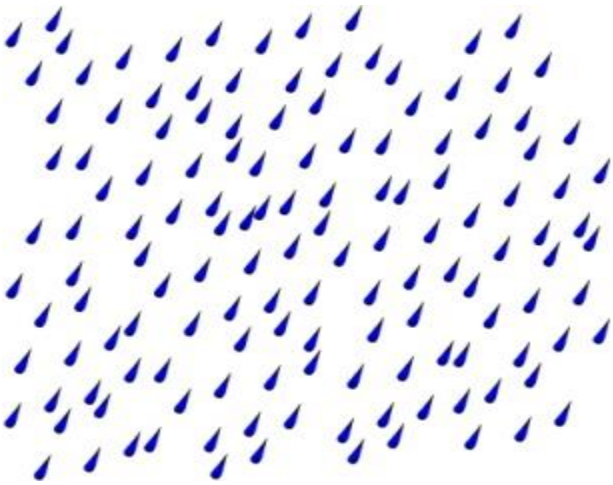
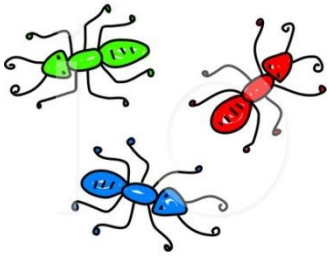
Footwear, Leather, Textile and Clothing Industries

Health & Safety Committee

LEGIONNAIRES' DISEASE CONTROL OF LEGIONELLA

A guide to what all companies have to do.





Overview

While the risks of Legionnaires' Disease are traditionally associated with specific areas of premises – such as cooling towers – the potential areas of risk are much wider. The HSE's Approved Code of Practice on "The control of legionella bacteria in water systems" (L8 - see Further Reading, Page 5) **all companies** have a responsibility to assess the risks for their own premises.

Introduction

Legionnaires' disease got its name in 1976 after an outbreak at a convention of military veterans in America when there were 182 reported cases, mainly men, of whom 29 died.

Legionnaires' disease (also legionellosis or legion fever) is a form of pneumonia caused by any species of gram negative aerobic bacteria belonging to the genus legionella. Over 90% of cases of Legionnaires' disease are caused by the bacterium Legionella Pneumophila**.**

- **Other types of Legionnaires' disease are**
- Legionella Longbeachae
- Legionella feeleli
- Legionella Micdadei
- Legionella Anisa

All above can be found in water or present in soil and are not as dangerous as legionella Pneumophila; these cause a less severe infection known as Pontiac fever which resembles acute influenza

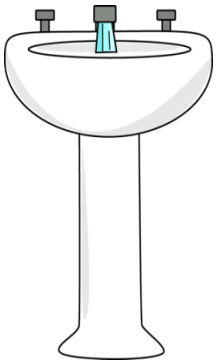
Legionnaires' disease is normally contracted by inhaling small droplets of water (aerosols). The bacteria thrive at temperatures in the range 20-45◦C, and can be found in natural water sources such as rivers, lakes and reservoirs; they may also be found in purpose built water systems such as Cooling Towers, Evaporating condensers, Hot and Cold water systems and Spa pools.

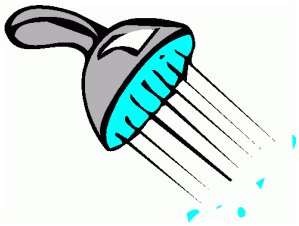
Some people are at a higher risk than others:

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

What the law requires

Under general Health and safety law you may have to consider the risks from Legionella that may affect your





staff or members of the public and the suitable precautions, as an employer or a person in control of the premises (e.g. landlord) you must

- Identify and assess source of risk
- Prepare a scheme (or course of action) for prevention or controlling the risk
- Implement and manage the scheme – appointing a person to be managerially responsible sometimes referred to as the "Responsible Person"
- Ensure that the appointed responsible person has sufficient authority, competence and knowledge of the installation to ensure that all operational procedures are carried out effectively and in a timely way.
- Also ensure that all employees involved in work that may expose an employee or other person to legionella are given suitable and sufficient information, instruction and training.
- Keep records and check that what has been done is affective and
- If appropriate, notify local Authority that you have a cooling tower

What the law says

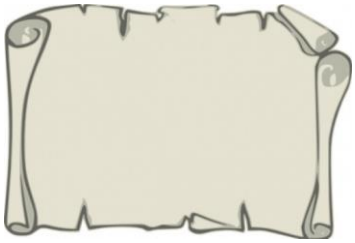
You must comply with

- HASAWA 1974 sections 2,3,4, and 6
- COSHH Regulations 6,7,8,9,and 12
- Management of health and Safety at work regulations 1999(the management regulations)
- RIDDOR

Are there Legionella risks in my workplace?

Any water system, with the right environment conditions, could be a source for legionella growth. There is a reasonably foreseeable legionella risk if your water system:

- Has a water temperature between 20- 45 °C
- Creates and or spreads breathable droplets e.g. aerosol created by cooling tower, or water outlets
- Stores and or re-circulates water
- Likely to contain a source of food for the organism e.g. presence of sludge, scale or the fouling normally found in open systems.



Examples of main risks

- Cooling towers and evaporative condensers
- Any hot and cold water systems
- Other risk systems e.g. humidifiers, air washers, emergency showers, eye wash sprays, indoor ornamental fountains, aqueous tunnel washers etc.
- "Dead legs"

Cooling Towers

- The cooling system may consist of a cooling tower, evaporative condenser or other cooling element, the re-circulating pipe work, the heat exchanger, pumps and ancillary items such as supply tanks and pre-treatment equipment.
- If you have a cooling tower or evaporating condenser you should put in place appropriate measures to prevent or control the risk of legionella.

A few examples of operations in shoe industry that may need checking for legionella

- Muller being used to soften uppers or leather
- Water Steam heaters used at pull toe lasting
- Water spray at edge trimming in finishing room when working on rubber soled work

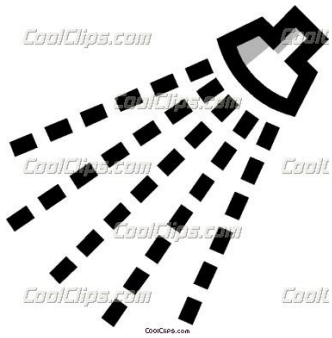
A few examples of operations in leather industry that may need checking for Legionella

- Cooling towers
- All hot water systems
- Tanning and dyeing drums
- Water jets/hosing down floors/equipment
- Operations in the Effluent Treatment Plant.

A few examples of operations in the textile industry that may need checking for legionella

- Humidification systems
- Evaporative condensers
- Warm water stores
- Warm water heating systems
- Calorifiers
- Cistern tank
- Anywhere where an aerosol/spray is produced

If you have any of the above, or any other sources of potential risk, you need to carry out a risk assessment.



Identify and Assess sources of risk

Carrying out a risk assessment is your responsibility. You may be competent to carry out the assessment yourself but, if not, you should call on help and advice from either within your own organisation or from outside sources, e.g. consultancies.

You or the person responsible for managing risks, need to understand your water systems, the equipment associated with the system such as pumps, heat exchangers, showers etc., and its constituent parts. Identify whether they are likely to create a risk from exposure to legionella, and whether

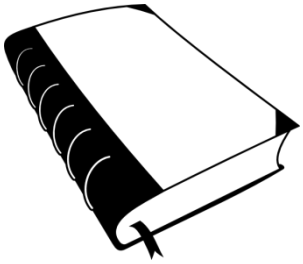
- The conditions are likely to encourage bacteria to multiply
- It is possible for water droplets to be produced and, if so, whether they can be dispersed over a wide areas, e.g. showers aerosols from cooling towers
- It is likely that any of your employees, residents, visitors etc. are more susceptible to infection due to age, illness, a weakened immune system etc. and whether they could be exposed to any contaminated water droplets.

- **Your risk assessment should include**
- Management responsibilities, including the name of the competent person and a description of your system
- Any potential risk sources
- Any controls currently in place
- Monitoring, inspection and maintenance procedures
- Records of the monitoring results and inspections and checks carried out
- A review date

Keeping records

If you have five or more employees you have to record any significant findings, including any groups of employees identified by it as being particularly at risk and steps taken to prevent or control risks.

If you have less than five employees, you do not need to write anything down, although it is useful to keep written record of what you have done.



Records should include details of the:

- Person or persons responsible for conducting risk assessment, managing, and implementing written scheme
- Significant findings of risk assessment
- Written control scheme and details of implementation
- Results of any inspections, test or check carried out, and the dates
- This should include details of the state of operation of the system, i.e. in use/not in use

Information, Instruction and Training

Information should be given in a way that the employee can be expected to understand (for example it might be necessary to make special arrangements if the employee does not understand English or cannot read).

Employees and Safety Reps

Consulting with trade union – appointed safety representatives (see Safety Reps and Safety Committees regulations 1977) or other employee representatives (see Health and Safety Consultation [with employees] Regulation is a legal requirement. Working with safety representatives and employees' representatives is a very useful means of communication on health and safety matters in the workplace

Remember: involving employees in decisions can help foster closer working relationships and make employees more receptive to new ideas.

Further Reading

- 1 *Legionnaires' disease. The control of legionella bacteria in water systems. Approved Code of Practice and guidance* L8 (Fourth edition) HSE Books 2013 ISBN 9780717666157 http://www.hse.gov.uk/pubns/priced/l8.pdf
- 2 Control of legionella bacteria in water systems: Audit checklists. HSE Books 2003: ISBN 978 0 7176 2206 1 http://www.hse.gov.uk/pubns/priced/ck02.pdf
- 3 *The control of legionellosis: A recommended code of conduct for service providers* The British Association of Chemical Specialities and the Water Management Society 2005 www.legionellacontrol.com/Legionella-Control-Association-Code-of-Conduct-%20Issue-5-07.pdf

	• 4 *Water Fittings and Materials Directory* www.materialstesting.co.uk/materials_directory.htm • 5 *The Notification of Cooling Towers and Evaporative Condensers Regulations 1992* SI 1992/2225 TSO 1992 www.legislation.gov.uk • 6 *Reporting accidents and incidents at work: A brief guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)* Leaflet INDG453 HSE Books 2012 (priced pack ISBN 978 0 7176 6460 3) www.hse.gov.uk/pubns/INDG453.htm

Guidance Document

Legionnaires' Disease

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This document will be available on the following websites:

British Footwear Association – **www.britishfootwearassociation.co.uk**
UK Leather Federation – **www.ukleather.org**
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