

Environmental Health Fact Sheet Legionnaires' Disease Control for Building Owners and Occupiers

LEGIONNAIRES DISEASE

Legionnaires' disease is an infection of the lung caused by the *Legionella* bacteria. The bacteria causes a form of pneumonia. It can be fatal.

CAUSES

The disease is caused by breathing in aerosols which contain *Legionella* bacteria. This bacteria is present in low levels in the environment, but can grow rapidly to dangerous levels in cooling towers and in warm water systems.

PREVENTION

Legionella growth can be controlled by proper water treatment procedures and regular cleaning. Building owners and occupiers have the prime responsibility to properly install and maintain all water-cooling systems, air-handling systems, evaporative cooling systems, humidifying systems, and hot and warm-water systems. These systems are known as "regulated systems" because they are regulated by the legislation.

RESPONSIBILITIES OF BUILDING OCCUPIERS

The proper installation, maintenance and cleaning of systems is a legal requirement under the *Public Health Act 1991* and *Public Health (Microbial Control) Regulation 2000*. **Building occupiers** who fail to meet these requirements are liable to heavy fines or even imprisonment. Systems can be inspected at any time.

DESIGN AND CONSTRUCTION

Location of air intakes should be carefully planned. They should be placed well away from exhaust discharges and cooling-towers to avoid cross-contamination. They should also be away from pedestrian areas. All air intakes should be above the ground to make sure that dust, rain and small animals don't get into them.

Ductwork should be graded to prevent water collection and should be thoroughly cleaned before the system begins operating.

Installation of a water cooling system or warm water system must be reported to local government authorities, so that a local register of systems can be kept up to date.

WATER TREATMENT

All water-cooling systems can only be operated if they are equipped with a

process designed to control microbial growth certified by a competent person and only if the process is in continuous operation.

CONTRACTORS

Only **competent** contractors should be engaged to install, operate and maintain regulated systems. The Department of Fair Trading licenses contractors who undertake this work.

OPERATING AND MAINTENANCE MANUALS

All regulated systems are required to be equipped with an operating and maintenance manual. The manuals must include all details of inspections and servicing performed. Manuals and records must be kept on site.

COUNCIL REGISTERS

Local councils are required to keep a register of water-cooling and warm-water systems installed on premises in their area. It is your responsibility to ensure that the council is provided with the necessary information.

PROTECTIVE MEASURES

All inspectors should take great care when inspecting air-handling and water-cooling systems. If possible, the system should be shut down before sampling, and a respirator must be worn.

WHEN AN OUTBREAK OCCURS

The Legionnaires' Disease Emergency Management Plan prepared by the NSW Health Department will be put into action if an outbreak occurs. You may be required to submit a water sample to an Environmental Health Officer from the Department, or local council.

OTHER DOCUMENTS

Technical details about microbial control are available in the NSW Health Department's "Code of Practice for the Control of Legionnaires' Disease." This can be obtained from the Better Health Centre on tel: (02) 9816 0353 or downloaded from the Department's web site at:
<http://www.health.nsw.gov.au/public-health/ehb/general/microbial/microbial.html>

Australian Standard AS/NZS 3666 "Air Handling and Water Systems of Buildings - Microbial Control" is in three parts and is the main standard governing *Legionella* control. It is available from Standards Australia on tel 1300 65 46 46 or fax: 1300 65 49 49.

AS/NZS 3666 is adopted formally in NSW under the Public Health Act and the Public Health (Microbial Control) Regulation. This legislation also adds some further technical requirements and copies should also be obtained from the Department's website mentioned above.

FURTHER INFORMATION

For further information and advice contact the Environmental Health section of Hawkesbury City Council on Ph. (02) 4560 4571 or email andrew.matthews@hawkesbury.nsw.gov.au