives and managers, and
 - statements from water treatment contractors or consultants.

If a water system is implicated in an outbreak of Legionnaires' disease, emergency treatment should be carried out as soon as possible as detailed in Reference A.

Any infringements of relevant legislation may be subject to a formal investigation by the appropriate enforcing authority.

On notification by the HSE that a system has been implicated in an outbreak the Responsible Person is to:

Immediately arrange to carry out remedial actions as specified in Reference A, or as directed by the Enforcing Authority.

- Notify the Duty Holder.
- Ensure cessation of any work in the area likely to increase the risk of exposure.
- Isolate systems and erect warning notices.
- Advise on remedial actions and implement remedial works.

Actions following a Confirmed Case of Legionellosis

Confirmed Cases of legionellosis are reportable under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) 1995. Where a case of legionellosis is confirmed by a doctor's note the employer will be required to report the incident in accordance with their internal procedures.

Where the above applies to a member of staff or contractor working on Site then the incident must be reported as follows:

- The Line Manager must report a confirmed case of legionellosis to their employers in accordance with their employer's accident and incident reporting procedure.
- The Employer is to report to the RIDDOR Incident Contact Centre on receipt of the Doctor's note confirming a case of legionellosis.

Where there is a confirmed case of legionellosis reported, details of where the person works etc. should be passed to the Duty Holder and Responsible Person.

In all instances, where a confirmed case is reported to the Responsible Person a manager is to carry out a detailed investigation and provide copies of their report to the Duty Holder and Responsible Person in addition to their respective employer.

The Responsible Person is to:

- Gather all records associated with the systems where the affected person could have been infected and retain these should there be another confirmed case in the area.

Applicable Legislation

The following Regulations are relevant to the use and management of water installations where these may potentially pose a risk to health.

The Workplace Health, Safety and Welfare Regulations 1992

Require that, an adequate supply of wholesome drinking water shall be provided for all persons at work in the workplace.

Control of Substances Hazardous to Health Regulations 2002

Regulation 6 requires that an employer does not carry out work, which is liable to expose any employees to any substances hazardous to the health unless the employer has made a suitable and sufficient assessment of the risks created by that work to the health of those employees.

Regulation 7 requires that every employer shall ensure that the exposure of his employees to a substance harmful to health is either prevented or, where this is not reasonably practicable, adequately controlled.

Regulation 9 requires that employers who provide any control measures to meet the requirements of regulation 7 must ensure that they are maintained in an efficient state, in efficient working order and in good repair.

Health and Safety at Work etc. Act 1974, Sections 2, 3 and 4

Sections 2-3 require employers to take all reasonable precautions to protect the health and safety of the employees and the general public.

Section 4 requires that the premises and plant are safe and without risk.

The L8 Approved Code of Practice (ACoP): Legionnaires Disease: The Control of Legionella Bacteria in Water Systems

L8 details techniques to manage, monitor and control hot and cold-water services so as to minimize the chance of a Legionella outbreak.

The Water Supply (Water Fittings) Regulations 1999

These regulations outline the methods and the materials to be used when connecting to the mains water system.

Water Systems Contractor Activity Log

All refurbishment, plumbing and repair activities that may affect the operation on of the water system should be logged in the table below:

Date	Company	Nature of Work Carried Out	Supervisor Name & Tel. No.

Water System Defect Log

All defects identified and any remedial actions taken to rectify the defect within the water system should be logged in the table below:

Date Defect Identified	Name of person and Tel. No. who identified Defect	Nature of defect	Defect Rectified Date	Name of person and Tel. No. who Rectified Defect	Action Taken

Water Sampling Log (As Appropriate)

Date	Location	Asset Type	Name & Organisation Sampling	Reason for sampling (routine, suspected issue, pre/post disinfection, etc.)	Sample Type (legionella, TVC, etc.)