



# WT Consultancy

Working with



## Legionella Risk Assessment

Carried Out By: Adam Carter TechIOSH

A handwritten signature in black ink that reads 'A. Carter'. The signature is written in a cursive, slightly slanted style.

Date: 06/01/2025

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## 1 Significant Findings and Action Plan

Risk	Risk Rating	Control Measure	Residual Risk Rating	Action by Whom	Action by When
The pipe run between the TMV and the outlet exceed 2 meters.	M	Monthly Temperature checks and flushing of all shower heads.	L	WTC	Ongoing.

## 2 Introduction

A visit was made to Sparex on 6<sup>th</sup> January 2025 to perform a Legionella Risk Assessment.

Legionnaires' disease, "The control of legionella bacteria in water systems, Approved Code of practice and guidance on regulations (ACoP L8, 4th edition) was issued 25th November 2013. The ACoP gives advice on the requirements of the Health and Safety at Work etc. Act 1974 and the Control of Substances Hazardous to Health Regulations 2002 (COSHH) and applies to the risk from exposure to legionella bacteria (the causative agent of legionellosis, including Legionnaires' disease). The also gives guidance on compliance with the relevant parts of the Management of Health and Safety Regulations 1999 [The Management Regulations]. The regulations in respect of "Reducing the Risk of Legionnaires Disease" are listed in Section 2.3. The Legal Requirements can be summarised as the following:

- Identify and assess sources of risk. (Risk Assessment)
- Prepare a scheme for preventing or controlling the risk.
- Implement, manage and monitor the precautions.
- Keep records of the precautions.
- Appoint a person to be managerially responsible.

This Risk assessment should be reviewed following changes to the building/system and or its management, a legionella outbreak or more than 1 positive sample result, or if routine monitoring indicates loss of control.

### 2.1 Disclaimer

The survey has been conducted, and the report has been compiled based on a programme of works, agreed by the client. In preparation of this report it is confirmed that all reasonable care has been considered, taking into account the agreed remit and instructions issued regarding the scope of works. Every effort will have been made to examine as much of the water systems as possible and the consultant must rely on site staff knowledge and any available system drawings. Lack of such knowledge or information may lead to assumptions on the part of the consultant and will be stated as such in the Report.

Some areas such as pipe work beneath floors or behind walls may not have been inspected due to restricted access. If further systems or equipment require an assessment, please contact WT Consultancy for further guidance. WT Consultancy accepts no responsibility to any parties whatsoever, following the issue of this report, for any situations arising outside the agreed scope. This report is issued in confidence to the client and WT Consultancy has no responsibility to any third parties to whom this report may be circulated, in part or in full, and any such parties rely solely on the contents of the report at their own risk. Whilst every effort has been made to ensure the accuracy of this report, WT Consultancy cannot accept responsibility for any unforeseen omissions.

The views and guidance expressed in this report are given in good faith and are based on WT Consultancy interpretation of ACoP L8 2013 and guidelines HSG 274 part 2, the scope of the survey and the information made available by the client.

## Abbreviations & Definitions

ACOP	Approved Code of Practice
COSHH	Control of Substances Hazardous to Health
HWC	Hot Water Cylinders
HWS	Hot Water Systems
LEV	Local Exhaust Ventilation
POU	Point of Use

## 2.2 Glossary

Aerosol	A suspension in a gaseous medium of solid particles, liquid particles or solid and liquid particles having negligible falling velocity
Algae	A small, usually aquatic, plant which requires light to grow, often found on exposed areas of cooling towers
Air-Conditioning	A form of air treatment whereby temperature humidity and air cleanliness are all controlled within limits determined by the requirements of air-conditioned enclosure
Antibodies	Substances in the blood which destroy or neutralise various toxins or components of bacteria known generally as antigens. The antibodies are formed as a result of the introduction into the body of the antigen to which they are antagonistic as in all infectious diseases
Bacteria	(singular bacterium) a microscopic, unicellular (or more rarely multicellular) organism
Biocide	A substance which kills micro-organisms
Blow-down/Bleed Off	Water discharged from the system to control the concentration of salts or other impurities in the circulating water; usually expressed as a percentage of recirculating water flow
Calorifier	An apparatus used for the transfer of heat to water in a vessel by indirect means, the source of heat being contained within a pipe or coil immersed in the water.
Chlorine	An element used in disinfection
Cold Water Service	Installation of plant, pipes and fitting in which cold water is stored distributed and subsequently discharged
Dead end/blind end	A length of pipe closed at one end through which no water passes
Dead leg	Pipes leading to a fitting through which water only passes when there is a draw-off from the fitting
Dip slides	A dip slide is a means of testing the microbial content of liquids. It consists of a plastic carrier bearing a sterile culture medium which can be dipped in the liquid to be sampled. It is then incubated to allow microbial growth. The resulting microbial colonies are estimated by reference to a chart
Disinfection	A process which destroys or irreversibly inactivates micro- organisms and reduces their number to a non-hazardous level
Distribution circuit	Pipework which distributes water from hot or cold-water plant to one or more fittings/appliances
Domestic Water Services	Hot & cold water intended for personal hygiene, culinary, drinking water or other domestic purposes

Fouling	Organic growth or other deposits on heat transfer surfaces causing loss in efficiency
Half-life	Ratio of system volume to purge rate
Hot water service (HWS)	Installation of plant, pipes and fittings in which water is heated, distributed and subsequently discharged (not including cold water feed tank or cistern)
Legionnaires' disease	A form of pneumonia caused by Legionella bacteria
Legionellae	The genus Legionella belongs to the family legionellaceae which has over 40 species. These are ubiquitous in the environment and found in a wide spectrum of natural and artificial collections of water
Legionella	Type of aerobic bacterium which is found predominantly in warm water environments. (singular of legionellae)
L. Pneumophila	One of the causative organisms of Legionnaires' disease
Legionellosis	Any illness caused by exposure to Legionella
Pontiac fever	A disease caused by species of Legionella; an upper respiratory illness less severe than Legionnaires' disease
Micro-organism	An organism of microscopic size including bacteria, fungi and viruses
Nutrient	Food source for micro-organisms
Pasteurisation	Heat treatment to destroy the micro-organism usually at high temperature
Planktonic	Free floating micro-organisms
PPM	Parts per million: a measure of dissolved substances given as a number of parts there are in a million parts of solvent. It is numerically equivalent to milligrams per litre mg/l with respect to water
Retention time	Time a chemical is retained in the system
Scale inhibitors	Chemicals used to control scale. They function by holding up the precipitation process and/ or distorting
Sero-group	A sub-group of the main species
Sentinel taps	For a hot water services – 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. The choice of sentinel taps may also include other taps which are considered to represent a particular risk
Sessile	Aquatic micro-organisms adhering to a surface normally as part of a biofilm
Sludge	A general term for soft mud-like deposits found on heat transfer surfaces or other important sections of a cooling system. Also found at the base of calorifiers and cold-water storage tanks
Shunt pump	A circulation pump fitted to hot water service to overcome the temperature stratification of the stored water
Slime	A mucus-like exudates which covers a surface produced by some micro-organisms
Stagnation	The condition where water ceased to flow and is therefore liable to microbiological growth
Strainers	A coarse filter usually positioned upstream of a sensitive component such as a pump control valve or heat exchanger to protect it from debris
Thermal disinfection	Heat treatment to disinfect a system

Thermostatic mixing valve (TMV)	Mixing valve in which the temperature at the valve outlet is pre-selected and controlled automatically by the valve
Total viable counts	The total number of culturable bacteria (per volume or area) in a given sample (does not include Legionella)
Risk Assessment	Identifying and assessing the risk from legionellosis from work activities and water sources on premises and determining any necessary precautionary measures
RPZ Valve	A reduced pressure zone device (or RPZ valve) is a type of backflow prevention device used to protect water supplies from contamination
WHB	Wash Hand Basin

### 2.3 Codes & Standards and References

- Ref. 1: Health and Safety at Work etc. Act, 1974– Sections 2, 3 and 4
- Ref. 2: Approved Code of Practice (ACoP) L8 4th Edition 2013 – Legionnaires’ Disease ‘The Control of Legionella Bacteria in Water Systems’
- Ref. 3: Minimising the Risk of Legionnaires Disease TM13 2013, The Chartered Institution of Building Services Engineers.
- Ref. 4: Legionnaires’ Disease Technical Guidance HSG 274 Part 2 & 3
- Ref. 5: Chartered Institute of Building Service Engineers’ Code of Practice TM13. Minimising the risk of Legionnaires’ disease. CIBSE 2002
- Ref. 6: CIBSE Guide G Public Health and Plumbing Engineering.
- Ref. 7: British Standard 8558:2001: Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and curtilages. Complimentary guidance to BS EN 805.
- Ref. 8: Control of Substances Hazardous to Health (COSHH) Regulations 2002 and Amendment 2003 – Regulations 7 and 9
- Ref. 9: The control of Legionella in Health care premises: A Code of Practice, 2002.
- Ref. 10: BS 3198:1981 Specification for copper hot water storage combination units for domestic purposes
- Ref. 11: EC Directive relating to the Quality of Water Intended for Human Consumption (80/778/EEC)
- Ref. 12: The Water Supply (Water Fittings) Regulations, 1999.
- Ref. 13: UK Homecare Association (UKHCA) guidance: Controlling Scalding risks from Bathing and showering.



### 3 Methodology

The first step must be to carry out a “suitable and sufficient” risk assessment. The assessment must include;

- An assessment of the risk to health, and identify measures to be taken
- Consideration of replacement/substitution to prevent the risk
- Where prevention is not reasonably practicable, engineering measures to control exposure; e.g.: Minimising aerosol generation
- Other measures to reduce the risk; e.g.: Secondary disinfection
- A management regime to ensure continual compliance and regular reviews

Listed in the sections below are six important factors considered in the risk assessment.

#### 3.1 Contamination

The chances of legionellae being introduced into the water or moist environment of the equipment/system are higher if the water entering is derived from a natural source, such as a river, lake or spring, or a private water supply, rather than a treated and disinfected mains water supply. Water from natural warm springs commonly contains high concentrations of legionellae. It may be assumed that the public mains could contain legionellae in low concentrations. Consequently, it is usually not practicable to prevent legionellae entering a water system at some time, either from the water supplied to it or from contamination entering as dust or dirt from the air or surroundings during maintenance or normal operation. The exception might be a completely closed system that is supplied with sterile water, but even then, there is the possibility of contamination during temporary opening for maintenance or possibly back-colonization from an outlet. Drains can become colonized by micro-organisms, including legionellae, so that outlets could be contaminated by splashes from a drain and subsequently become colonized. Thus, any system/piece of equipment ought to be considered a potential source of infection by *Legionella* species if it contains or uses water and assessed for the potential for *Legionella* spp. to grow within it, either during normal operation, maintenance or some other predictable but less common circumstances, such as temporary shut-down.

The potential for nutrients to enter the system, for example by air borne contamination, can be influenced by the location and/or operating characteristics of the equipment. Apparently clean systems can be rapidly re-contaminated by microbial growth (biofilms) within dead legs.

#### 3.2 Amplification

When legionellae multiply, they require appropriate physico-chemical conditions and sufficient nutrients for them and their supporting organisms to grow. NOTE Legionellae are unable to grow without the support of other organisms and can grow inside protozoa.

In rare instances a piece of equipment is a potential source of infection without amplification of legionellae occurring within it. For example, a nebuliser or other misting device filled with water that already contains high concentrations of legionellae. In this case the temperature of the water in the equipment needs only to be conducive to survival rather than growth. Legionellae can survive below 20 °C and die slowly at 50 °C.

Legionellae can grow in biofilms in association with water. Unless distilled, the water will normally be a weak complex solution of inorganic minerals and possibly organic compounds. Legionellae can also grow in biofilms in association with more semi-solid matrices, such as the sediments, moist soil and sludge in some effluent treatment systems. These more solid materials can be broken up,

homogenized in the water and aerosolized in some manner, but they would also release legionellae into any water surrounding them, which could in turn become aerosolized.

### 3.3 Physico-chemical conditions

The physico-chemical conditions in the equipment/system have to be considered. Temperature is particularly critical. Legionellae are generally considered to be capable of growth between 20 °C and 45 °C.

### 3.4 Transmission

Water containing legionellae must be transmitted to humans before it can be inhaled or aspirated. For inhalation to occur, the water has to be aerosolized, producing droplets small enough to be inhaled. Aspiration occurs when water is drunk but, instead of going down the throat into the stomach, goes down the wrong way into the lungs; this can also happen when ice cubes are sucked.

Systems and equipment ought to be examined for any mechanisms which can generate and release aerosols into the surrounding environment. Any process that causes the mechanical disruption of the air-water interface can produce droplets and thereby form aerosols.

Dense sprays obviously generate aerosols, but running a tap, flushing a toilet, water trickling onto a hard surface and bubbles bursting at the surface of a liquid can all generate aerosols, albeit to a lesser degree. While high density aerosols, such as those generated from a cooling tower or high-pressure spray cleaner, have the potential to infect large numbers of people over a large area, smaller amounts of less dense aerosol might still present a significant risk to a susceptible individual in the immediate vicinity of the source.

The rate of the aerosol generation and the distance the aerosol must travel before inhalation also needs consideration. Forcing water containing legionellae through a small orifice under high pressure might well be an efficient mechanism for aerosolizing the water, but the shearing forces could kill or injure a significant proportion of the bacteria, whereas, for example, dropping water onto a spinning disc, such as the cutting bit on a machine tool, could generate a less dense aerosol but only cause minimal injury to the bacteria, leaving a higher proportion that remains infective. Once in the air the water in small droplets rapidly evaporates, leaving a small particle or droplet nucleus containing any salts and particulate matter, including bacteria that were in the original droplet. The legionellae have to survive this drying process and subsequent transmission through the air before inhalation.

### 3.5 Exposure

Obviously, the closer a person is to the source, the more likely they are to inhale the aerosol before it has become disseminated and the bacteria in it have died. One of the reasons spa pools have a high inherent risk is that dense aerosols are generated relatively gently by bubbling at the surface, close to the bather's nose and mouth. Similarly, the aerosol from contaminated cutting oil which is used to lubricate the spinning cutting bit of a machine tool is generated very close to the operator.

It is important to consider the risk generated under all modes of operation and maintenance. For example, during normal operation some systems could be entirely enclosed so that no risk is generated, but this might not be true when the equipment is opened for cleaning and maintenance.

The danger of aerosols can be eliminated by a physical barrier between people and the source or ameliorated by other means such as ducting away the contaminated air or capturing a significant portion by a mechanism such as the drift eliminators (reducers) in a cooling tower.

### 3.6 Host susceptibility

Some individuals are much more likely to become infected than others. Susceptibility increases with age, and males are more likely to become infected than females (ratio of 3:1). Smoking is a significant risk factor. Disease or therapy that reduces immunity, such as organ transplantation, cancer, blood disease and diabetes, also significantly increases the risk of infection.

The nature and proximity of the population exposed to the system or equipment also needs consideration. For example, if the equipment/system is sited in a hospital ward housing immuno-compromised individual, any chance of emission of an aerosol containing legionellae might be considered unacceptable. Consequently, more stringent precautions or complete replacement of the equipment/system by an alternative without an associated risk of aerosol generation might be required.

## 4 Premises

### 4.1 Site Layout

This report was based on the facilities located at the following location:

St Cleer Sports Pavilion

Hockings House, St Cleer, Cornwall, PL14 6EE.

The site is a single detached building comprising of a kitchen, meeting room and toilets/changing rooms with showers designed to support meetings and outdoor sporting activities.

A schematic has been produced of the water system based on the information collected during the site visit, see Schematic of Water System.

Figure 1: Schematic of Water System

To Be Provided.

#### 4.2 Nominated Authorities

The table below list the nominated authorities.

Table 1: Nominated Authorities

	NAME	ADDRESS
Duty Holder	Katie-Marie Goodright	Hockings House, <b>St Cleer, Cornwall</b> , PL14 6EE
Nominated Responsible Person	Katie-Marie Goodright	Hockings House, <b>St Cleer, Cornwall</b> , PL14 6EE
Local Council	St Cleer Parish Council	Hockings House, <b>St Cleer, Cornwall</b> , PL14 6EE
Nearest Hospital	Liskeard Community Hospital	Clema Rd, Liskeard PL14 3XD

#### 4.3 Scope of Work

The purpose of this survey is to assess the risk of Legionellosis resulting from the operation of the water systems at School, identifying the condition and providing recommendations for any remedial works that may be required to meet with current regulations. A full outlet temperature profile and identification of the sentinel outlets have been completed as part of this report unless otherwise identified. Systems that may present a risk and not covered by the scope of this assessment should be assessed to ensure any risks are identified and managed in accordance with the requirements of ACoP L8 2013.

Table 2: Plant & Equipment Asset Register

Asset Type Present	Present (Yes/No)	Number in location	Location/Volume
Cold water storage tanks			
Calorifier/HWCs/HWC	No		
Electric/Gas water heaters	Yes		
Combination boilers	No		
Showers/Spray heads	Yes		
Drinking water dispensers	No		
Closed systems (chilled)	No		
Closed systems (heating)	Yes		
Cooling towers/evaporative condensers/adiabatic system	No		
Humidifiers	No		
Water softeners	No		
Water features	No		
RO units	No		
UV units	No		
Chlorine dioxide units	No		
Dosing Pots	No		
Pressure Vessels	Yes		

#### 4.4 Review of Site Information

At the time of survey, the following information was made available:

Item	Available	Checked?
Drawings – mechanical services (building plans)	No	
Drawings – water schematics	No	
Legionella control site logbook	Yes	
Engineer familiar with building operation & Site Layout	N/A	
Previous risk assessment	No	

##### 4.4.1 Current risk assessment status

Item	Status
Date of current risk assessment	N/A
Current risk assessment carried out by	N/A
Have there been any significant changes to the system since last risk assessment or review (if YES – see below)	N/A
Schematics present	N/A

##### 4.4.2 Details of the written scheme

Item	Status
Does the site have a written scheme in place?	Yes
Has a copy been made available?	Yes
System description present (e.g. schematic)	Yes
Responsible persons identified (Management structure)	Yes
Description of safe and correct operation present	Yes
Control methods and precautions identified	Yes
Monitoring system identified and frequency noted	Yes
Incident plan present (in event of regime failure)	No
Health and safety information made available (COSHH)	Yes
Evidence that it has been discussed/reviewed	No
Is the written scheme considered suitable and effective?	Yes

##### 4.4.3 Significant changes to system since last risk assessment

Item	Changes	comments
Management changes	No	
Programme changes	No	
Structural changes	No	
Additions to systems	No	
Remedial works	No	

5 Audit & Risk Assessment



Commercial Legionella Risk Assessment

St Cleer Parish Council

Complete

Score	1 / 1 (100%)	Flagged items	1	Actions	0
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Client Name

St Cleer Parish Council

Location

Sports Pavilions.  
6EF, Hockings House, St Cleer,  
Liskeard PL14 6EE, UK  
(50.487795999999996, -4.479907)

Conducted on

27/05/2025 3:29 PM BST

Prepared by

Adam Carter

External Photograph of Property



Photo 1

Legionella Risk Assessment to comply with ACoP L8 and Guidance HSG 274 Part 2



Property and People	1 / 1 (100%)
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Property and People Details	1 / 1 (100%)
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The purpose of this survey is to assess the risk of Legionellosis resulting from the operation of the water systems at the client detailed below, identifying the condition and providing recommendations for any remedial works that may be required to meet with current regulations. A full outlet temperature profile and identification of the sentinel outlets have been completed as part of this report unless otherwise identified. Systems that may present a risk and not covered by the scope of this assessment should be assessed to ensure any risks are identified and managed in accordance with the requirements of ACoPL8 2013

Infants at risk	0
-----------------	---

Children at risk	30
------------------	----

Adults at risk	30
----------------	----

Seniors at risk	0
-----------------	---

Legionnaires' disease is a potentially fatal type of pneumonia, contracted by inhaling airborne water droplets containing viable Legionella bacteria.

Anyone can develop Legionnaires' disease, but the elderly, smokers, alcoholics and those with cancer, diabetes or chronic respiratory or kidney disease are at more risk.

Are legionella control systems currently in place such as monitoring, flushing and testing	Yes
Monthly temperature checks and flushing.	

Building Type	Detached
---------------	----------

Temperature Control

Immersion Heater	Unvented Water Heater
------------------	-----------------------

Photograph of immersion heater

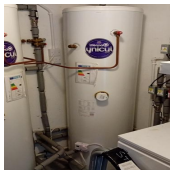


Photo 2

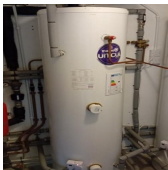


Photo 3

Lagging condition of Immersion Heater

Good
------

Location of heating element on Immersion Heater

Middle
--------

Photograph of unvented water heater



Photo 4

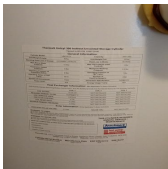


Photo 5

Lagging condition of unvented water heater

Good
------

Location of heating element on unvented water heater

Middle
--------

## Legionella Risk Assessment

The primary method used to control the risk from Legionella is water temperature control. Water services should be operated at temperatures that prevent Legionella growth:

Hot water storage cylinders (calorifiers) should store water at 60°C or higher

Hot water should be distributed at 50°C or higher (thermostatic mixer valves need to be fitted as close as possible to outlets, where a scald risk is identified).

Cold water should be stored and distributed below 20°C.

A competent person should routinely check, inspect and clean the system, in accordance with the risk assessment.

You must identify 'sentinel' outlets (furthest and closest to each tank or cylinder) for monthly checking of the distribution temperatures. You should also check the hot water storage cylinder temperatures every month and cold water tank temperatures at least every six months.

Stagnant water favours Legionella growth. To reduce the risk you should remove dead legs/dead ends in pipe-work, flush out infrequently used outlets (including showerheads and taps) at least weekly and clean and de-scale shower heads and hoses at least quarterly. Cold-water storage tanks should be cleaned periodically and water should be drained from hot water cylinders to check for debris or signs of corrosion.

Design systems to minimise Legionella growth, by:

keeping pipe work as short and direct as possible;

adequately insulating pipes and tanks;

using materials that do not encourage the growth of Legionella;

preventing contamination, eg by fitting tanks with lids and insect screens.

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**Cold Water Supply**

Mains

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### Sentinel Points

Sentinel taps for hot water services – the first and last taps on a recirculating system.

For cold water systems (or non-recirculating HWS), the nearest and furthest taps from the storage tank.

The choice of sentinel taps may also include other taps which represent parts of the recirculating system where monitoring can aid control.

---

**Sentinel Point ID. A**

Kitchen

---

**Sentinel Point ID. B**

Referee room/home team shower

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Water Outlets	1 flagged
---------------	-----------

Location	1 flagged
----------	-----------

Location 1
------------

Room/Area ID	Kitchen
--------------	---------



Photo 6

Item
------

Item 1
--------

Type	Basin Tap
------	-----------

Photograph
A close-up photograph of a stainless steel kitchen sink. It features two separate faucets, one on the left and one on the right, both with chrome handles. The sink has a standard drain in the center.
Photo 7

Hot Water Temperature	45°C Should be greater than or equal to 43°C
-----------------------	---

Cold Water Temperature	15°C Should be less than or equal to 20°C
------------------------	--

Item 2

Type	Outside Tap
------	-------------

Photograph

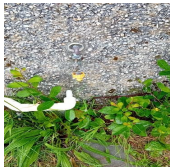


Photo 8

Cold Water Temperature	14°C Should be less than or equal to 20°C
------------------------	--

Location 2

Room/Area ID	Referee room
--------------	--------------

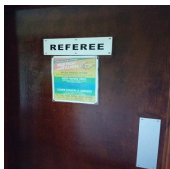


Photo 9

Item

Item 1

Type	Shower - Thermostatic
------	-----------------------

Photograph



Photo 10

Shower Head Condition

Acceptable

Photograph of Shower Head Condition

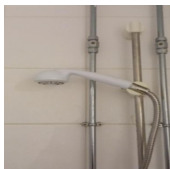


Photo 11

Hot Water Temperature

45°C  
Should be greater than or equal to 43°C

Cold Water Temperature

15°C  
Should be less than or equal to 20°C

Location 3

1 flagged

Room/Area ID

Youth home



Photo 12

Item

1 flagged

Item 1	1 flagged
--------	-----------

Type	Shower Tap
------	------------

Photograph



Photo 13



Photo 14



Photo 15

Shower Head Condition	Acceptable
-----------------------	------------

Photograph of Shower Head Condition

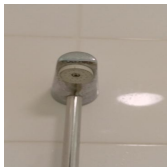


Photo 16

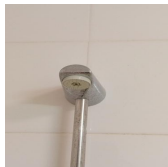


Photo 17



Photo 18



Photo 19

Hot Water Temperature	41°C Should be greater than or equal to 43°C
-----------------------	---

Is thermostatic mixing valve present?	Yes
---------------------------------------	-----

Risk: TMV may provide an environment in which legionella can multiply thereby increasing the risk of exposure.

Control Measure: Where needed, inspect, clean, descale and disinfect any strainers or filters associated with the TMV

Responsible Person: Duty Holder

To Be Completed: 4 Weeks



**Does the pipe run between the TMV and the outlet exceed 2 meters?**

Yes

Risk: Extended pipe run between TMV and outlet may provide an environment in which legionella can multiply thereby increasing the risk of exposure.

Control Measure: Ensure pipe runs should not exceed 2 m between TMV and outlet

Responsible Person: Duty Holder

To Be Completed: 4 Weeks

**Temperature at the hot water inlet to the TMV**

55°C

Should be greater than or equal to 50°C

**Cold Water Temperature**

14°C

Should be less than or equal to 20°C

Location 4

**Room/Area ID**

Youth away



Photo 20

Item

*Item 1*

**Type**

Shower Tap

**Photograph**



Photo 21



Photo 22

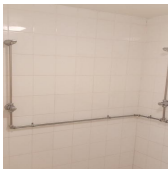


Photo 23

Shower Head Condition

Acceptable

Photograph of Shower Head Condition



Photo 24

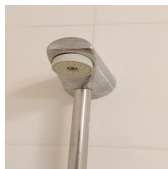


Photo 25

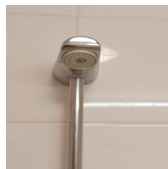


Photo 26

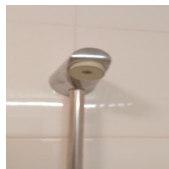


Photo 27

Hot Water Temperature

46°C  
Should be greater than or equal to 43°C

Cold Water Temperature

0°C  
Should be less than or equal to 20°C

Location 5

Room/Area ID

Male toilets



Photo 28

Item

Item 1

Type Basin Tap

Photograph



Photo 29

Hot Water Temperature 43°C  
Should be greater than or equal to 43°C

Cold Water Temperature 15°C  
Should be less than or equal to 20°C

Item 2

Type Basin Tap

Photograph



Photo 30

Hot Water Temperature 43°C  
Should be greater than or equal to 43°C

Cold Water Temperature

14°C  
Should be less than or equal to 20°C

Location 6

Room/Area ID

Home team



Photo 31

Item

Item 1

Type

Shower Tap

Photograph

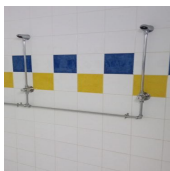


Photo 32

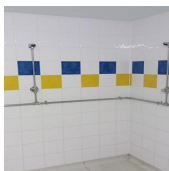


Photo 33

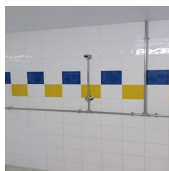


Photo 34

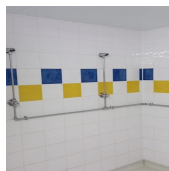


Photo 35

Shower Head Condition

Acceptable

Photograph of Shower Head Condition



Photo 36



Photo 37



Photo 38



Photo 39



Photo 40



Photo 41

Hot Water Temperature

45°C  
Should be greater than or equal to 43°C

Cold Water Temperature

0°C  
Should be less than or equal to 20°C

Location 7

Room/Area ID

Disabled toilet

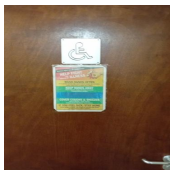


Photo 42

Item

Item 1

Type

Basin Mixer Tap

Photograph



Photo 43

---

**Hot Water Temperature**

18°C  
Should be greater than or equal to 43°C

---

**Is thermostatic mixing valve present?**

No

---

Risk: Water temperature held between 20 and 45 permits the growth of Legionella bacteria

Control measure: Increase temperature of water at sentinel point

Responsible person: Duty Holder

To be completed within: 1 week

---

**Cold Water Temperature**

14°C  
Should be less than or equal to 20°C

*Item 2*

**Type**

Shower Tap

---

**Photograph**

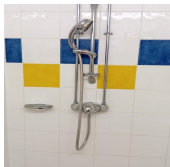


Photo 44

---

**Shower Head Condition**

Acceptable

---

**Photograph of Shower Head Condition**

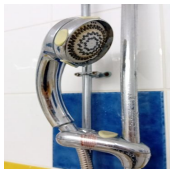


Photo 45

Hot Water Temperature

43°C  
Should be greater than or equal to 43°C

Cold Water Temperature

14°C  
Should be less than or equal to 20°C

Location 8

Room/Area ID

Away team



Photo 46

Item

Item 1

Type

Shower Tap

Photograph

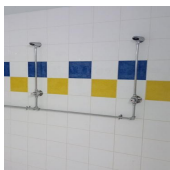


Photo 47

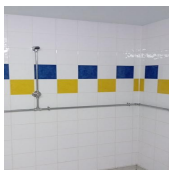


Photo 48

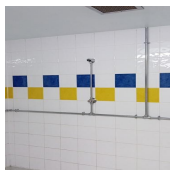


Photo 49

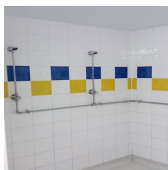


Photo 50

Shower Head Condition

Acceptable

Photograph of Shower Head Condition



Photo 51



Photo 52

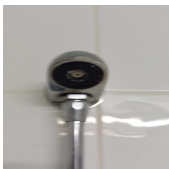


Photo 53



Photo 54



Photo 55



Photo 56

Hot Water Temperature

44°C  
Should be greater than or equal to 43°C

Cold Water Temperature

0°C  
Should be less than or equal to 20°C



Media summary



Photo 1



Photo 2



Photo 3

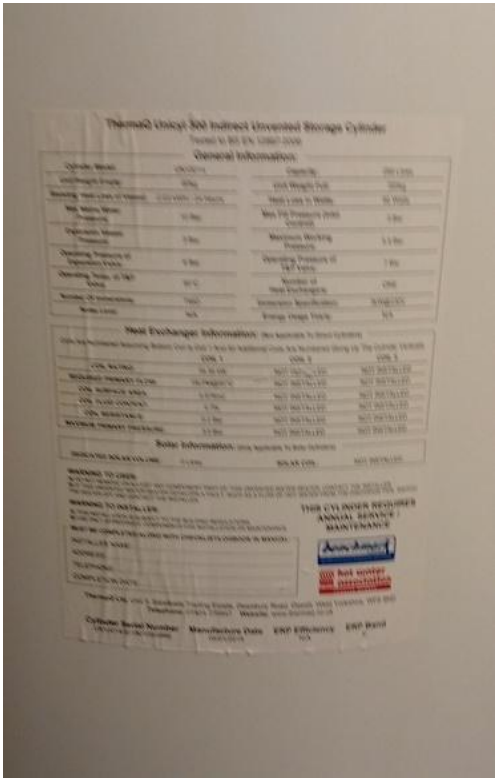


Photo 4

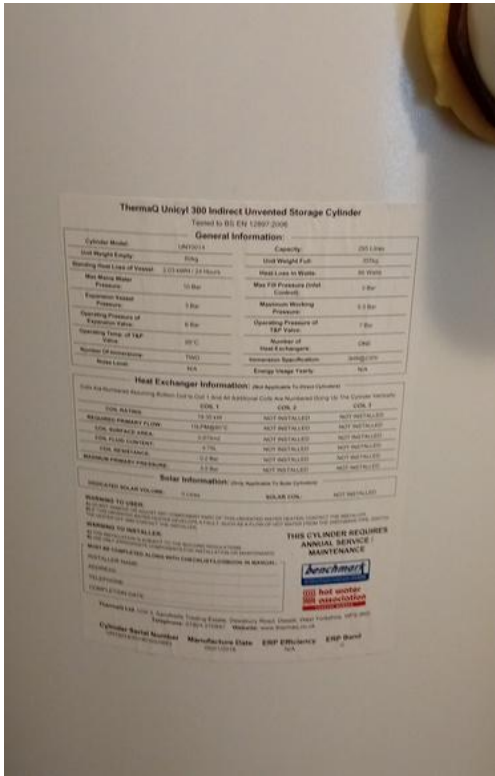


Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10

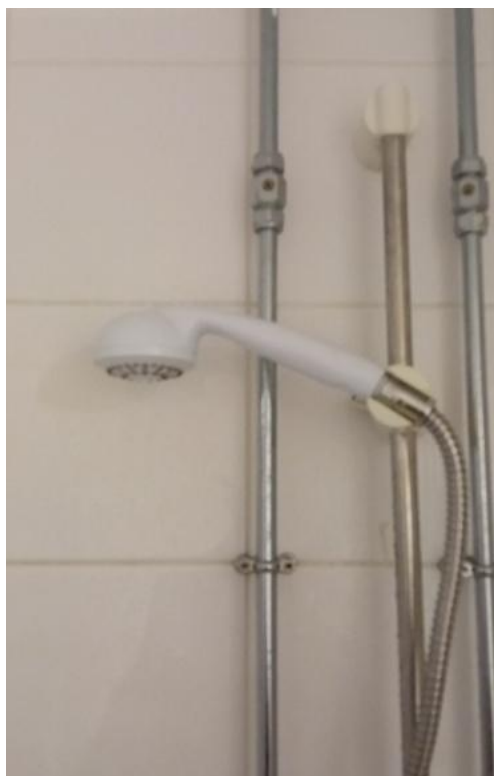


Photo 11



Photo 12





Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28

## Legionella Risk Assessment



Photo 29



Photo 30



Photo 31

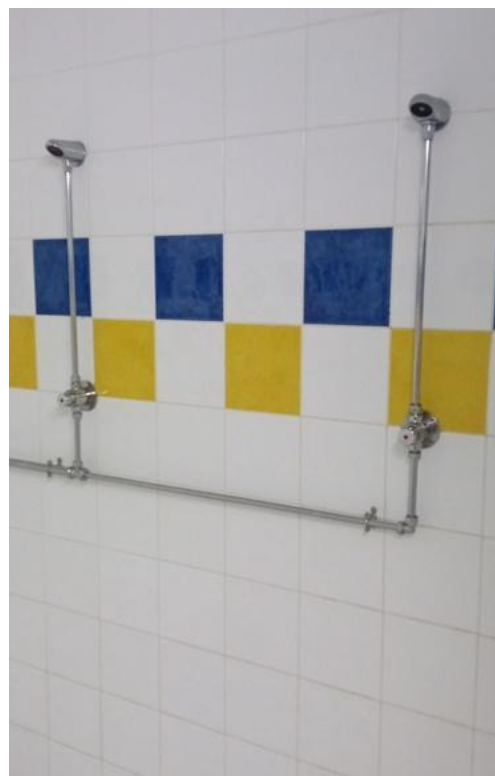


Photo 32





Photo 33

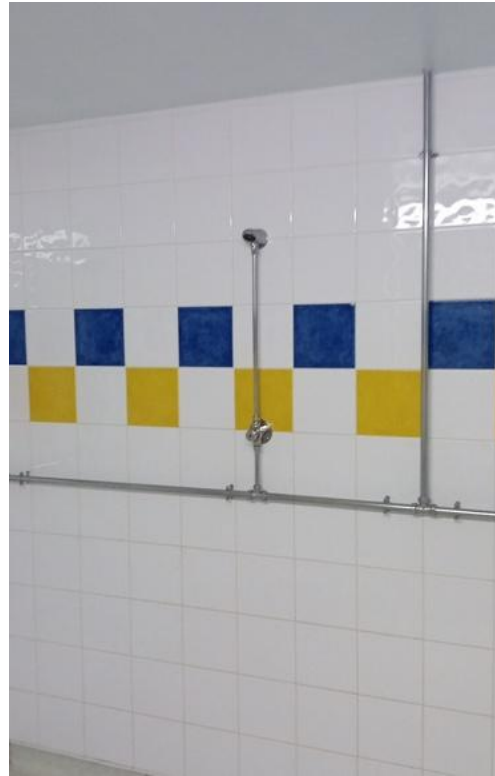


Photo 34



Photo 35



Photo 36



Photo 37



Photo 38



Photo 39



Photo 40



Photo 41



Photo 42



Photo 43



Photo 44



Photo 45



Photo 46



Photo 47



Photo 48

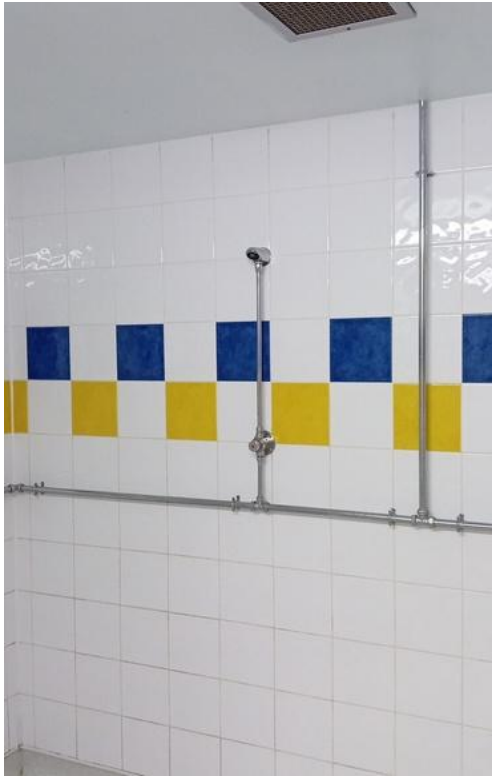


Photo 49



Photo 50



Photo 51



Photo 52



Photo 53



Photo 54



Photo 55



Photo 56



## 6 Incident Plan

The sections below detail the action to be taken in the event of Legionella Contamination or a suspected case of Legionnaires Disease.

### 6.1 Legionella in System

The following nominated responsible person(s) should be informed of the Serotype and number of bacteria.

Name	Works Title	Tel: Number
Katie-Marie Goodwright	St Cleer Parish Council Clerk & RFO	07359 768914

The following actions should take place:

- Instigate a clean and disinfection of the vessel and all the down services leading from the vessel. Care must be taken to clean and disinfect showerheads.
- Re-test the system following cleaning and disinfection.
- Re-assess the routine maintenance regime/system design.

### 6.2 Suspected Case of Legionnaires Disease

The following nominated responsible person(s) should be informed of the Serotype and number of bacteria if known at the time. Also advise of the number of suspect cases where they are.

Name	Works Title	Tel: Number
Katie-Marie Goodwright	St Cleer Parish Council Clerk & RFO	07359 768914

The nominated responsible person(s) will then inform the Environmental Health Officer/Health and Safety Executive and ask for their immediate advice and assistance. It is normal for them to send in a team to investigate and rectify the problem. It is important for them to be able to trace where the disease has come from. Do not drain any systems until told to do so BUT **DO ISOLATE** them from service. Do not speak to anyone about the problem other than the named contacts. Do not make any comment to the press.