

# LEGIONELLA RISK ASSESSMENT

**SITE:** Fernwood Village Hall, Rubys Avenue, Fernwood, Newark,

NG24 3RS

**PREPARED FOR:** Fernwood Parish Council



**DATE OF SURVEY:** 10<sup>th</sup> August 2020 - AMENDED 3<sup>rd</sup> OCTOBER 2020

**REPORT ISSUE DATE:** AMENDED 10<sup>th</sup> OCTOBER 2020

**UNDERTAKEN BY:** Guardian Hygiene Services Ltd

RISK ASSESSOR: Ellis Dixon

RISK ASSESSOR SIGNATURE:  $\mathcal{E}$  Dixon

REPORT CHECKED & APPROVED BY: Kelly Steward









### **REPORT FORMAT**

- 1. Executive Summary
- 2. Recommendations Report
- 3. Disclaimer & Contact Details
- 4. Lines of Communication & Management Responsibilities
- 5. Site Details
- 6. Survey Conditions
- 7. Population Susceptibility
- 8. Schematics and Keys
- 9. Evaluation / Scoring of Risk
- 10. Risk Assessment Survey
  - 10.1 Description of Complete Water System
  - 10.2 Written Control Scheme, Training and Record Keeping
  - 10.3 Mains / Water Source Distribution System
  - 10.4 Cold Water Storage Tanks (CWST) & Associated Distribution
  - 10.5 Calorifiers / Hot Water Storage Vessels & Associated Hot Water Distribution
  - 10.6 Low Storage Volume (<15L) / Instantaneous Hot Water Heaters & Associated Hot Water Distribution
  - 10.7 Combination Water Heaters and Associated Hot Water Distribution
  - 10.8 Showers / Spray Hoses / Spray Taps
  - 10.9 General Risk Factors
  - 10.10 Deadends & Deadlegs in the water system
  - 10.11 Other Risk Outlets
  - 10.12 Representative Outlets
  - 10.13 Combined Risk Scoring

## 11. Site Location Map

#### **Appendices**

- A Legionella Control Scheme / Guidance
- **B** Risk Scoring Guide
- C Risk Assessor's/Report Checker's Certificates
- D Insurance Certification
- **E** LCA Code of Conduct
- F LCA Certificate









Site: Fernwood Village Hall, Rubys Avenue, Fernwood, Newark, NG24 3RS

The water system was identified overall as a Medium risk system with regards to Legionellosis, due to the potential for contamination and the proliferation of Legionella bacteria within the system and the creation and dissemination of aerosols.

Considering the inherent and residual risks, Guardian has appraised any risk gap between residual risk and as low as reasonably practicable (ALARP) risk.

Based on this risk assessment findings only, the recommendations, its current risk score and if all the recommendation are actioned, completed and signed off, the risk assessment rating could be reduced to a low risk or as low as reasonably practicable.

The level risk is affected by some of the following issues identified during this assessment of this site:

- ➤ It was noted during the survey that the bib tap located outside has no suitable backflow protection fitted. It is recommended that the bib tap is fitted within suitable backflow protection.
- ➤ The Shower within the disabled changing room was not threaded through a restrainer and no backflow protection was seen. Showers where the shower head can drop in the shower tray may result in back siphonage/backflow of water into the hot & cold water system. To provide backflow protection, the following is recommended; Robust factory applied retaining rings of the design which do not allow the shower hose to be removed are a recognised method of maintaining an AUK3 air gap acceptable in all types of premises. Where this is not possible the position of the shower and shower fittings must provide a minimum gap of 25 mm between the showerhead and the spill over level of any shower tray. If the shower head can't be restrained or the minimum air gap cannot be achieve, then other forms of backflow devices would be required depending on the fluid category.









# 2. RECOMMENDATIONS REPORT

Site Name: Fernwood Village Hall, Rubys Avenue, Fernwood, Newark, NG24 3RS

| Mains / Water Source Distribution System   | Risk<br>Level | Timescale                                | Date<br>Completed | Signed |
|--|---------------|--|-------------------|--------|
| 8.03 Ensure the bib tap located on site is fitted with suitable backflow protection. | Medium        | Within 8<br>weeks of<br>date of<br>issue |                   |        |

| Showers / Spray Hoses / Spray Taps  | Risk<br>Level | Timescale                                | Date<br>Completed | Signed |
|---|---------------|--|-------------------|--------|
| 8.05 & 8.09 The Shower was not threaded through a restrainer and no backflow protection was seen. Showers where the shower head can drop in the shower tray may result in back siphonage/backflow of water into the hot & cold water system. To provide backflow protection, the following is recommended; Robust factory applied retaining rings of the design which do not allow the shower hose to be removed are a recognised method of maintaining an AUK3 air gap acceptable in all types of premises. Where this is not possible the position of the shower and shower fittings must provide a minimum gap of 25 mm between the showerhead and the spill over level of any shower tray. If the shower head can't be restrained or the minimum air gap cannot be achieve, then other forms of backflow devices would be required depending on the fluid category. | Medium        | Within 8<br>weeks of<br>date of<br>issue |                   |        |

| Other Risk Outlets  | Risk<br>Level | Timescale                                 | Date<br>Completed | Signed |
|---|---------------|---|-------------------|--------|
| The dishwasher in the kitchen should be maintained and serviced as per manufactures instructions. Confirmation is to be sought from the machine manufacturer and / or the installer to ensure that machine is provided with the appropriate level of backflow protection. | Low           | Within 12<br>weeks of<br>date of<br>issue |                   |        |
| The dishwasher in the bar should be maintained and serviced as per manufactures instructions. Confirmation is to be sought from the machine manufacturer and / or the installer to ensure that machine is provided with the appropriate level of backflow protection.     | Low           | Within 12<br>weeks of<br>date of<br>issue |                   |        |







#### **Review of the Risk Assessment**

In accordance with HSE ACOP and Guidance, L8 (fourth edition) [sic]:

- All systems require a risk assessment (paragraph 25)
- ii. You will need to review this assessment regularly and specifically when there is reason to believe that this risk assessment may no longer be valid (ACOP paragraph 32)
- iii. This record of the assessment is a living document that must be reviewed to ensure it remains up-to-date (paragraph 47)
- iv. This record of the assessment is to give an indication of when to review the assessment (paragraph 47)

### A review may result from:

- Changes to the water system or its use;
- > Changes to the use of the building in which the water system is installed;
- The availability of new information about risks or control measures;
- The results of checks indicating that control measures are no longer effective;
- Changes to personnel;
- > A case of Legionnaire's Disease / Legionellosis associated with the system (paragraph 47).

Ellis Dixon of Guardian Hygiene Services Ltd completed the survey for this risk assessment and the content of the final report has been checked for accuracy in accordance with the requirements of the Guardian Legionella Management System by Kelly Steward and is duly authorised for issue.

Please Note:

All recommendations which involve changes to the water system and/or any component therein, the Duty Holder is responsible for ensuring the work complies with the Water Supply (Water Fittings) Regulations 1999 and BS 8558: 2010 the Guide to Design, Installation, Testing and Maintenance of Services Supplying Water for Domestic Use within Buildings and Curtilages.









#### 3 DISCLAIMER

This site specific Legionella Risk Assessment is based upon information and records provided at the time of survey and the Risk Assessors' findings and opinions. The Risk Assessor will aim to ensure all areas of the site's water system are accessed (if safe access is provided) and the full extent of the water system is detailed within this report. Although, every care is taken to detect all relevant parts of the hot and cold water system on site, it is possible that some parts may be hidden from inspection. No warranty as to the completeness of the information is given as the Risk Assessment is part-based on information provided by the site such as monitoring records, maintenance schedules and other records of actions and management procedures.

Guardian Hygiene Services Ltd ('Guardian') disclaims all liability and responsibility for the direct or indirect loss or damage that may be suffered through reliance upon the completeness of the information over which Guardian has no control.

Whilst the components of the hot and cold water system on site have been inspected for their suitability, it is often not possible to identify the source of individual parts/fittings. The use of the Water Regulations Advisory Scheme (WRAS) Water Fittings and Materials Directory available on-line <a href="https://www.wras.co.uk/directory">www.wras.co.uk/directory</a> will help to ensure that any fittings acquired in future comply with relevant Regulations.

Guardian has provided key recommendations wherever relevant to reduce the risk of Legionella bacteria being present in the water system. However, adherence to Guardian's guidance and recommendations do not guarantee the absence of Legionella bacteria in the water system. Regular and ongoing maintenance and management of the water system is critical to the operation and safety of the systems for the control of Legionella.

Since the supply water, weather conditions and other factors may vary with time, the findings of this assessment should be taken in context of the conditions at the time of the assessment. Future conditions may lead to the establishment of different risk levels.

#### **CONFIDENTIALITY**

This report is confidential and should not be copied. Should further copies be required they will be made available upon request.

Please ensure this report is carefully reviewed and the key recommendations and areas of risk are noted and addressed. Should you require any further clarification or advice regarding this Risk Assessment and the interpretation of this report please contact us.

#### **References:**

The format of the Risk Assessment is based on the following:

- H.S.E Approved Code of Practice, L8, Legionnaire's Disease The Control of Legionella Bacteria in Water Systems
- HSG274 Part 2 Legionnaires' Disease: The Control of Legionella Bacteria in Hot and Cold Water Systems (published 2014)
- HSG274 Part 3 Legionnaires' Disease: The Control of Legionella Bacteria in Other Risk Systems
- BS 8580:2010 Water Quality Risk Assessments for Legionella Control Code of Practice
- The Water Management Society's Guide to Risk Assessment for Water Services











# **Contact Us:**

**Guardian Hygiene Services Ltd** Unit 11 **Lincoln Enterprise Park Newark Road Aubourn** Lincoln LN5 9FP

> Tel: 01522 688180 Fax: 01522 705566

enquiries@guardian-group.co.uk www.guardian-group.co.uk









#### 4. LINES OF COMMUNICATION AND MANAGEMENT RESPONSIBILITIES

4.1 Guardian has a responsibility as your chosen Risk Assessment service provider to identify the individuals responsible for the safe management of the water system with respect to Legionella Control on this site. Guardian has detailed below the information provided at the time of the Risk Assessment which identifies the personnel responsible in accordance with the L8 Approved Code of Practice. You should carefully analyse this information and any inaccuracies should be immediately reported to Guardian so it can be amended – it is vital this information is as accurate and up-to-date as possible.

# 4.2 Management Responsibilities and Lines of Communication as identified at the time of survey:

4.2.1 STATUTORY DUTY HOLDER: Fernwood Parish Council

(The Duty Holder is ultimately responsible for the water system and the financial control on site i.e. the employer or the person in control of the premises or systems concerned)

4.2.2 Name of RESPONSIBLE PERSON: Marion Fox Goddard

JOB TITLE: Parish Clerk

Contact Telephone Number: 01636 613024

E-mail Address: <a href="mailto:clerk@fernwood.pc.co.uk">clerk@fernwood.pc.co.uk</a>

(The Responsible Person is appointed by the Duty Holder to take day-to-day responsibility for controlling any identified risk from Legionella bacteria and to provide supervision for the implementation of control schemes and remedial actions for the control of Legionella. They should be a manager, director or have similar status and have sufficient authority, competence and knowledge of the installation to ensure the timely and efficient implementation of precautions. It is important they have a clear understanding of their role and of the overall health and safety structure and policy within the organisation)

4.2.3 Name of DEPUTY RESPONSIBLE PERSON: Malcolm Dickinson

JOB TITLE: Caretaker

Contact Telephone Number: 01636 613024

E-mail address: <u>caretaker@fernwood.pc.co.uk</u>

(The Deputy Responsible Person supports and takes on the responsibilities of the Responsible Person in the absence of the Responsible Person and as and when required)

#### 4.2.4 Water Monitoring / Control Scheme Responsibility / Service Provider(s)

Person(s) (in-house) / company(ies) responsible for implementation of the control scheme i.e. routine monitoring of assets and water temperatures

Responsibility info here







4.2.5 Water Treatment Service Provider: N/A

(Company responsible for the installation and maintenance of the chemical dosing / ionisation / UV System)

4.2.6 Water Authority Responsible for Supply: Severn Trent Water

Please Note: It is a requirement of L8 for the Duty Holder to ensure that those who are appointed to carry out the Legionella control measures are given suitable and sufficient information, instruction and training. This includes information, instruction and training on the significant findings of the risk assessment and the appropriate precautions and actions they need to take to safeguard themselves and others. This should be reviewed and updated whenever significant changes are made to the type of work carried out or methods used. Training is an essential element of an employee's capability to carry out work safely, but it is not the only factor. Instructions, experience, knowledge and other personal qualities are also relevant to perform a task safely.

| NOTES: |  |  |
|--------|--|--|
|        |  |  |
|        |  |  |
|        |  |  |
|        |  |  |
|        |  |  |
|        |  |  |
|        |  |  |
|        |  |  |







#### 5. SITE DETAILS

Contact Person during Survey: - Marion Fox Goddard & Malcolm Dickinson

**Building Use:** - Village Hall

**Type of Occupation:** - Male/Female Staff & Daily Visitors

**Level of Occupation:** - Staff on site Monday – Friday

**Periods Site Left Unoccupied for** 

more than 30 days:

- Only on weekend

Number of Floors: - 1 Floor

Number of Separate Buildings: - 1 Building

Areas of repetition identified where a minimum of 10% assessed

All Areas Assessed

# **Assets Identified / Assessed:**

| Asset  | Identified             | Assessed |
|--|------------------------|----------|
| Mains / Borehole Water Supply                                  | 1 x Mains              | Yes      |
| Cold Water Storage Tanks                                       | N/A                    | N/A      |
| Calorifiers /Hot Water Cylinders                               | N/A                    | N/A      |
| Low Storage Volume (<15L) /<br>Instantaneous Hot Water Heaters | 1 x Combination Boiler | Yes      |
| Combination Water Heaters*                                     | N/A                    | N/A      |
| Showers  | 11 x Showers           | Yes      |

<sup>\*</sup> Combination water heaters store a volume of cold water above the hot water storage unit. In these units the cold water header tank feeds the hot water storage vessel as hot water is drawn from the system on demand.

Detailed risk assessment sheets have been completed for each of the above assets

The survey has also assessed a representative sample of hot and cold outlets and, where accessible, the pipe-work connecting the assets / outlets.

### 6. SURVEY CONDITIONS

**Date of Survey** - 20<sup>th</sup> August 2020

**Risk Assessor** - Ellis Dixon

**Outside Temperature at Time of Survey** - 20°c

Weather conditions - Sunny









#### **7. ASSESSMENT OF POPULATION RISK**

This section does not impact on the overall Risk Score of this assessment, although, the following factors increase a person's susceptibility to infection and, hence, will increase the risk of legionellosis:

- Age (risk increases with age)
- Sex (males more at risk)
- ➤ Heavy smoking, alcohol, no exercise
- Disease or therapy that reduces immunity

Please Note: When assessing the risk associated with the hazards present in the water system, the assessor will consider the susceptibility of the population

| GENERAL INFORMATION   | RISK CONDITION | RISK CAT |
|---|----------------|----------|
| Does the population include persons over the age of 45?                     | Yes            | Medium   |
| Does the population include smokers?  | Yes            | Medium   |
| Is the site classed as 'Healthcare' premises?*                              | No             | N/A      |
| Does the population include those with a reduced immune suppression system? | Unknown        | Medium   |
| Is the population outside the premises affected by the water system?        | No             | N/A      |
| State the population affected outside the premises?                         | N/A            | N/A      |
| State the overall susceptibility of the personnel                           | ME             | DIUM     |

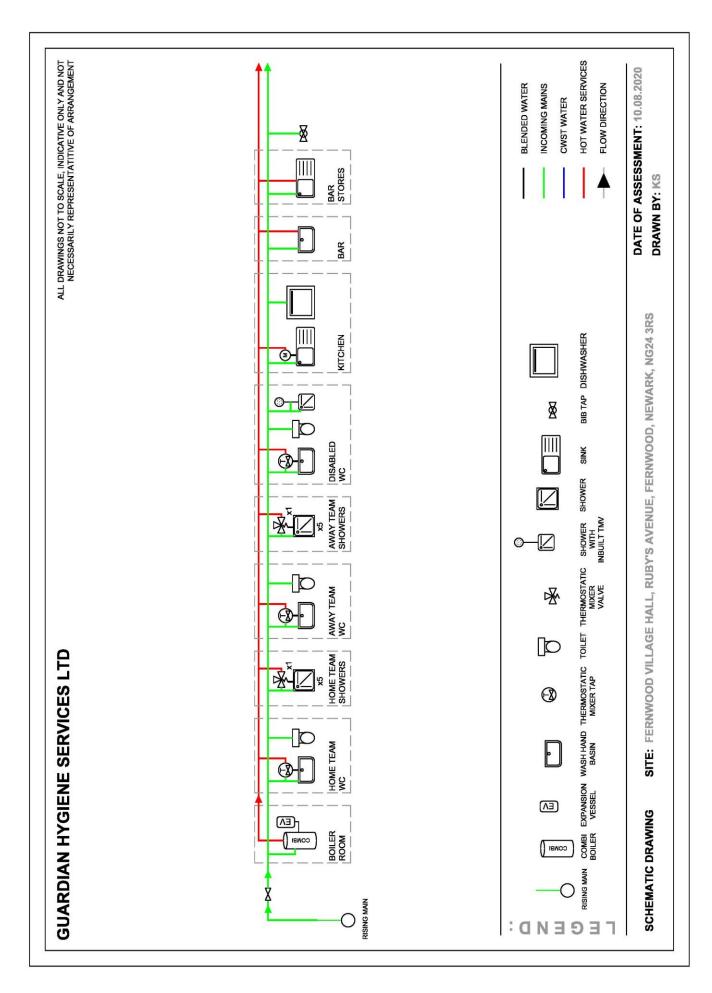
| KEY | N/A | No Associated Legionella Risk |
|-----|-----|-------------------------------|
|     | L   | Low Legionella Risk           |
|     | M   | Medium Legionella Risk        |
|     | Н   | High Legionella Risk          |

<sup>\*</sup>If the site is classed as a 'healthcare' premises, the higher risk is to be addressed with more stringent controls, namely a minimum hot water temperature of 55°C is required rather than 50°C.

















### 9. **EVALUATION / SCORING OF RISK**

A qualitative risk assessment has been carried out by the risk assessor by making the judgment of risk on the following factors which affect the risk of Legionellosis associated with a water system:

- > The potential for contamination of the system with Legionella bacteria
- > The potential for the proliferation of Legionella bacteria in the system
- ➤ The potential for the formation of water aerosols / droplets
- The susceptibility of persons exposed to Legionella bacteria

To assist with the assessment of the risk associated with a system, Guardian has produced a guide for the risk assessors, which is included in Appendix B of this document. However, the risk assessor using his / her knowledge and experience of water systems may, where appropriate with justification, deviate from guide risk levels.

The risk from Legionella has been assessed using the following criteria:

**Low Risk** Action is required to maintain as Low Risk / to follow good operating practice

**Medium Risk** Action is required as soon as practicable

**High Risk** Immediate action is required









### 10. RISK ASSESSMENT SURVEY:

# 10.1 DESCRIPTION OF COMPLETE WATER SYSTEM

The mains isolation valve is located within the boiler within the changing rooms area. The mains cold water feeds all cold water outlets and the combination boiler 1 (CB1).

The combination boiler (CB1) is located within the boiler room and feeds all hot water outlets within the property.

# 10.2 WRITTEN CONTROL SCHEME, TRAINING AND RECORD KEEPING

| Check   | Written Control Scheme /Comments  | Risk Level |
|---|---|------------|
| 2.01 Is there a written Legionella Control Scheme / Management System?  | Yes provided by guardian hygiene services   | Low        |
| 2.02 Are the Lines of Communication and Responsibilities for the safe management of the water system documented?  | Yes, please update if required  | Low        |
| 2.03 Is there a Legionellosis Control Log Book?   | Yes including Guardian Hygiene Services Ltd<br>Zetasafe system                                    | Low        |
| 2.04 Previous risk assessment seen & date of the Previous Legionella Risk Assessment including compliance with remedial actions   | Previous risk assessment completed<br>on the 8 <sup>th</sup> April 2019                           | Low        |
| 2.05 Has there been a change to the water system or its use, building or key personnel since the last risk assessment?  | Calorifier has been removed and replaced by a combination boiler                                  | Low        |
| 2.06 Is there an accurate Schematic diagram / Plan of the Water System in place?  | Yes included within this document   | Low        |
| 2.07 Is there an Asset Register of Components of water System and Installation Records?   | Yes   | Low        |
| 2.08 Are there documented Method Statements for monitoring / maintenance of the system?   | No  | Low        |
| 2.09 Suitable records maintained & available for 5 years  | All records kept within the water management log book   | Low        |
| 2.10 Is there Routine Monitoring of all CWSTs i.e., annual visual inspection and annual (Summer) temperature check of incoming mains into the tank and remote from the ball cock?   | No cold water storage tanks located on site   | N/A        |
| 2.11 Is there Routine Monitoring of CWS/HWS? i.e. Sentinel points – monthly and representative outlets on a rotational basis to ensure the whole system is reaching satisfactory temperatures                               | Yes – staff on site carry out monthly temperature checks and records are kept within the log book | Low        |
| 2.12 Is there Routine Monitoring of all Calorifiers? i.e. Monthly temperature checks of the Flow and Return and annual visual check of internal surfaces and / or purge of debris in the base and inspection of purge water | No calorifiers located on site  | N/A        |
| 2.13 Where a Chemical Dosing System is installed, is there Routine Monitoring of Biocide Levels?  | N/A   | N/A        |
| 2.14 Is there sustained Routine Flushing of little-used Outlets (where required) and is it logged?  | Yes – staff on site carrying out weekly flushing and records are kept within the log book         | Low        |
| 2.15 Is there a Legionella Sampling Regime in place? If so, on what basis?  | No sampling carried out   | Low        |
| 2.16 Have any previous samples taken been found to be positive for Legionella? If so, what were the levels?   | No sampling carried out   | Low        |







| Comments and Recommendations:  N/A   |   |     |
|--|---|-----|
|  | Overall risk  | LOW |
| 2.19 Is there Adequate Emergency Procedures in place in case of Legionella Positive / Case of Legionellosis associated with the site?          | Yes including lines of communication  | Low |
| 2.18 Level of competence of site staff & any contractors responsible for Legionella management including site records / log books?             | Yes the person(s) responsible for Legionella (Guardian Hygiene Services) are fully trained to City & Guilds standard and competent to complete the tasks. | Low |
| 2.17 Is there adequate Training (including refresher training) of Personnel / Contractors with Responsibilities for the Control of Legionella? | No training records seen for staff onsite with responsibilities for the control of Legionella   | Low |







# 10.3 MAINS / WATER SOURCE DISTRIBUTION SYSTEM

| Check  | Result                       | Risk   |
|--|------------------------------|--------|
| 3.01 Water Source i.e. mains / private water supply (including location) | Boiler Room                  | Low    |
| 3.02 Incoming Mains Temp(°C)   | 19°c − Home Team WC          | Low    |
| 3.03 Nearest Outlet Temp (°C)  | 19°c − Home Team WC          | Low    |
| 3.04 Furthest Outlet Temp (°C)   | 19.5°c − Female WC           | Low    |
| 3.05 Any representative outlet not achieving 20°C within 2 minutes       | No                           | Low    |
| 3.06 Insulation of pipework  | No                           | Low    |
| 3.07 Chemical / UV Treatment / Ionisation                                | N/A                          | N/A    |
| 3.08 Backflow protection   | None seen on outside bib tap | Medium |
| 3.09 Stop Valve Accessible   | Yes                          | Low    |
| 3.10 Dead-legs present   | No                           | Low    |
| 3.11 Dead-ends present   | No                           | Low    |
| 3.12 Presence of Little-Used Outlets                                     | Yes – site flushing          | Low    |
| 3.13 Accessibility of Pipe-work  | Average                      | Low    |
|  | Overall risk                 | LOW    |

# Comments and Recommendations for Mains / Water Source Distribution System:

8.03 Ensure the bib tap located on site is fitted with suitable backflow protection.

# **Photographs:**



Mains Isolation Valve Boiler Room



Outside bib tap fitted with no backflow protection







# 10.4 COLD WATER STORAGE TANKS (CWST) AND DISTRIBUTION - None on site

| Check   | Result   | Risk | Result | Risk |
|---|----------|------|--------|------|
| CWST  |          |      |        |      |
| Asset Number:   |          |      |        |      |
| Location:   |          |      |        |      |
| Services Supplied by CWST:  |          |      |        |      |
| Tank Capacity (Litres):   |          |      |        |      |
| Sparge pipe fitted inside the tank                                      |          |      |        |      |
| 4.1. CWST Material (WRAS approved)                                      |          |      |        |      |
| 4.2 CWST Insulation   |          |      |        |      |
| 4.3 Close-fitting CWST Lid  |          |      |        |      |
| 4.4 CWST Lid Vent   |          |      |        |      |
| 4.5 Overflow Screen   |          |      |        |      |
| 4.6 Warning Pipe Screen (for tanks over 1000L)                          |          |      |        |      |
| 4.7 Vent Pipe feeds CWST  |          |      |        |      |
| 4.8 Supply Water Temp (°C) (ball valve) (<20°C)                         |          |      |        |      |
| 4.9 Stored Water Temp (°C) (<2°C  |          |      |        |      |
| increase from 4.8)  |          |      |        |      |
| 4.10 Visible Bio-films in CWST  |          |      |        |      |
| 4.11 Visible Sediment in CWST   |          |      |        |      |
| 4.12 Visible Corrosion within CWST & Internal tank condition(s)         |          |      |        |      |
| 4.13 Visible Scale within CWST  |          |      |        |      |
| 4.14 CWST's linked (i.e. parallel to                                    |          |      |        |      |
| avoid stagnation / low flow)  |          |      |        |      |
| 4.15 Cross flow-inlet opposite outlet,<br>outlet at bottom of CWST      |          |      |        |      |
| 4.16 Turnover of CWST (turnover within 24 hours/12 hours in healthcare) |          |      |        |      |
| 4.17 Dead-legs present  |          |      |        |      |
| 4.18 Dead-ends present  |          |      |        |      |
| 4.19 Safe Access to, around and into                                    |          |      |        |      |
| the CWST for inspection and cleaning                                    |          |      |        |      |
| 4.20 Does the CWST have hollow supports?                                |          |      |        |      |
| 4.21 Adequate Lighting  |          |      |        |      |
| COLD WATER DISTRIBUTION   |          |      |        |      |
| 4.22 Nearest Outlet Temp (°C)   |          |      |        |      |
| 4.23 Furthest Outlet Temp (°C)  |          |      |        |      |
| 4.24 Any representative outlet not achieving 20°C within 2 minutes      |          |      |        |      |
| 4.25 Accessibility of pipe work   |          |      |        |      |
| 4.26 Presence of little used outlets / flushing regime                  |          |      |        |      |
| 4.27 Backflow Protection  |          |      |        |      |
| 4.28 Dead-legs present  |          |      |        |      |
| 4.29 Dead-ends present  |          |      |        |      |
| 4.30 CWS pipework insulation  |          |      |        |      |
| CWST Risk   |          |      |        |      |
| Overa   | ıll Risk | 1    | N/A    | l    |
|   |          |      |        |      |





# 10.5 CALORIFIERS / HOT WATER STORAGE VESSELS & ASSOCIATED HOT WATER **DISTRIBUTION** – None on site

| Check   | Result | Risk | Result | Risk | Result | Risk |
|---|--------|------|--------|------|--------|------|
| Asset Number:   |        |      |        |      |        |      |
| Make / Model:   |        |      |        |      |        |      |
| Location:   |        |      |        |      |        |      |
| Outlets / Area Served:                                    |        |      |        |      |        |      |
| Heating Method:   |        |      |        |      |        |      |
| Vented / Unvented:  |        |      |        |      |        |      |
| Storage Capacity:   |        |      |        |      |        |      |
| Construction Material                                     |        |      |        |      |        |      |
| Flow pipework size & material                             |        |      |        |      |        |      |
| Return pipework size & material                           |        |      |        |      |        |      |
| With / without Circulation                                |        |      |        |      |        |      |
| 5.1 Flow Water Temp (>60°C)                               |        |      |        |      |        |      |
| 5.2 Return Water Temp (>50°C)                             |        |      |        |      |        |      |
| 5.3 Water Source  |        |      |        |      |        |      |
| 5.4 Calorifier Insulation                                 |        |      |        |      |        |      |
| 5.5 Drain Valve Fitted / Operational & location of valve  |        |      |        |      |        |      |
| 5.6 Purge Water Condition                                 |        |      |        |      |        |      |
| 5.7 Access Hatch to Clean and                             |        |      |        |      |        |      |
| Inspect Calorifier  |        |      |        |      |        |      |
| 5.8 Internal Condition                                    |        |      |        |      |        |      |
| 5.9 Suitable Vent Fitted                                  |        |      |        |      |        |      |
| 5.10 Evidence of Stratification                           |        |      |        |      |        |      |
| 5.11 Destratification Pump Fitted                         |        |      |        |      |        |      |
|   |        |      |        |      |        |      |
| 5.12 Storage Capacity / Meets Demand                      |        |      |        |      |        |      |
| 5.13 Alternation of Stand-by Pumps                        |        |      |        |      |        |      |
| 5.14 Period of Operation (N.B. if not                     |        |      |        |      |        |      |
| in use for more than 7 days                               |        |      |        |      |        |      |
| may create a dead-leg)                                    |        |      |        |      |        |      |
| 5.15 Temperature Gauge Fitted /<br>Operational            |        |      |        |      |        |      |
| 5.16 Calorifiers linked correctly (i.e.                   |        |      |        |      |        |      |
| parallel to avoid stagnation / low                        |        |      |        |      |        |      |
| flow)   |        |      |        |      |        |      |
| 5.17 Expansion vessels i.e. if fitted,                    |        |      |        |      |        |      |
| to be right way up, WRAS /                                |        |      |        |      |        |      |
| BS6920 approved and allow                                 |        |      |        |      |        |      |
| flushing 5.18 Dead-leg / dead-end associated              |        |      |        |      |        |      |
| with cal i.e. Swan neck                                   |        |      |        |      |        |      |
| 5.19 Calorifier linked to solar heating                   |        |      |        |      |        |      |
| system and is it managed,                                 |        |      |        |      |        |      |
| monitored and maintained                                  |        |      |        |      |        |      |
| effectively?  |        |      |        |      |        |      |
| 5.20 Safe Access to and around the                        |        |      |        |      |        |      |
| Calorifier  |        |      |        |      |        |      |
| 5.21 Adequate Lighting                                    |        |      |        |      |        |      |
| HOT WATER DISTRIBUTION                                    |        |      |        |      |        |      |
| 5.22 Nearest Outlet Temperature (>50°C / 55°C Healthcare) |        |      |        |      |        |      |
| 5.23 Furthest Outlet Temp (>50°C / 55°C Healthcare)       |        |      |        |      |        |      |
| 5.24 Any representative outlet not                        |        |      |        |      |        |      |
| achieving 50°C (55°C Healthcare)                          |        |      |        |      |        |      |
| within 1 minute   |        |      |        |      |        |      |
|   |        |      |        |      | •      |      |









| 5.25 Presence of little used outlets /flushing regime |  |  |    |   |  |
|---|--|--|----|---|--|
| 5.26 HWS pipe work insulation                         |  |  |    |   |  |
| 5.27 Accessibility of HWS pipe work                   |  |  |    |   |  |
| 5.28 Backflow protection                              |  |  |    |   |  |
| 5.29 Dead-legs present                                |  |  |    |   |  |
| 5.30 Dead-ends present                                |  |  |    |   |  |
| 5.31 Recirculation / Booster Pump                     |  |  |    |   |  |
| Calorifier /Hot Water Storage<br>Vessel Risk          |  |  |    |   |  |
| Overall Risk  |  |  | N/ | A |  |





# 10.6 LOW STORAGE VOLUME (<15L) / INSTANTANEOUS HOT WATER HEATER & **ASSOCIATED HOT WATER DISTRIBUTION**

| Check   | Result   | Risk | Result | Risk | Result | Risk |
|---|--|------|--------|------|--------|------|
| Asset Number:   | CB1  |      |        |      |        |      |
| Make / Model:   | VIESSMANN  |      |        |      |        |      |
| Location:   | Boiler Room                                      |      |        |      |        |      |
| Construction Material:  | Stainless Steel /<br>Plastic                     |      |        |      |        |      |
| Heating Method:   | Gas  |      |        |      |        |      |
| Serves:   | All hot water outlets                            |      |        |      |        |      |
| Hot Water Storage Capacity:   | No stored water                                  |      |        |      |        |      |
| 6.01 Water Source   | Mains  | Low  |        |      |        |      |
| 6.02 Flow Water Temp<br>(50 - 60°C/55°C<br>Healthcare)                              | 60°c   | Low  |        |      |        |      |
| 6.03 Regularity of Use /<br>Period of Operation                                     | Daily  | Low  |        |      |        |      |
| 6.04 Turnover of stored water   | No stored water                                  | Low  |        |      |        |      |
| 6.05 Dead-legs present  | No   | Low  |        |      |        |      |
| 6.06 Dead-ends present  | No   | Low  |        |      |        |      |
| HOT WATER DISTRIBUTION  |  |      |        |      |        |      |
| 6.07 Presence of little used outlets / flushing regime                              | Yes – site weekly<br>flushing                    | Low  |        |      |        |      |
| 6.08 Nearest Outlet Temperature (>50°C / 55°C Healthcare)                           | 55°c – Home<br>Team WC                           | Low  |        |      |        |      |
| 6.09 Furthest Outlet<br>Temperature (>50°C /<br>55°C Healthcare                     | 54°c – Female<br>WC                              | Low  |        |      |        |      |
| 6.10 Any representative outlet not achieving 50°C (55°C Healthcare) within 1 minute | No   | Low  |        |      |        |      |
| 6.11 HWS pipe work insulation   | No   | Low  |        |      |        |      |
| 6.12 Accessibility of HWS pipe-work   | Average  | Low  |        |      |        |      |
| 6.13 Backflow protection  | Yes  | Low  |        |      |        |      |
| 6.14 Dead-legs present  | No   | Low  |        |      |        |      |
| 6.15 Dead-ends present  | No   | Low  |        |      |        |      |
| 6.16 Expansion vessels if fitted, right way up, WRAS/BS6920 approved/allow flushing | Yes – Flushed by<br>Guardian Hygiene<br>Services | Low  |        |      |        |      |
| Low storage volume /instantaneous hot water   |  | Low  |        |      |        |      |









heater and distribution risk

Overall Risk LOW

Comments and recommendations for Low Storage Volume / Instantaneous Hot Water Heater and Distribution:

The expansion vessel is flushed on a three monthly basis by guardian hygiene services and recorded within the water management log book.

# **Photographs:**



Combination Boiler 1 (CB1)
Boiler Room



**Expansion Vessel fitted to Combination Boiler** 





# 10.7 COMBINATION WATER HEATERS & ASSOCIATED HOT WATER DISTRIBUTION -None on site

| Check  | Result | Risk | Result | Risk | Result | Risk |
|--|--------|------|--------|------|--------|------|
| Asset Number:  |        |      |        |      |        |      |
| Make / Model:  |        |      |        |      |        |      |
| Location:  |        |      |        |      |        |      |
| Construction Material:   |        |      |        |      |        |      |
| Heating Method:  |        |      |        |      |        |      |
| Serves:  |        |      |        |      |        |      |
| Cold Water Storage Capacity:   |        |      |        |      |        |      |
| Hot Water Storage Capacity:  |        |      |        |      |        |      |
| 7.01 Cold Water Source   |        |      |        |      |        |      |
| 7.02 Temperature of Cold<br>Water  |        |      |        |      |        |      |
| 7.03 Evidence of hot water entering the cold water space                                       |        |      |        |      |        |      |
| 7.04 Close-fitting CWST Lid  |        |      |        |      |        |      |
| 7.05 Screened CWST Lid<br>Vent   |        |      |        |      |        |      |
| 7.06 Overflow Screen   |        |      |        |      |        |      |
| 7.07 Cleanliness of CWST (i.e. presence of biofilms, scale and sediment)                       |        |      |        |      |        |      |
| 7.08 Flow Water Temp (as close to 60°C as poss. without exceeding it) 7.09 Regularity of Use / |        |      |        |      |        |      |
| Period of Operation  |        |      |        |      |        |      |
| 7.10 Turnover of stored water  |        |      |        |      |        |      |
| 7.11 Dead-legs present   |        |      |        |      |        |      |
| 7.12 Dead-ends present   |        |      |        |      |        |      |
| HOT WATER<br>DISTRIBUTION  |        |      |        |      |        |      |
| 7.13 Nearest Outlet Temperature (to confirm heater operates as close to 60°C as possible)      |        |      |        |      |        |      |
| 7.14 Furthest Outlet<br>Temperature (>50°C)  |        |      |        |      |        |      |
| 7.15 Any representative outlets not achieving 50°C   |        |      |        |      |        |      |
| 7.16 Presence of little-used outlets / flushing regime   |        |      |        |      |        |      |







| 7.17 HWS pipe work insulation                        |  |  |  |  |     |  |
|--|--|--|--|--|-----|--|
| 7.18 Accessibility of HWS pipe-work                  |  |  |  |  |     |  |
| 7.19 Backflow protection                             |  |  |  |  |     |  |
| 7.20 Dead-legs present                               |  |  |  |  |     |  |
| 7.21 Dead-ends present                               |  |  |  |  |     |  |
| 7.22 Recirculation / Booster Pump                    |  |  |  |  |     |  |
| Combination Water<br>Heater and Distribution<br>Risk |  |  |  |  |     |  |
| Overall Risk   |  |  |  |  | N/A |  |





#### **Health and Safety Guidance**

The following benchmarks should be used regarding scald risks from water heaters:

If hot water outlet temperatures at sinks, basins, baths or showers are in excess of 60°C, for zero risk populations, then this should be identified as a potential "scald risk" with a recommendation for the installation of warning labels or blender valves.

If hot water outlet temperature at sinks, basins, baths or showers are in excess of 55°C, for high risk populations (very young, very elderly, infirm or significantly mentally or physically disabled or those with sensory loss), then this should be identified as a potential "scald risk" with a recommendation to consider fitting thermostatic mixing valves ('TMVs') (preferably incorporated directly in the tap fitting. Temperatures at TMVs should be set at 38-43°C.

If the hot water outlet temperatures be in excess of 62°C in cleaners/caretakers rooms, kitchens, laundries etc. then this again should be highlighted as a potential "scald risk" with a recommendation for approved 'Hot Water Warning' signage to be installed.

Please Note: If the temperature of the hot water supply is reduced in order to address a scalding risk this will compromise the control of Legionella.









# 10.8 SHOWERS / SPRAY HOSES / SPRAY TAPS

| Check  | Result                                 | Risk | Result                                 | Risk | Result                                 | Risk   |
|--|--|------|--|------|--|--------|
| Asset Number:  | SH1-5                                  |      | SH6-10                                 |      | SH11                                   |        |
| Location:  | Home Team<br>Changing Room             |      | Away Team<br>Changing Room             |      | Disabled<br>Changing Room              |        |
| Type of Shower:  | Mixer Shower                           |      | Mixer Shower                           |      | Mixer Shower                           |        |
| Individual / Bank of Showers (indicate number)   | 5                                      |      | 5                                      |      | 1                                      |        |
| 8.01 Cold Water Source i.e.<br>mains /CWST fed – indicate<br>which CWST                | Mains                                  | Low  | Mains                                  | Low  | Mains                                  | Low    |
| 8.02 Hot Water Source i.e indicate which calorifier / water heater)                    | CB1                                    | Low  | CB1                                    | Low  | CB1                                    | Low    |
| 8.03 Regularity of Use / Period of Operation / Flushing                                | Not in use –<br>Staff Flushing         | Low  | Not in use –<br>Staff Flushing         | Low  | Not in use –<br>Staff Flushing         | Low    |
| 8.04 TMV/ built-in TMV used  | Yes                                    | Low  | Yes                                    | Low  | Not fitted                             | N/A    |
| 8.05 Shower Hose Restrained  | Yes fixed                              | Low  | Yes fixed                              | Low  | No                                     | Medium |
| 8.06 Visible Contamination / Scale on Showerhead(s)                                    | No                                     | Low  | No                                     | Low  | No                                     | Low    |
| 8.07 Quarterly Shower Head Clean<br>/ Descale  | Yes by Guardian<br>Hygiene<br>Services | Low  | Yes by Guardian<br>Hygiene<br>Services | Low  | Yes by Guardian<br>Hygiene<br>Services | Low    |
| 8.08 Does the rate of fouling indicate that the quarterly clean / descale is adequate? | No                                     | Low  | No                                     | Low  | No                                     | Low    |
| 8.09 Backflow protection   | Yes fixed                              | Low  | Yes fixed                              | Low  | No                                     | Medium |
| 8.10 Dead-legs present   | No                                     | Low  | No                                     | Low  | No                                     | Low    |
| 8.11 Dead-ends present   | No                                     | Low  | No                                     | Low  | No                                     | Low    |
| Shower / Spray Tap Risk  |  | Low  |  | Low  |  | Medium |
| (  | Overall Risk                           |      |  |      |  |        |

### **Comments and Recommendations for Showers / Spray Hoses / Spray Taps:**

8.05 & 8.09 The Shower was not threaded through a restrainer and no backflow protection was seen. Showers where the shower head can drop in the shower tray may result in back siphonage/backflow of water into the hot & cold water system. To provide backflow protection, the following is recommended; Robust factory applied retaining rings of the design which do not allow the shower hose to be removed are a recognised method of maintaining an AUK3 air gap acceptable in all types of premises. Where this is not possible the position of the shower and shower fittings must provide a minimum gap of 25 mm between the showerhead and the spill over level of any shower tray. If the shower head can't be restrained or the minimum air gap cannot be achieve, then other forms of backflow devices would be required depending on the fluid category.

# **Photographs:**



**Example of Shower Head** within Home Team Changing



**Example of Shower Head** within Away Team Changing



Shower head within disabled **Changing Room** 











Mixer Shower within disabled changing room







### 10.9 GENERAL RISK FACTORS

| Check  | Result   | Risk |
|--|--|------|
| 9.01 Presence of scale on water fittings   | No scale found on water outlets                                  | Low  |
| 9.02 Is there any form of scale control /water softener /water filter? Please give details as to type and part of water system it covers | No water filters or softeners located on site                    | N/A  |
| 9.03 If 'Yes' to scale 9.02 above, is it maintained?   | No water filters or softeners located on site                    | N/A  |
| 9.04 Where TMVs are fitted are they fitted in accordance with HSG 274 pt 2 guidance?*  | Yes  | Low  |
| 9.05 Where TMV's are fitted are they being serviced and maintained in accordance with relevant guidance?**                               | Yes – carried out by guardian hygiene services on a annual basis | Low  |
| 9.06 Are flexible hoses fitted?  | oses fitted? All Flexi hoses located on site are WRAS approved   |      |
|  | Overall Risk   | LOW  |

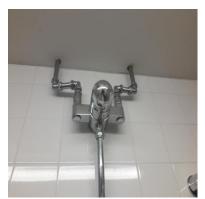
#### **Comments and Recommendations for General Risk Factors:**

N/A

#### **Photographs:**



Example of TMV's located within the toilets



Example of TMV's located within the changing rooms

HSG274 part 2 Table 2.1 checklist for hot and cold water systems TMV3 Buildcert standard / NHS Model Engineering Specification D08









<sup>\*</sup>including being accessible, as close to the POU as possible and preferably serving a single outlet.

<sup>\*\*</sup>Relevant guidance:

# List of deadend and deadleg locations in the building including photographs, locations and water system affected.

| Location | Notes (recommendation) | Pipework<br>length &<br>diameter | Water<br>system<br>affected | Risk<br>Level | Photo |
|----------|------------------------|----------------------------------|-----------------------------|---------------|-------|
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          |                        |                                  |                             |               |       |
|          | Overall Risk           |                                  |                             |               |       |







### 10.11 OTHER RISK OUTLETS NOT IDENTIFIED WITHIN THE DOCUMENT

List of other significant risk outlets identified (which may include, but not restricted to, washing machines, dish washers, vending machines, ice machines, fire sprinklers and hose reels, drinking water fountains)

| Location | Notes (including maintenance regimes)   | Risk<br>Level | Photo |
|----------|---|---------------|-------|
| Kitchen  | The dishwasher in the kitchen should be maintained and serviced as per manufactures instructions. Confirmation is to be sought from the machine manufacturer and / or the installer to ensure that machine is provided with the appropriate level of backflow protection. | Low           |       |
| Bar      | The dishwasher in the bar should be maintained and serviced as per manufactures instructions. Confirmation is to be sought from the machine manufacturer and / or the installer to ensure that machine is provided with the appropriate level of backflow protection.     | Low           |       |
|          | Overall Risk  | LOW           |       |







# **10.12 REPRESENTATIVE OUTLETS**

| Asset Type /Location Details                 | Cold<br>Temp | Hot Temp | Mixed<br>Temp | Additional Information |
|--|--------------|----------|---------------|------------------------|
|  |              |          |               |                        |
| Home Team Toilet<br>Wash Hand Basin          | 19.3°c       | 54.5°c   | 41.2°c        | 1 x TMV                |
| Home Team<br>Changing Room<br>Shower x 5     | 19.5°c       | 53.4°c   | 40.3°c        | 1 x TMV                |
| Away Team Toilet<br>Wash Hand Basin          | 19.4°c       | 54.2°c   | 39.4°c        | 1 x TMV                |
| Away Team<br>Changing Room<br>Shower x 5     | 19.5°c       | 53.4°c   | 40.5°c        | 1 x TMV                |
| Disabled<br>Changing Room<br>Wash Hand Basin | 19.4°c       | 54.2°c   | 41.2°c        | 1 x TMV                |
| Disabled<br>Changing Room<br>Shower          | 19.5°c       | 53.4°c   | 40.6°c        | Mixer Shower           |
| Kitchen<br>Sink                              | 19.4°c       | 54.6°c   | N/A           |                        |
| Bar<br>Wash Hand Basin                       | 19.7°c       | 53.4°c   | N/A           |                        |
| Bar Store<br>Sink                            | 19.4°c       | 54.6°c   | N/A           |                        |
| Outside<br>Bib Tap                           | 19.4°c       | N/A      | N/A           |                        |
| Male WC<br>Wash Hand Basin x 2               | 19.5°c       | 54.6°c   | 40.4°c        | 1 x TMV                |
| Female WC<br>Wash Hand Basin x 3             | 19.3°c       | 53.4°c   | 39.5°c        | 1 x TMV                |







### 10.13 COMBINED RISK SCORING:

| Area of Risk  | Average Risk Score |  |  |  |  |
|---|--------------------|--|--|--|--|
| Written Control Scheme, Training and Record Keeping   | Low                |  |  |  |  |
| Mains / Water Source Distribution System  | Low                |  |  |  |  |
| Cold Water Storage Tanks (CWST) & Associated Distribution   | N/A                |  |  |  |  |
| Calorifiers / Hot Water Storage Vessels & Associated Hot Water Distribution   | N/A                |  |  |  |  |
| Low Volume Hot Water Storage Vessels (<15L) /<br>Instantaneous Water Heaters & Associated Hot Water<br>Distribution | Low                |  |  |  |  |
| Combination Water Heaters and Associated Hot Water Distribution   | N/A                |  |  |  |  |
| Showers / Spray Hoses / Spray Taps  | Medium             |  |  |  |  |
| General Risk Factors  | Low                |  |  |  |  |
| Deadends & Deadlegs in the water system   | N/A                |  |  |  |  |
| Other Risk Outlets  | Low                |  |  |  |  |
| OVERALL RISK : MEDIUM   |                    |  |  |  |  |

| Further Comments: |  |  |
|-------------------|--|--|
|                   |  |  |
|                   |  |  |
|                   |  |  |
|                   |  |  |
|                   |  |  |

**Risk Assessment Completed By:** - Ellis Dixon

**Date:** - 10<sup>th</sup> August Amended 3<sup>rd</sup> October 2020

**Risk Assessment Report Checked** - Kelly Steward

By:

**Date of Check:** - Amended 9<sup>th</sup> October 2020



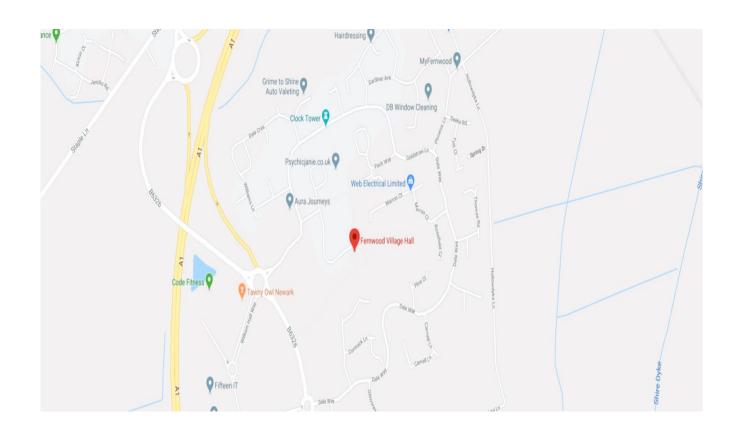
Signed:







# 11. SITE LOCATION MAP









# **APPENDICES**

# A LEGIONELLA CONTROL SCHEME IN ACCORDANCE WITH HSG 274 PART 2

| Service  | Action to Take  | Frequency   |
|--|---|---|
| Calorifiers  | Inspect calorifier internally by removing the inspection hatch or using a boroscope and clean by draining the vessel. The frequency of inspection and cleaning should be subject to the findings and increased or decreased based on conditions recorded  | Annually, or as indicated by the rate of fouling  |
|  | Where there is no inspection hatch, purge any debris in the base of the calorifier to a suitable drain. Collect the initial flush from the base of hot water heaters to inspect clarity, quantity of debris, and temperature  | Annually, but may be increased as indicated by the risk assessment or result of inspection findings   |
|  | Check calorifier flow temperatures (thermostat settings should modulate as close to 60 °C as practicable without going below 60 °C). Check calorifier return temperatures (not below 50 °C, in healthcare premises not below 55 °C)   | Monthly   |
| Hot Water<br>Services                                  | For non-circulating systems: take temperatures at sentinel points (nearest outlet, furthest outlet and long branches to outlets) to confirm they are at a minimum of 50 °C within one minute (55 °C in healthcare premises)   | Monthly   |
|  | For circulating systems: take temperatures at return legs of principal loops (sentinel points) to confirm they are at a minimum of 50 °C (55 °C in healthcare premises. Temperature measurements may be taken on the surface of metallic pipework.  | Monthly   |
|  | For circulating systems: take temperatures at return legs of subordinate loops, temperature measurements can be taken on the surface of pipes, but where not practicable, the temperature of water from the last outlet on each loop may be measured and this should be greater than 50 °C within one minute of running (55 °C in healthcare premises). If the temperature rise is slow, it should be confirmed that the outlet is on a long leg and not that the flow and return has failed in that local area | Quarterly (ideally on a rolling monthly rota)   |
|  | All HWS systems: take temperatures at a representative selection of other points (intermediate outlets of single pipe systems and tertiary loops in circulating systems) to confirm they are at a minimum of 50 °C (55 °C in healthcare premises) to create a temperature profile of the whole system over a defined time period  | Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for Legionella control |
| POU water<br>heaters (no<br>greater than<br>15 litres) | Check water temperatures to confirm the heater operates at 50 – 60 °C (55 °C in healthcare premises) or check the installation has a high turnover  | Monthly – six monthly,<br>or as indicated by the<br>risk assessment   |
| Combination<br>water<br>heaters                        | Inspect the integral cold water header tanks as part of the cold water storage tank regime, clean and disinfect as necessary. If evidence shows that the unit regularly overflows hot water into the integral cold water header tank, instigate a temperature monitoring regime to determine the frequency and take precautionary measures as determined by the findings of this monitoring regime  | Annually  |









| Cold water tanks              | Inspect cold water storage tanks and carry out remedial work where necessary  | Annually  |  |  |
|-------------------------------|---|---|--|--|
|                               | Check the tank water temperature remote from the ball valve and the incoming mains temperature. Record the maximum temperatures of the stored and supply water recorded by fixed maximum / minimum thermometers where fitted  | Annually (Summer) or<br>as indicated by the<br>temperature profiling  |  |  |
| Cold water services           | Check temperatures at sentinel taps (typically those nearest to and furthest from the cold tank, but may also include other key locations on long branches to zones or floor levels). These outlets should be below 20 °C within 2 minutes of running the cold tap. To identify any local heat gain, which might not be apparent after one minute, observe the thermometer reading during flushing  | Monthly   |  |  |
|                               | Take temperatures at a representative selection of other points to confirm they are below 20 °C to create a temperature profile of the whole system over a defined period. Peak temperatures or any temperatures that are slow to fall should be an indicator of a localised problem  | Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for Legionella control |  |  |
|                               | Check thermal insulation to ensure it is intact and consider weatherproofing where components are exposed to the outdoor environment  | Annually  |  |  |
| Showers and spray taps        | Dismantle, clean and descale removable parts, heads, inserts and hoses where fitted   | Quarterly or as indicated<br>by the rate of fouling or<br>other risk factors e.g.<br>areas with high risk<br>patients   |  |  |
| POU filters                   | Record the service start date and lifespan or end date and replace filters as recommended by the manufacturer (0.2 $\mu m$ membrane POU filters should be used primarily as a temporary control measure while a permanent safe engineering solution is developed, although long-term use of such filters may be needed in some healthcare situations  | According to manufacturer's guidelines  |  |  |
| Base<br>exchange<br>softeners | Visually check the salt levels and top up the salt, if required. Undertake a hardness check to confirm operation of the softener  | Weekly, but depends on<br>the size of the vessel<br>and the rate of salt<br>consumption   |  |  |
|                               | Service and disinfect   | Annually, or according to manufacturer's guideline  |  |  |
| Multiple use filters          | Backwash and regenerate as specified by the manufacturer  | According to manufacturer's guidelines  |  |  |
| Infrequently used outlets     | Consideration should be given to removing infrequently used showers, taps and any associate equipment that uses water. If removed, any redundant supply pipework should be cut back as far as possible to a common supply (e.g. to the recirculating pipework or the pipework supplying a more frequently used upstream fitting) but preferably by removing the feeding 'T'  Infrequently used equipment within a water system (i.e. not used for a period equal to or greater than 7 days) should be included on the flushing regime | Weekly, or as indicated by the risk assessment  |  |  |









|                   | Flush the outlets until the temperature at the outlet stabilises and is comparable to supply water and purge to drain Regularly use the outlets to minimise the risk from microbial growth in the peripheral parts of the water system, sustain and log this procedure once started  For high risk populations, e.g. healthcare and care homes, more frequent flushing may be required as indicated by the risk assessment |  |
|-------------------|--|--|
| TMVs              | Risk assess whether the TMV fitting is required, and if not, remove Where needed, inspect, clean, descale and disinfect any strainers or filters associated with the TMVs  To maintain protection against scald risk, TMVs require regular routine maintenance carried out by competent persons in accordance with the manufacturer's instructions   | Annually or on a frequency defined by the risk assessment, taking account of any manufacturer's instructions |
| Expansion vessels | Where practical, flush through and purge to drain  | Monthly – six monthly,<br>as indicated by the risk<br>assessment   |









### **B** RISK SCORING GUIDE

The risk assessment will take account of the following factors:

- > The potential for contamination of the system with Legionella bacteria
- > The potential for the proliferation of Legionella bacteria in the system
- > The potential for the formation of water aerosols / droplets
- > The susceptibility of persons exposed to Legionellosis

The following scoring system of the risk from Legionella is designed to act as a guide for risk assessors, however, using their knowledge and experience of water systems and Legionella bacteria

| Check  | Result / Risk Score |   |  |         |  |   |  |     |
|--|---------------------|---|--|---------|--|---|--|-----|
| 3.01 Water Source i.e. mains / Private water supply                | Mains               | L | Bore Hole                              | М       | Spring   | М |  |     |
| 3.02 Incoming Mains Temp (°C)                                      | <20°C               | L | 20 - 24°C                              | M       | <u>&gt;</u> 25°C                                       | Н |  |     |
| 3.03 Nearest Outlet Temp (°C)                                      | <20°C               | L | 20 - 24°C                              | М       | <u>&gt;</u> 25°C                                       | Н |  |     |
| 3.04 Furthest Outlet Temp (°C)                                     | <20°C               | L | 20 - 24°C                              | М       | <u>&gt;</u> 25°C                                       | Н |  |     |
| 3.05 Any representative outlet not achieving 20°C within 2 minutes | No                  | L | Yes                                    | M<br>/L | Dependant on number of outlets ar temperature achieved |   |  | and |
| 3.06 Insulation of pipe-work                                       | Yes                 | L | Partial                                | М       | No   | Н |  |     |
| 3.07 Chemical / UV Treatment / Ionisation                          | N/A                 | - | Yes                                    | L       | Ineffective  | Н |  |     |
| 3.08 Backflow protection   | Yes                 | L | No                                     | M<br>/L | Dependant on fluid category                            |   |  |     |
| 3.09 Stop Valve Accessible   | Yes                 | L | No                                     | M       |  |   |  |     |
| 3.10 Dead-legs present   | None                | L | Yes with<br>Good<br>Flushing<br>Regime | М       | Yes with No<br>or Poor<br>Flushing<br>Regime           | н |  |     |
| 3.11 Dead-ends present   | None                | L | Short<br>(<3cm)                        | М       | Long ( <u>&gt;</u> 3<br>cm)                            | н |  |     |
| 3.12 Presence of Little Used Outlets                               | None                | L | Yes with<br>Good<br>flushing<br>Regime | L       | Yes with No<br>or Poor<br>Flushing<br>Regime           | н |  |     |
| 3.13 Accessibility of Pipe Work                                    | Yes                 | L | Partial                                | М       | No   | Н |  |     |

may, where appropriate and with justification, deviate from the guide risk score.

| 4. Cold Water Storage Tanks (CWST) and Associated Distribution |                       |   |           |     |             |     |              |   |  |
|--|-----------------------|---|-----------|-----|-------------|-----|--------------|---|--|
| Check  | Results / Risk Scores |   |           |     |             |     |              |   |  |
| 4.1. CWST Material (WRAS approved)                             | Yes                   | L | No        | М/Н |             |     |              |   |  |
| 4.2 CWST Insulation  | Yes                   | L | Partial   | М   | No          | Н   |              |   |  |
| 4.3 Close-fitting CWST Lid                                     | Yes                   | L | Damaged   | М   | Poor Fit    | M/L | No           | Н |  |
| 4.4 CWST Lid Vent  | Yes                   | L | No screen | М   | Damaged     | M   | No           | М |  |
| 4.5 Overflow Screen  | Yes                   | L | No        | М   | Damaged     | М   |              |   |  |
| 4.6 Warning Pipe Screen (for tanks over 1000L)                 | N/A                   | - | Yes       | L   | No / Broken | М   | No<br>W/Pipe | М |  |
| 4.7 Vent Pipe feeds CWST                                       | No                    | L | Yes       | Н   |             |     |              |   |  |









| 4.8 Supply Water Temp (°C) (ball valve) (<20°C)                           | < 20°C         | L | 20 - 24°C                              | М   | <u>&gt;</u> 25°C                             | Н        |                           |     |
|---|----------------|---|--|-----|--|----------|---------------------------|-----|
| 4.9 Stored Water Temp (°C) (<2°C increase from 4.8)                       | < 20°C         | L | 20 - 24°C                              | М   | <u>&gt;</u> 25°C                             | Н        |                           |     |
| 4.10 Visible Bio-films in CWST  | None           | L | Slight                                 | L/M | Moderate                                     | M/H      | Heavy                     | Н   |
| 4.11 Visible Sediment in CWST   | None           | L | Slight                                 | L/M | Moderate                                     | M/H      | Heavy                     | Н   |
| 4.12 Visible Corrosion within CWST & Internal tank condition(s)           | None           | L | Slight                                 | L/M | Moderate                                     | м/н      | Heavy                     | Н   |
| 4.13 Visible Scale within CWST  | None           | L | Slight                                 | L/M | Moderate                                     | M/H      | Heavy                     | Н   |
| 4.14 CWST's linked (i.e. parallel to avoid stagnation / low flow)         | Not<br>Linked  | - | Parallel with float valve              | L   | Parallel with<br>no valve                    | М        | Not in<br>parallel        | M/H |
| 4.15 Cross flow-inlet opposite outlet, outlet at bottom of CWST           | Good           | L | Fair                                   | М   | Poor   | Н        |                           |     |
| 4.16 Turnover of CWST (turnover within 24 hours / 12 hours health care)   | Daily          | L | Weekly                                 | М   | Fortnightly<br>+                             | м/н      | Rare/Not<br>Used          | н   |
| 4.17 Dead-legs present  | None           | L | Yes with<br>Good<br>flushing<br>Regime | M   | Yes with No<br>or Poor<br>Flushing<br>Regime | н        |                           |     |
| 4.18 Dead-ends present  | None           | L | Short<br>(<3cm)                        | М   | Long ( <u>&gt;</u> 3<br>cm)                  | н        |                           |     |
| 4.19 Safe access to, around and into the CWST for inspection and cleaning | Good<br>access | L | Not good<br>access                     | М   | No access                                    | Н        |                           |     |
| 4.20 Does CWST have hollow supports?                                      | No             | L | Yes                                    | M/H |  |          |                           |     |
| COLD WATER DISTRIBUTION   |                |   |  |     |  |          |                           |     |
| 4.22 Nearest Outlet Temp (°C)   | <20°C          | L | 20 - 24°C                              | М   | <u>&gt;</u> 25℃                              | Н        |                           |     |
| 4.23 Furthest Outlet Temp (°C)  | <20°C          | L | 20 - 24°C                              | М   | <u>&gt;</u> 25℃                              | Н        |                           |     |
| 4.24 Any representative outlet not achieving 20°C within 2 minutes        | No             | L | Yes                                    | M/L | Dependant of temp                            |          | er of outlets<br>achieved | and |
| 4.25 Accessibility of pipe-work   | Yes            | L | Partial                                | М   | No   | н        |                           |     |
| 4.26 Presence of little used outlets / flushing regime                    | No             | L | Yes with flushing                      | L/M | Yes with no flushing                         | Н        |                           |     |
| 4.27 Backflow Protection  | Yes            | L | No                                     | м/н | Depend                                       | ant on f | luid category             | ,   |
| 4.28 Dead-legs present  | None           | L | Yes with<br>Good<br>Flushing<br>Regime | М   | Yes with No<br>or Poor<br>Flushing<br>Regime | н        |                           |     |
| 4.29 Dead-ends present  | None           | L | Short<br>(<3cm)                        | М   | Long ( <u>&gt;</u> 3<br>cm)                  | Н        |                           |     |
| 4.30 CWS pipework insulation  | Yes            | L | Partial                                | М   | No   | Н        |                           |     |

| 5. Calorifiers / Hot Water Storage Vessels & Associated Distribution |                            |                     |                  |   |                  |   |                   |   |  |
|--|----------------------------|---------------------|------------------|---|------------------|---|-------------------|---|--|
| Check  |                            | Result / Risk Score |                  |   |                  |   |                   |   |  |
| 5.1 Flow Water Temp (>60°C)  | <u>&gt;</u> 60°C           | L                   | 40 - 60°C        | М | <u>&lt;</u> 40°C | Н |                   |   |  |
| 5.2 Return Water Temp (>50°C / 55°C healthcare)                      | <u>&gt;</u> 50°C<br>(55°C) | L                   | 40 - 50°C        | М | <u>&lt;</u> 40°C | н |                   |   |  |
| 5.3 Water Source   | Mains                      | L                   | Low Risk<br>Tank | L | Med Risk<br>Tank | М | High Risk<br>Tank | Н |  |
| 5.4 Calorifier Insulation  | Yes                        | L                   | Partial          | М | No               | Н |                   |   |  |
| 5.5 Drain Valve Fitted / Operational                                 | Yes                        | L                   | Damaged          | М | No               | М |                   |   |  |
| 4.6 Purge Water Condition /Temperature (≥60°C)                       | Clear                      | L                   | Fair             | М | Poor             | н |                   |   |  |









|  | 1                |   | No access to   | M           |   |             | <del> </del>                   |   |
|--|------------------|---|--|-------------|---|-------------|--------------------------------|---|
| 5.7 Access Hatch to Clean and Inspect Calorifier   | Yes              | L | No access to inspect interior  | М<br>/<br>Н |   |             |                                |   |
| 5.8 Internal Condition   | Clear            | L | Fair   | М           | Poor  | Н           |                                |   |
| 5.9 Suitable Vent Fitted   | Yes              | L | No   | М<br>/<br>Н |   |             |                                |   |
| 5.10 Destratification Pump Fitted  | Yes              | L | No   | М           | Not required  | L           |                                |   |
| 5.11 Evidence of Stratification  | No               | L | Yes  | н           | Unable to<br>Check  | н           |                                |   |
| 5.12 Storage Capacity / Meets<br>Demand  | Yes              | L | Fair   | М           | No  | н           |                                |   |
| 5.13 Alternation of Stand-by Pumps   | N/A              | - | Yes  | L           | No  | М<br>/<br>Н |                                |   |
| 5.14 Period of Operation (N.B: if not in use for more than 7 days may create a dead-leg)                   | Continual        | L | Off at night /<br>weekends   | М           | Off for more<br>than 7 days/<br>out of use  | н           |                                |   |
| 5.15 Temperature Gauge Fitted /<br>Operational   | Yes              | L | No   | М           |   |             |                                |   |
| 5.16 Calorifiers linked correctly (i.e. parallel to avoid stagnation / low flow)                           | Yes              | L | No   | M<br>/<br>H |   |             |                                |   |
| 5.17 Expansion vessels i.e. if fitted,<br>to be right way up, WRAS / BS6920<br>approved and allow flushing | N/A              | - | Yes right way up, maintained and subject to flushing   | L           | Dependant<br>on extent of<br>compliance   | M<br>/<br>H |                                |   |
| 5.18 Deadleg / deadend associated with cal i.e. Swan neck pressure gauge fitted?                           | Yes              | М | No   | L           |   |             |                                |   |
| 5.19 Calorifier linked to solar heating system and is it managed, monitored and maintained effectively?    | Not linked       | L | Linked to solar<br>heating and<br>well managed,<br>monitored and<br>maintained<br>particularly<br>where there is<br>little heat gain<br>from the<br>panels | L           | Linked to solar<br>heating but<br>concerns over<br>the<br>management,<br>monitoring<br>and<br>maintenance | M<br>/<br>H |                                |   |
| 5.20 Safe access to and around the calorifier  | Good<br>access   | L | Not good<br>access   | М           | No access   | н           |                                |   |
| HOT WATER DISTRIBUTION   |                  |   |  |             |   |             |                                |   |
| 5.22 Nearest Outlet Temperature (>50°C / 55°C healthcare)  | ≥50°C<br>(≥55°C) | L | 40 - 50°C  | М           | <u>&lt;</u> 40°C  | н           |                                |   |
| 5.23 Furthest Outlet Temp (>50°C / 55°C healthcare)  | ≥50°C<br>(≥55°C) | L | 40 - 50°C  | М           | <u>&lt;</u> 40°C  | н           |                                |   |
| 5.24 Any representative outlet not achieving 50°C (55°C healthcare)  | No               | L | Yes  | M<br>/L     | and temp  |             | mber of outlets<br>re achieved | 5 |
| 5.25 Presence of little used outlets / flushing regime   | No               | L | Yes with flushing  | L/<br>M     | Yes with no flushing  | н           |                                |   |
| 5.26 HWS pipe work insulation  | Yes              | L | Partial  | М           | No  | Н           |                                |   |
| 5.27 Accessibility of HWS pipe work  | Yes              | L | Partial  | М           | No  | Н           |                                |   |
| 5.28 Backflow protection   | Yes              | L | No   | M<br>/<br>H | Dependant   | on f        | luid category                  |   |
| 5.29 Dead-legs present   | None             | L | Yes with<br>Good<br>flushing<br>Regime   | М           | Yes with No<br>or Poor<br>Flushing<br>Regime  | н           |                                |   |
| 5.30 Dead-ends present   | None             | L | Short<br>(<3cm)  | М           | Long ( <u>&gt;</u> 3<br>cm)   | н           |                                |   |









| 5.31 Recirculation / Booster Pump | No | L ` | Yes and well<br>Maintained | L | Yes and not maintained | М |  |  |  |
|-----------------------------------|----|-----|----------------------------|---|------------------------|---|--|--|--|
|-----------------------------------|----|-----|----------------------------|---|------------------------|---|--|--|--|

| 6. Low Storage Volume (<15L) /I Distribution   | nstantaneo       | us H | lot Water He   | ater        | and Associat                                 | ed F        | lot Water                     |     |
|--|------------------|------|--|-------------|--|-------------|-------------------------------|-----|
| Check  |                  |      | Resu   | lt / R      | isk Score                                    |             |                               |     |
| 6.01 Water Source  | Mains            | L    | Low Risk<br>Tank                                     | L           | Med Risk<br>Tank                             | М           | High Risk<br>Tank             | Н   |
| 6.02 Flow Water Temp<br>(50-60°C / 55°C healthcare)  | <u>&gt;</u> 60°C | L    | 40 - 60°C  | М           | <u>&lt;</u> 40℃                              | н           |                               |     |
| 6.03 Regularity of Use /<br>Period of Operation  | Continual        | L    | Off at night /<br>weekends                           | М           | Off for more<br>than 7 days/<br>out of use   | н           |                               |     |
| 6.04 Turnover of the stored water  | High             | L    | Medium   | М           | Low  | н           |                               |     |
| 6.05 Dead-legs present   | None             | L    | Yes with<br>Good<br>flushing<br>Regime               | М           | Yes with No<br>or Poor<br>Flushing<br>Regime | н           |                               |     |
| 6.06 Dead-ends present   | None             | L    | Short<br>(<3cm)                                      | М           | Long ( <u>&gt;</u> 3<br>cm)                  | н           |                               |     |
| HOT WATER DISTRIBUTION   |                  |      |  |             |  |             |                               |     |
| 6.07 Presence of little used outlets / flushing regime   | No               | L    | Yes with flushing                                    | L/<br>M     | Yes with no flushing                         | н           |                               |     |
| 6.08 Nearest Outlet Temperature (>50°C)  | <u>&gt;</u> 50°C | L    | 40 - 50°C  | М           | <u>&lt;</u> 40°C                             | н           |                               |     |
| 6.09 Furthest Outlet<br>Temperature (>50°C)  | <u>&gt;</u> 50°C | L    | 40 - 50°C  | М           | <u>&lt;</u> 40°C                             | н           |                               |     |
| 6.10 Any representative outlet not achieving 50°C (55°C healthcare)  | No               | L    | Yes  | M<br>/L     |  |             | mber of outle<br>ure achieved | ets |
| 6.11 HWS pipe work insulation  | Yes              | L    | Partial  | М           | No   | Н           |                               |     |
| 6.12 Accessibility of HWS pipe-work  | Yes              | L    | Partial  | М           | No   | Н           |                               |     |
| 6.13 Backflow protection   | Yes              | L    | No   | M<br>/<br>H | Dependan                                     | t on        | fluid category                | ,   |
| 6.14 Dead-legs present   | None             | L    | Yes with<br>Good<br>flushing<br>Regime               | М           | Yes with No<br>or Poor<br>Flushing<br>Regime | н           |                               |     |
| 6.15 Dead-ends present   | None             | L    | Short<br>(<3cm)                                      | M           | Long ( <u>&gt;</u> 3<br>cm)                  | н           |                               |     |
| 6.16 Expansion vessels i.e. if fitted,<br>to be right way up, WRAS / BS6920<br>approved and allow flushing | N/A              | -    | Yes right way up, maintained and subject to flushing | L           | Dependant<br>on extent of<br>compliance      | М<br>/<br>Н |                               |     |

| 7. Combination Hot Water Heater and Associated Hot Water Distribution |                     |   |                  |             |                  |        |   |   |
|---|---------------------|---|------------------|-------------|------------------|--------|---|---|
| Check   | Result / Risk Score |   |                  |             |                  |        |   |   |
| 7.01 Cold Water Source  | Mains               | L | Low Risk<br>Tank | L           | Med Risk<br>Tank | М      | High Risk<br>Tank                               | н |
| 7.02 Temperature of Stored Cold Water                                 | <u>&lt;</u> 20°C    | L | >20°C            | M<br>/<br>H |                  | ire of | egs permit a i<br>f 39°C which<br>onella contro |   |
| 7.03 Evidence of hot water entering the cold water space              | No                  | L | Yes              | M<br>/<br>H |                  |        |   |   |









|  |                  |   |  |             |  | М           |                               | Т        |
|--|------------------|---|--|-------------|--|-------------|-------------------------------|----------|
| 7.04 Close-fitting CWST Lid  | Yes              | L | Damaged                                | М           | Poor Fit                                     | /<br>H      | No Lid                        | Н        |
| 7.05 Screened CWST Lid Vent  | Yes              | L | No Screen                              | М           | Damaged                                      | М           | No Vent                       | М        |
| 7.06 Overflow Screen   | Yes              | L | No Screen                              | М           | Damaged                                      | М           |                               |          |
| 7.07 Cleanliness of CWST (i.e. presence of bio-films, scale and sediment)      | None             | L | Slight                                 | L/<br>M     | Moderate                                     | M<br>/<br>H | Heavy                         | н        |
| 7.08 Flow Water Temp<br>(As close to 60°C as possible<br>without exceeding it) | 55 - 60°C        | L | 40 - 55°C                              | М           | <u>&lt;</u> 40°C                             | н           |                               |          |
| 7.09 Regularity of Use /<br>Period of Operation                                | Continual        | L | Off at night /<br>weekends             | М           | Off for more<br>than 7 days/<br>out of use   | н           |                               |          |
| 7.10 Turnover of the stored water  | High             | L | Medium                                 | М           | Low  | н           |                               |          |
| 7.11 Dead-legs present   | None             | L | Yes with<br>Good<br>flushing<br>Regime | М           | Yes with No<br>or Poor<br>Flushing<br>Regime | н           |                               |          |
| 7.12 Dead-ends present   | None             | L | Short<br>(<3cm)                        | М           | Long ( <u>&gt;</u> 3<br>cm)                  | н           |                               |          |
| HOT WATER DISTRIBUTION   |                  |   |  |             |  |             |                               |          |
| 7.13 Nearest Outlet<br>Temperature (>50°C)                                     | <u>&gt;</u> 50°C | L | 40 - 50°C                              | М           | <u>&lt;</u> 40°C                             | н           |                               |          |
| 7.14 Furthest Outlet Temperature (>50°C)                                       | <u>&gt;</u> 50°C | L | 40 - 50°C                              | М           | <u>&lt;</u> 40°C                             | н           |                               |          |
| 7.15 Any representative outlet not achieving 50°C                              | No               | L | Yes                                    | M<br>/L     |  |             | mber of outle<br>ire achieved | ets      |
| 7.16 Presence of little used outlets / flushing regime                         | No               | L | Yes with flushing                      | L/<br>M     | Yes with no<br>flushing                      | н           |                               |          |
| 7.17 HWS pipe work insulation  | Yes              | L | Partial                                | М           | No   | Н           |                               |          |
| 7.18 Accessibility of HWS pipe-work  | Yes              | L | Partial                                | М           | No   | н           |                               |          |
| 7.19 Backflow protection   | Yes              | L | No                                     | М<br>/<br>Н | Dependan                                     | t on f      | fluid category                | <i>'</i> |
| 7.20 Dead-legs present   | None             | L | Yes with<br>Good<br>flushing<br>Regime | М           | Yes with No<br>or Poor<br>Flushing<br>Regime | н           |                               |          |
| 7.21 Dead-ends present   | None             | L | Short<br>(<3cm)                        | М           | Long ( <u>&gt;</u> 3<br>cm)                  | н           |                               |          |
| 7.22 Recirculation / Booster Pump  | No               | L | Yes and well<br>Maintained             | L           | Yes and not<br>maintained                    | M           |                               |          |

| 8. Showers / Spray Hoses / Tap  | os                                    |   |                                       |         |                                     |             |                    |   |
|---|---------------------------------------|---|---------------------------------------|---------|-------------------------------------|-------------|--------------------|---|
| Check   |                                       |   | Resu                                  | ılt / F | Risk Score                          |             |                    |   |
| 8.01 Cold Water Source i.e.<br>mains /tank fed – indicate<br>which tank | Mains                                 | L | Low Risk<br>Tank                      | L       | Med. Risk<br>Tank                   | М           | High Risk<br>tank  | Н |
| 8.02 Hot Water Source i.e indicate which calorifier / water heater)     | Low Risk<br>Water<br>Heater /<br>Cal. | L | Med Risk<br>Water<br>Heater /<br>Cal. | М       | High Risk<br>Water<br>Heater / Cal. | н           |                    |   |
| 8.03 Regularity of Use / Period of Operation / Flushing                 | Daily                                 | L | Weekly                                | м       | Fortnightly +                       | M<br>/<br>H | Rare / Not<br>Used | н |









| 8.04 TMV/ built-in TMV used   | No   | L | Yes                                    | М           |  |             |               |   |
|---|------|---|--|-------------|--|-------------|---------------|---|
| 8.05 Shower Hose Restrained   | Yes  | L | No                                     | М           |  |             |               |   |
| 8.06 Visible Contamination / Scale on Showerhead(s) / Tap(s)                          | None | L | Slight                                 | L/<br>M     | Moderate                                     | M<br>/<br>H | Heavy         | Н |
| 8.07 Quarterly Shower Head Clean<br>/ Descale   | Yes  | L | No                                     | М           |  |             |               |   |
| 8.08 Does the rate of fouling indicate that the quarterly clean /descale is adequate? | Yes  | L | No                                     | M<br>/<br>H |  |             |               |   |
| 8.09 Backflow protection  | Yes  | L | No                                     | M<br>/<br>H | Dependan                                     | t on f      | luid category |   |
| 8.10 Dead-legs present  | None | L | Yes with<br>Good<br>flushing<br>Regime | М           | Yes with No<br>or Poor<br>Flushing<br>Regime | н           |               |   |
| 8.11 Dead-ends present  | None | L | Short<br>(<3cm)                        | М           | Long ( <u>&gt;</u> 3<br>cm)                  | Н           |               |   |

| 9. General Risk Factors   |     |   |  |             |   |             |   |         |
|---|-----|---|--|-------------|---|-------------|---|---------|
| Check   |     |   | Resu   | lt / R      | lisk Score  |             |   |         |
| 9.01 Presence of scale on water fittings  | No  | L | Slight   | М           | Heavy   | Н           |   |         |
| 9.02 Is there any form of scale control / water softener / water filter?                                | Yes | - | System<br>covers all<br>parts of the<br>water<br>system            | L           | System<br>covers only<br>part of the<br>water<br>system | L/<br>M     | System acts only on the water supply into an appliance                      | L/<br>M |
| 9.03 If Yes to 9.02 above, is it well maintained?   | Yes | L | No   | М<br>/<br>Н |   |             |   |         |
| 9.04 Where TMVs are fitted, are they fitted in accordance with HSG 274 pt 2 guidance?                   | Yes | L | No   | M<br>/<br>H |   | t on n      | ature of non-<br>nance  |         |
| 9.05 Where TMVs are fitted are they being serviced and maintained in accordance with relevant guidance? | Yes | L | No – no<br>cleaning,<br>descaling or<br>disinfection<br>of filters | M<br>/<br>H |   |             |   |         |
| 9.06 Are flexible hoses fitted?   | No  | L | Yes but<br>WRAS<br>approved<br>and not<br>EPDM                     | L/<br>M     | Yes but not<br>WRAS<br>approved<br>and are<br>EPDM      | м<br>/<br>н | Yes but<br>not WRAS<br>approved,<br>are EPDM<br>and in<br>poor<br>condition | н       |









# C RISK ASSESSOR'S/REPORT CHECKER'S CERTIFICATES

06/03/2018//TWZ3545//04/04/2018



# CERTIFICATE OF ACHIEVEMENT FOR

Ellis Dixon

# Who successfully completed the course

WH004 Risk Assessment for Legionella Control

# DURATION

3 days

# COURSE VENUE

PPL Training Ltd, Slough

# DATE OF COURSE

6th March - 8th March 2018

# Course Director

Dennis Davis

Dennis Davis

# Managing Director

Sall

James W Booth



PPL TRAINING

01904 606090

www.ppltraining.co.uk















# **CERTIFICATE OF ACHIEVEMENT**

RISK ASSESSMENT FOR LEGIONELLA CONTROL IN WATER SYSTEMS

# **KELLY STEWARD**

HAS SUCCESSFULLY MET THE COURSE ASSESSMENT CRITERIA

**COURSE DETAILS:** 

DATE OF COURSE: 11 FEBRUARY - 13 FEBRUARY

2020

COURSE VENUE: PPL TRAINING, YORK

ENR NUMBER: ARW0383

Issued by PPL Training

James W Booth Chief Executive Officer A. Bon

Course Director

Tony Green











# **D** INSURANCE CERTIFICATION



# **CERTIFICATE OF INSURANCE**

Policy Number BN BDX 6983587/5799283

This is to certify that on the date of issue of this certificate, the policyholder was insured under the above policy subject to the terms and conditions agreed with AXA. This certificate does not form part of the policyholder's contract with AXA. This is a summary of cover only, in force as at the issuance date of this certificate. Full details of the coverage provided are included in the policyholder's full policy wording.

| INSURANCE DETAILS   |  |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|--|
| Broker              | Bradshaw Bennett Ltd                                     |  |  |  |  |  |  |
| Period of insurance | 04 February 2020 to 03 February 2021 both days inclusive |  |  |  |  |  |  |
| Underwritten by     | AXA Insurance UK PLC                                     |  |  |  |  |  |  |

| INSURED DETAILS                |   |  |  |  |  |  |  |
|--------------------------------|---|--|--|--|--|--|--|
| Insured                        | Guardian Hygiene Services Ltd   |  |  |  |  |  |  |
| Address                        | Unit 11 Lincoln Enterprise Park, Newark Road, Aubourn, Lincoln, LN5 9EJ |  |  |  |  |  |  |
| Business description           | Pest control, timber treatment and/or fumigation works                  |  |  |  |  |  |  |
| Additional business activities | Water Management Services Washroom Services and Cleaning Contractors    |  |  |  |  |  |  |

| PUBLIC AND PRODUCTS LIABILITY - INSURED |  |
|---|--|
| Public Liability Limit of indemnity     | £5,000,000 each and every claim, defence costs in addition                                     |
| Products Liability Limit of Indemnity   | £5,000,000 all claims occurring during the period of insurance, defence costs in addition      |
| Pollution Limit of Indemnity            | £5,000,000 all claims occurring during the period of insurance, defence costs in addition      |
| Financial Loss Limit of Indemnity       | £500,000 all claims occurring during the period of insurance, defence costs in addition        |
| Terrorist Act Limit of Indemnity        | £5,000,000 all claims occurring during the period of insurance, defence costs in addition      |
| Excess                                  | Nil  |
| Financial loss excess                   | The first 10% of each and every claim or £250 whichever is the higher amount                   |
| Cover includes:                         | Contractual Liability, Indemnity to Principals, Liability for Sub-Contractors, Use of Firearms |

| EMPLOYERS' LIABILITY - INSURED |   |
|--------------------------------|---|
| Limit of indemnity             | £10,000,000 all claims and their defence costs which arise from the same accident or event  |
| Terrorist Act                  | £5,000,000 all claims and their defence costs which arise from the same event (included within and not in addition to the overall limit/amount insured above) |

| PROFESSIONAL INDEMNITY - NOT INSURED |  |
|--------------------------------------|--|
| Limit of indemnity                   | £0                                       |
| Limit applies to                     | Any one claim, defence costs in addition |
| Excess                               | Nil                                      |

Axa Insurance UK plc Registered in England and Wales No 78950.

Registered Office: 5 Old Broad Street, London, EC2N 1AD. A member of the AXA Group of Companies.

Axa Insurance UK plc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Authority.

Page 1 of 1











# The Control of Legionella A Code of Conduct for Service Providers

Legislative requirements for the control of legionella put the responsibility for compliance clearly with the owner/operator of water systems. Under the Health and Safety at Work etc Act 1974 and the Control of Substances Hazardous to Health Regulations as regards risks from legionella, all owners and operators of such systems have a responsibility to ensure that the risk is controlled and kept to an acceptable level. The HSE Approved Code of Practice and guidance on regulations (L8) stresses that whilst the tasks required to be undertaken to control the risk may be contracted to an external specialist, the owner/operator must take all reasonable care to ensure the competence of the service provider to carry out the work on his behalf.

This Code of Conduct is intended to give guidance alone, on the standard of service management that a client should expect from those service providers who agree to abide by the Code. The responsibility for the prevention and control of legionella lies with the client and the service provider.

The guidelines outlined in this document have been designed to help owner/operators select a service provider by highlighting nine critical areas and detailing the commitment that the owner/operator should expect from prospective service providers when making the competence assessment.

The Code of Conduct requires that service providers establish an appropriate management system for the provision of services associated with the control of legionella. A valid certificate is an indication of the registrant's commitment to comply with the Service Provider Commitments of the Code and should not be taken as proof of compliance. The Legionella Control Association does not approve specific products or services as being effective in controlling legionella or assess the competence of individual service provider employees.

To find out more about using the Code of Conduct to help select a suitable service provider refer to the **Buyers Guide** on the LCA website **www.legionellacontrol.org.uk/download.php** 

701.18 06-18

PAGE 1 OF 4









# **Conditions of Compliance**

- 1 There should be a clearly defined written agreement between the service provider<sup>1</sup> and the client<sup>2</sup> setting out the individual responsibilities of both parties to ensure compliance with current legislation.
- 2 Service providers should demonstrate and document a satisfactory level of competence of their staff<sup>3</sup> in order to achieve the objectives of the Code of Conduct.
- 3 The recommendations made by the service provider should be equal to, or better than, the relevant Codes of Practice and guidance documents pertaining to the system in question.
- 4 Lines of communication and reporting between client and service provider should be defined as well as the management plan in the event of remedial or corrective action being required, including matters of evident concern outside contracted obligations.
- 5 Adequate and up to date monitoring and treatment records should be kept. These should be readily available.
- 6 The performance of the control measures should be reviewed jointly by the service provider and the client at least annually and the necessary remedial action plan agreed.
- 7 Service providers should establish a formal internal auditing procedure for compliance with the Service Provider Commitments of the Code of Conduct.
- 8 Service providers sub-contracting<sup>4</sup> any legionella specific activities<sup>5</sup> listed in their scope of services should establish that the sub-contractor is either registered for that activity under the LCA or should maintain additional controls and audits to ensure compliance with the LCA Code of Conduct, and regardless of whether the sub-contractor is LCA registered or not, implement procedures and checks to ensure compliance.
- 9 Copies of a current certificate should be made available to all relevant clients.

In the event that the client believes that a service provider has not complied with the Code of Conduct, he may write, with full details, to: Legionella Control Association, 6 Sir Robert Peel Mill, Hoye Walk, Fazeley, Tamworth, Staffs, B78 3QD

## **Definitions**

# 1. Service Provider

Companies or individuals or their sub-contractors who are involved with providing advice, consultancy, operating, maintenance and management services or the supply of equipment or chemicals to the client.

#### 2. Client

The owner or occupier of the premises, or his appointed representative, or other person nominated to be the "responsible person" as defined in the HSE document "Legionnaires' disease - The control of legionella bacteria in water systems, Approved Code of Practice and guidance on regulations (L8 4th Edition)," (para 51).

#### 3. Staff

Any person directly or indirectly employed in meeting the requirements of this document.

#### 4. Sub-contractor

For the purposes of LCA registration, a sub-contractor is a company or an individual who carries out unsupervised work, specifically associated with the control of legionella, on behalf of a service provider. In the case of companies or self-employed individuals the test as to whether the company or individual carrying out the work should be declared as a sub-contractor or not is whether the methodology employed is their own or set by the 'principal' service provider. For example, a self-employed risk assessor using the 'principal' service provider's methodology, trained by the 'principal' service provider and whose work is reviewed by the 'principal' service provider, is not a sub-contractor, whereas one who has been independently trained and who uses methodology not devised by the 'principal' service provider is a sub-contractor. Note: Section 8 of the LCA Conditions of Compliance requires that the principal LCA member implements additional controls and audits on a sub-contractor whether or not that sub-contractor is registered under the LCA.

5. Legionella Specific Activities: All categories the LCA member is registered for relating to the control of legionella.

PAGE 2 OF 4

701.18 06-18









# **Service Provider Commitments**

#### 1. ALLOCATION OF RESPONSIBILITIES

#### The Service Provider will:

- 1.1 explain in detail the client's obligations under the legionella legislation
- 1.2 identify those services covered by the contract and those which should be provided by the client to meet all current obligations
- 1.3 formalise a written agreement detailing the respective responsibilities for each requirement
- 1.4 state in the written agreement that the service provider has LCA registration for the service categories being provided.

#### 2. TRAINING AND COMPETENCE OF PERSONNEL

#### The Service Provider will:

- 2.1 arrange formal training programmes for your personnel associated with the control of legionella bacteria (See current LCA Knowledge Matrix as a guide)
- 2.2 have a system for assessing the competence of your staff, establishing their training needs and ensuring they are kept up to date with current best practice
- 2.3 assist the client to assess training needs of staff and then where requested advise as to how these can be met.

#### 3. CONTROL MEASURES

#### The Service Provider will:

- 3.1 have a management system to assess the requirements and ensure an appropriate programme of control measures is designed, implemented, monitored and maintained
- 3.2 have a system for verifying that corrective and preventive actions are implemented
- 3.3 ensure the programme of control measures satisfies as a minimum the LCA Standards for Service Delivery.

#### 4 COMMUNICATION

#### The Service Provider will:

- 4.1 have management procedures to respond appropriately should the system operating conditions deviate from
- 4.2 agree with the client how the service provider would communicate with the client's nominated personnel in the event of any necessary actions
- 4.3 bring to the client's attention any significant matters affecting the control of legionella of which he has become aware, beyond the responsibilities of the contract.
- 4.4 have a formal staged escalation procedure to ensure that in the event of significant matters of concern that must be raised, these are escalated, as necessary, to the responsible person, the duty holder and, as a last resort, to the relevant enforcement agency.

# 5. RECORD KEEPING

# The Service Provider will:

- 5.1 indicate which records should be kept by both parties and where they will be kept
- **5.2** establish with the client who will be responsible for the maintenance of these records.

## 6. REVIEWS

# The Service Provider will:

6.1 establish a programme that will allow both parties to review formally, at least annually, all aspects of the agreement covering system management and the control of legionella.

#### 7. INTERNAL AUDITING

#### The Service Provider will:

- 7.1 have a management system to ensure that service provider compliance with each of these commitments is self-audited at least once a year and that a formal record is kept
- 7.2 establish a corrective action programme so that any non-compliance identified is corrected in a timely manner.

# 8. SUB-CONTRACTORS

# The Service Provider will:

- 8.1 have a management procedure to ensure that any sub-contractor holds an independent registration under the Code of Conduct (see Definitions for the LCA definition of a sub-contractor); or
- 8.2 where a sub-contractor is not LCA registered, implement additional controls and audits to ensure that all activities carried out are compliant with the Code of Conduct and any relevant legislation; and
- 8.3 regardless of whether the sub-contractor is LCA registered or not, implement procedures and checks as necessary to ensure that the competency of the sub-contract service provider is assessed in relation to the scope of service the sub-contractor is providing.

# 9. DISTRIBUTION OF THE CODE

# The Service Provider will:

9.1 have a management system to ensure all clients to whom services are provided, associated with the control of legionella bacteria, receive a copy of the Code of Conduct and Certificate of Registration or are informed that the current documents are available on their website.

PAGE 3 OF 4

701.18 06-18









The legal duty to comply with relevant health and safety legislation (including avoidance or control of risk to exposure to Legionella bacteria) rests solely with the statutory dutyholder, being either the employer or the person in control of the premises or systems where any relevant risk is present, and this cannot be delegated. Specific functions (e.g. carrying out risk assessment) can be delegated and the Legionella Control Association (LCA) Code of Conduct is designed to help service providers, who also have duties under health and safety legislation, to establish appropriate management systems for the prevention or control of risk from Legionella bacteria. The LCA assesses the management systems of LCA members upon initial registration, reviews annually upon re-registration, and re-assesses by annual company audits. The LCA cannot and does not carry out other regular supervision of its members' commitments to the Code of Conduct nor their compliance with other LCA guidelines. A valid LCA certificate of registration (which is only valid if the Company named is listed on the LCA website www.legionellacontrol.org.uk/directory.php) confirms only that a service provider has satisfied LCA requirements at registration, re-registration and its most recent company audit. It does not confirm the service provider's actual or continuing compliance with their commitments to the LCA Code of Conduct and/or other LCA guidelines. The LCA does not approve specific products or services as being effective in controlling Legionella or verify the competence of service providers' staff and sub-contractors, which is the duty of the service provider and the statutory dutyholder. The LCA accepts no liability for any omission or any act carried out in reliance on the LCA Code of Conduct or other LCA guidelines, or any loss or damage resulting from non-compliance with such documents.

Endorsed by the British Association for Chemical Specialities and The Water Management Society





PAGE 4 OF 4

701.18 06-18











# **Legionella Control Association**

A Code of Conduct for Service Providers

# **Certificate of Registration**

This is to certify that the following company has submitted a registration under the Conditions of Compliance as laid out in the LCA's Code of Conduct for Service Providers

Name of Company: Guardian Hygiene Services Ltd

Registration Number: 2013/2258 Certificate valid until: 31st August 2020

Registration under the following services categories:

# (1) Legionella Risk Assessment Services

- 1.1 Hot and Cold Water Services
- 1.3 Process and Other Systems
- 1.4 Healthcare Risk Assessment
- (3) Hot and Cold Water Monitoring and Inspection Services
- (4) Cleaning and Disinfection Services
- (7) Legionella Analytical Services
  - 7.1 Sampling
  - 7.2 Laboratory Analysis
  - 7.3 Interpretation of Analysis

# (8) Plant and Equipment Services

- 8.1 Installation
- 8.2 Refurbishment
- 8.3 Servicing

This Certificate is only valid if the Company named is listed on the LCA website www.legionellacontrol.org.uk/directory.php



Signed



Chairman, Executive Committee



E. aurin

Certificate Secretary

Legionella Control Association Limited. www.legionellacontrol.org.uk

Registered in England and Wales No. 8502723

The legal duty to comply with relevant health and safety legislation (including avoidance or control of risk to exposure to Legionella bacteria) rests solely with the statutory dutyholder, being either the employer or the person in control of the premises or systems where any relevant risk is present, and this cannot be delegated. Specific functions (e.g. carrying out risk assessment) can be delegated asystems for the prevention or control of risk from Legionella bacteria. The LCA assesses the management systems of LCA members upon initial registration, and systems for the prevention or control of risk from Legionella bacteria. The LCA assesses the management systems of LCA members upon initial registration, and upon re-registration, and control registration or control of residually upon re-registration, and guidelines. A valid LCA certificate of registration (which is only valid if the Company named is listed on the LCA website www.legionellacontrol.org.uk/directory.php.) confirms only that a service provider has satisfied LCA requirements at registration and its most recent company part of the confirming company registration of Conduct and/or other LCA guidelines. The LCA does not approve specific products or services as being effective in controlling Legionella or verify the competence of service provider's actual or continuing companies. With their commitments to the LCA accepts in its the duty of the service provider staff and sub-controlloring this is the duty of the service provider staff and sub-controlloring the service provider is the statutory dutyholder. The LCA accepts no liability for any omission or any act carried out in reliance on the LCA Code of Conduct or other LCA guidelines, or any loss or damage resulting from non-compliance with such documents.







