If you are an employer, or someone in control of premises, including landlords, you must understand the health risks associated with legionella. Please refer to the Health and Safety Executive Website for more information on employers duties as regards legionella control

http://www.hse.gov.uk/legionnaires/what-you-must-do.htm

The main legislation which must be complied with is listed below:

- **Health & Safety at Work etc Act 1974**
  

- **The Management of Health & Safety at Work Regulations 1999 as amended 2003 & 2006**
  

- **The Control of Substances Hazardous to Health Regulations 2002 as amended 2003 & 2004**
  

- **CIBSE TM13 – Minimising the risk of Legionnaires’ Disease**
  

  

- **BS8558:2011 - Design, Installation, Testing & Maintenance of services supplying water for domestic Use within buildings and their curtilages**
  
  http://shop.bsigroup.com/

- **Marine Safety Forum: Delivering Quality Potable Water to Offshore Installations, Issue 2, 18th July 2013:**
  

**Legionella Sampling – What you need to know**

Record origin of sample

1) Allow water to run until temperature stabilises before sampling
2) Record temperature of sample at time of sampling
3) Record sample volume
4) If biocide is present, record which one. Always use a sample bottle containing Potassium/Sodium Thiosulphate. These inactivate the oxidizing biocides.
5) Hold the bottle at a 45° angle so that the neutraliser does not get flushed from the bottle when sampling.
Transport to Laboratory

1) Deliver the sample(s) to the laboratory as soon as possible
2) Hot water samples should be cooled directly after sampling
3) Samples should be protected from sunlight
4) Samples can be transported at ambient temperature if analysed before 24hrs
5) If analysis commences after 24hrs then transport samples ideally at 5±3°C

Sample Volume

1000mls required.

Sample length of analysis is 10 days; results will be forwarded by e-mail and in hard copy.

Features of Sterile Bottles provided by the laboratory:

- Pre-dosed with a 1.8% m/v solution of sodium thiosulphate - in accordance with Drinking Water Directorate specifications - to neutralise free or residual chlorine.
- Each bottle is clearly labelled with the 12 month expiry date and lot number for complete traceability, as well as providing space for the user to add sample identification details
- Tamper-evident cap ensures non-contamination before use
- Clarity of plastic provides excellent visibility of contents
- Lightweight, shatter-resistant and durable
- Square shape reduces storage space required

How to interpret your Potable water results Legionella

Legionella – Legionellosis is a potentially fatal infectious disease. L.pneumophilia, serogroup 1(Sg 1) is responsible for 90% of fatalities so you don’t want that in your system at all.

All samples positively identified by SSQC will be sent to the Scottish Legionella Reference Laboratory for confirmation. This will be at no extra cost!

This test requires 1000mls of sample or 1L. The report will read per 1000ml. The lower limit of detection for the method SSQC use is <10cfu/1000mls. It cannot be reported any lower due to the limitations of the method. Many other methods have detection limits well above ours, i.e. <25, <50, <100/1000mls.

If your sample is reported as “<10cfu/1000mls”, the sample source is considered safe. It is more helpful if this analysis is read in conjunction with TVC results (22°C & 37°C). These results presented together give a better overall picture for interpretation.
Table 2.2 Action Levels following Legionella Sampling in Hot and Cold Water Systems.

<table>
<thead>
<tr>
<th>Legionella bacteria (cfu/l)</th>
<th>Recommended Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;100 cfu/l and up to 1000</td>
<td>Either:</td>
</tr>
<tr>
<td></td>
<td>■ if the minority of samples are positive, the system should be resampled. If similar results are found again, a review of the control measures and risk assessment should be carried out to identify any remedial actions necessary or</td>
</tr>
<tr>
<td></td>
<td>■ if the majority of samples are positive, the system may be colonised, albeit at a low level. An immediate review of the control measures and risk assessment should be carried out to identify any other remedial action required. Disinfection of the system should be considered</td>
</tr>
<tr>
<td>&gt;1000 cfu/l</td>
<td>The system should be resampled and an immediate review of the control measures and risk assessment carried out to identify any remedial actions, including possible disinfection of the system. Retesting should take place a few days after disinfection and at frequent intervals</td>
</tr>
</tbody>
</table>

Table 2.3 Action Levels following Legionella Sampling in Hot and Cold Water Systems in healthcare premises with susceptible patients

<table>
<thead>
<tr>
<th>Legionella bacteria (cfu/l)</th>
<th>Recommended Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND up to 100 cfu/l</td>
<td>In healthcare, the primary concern is protecting susceptible patients, so any detection of legionella should be investigated and, if necessary, the system resampled to aid interpretation of the results in line with the monitoring strategy and risk assessment.</td>
</tr>
<tr>
<td>&gt;100 cfu/l and up to 1000</td>
<td>As table 2.2</td>
</tr>
<tr>
<td>&gt;1000 cfu/l</td>
<td>As table 2.2</td>
</tr>
</tbody>
</table>

It is important that each company decide on their action levels through risk assessment.
As part of SSQC Ltd customer service the laboratory will flag the following results:

- Detection of pathogens which could have adverse effects on human health/
  or
- Above specified customer limits

Customers are provided with Form 105 – Customer Result Action Limits, to provide their specifications to the laboratory. Where completed and returned this enables the laboratory to ensure customers are informed immediately when an adverse result is detected. A copy of Form 105 can be found at [www.ssqc.co.uk](http://www.ssqc.co.uk)

Any records of analysis should be kept for a minimum of 5 years in line with Health and Safety Executive Guidelines.

Please refer to:

HSE A Brief Guide for Dutyholders (Leaflet INDG458) Published 04/ 2012.


**Disclaimer:** This is a guide and is not meant to cover every scenario or situation which might present itself for potable water result interpretation.

**SSQC Sampling**

If customers require, SSQC can provide staff to take samples. Samples shall be taken in line with SSQC Technical procedure (BW 036) to ensure that the sample arrives in the best possible condition for testing.

It should be noted that collection of samples is not covered in the company’s UKAS accreditation scope.