



Hardfacts

Norwich Union Risk Services

Ref No 6015 (v5)

December 2006

Legionella

Legionella and Legionellosis

Legionella is a bacteria which is common in the environment and frequently found in natural and artificial water systems. Legionellosis is the term used to describe the infections caused by Legionella and related bacteria.

Legionnaires' disease, a form of Legionella, is a pneumonia that principally affects those who are particularly susceptible to such diseases as a result of age, illness, smoking or suppression of the immune system. Legionnaires' disease is the most serious disease that can be caused by the bacteria and is often fatal. The bacteria can also cause other diseases though these are less serious and are not fatal and do not cause permanent disablement, but they can affect all people.

The infection is spread by inhaling water droplets that contain the bacteria. The droplets would need to be small enough to penetrate the deeply into the lung. The bacteria can enter man made water systems where, under certain circumstances, they will multiply. If the water then ends up as droplets or a spray and a susceptible person inhales the droplets, the resulting disease can often be fatal.

Situations Where Legionellosis Can Occur

Although Legionellosis can occur wherever water is used or stored and droplets are created, experience has shown that there are certain situations where there is a foreseeable risk.

These include:

- Water systems incorporating a water-cooling tower
- Water systems where there is an evaporative condenser
- Hot water services (except for small systems containing less than 300 litres of water)
- Hot and cold water systems where there may be susceptible persons (such as hospitals and nursing homes)

- Humidifiers and air washers which create water droplets and in which the water temperature is likely to exceed 20° C
- Spa baths and pools in which warm water is likely to be agitated and recirculated

Assessment of Risk

Legionella is a substance hazardous to health as defined by the Control of Substances Hazardous to Health Regulations, 2002 and an assessment of the risks from Legionellosis must be carried out. The assessment will allow informed judgements to be made about:

- Whether there is potential for harm to health from exposure unless adequate precautions are taken
- What measures for prevention or controlling the risk need to be taken

As with all assessments, they will need to be reviewed periodically.

When there is a significant risk, a person will need to be appointed to take managerial responsibility and to oversee the precautions.

Persons who carry out the assessment and draw up the precautions will need to be competent to undertake the task and should understand:

- the potential sources and the risks they present;
- the precautions to be taken and their significance;
- the measure to ensure that the controls remain effective

Preventing or Minimising the Risks from Legionella

If there is a foreseeable risk, then exposure should be prevented. Reasonably practicable steps should be taken to minimise exposure. The precautions should be included in a written scheme which will be detailed enough to allow the system to be effectively operated. The exposure is normally minimised by precautions which do not allow the proliferation of the bacteria in the system and which reduce exposure to water droplets. The precautions might include:

- Minimising the release of water spray

- Avoiding water temperatures that favour the growth and reproduction of Legionella and other micro-organisms
- Avoiding water stagnation
- Avoiding the use of materials that harbour bacteria or provide nutrients for growth
- Maintaining the cleanliness of the system.
- Water treatment
- Correct operation and maintenance of the system

The scheme may also specify the measures to be taken to ensure that it remains effective, including the frequency of checks that need to be carried out.

Record Keeping

The person responsible for overseeing the precautions should ensure that appropriate records are kept. The records should include:

- name and position of the person appointed to oversee the precautions;
- the risk assessment and person who carried it out;
- the written scheme for minimising the risks from exposure;
- persons responsible for implementing the scheme;
- plant records displayed.

Records also need to be kept on the implementation of the scheme. These will include:

- details of the precautionary measures carried out, including when they were carried out;
- the results of any inspection, tests or checks carried out;
- remedial work carried out and date of completion;
- the signature of person carrying out the work.

Key Action Steps

- Identify potential sources of Legionellosis
- Assess the risks
- Prepare written scheme for controlling the risks
- Implement the written scheme
- Monitor its effectiveness
- Keep records
- Appoint a person with managerial responsibility

Reference Documents

- HSC General COSHH Approved Code Of Practice (L5 Rev) - HSE Books, 2002.
- Legionnaires disease: A guide for employers HSE IAC L27.
- Legionnaires disease: The control of legionella bacteria in water systems. HSC Approved Code of Practice L8, 2003.

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Norwich Union Risk Services operates a Risk Helpline during normal business hours for the cost of a local telephone call. The telephone number is:
0845 366 66 66
www.nu-riskservices.co.uk