

LEGIONELLA RISK ASSESSMENT



An Lionadh **Easdale Island, Argyll, PA34 4TB**

VALID BETWEEN	04/07/2023 - 04/07/2025
ASSESSED BY	Claire Rizos Clarity Accounts
ASSESSED ON	04/07/2023
APPROVED BY	Claire Rizos
APPROVED ON	20/08/2023
ASSESSMENT REF.	RB-C4V4IN
VERSION	2



1 INTRODUCTION

About Legionella Bacteria

Legionnaires' disease, Pontiac fever and Lochgoilhead fever all arise from exposure to legionella bacteria and are collectively known as legionellosis. Of these, Legionnaires' disease is the most serious, killing around 300 people each year within the UK.

The diseases are normally contracted by inhaling small droplets of contaminated water suspended in the air. Anyone exposed in heavy concentration to the bacteria is susceptible to infection and some are at greater risk of complications:

- People over 45 years of age
- Smokers and heavy drinkers
- People suffering from chronic respiratory or kidney disease
- Diabetes, lung and heart disease
- Anyone with an impaired immune system

Legionnaire's disease is not spread from person to person.

Legionella bacteria occur naturally in water sources such as rivers and lochs, generally in low concentrations. However, the bacteria can rapidly multiply within artificial water supply systems. The larger and more complex the water system the greater the opportunities for the bacteria to multiply, however, even within domestic properties they may be found in tanks, water cisterns, hot and cold water pipes, showers and spa baths.

The two things that Legionella bacteria need to grow and reproduce are:

- A water temperature of 20-45C (68-113F)
- Impurities in the water that the bacteria can use for food – such as rust, algae and limescale

The Purpose of This Risk Assessment

This risk assessment is designed to identify the potential sources of legionella bacteria within a premises and the actions which are required to reduce the risks. In particular it seeks to identify:

- Parts of the water system in which water is stored between 20-45 °C
- Fittings which are likely to create breathable water droplets
- Sources of nutrients which may promote bacterial growth, i.e. deposits of rust, sludge, scale, organic matter and biofilms

In conducting this assessment the assessor has examined accessible parts of the property to the extent that this could be undertaken safely, i.e. without causing damage to the property or injury or health risk to the assessor. Where it is suspected that there are relevant parts of the water system within inaccessible areas this is noted in the report.

This assessment is designed to identify significant risks relating to the growth of legionella bacteria. Whilst, due to his or her experience in the sector, the assessor may choose to make comments on the design of an installation, it is not the purpose of this report to assess compliance of the water system with water byelaws.

This assessment is carried out in accordance with HSE approved code of practice L8 Legionnaires' disease The control of legionella bacteria in water systems.

Liability

The assessor has relevant practical experience of hot and cold water systems and this report is prepared with the skill and care reasonably to be expected of such a person.

This report may be shared with various parties having an interest in a property including neighbours, maintenance contractors, prospective purchasers and tenants. However, Clarity Safety Solutions Ltd (the Company) accepts no responsibility or liability whatsoever in relation to any party except towards the agent or landlord who commissioned this assessment (the Client).

Except in respect of death or personal injury caused by the Company's negligence the Company shall not be liable to the Client for any loss of profit or any indirect, special or consequential loss, damage, costs, expenses or other claims (whether caused by the negligence of the Company, its servants or agents or otherwise) which arises out of or in connection with the provision of this risk assessment.

2 SUMMARY

Legionella Risk Assessment

ASSESSMENT AND CERTIFICATE REFERENCE
RB-C4V4IN

ASSESSED ON, BY
04/07/2023, Claire Rizos, Clarity Accounts

APPROVED / VALIDATED ON, BY
20/08/2023, Claire Rizos

START DATE RECOMMENDED REVIEW DATE
04/07/2023 — 04/07/2025

SIGNIFICANT FINDINGS
5 Actions / 6 Controls

PRODUCED FOR THE DUTY HOLDER
Elly Douglas-Hamilton

SPECIFICATION CONFIRMS TO
Our own internal quality system.

ASSESSMENT SCOPE
Assessment applies only to the building specified.

Assessed Property

PROPERTY NAME
An Lionadh

PROPERTY REFERENCE
RB-4I34EX

ADDRESS
Easdale Island
Argyll
PA34 4TB

LEGIONELLA RISK RATING

LIKELIHOOD **POSSIBLE**

SEVERITY **MODERATE HARM**

RISK MEDIUM

Actions mentioned in this report must be undertaken to ensure the risk from legionella is adequately controlled at an acceptable level.

ASSESSING / ACCREDITED ORGANISATION
Clarity Safety Solutions Ltd

CLARITY
SAFETY SOLUTIONS LTD

3 PROPERTY

Address

PROPERTY NAME

An Lionadh

PROPERTY REFERENCE

RB-4I34EX

ADDRESS

Easdale Island

Argyll

PA34 4TB

Legionella

Management

Duty holder

Elly Douglas-Hamilton

Responsible person

Elly Douglas-Hamilton

Water Information

Cold Water System

Mains

Cold Outlets With A Direct Feed From The Cold Water Supply - Description

All cold

Outlets With A Tank Supply - Description

All hot

Shared Facilities - Description

None

Asset Register

Sink

2

Wash Hand Basin

3

Bath

1

Shower

2

Toilet

3

Dishwasher

1

Washing Machine

1

Cold Water Storage Tank

1

Domestic hot water cylinder

1

Outside Tap

1

4 SIGNIFICANT FINDINGS

8

8 negative answers
Out of a total of 16

3

3 actions to complete
Identified in this assessment

4

4 controls describe existing measures
Identified in this assessment

SUMMARY OF ACTIONS

Severity ▾ ▼ Timescale	Low	Medium
No Timescale	0	2
3 Months	1	0

Temperature Questions

Are the temperature ranges within safe limits?

YES

Legionella Risk Assessment

4 Negative Answers
2 Actions 4 Controls

Under normal circumstances is there potential for some outlets to be unused weekly?

YES

Cleaning staff have been asked to flush all outlets during changeovers, in particular focus on those outlets which tend to be less used.

Is the property left unoccupied for long periods of time?

NO

The owner has confirmed that during periods of unoccupancy, arrangements will be made for flushing of outlets to be carried out for sufficient time to ensure water within the entire system is refreshed.
Care to be taken to avoid creating and inhaling fine droplets of water during flushing.

Are there evident dead legs, dead ends or other redundant pipework?

NO

No deadlegs or unused outlets were identified during the site visit.

Is regular cleaning and disinfection carried out?

YES

It is reported that quarterly cleaning and disinfection of all outlets is carried out.
Owner is aware of the system to follow, i.e.: Shower heads and hoses, where possible, should be disconnected, scrubbed of visible dirt, soaked for 15 minutes in a solution of one Milton tablet to five litres of water, rinsed with clean water and reassembled.

Have any flexi hose connectors been identified?

YES

During future refurbishment it is recommended that flexi hoses are replaced with solid copper pipe.
Some flexi hoses have been found to allow legionella to develop.

REFERENCE RB-3LGDWL

DUE No Due Date

TIMESCALE
NO TIMESCALE

SEVERITY
MEDIUM

Is a private water supply poster displayed?

N/A

Is annual potability testing carried out?

N/A

Is regular sampling and testing carried out?

NO

Where there are outside taps, are double check backflow devices fitted?

NO

A double check backflow device should be fitted to the outside tap.
A double check backflow device should be fitted to stop the possibility of potentially contaminated water from re entering the potable water in the water system.

REFERENCE RB-X9XV3V

DUE No Due Date

TIMESCALE
NO TIMESCALE

SEVERITY
MEDIUM

Records

4 Negative Answers
1 Action

Are there suitable water hygiene records?

NO

Records should be kept of routine flushing, cleaning and maintenance.

REFERENCE RB-KI5815

DUE 20/11/2023

TIMESCALE
3 MONTHS

SEVERITY
LOW

Is there a schematic drawing of the water system?

YES

Are records of chemical analysis available?

NO

Is there a record of flushing little used outlets?

NO

Is there a written scheme of control?

NO

Is there a record of private water supply treatment maintenance?

N/A

WT1

Water Tanks

2 Actions

Location

Cupboard in bathroom off kids bedroom upstairs

Size

700*700*800high

Material Of Tank / Lid

Steel water tank no lid

The Tank Appears To Be The Right Size To Ensure Daily Throughput

Yes

Tank Is Linked To Another Tank

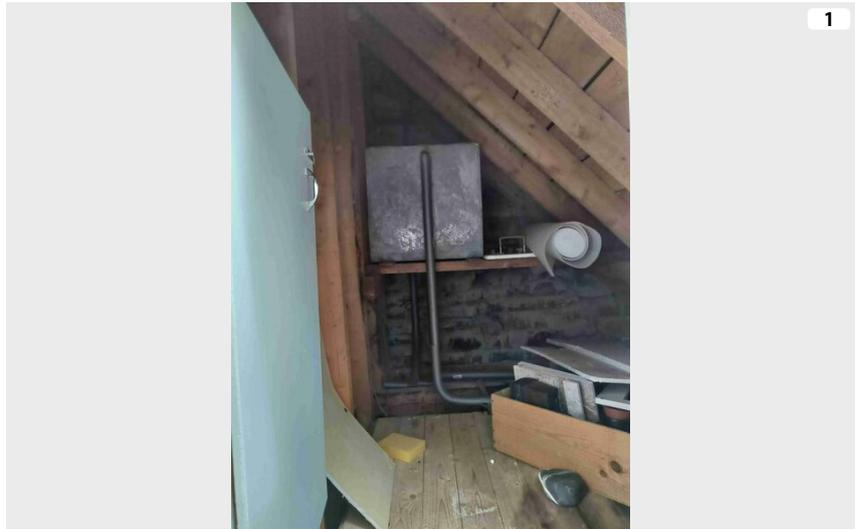
No

Outlets Fed By This Tank Are:

All hot

Cold Water Temperature (°C)

16.7



No isolation, no lid, no screened overflow, no screened air vent

A Additional Photos



Are the temperature ranges within safe limits?

YES

Water Tank Condition

- ✗ The water is clear
- ✗ Free from dirt, debris, rust, scale
- ✗ Lid is tight fitting
- ✗ Screened air vents
- ✗ Screened overflow
- ✗ Sufficient insulation
- ✗ Exposed pipes are properly insulated

Exposed pipes in the attic require modern pipe insulation in order to reduce temperature fluctuation.

REFERENCE RB-VFN2F3

DUE 20/11/2023

TIMESCALE
3 MONTHS

SEVERITY
MEDIUM

The water tank is rusty and silted. It should be replaced with a plastic tank with fitted lid, insulation top and sides, Byelaw 60 kit. Or it may be preferred to install a pressurised hot water cylinder in which case the cold water tank can be drained and removed (or abandoned).

TIMESCALE
6 MONTHS

SEVERITY
MEDIUM

REFERENCE RB-GHQ2IU

DUE 20/02/2024

Owner is aware of the need to inspect the tank at least annually and clean as needed.

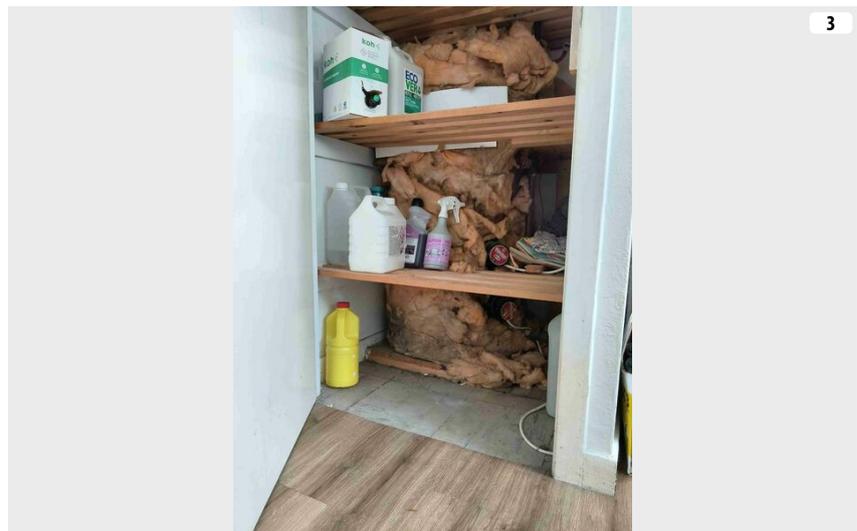
HW1

Hot Water Systems

Location
Cupboard in utility room

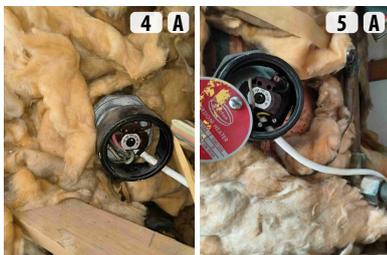
Type
Immersion only hot water cylinder

Hot Water Temperature (°C)
54.6



Top(boost) set at 130f. Lower(off peak) set at 130f

A Additional Photos



Are the temperature ranges within safe limits?

YES

The owner has made arrangements for a new jacket for the hot water cylinder.

W01

Water Outlets

Location
Kitchen sink

Outlet Type
Kitchen Sink

Hot/Cold
Hot, Cold

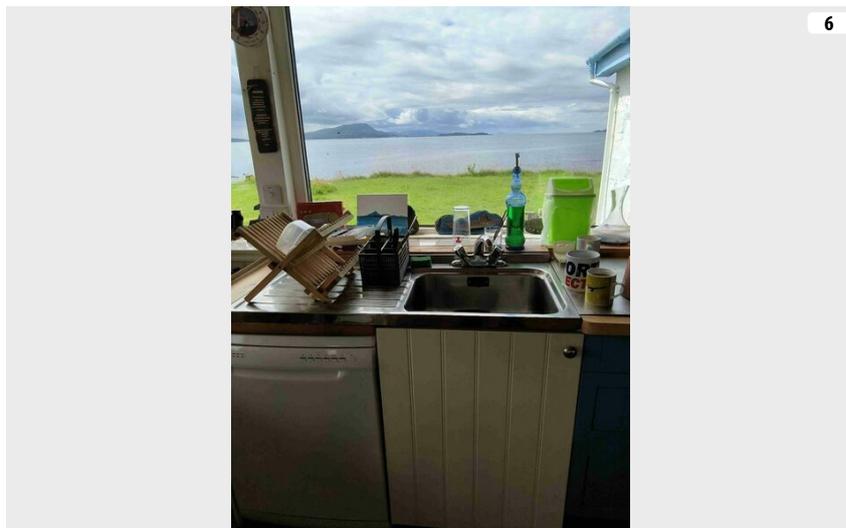
Fitted With A TMV
No

Calorifier Feeding The Hot Outlet
1

Number Of Flexi-Hose Tap Connectors
2

Cold Water Temperature (°C)
13.8

Hot Water Temperature (°C)
53.8



A Additional Photos



W02

Water Outlets

Location
Downstairs bathroom

Outlet Type
Wash Basin

Hot/Cold
Hot, Cold

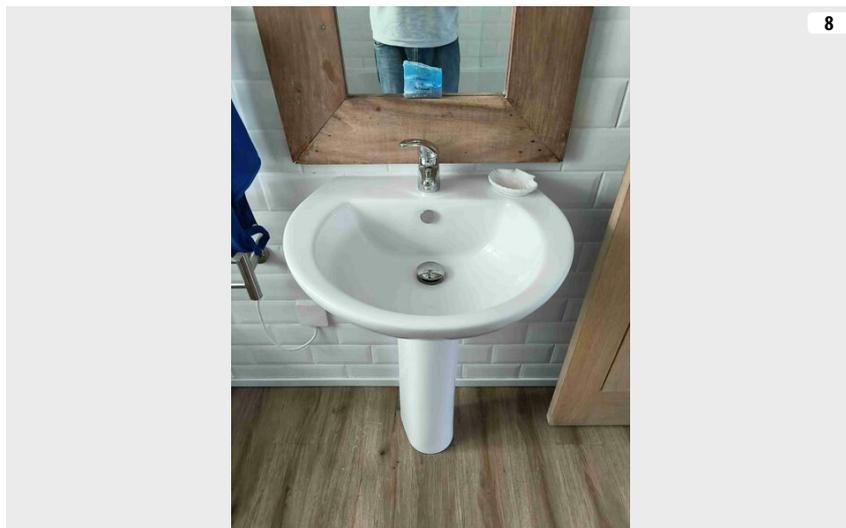
Fitted With A TMV
No

Calorifier Feeding The Hot Outlet
1

Number Of Flexi-Hose Tap Connectors
2

Cold Water Temperature (°C)
14.5

Hot Water Temperature (°C)
54.2



A Additional Photos



W03

Water Outlets

Location

Downstairs bathroom

Outlet Type

Bath

Hot/Cold

Hot, Cold

Fitted With A TMV

No

Calorifier Feeding The Hot Outlet

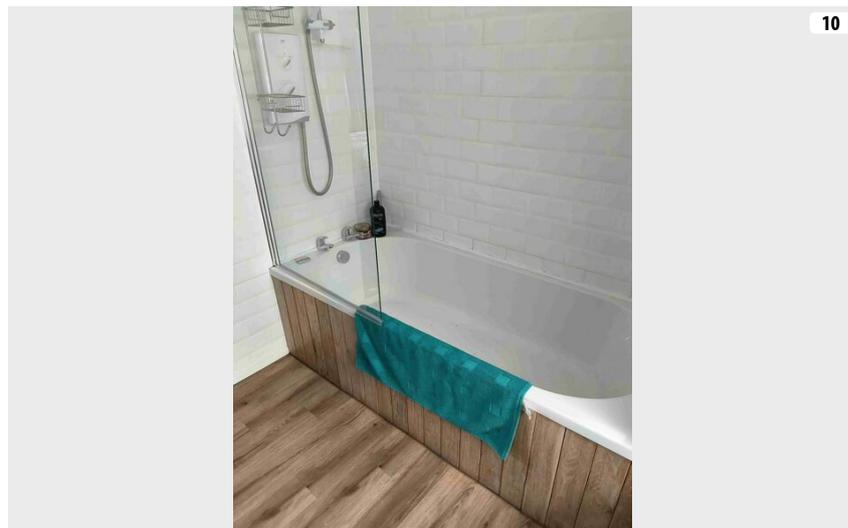
1

Cold Water Temperature (°C)

14.5

Hot Water Temperature (°C)

55.8



W04

Water Outlets

Location
Utility room

Outlet Type
Kitchen Sink

Hot/Cold
Hot, Cold

Fitted With A TMV
No

Calorifier Feeding The Hot Outlet
1

Cold Water Temperature (°C)
14.5

Hot Water Temperature (°C)
55.2



A Additional Photos



W05

Water Outlets

Location

Toilet room kids bedroom

Outlet Type

Wash Basin

Hot/Cold

Hot, Cold

Fitted With A TMV

No

Calorifier Feeding The Hot Outlet

1

Number Of Flexi-Hose Tap Connectors

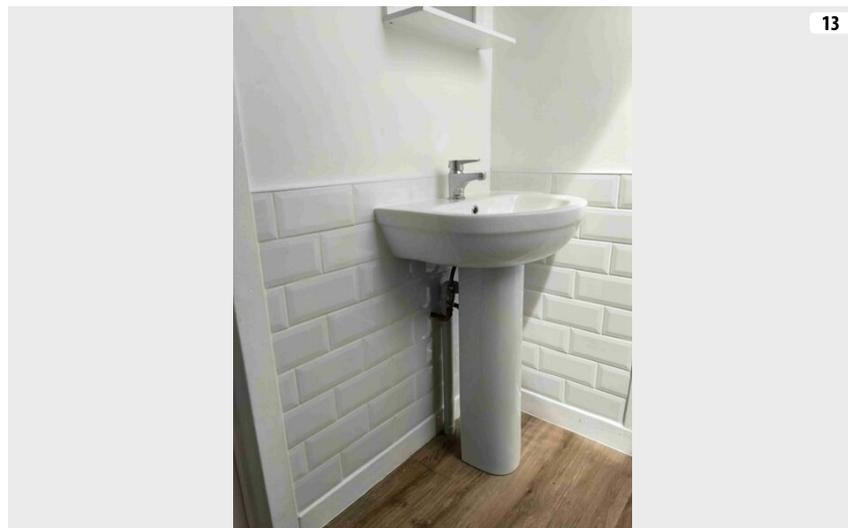
2

Cold Water Temperature (°C)

14.8

Hot Water Temperature (°C)

53.1



Poor hot water flow

A Additional Photos



W06

Water Outlets

Location

Upstairs shower room in bedroom

Outlet Type

Wash Basin

Hot/Cold

Hot, Cold

Fitted With A TMV

No

Calorifier Feeding The Hot Outlet

1

Number Of Flexi-Hose Tap Connectors

2

Cold Water Temperature (°C)

14.2

Hot Water Temperature (°C)

52.7



Poor hot water flow

A Additional Photos



W07

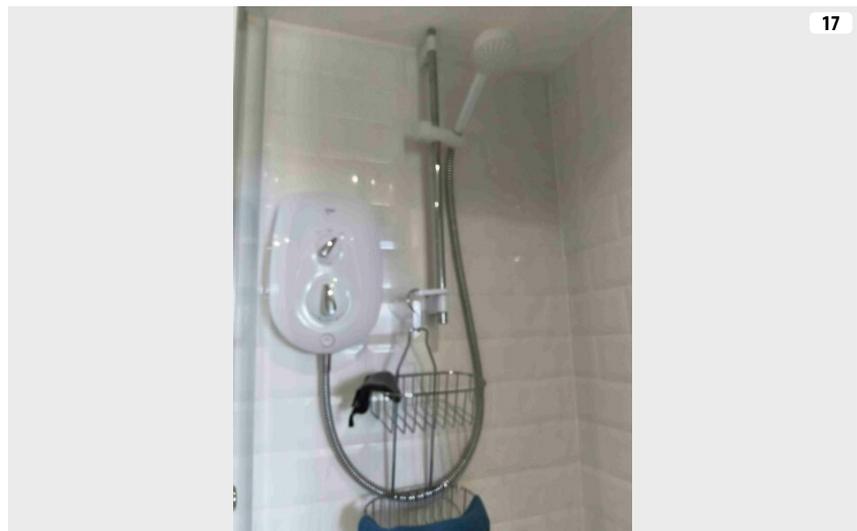
Water Outlets

Location

Upstairs shower room in bedroom

Outlet Type

Shower



Mira vie electric shower. Shower head clean.

A Additional Photos

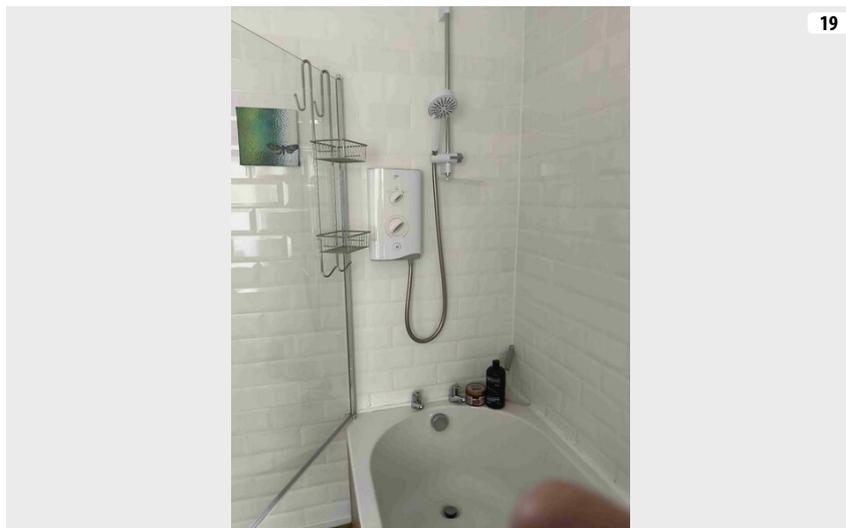


W08

Water Outlets

Location
Downstairs bathroom

Outlet Type
Shower



Mira sport electric shower. Head is clean.

A Additional Photos



0A1

Other Appliances

Location
Utility room

Type
Washing Machine

Feed Type
Cold Feed



A Additional Photos



0A2

Other Appliances

Location
Kitchen

Type
Dishwasher

Feed Type
Cold Feed



A Additional Photos



0A3

Other Appliances

Location
Outside kitchen window

Type
Outside Tap



No check valve visible.

A Additional Photos



5 PHOTOS



Photos Continued...



6 ACTION PLAN

Exposed pipes in the attic require modern pipe insulation in order to reduce temperature fluctuation.

REFERENCE RB-VFN2F3
SEVERITY Medium
ELEMENT Water Tank

DUE BY / ASSIGNED TO

20 November 2023

COMPLETED ON / BY

Records should be kept of routine flushing, cleaning and maintenance.

REFERENCE RB-KI5815
SEVERITY Low

DUE BY / ASSIGNED TO

20 November 2023

COMPLETED ON / BY

The water tank is rusty and silted. It should be replaced with a plastic tank with fitted lid, insulation top and sides, Byelaw 60 kit. Or it may be preferred to install a pressurised hot water cylinder in which case the cold water tank can be drained and removed (or abandoned).

REFERENCE RB-GHQ2IU
SEVERITY Medium
ELEMENT Water Tank

DUE BY / ASSIGNED TO

20 February 2024

COMPLETED ON / BY

A double check backflow device should be fitted to the outside tap.

A double check backflow device should be fitted to stop the possibility of potentially contaminated water from re entering the potable water in the water system.

REFERENCE RB-X9XV3V
SEVERITY Medium

DUE BY / ASSIGNED TO

No Due Date

COMPLETED ON / BY

During future refurbishment it is recommended that flexi hoses are replaced with solid copper pipe. Some flexi hoses have been found to allow legionella to develop.

REFERENCE RB-3LGDWL
SEVERITY Medium

DUE BY / ASSIGNED TO

No Due Date

COMPLETED ON / BY