

## Work Environment – Indoor environment

15.02.04

# Legionella – Cooling Towers and Power Outages

**This information bulletin provides information about Legionnaires' Disease and potential increased risk due to power outages.**

## Legionella and Legionnaires' Disease

The legionella bacterium is mainly found growing in air-conditioning cooling towers and water systems such as water-wash spray booths that are not adequately maintained. These systems can produce an environment suitable for legionella colonization, growth and dispersal into the air.

If an air conditioned system transfers bacteria from a source, eg. a cooling tower, into an indoor workplace, people in the building will be potentially at risk.

Where cooling towers have not been operating for a period due to power outages there is an increased risk of the growth of disease producing microorganisms in cooling tower water which has been standing. People who maintain or service cooling towers or those in buildings where cooling systems are reactivated after a period of downtime may be at risk.

Legionnaires' Disease is caused when water droplets containing the legionella bacterium are inhaled.

Exposure to the bacterium will not necessarily lead to disease. However the risk of infection is increased as dose rate increases, or the level of health decreases.

For further information on Legionella and Legionnaires' disease refer to Information Bulletin [15.02.02](#)

## Prevention

Many water systems are colonized with legionella and it will rarely be possible to completely and permanently prevent this. The task is to prevent multiplication, production of aerosol mists and therefore, the chance of inhalation of contaminated water droplets. This is routinely managed by proactive maintenance of water systems and cooling towers and treatment of water with chemical agents that kill bacteria.

When cooling towers have been inactive for a period due to power outages there is a potential for very high levels of contaminants to build up in the system. **It is essential that in these situations, building owners or operators test and treat cooling water prior to starting up systems to ensure that cooling systems are safe to operate.**

Information on maintaining air conditioning systems can be found in Australian / New Zealand Standard [AS/NZS 3666](#).

**For further information call NT WorkSafe on 1800 019 115 or visit the website [www.worksafe.nt.gov.au](http://www.worksafe.nt.gov.au)**

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