



LEGIONELLA IN BUILDING WATER SYSTEMS

Legionnaires' disease is a potentially fatal form of pneumonia. People may get infected when they breathe in tiny water droplets (aerosols) or droplet nuclei (particles left after the water has evaporated), which are contaminated with elevated concentrations of legionella bacteria.



Legionella bacteria grow best between temperatures of 20°C - 45°C with optimum growth temperature being 35°C - 40°C. High temperatures (minimum 60°C) kill the bacteria. Legionella bacteria are found in low numbers in natural aquatic environments, for instance, lakes, rivers and ground water. As a result it is virtually impossible to prevent legionella bacteria entering man-made water systems.

In low numbers the bacteria are generally considered harmless. With the correct conditions, for example, warm water, the presence of micro-organisms and nutrients in the water or materials such as rust, the bacteria can grow and multiply to high levels which increase the risk of exposure. The bacteria tend to grow in biofilms (slime). Biofilms are likely to form on surfaces where there is low water flow or water is allowed to stagnate. The growth of the bacteria can however be controlled.

The Legislation & Guidelines

HBI adhere to and utilise the following documents when devising legionella control programmes:

- Health and Safety at Work Act 1974 (HSWA);
- UK HSE document L8 – Legionnaires' disease, The control of legionella bacteria in water systems: Approved Code of Practice and Guidance;
- Control of Substances Hazardous to Health Regulations 2005 (COSHH);
- CIBSE TM13 – Minimising the risk of Legionnaires' Disease;
- HTM 04-01.

All of the documents listed giving advice specific on legionella follows a similar format on how to control this risk:

- Identify and assess sources of risk using competent help and advice;
- Prepare a scheme for preventing or controlling the risk;
- Implement, manage and monitor precautions;
- Keep records of the precautions
- Appoint a person to be managerially responsible.

Legionella Control

Asbestos Management

Indoor Air Quality

Water Hygiene

Water Management

Fire Risk Assessment

Health & Safety

Disabled Access

Workplace Noise Assessments

[RecordsForBuildings.com](https://www.recordsforbuildings.com)



(continued)

The HBI Legionella Management Solution

HBI provide the following services to help the Building Manager discharge their duties and obligations relating to the control of legionella bacteria in water systems:

Legionella Risk Assessments

- Qualified Consultants
- Schematic drawings
- Priority of risk
- Soft & hard copies of reports

Remedials

- Cleaning & disinfection of domestic hot & cold water systems, old or new
- Cleaning & disinfection of new mains pipework and reservoirs
- Tank replacement programmes
- Showerhead cleaning programmes
- Deadleg flushing programmes
- On-line dosing systems



Monitoring

- Provision of either hardcopy or electronic logbooks
- Use of hand held XDA for management and quick entry into online electronic logbooks
- Provision of technicians to carry out sentinel temperature monitoring and logbook maintenance
- Bar-coding of outlets
- Legionella and microbiological sampling programmes

For more information about legionella assessments and how to implement a Legionella Management programme call Healthy Buildings International, email or visit www.hbi.co.uk.

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