

NEW REGULATORY REQUIREMENTS AT A GLANCE

Legionella control in cooling water systems

Cooling water systems must be managed safely in order to prevent the growth and transmission of *Legionella* bacteria.

In 2018, NSW Health strengthened the laws to require a performance based (or risk management) approach to managing cooling water systems.

What is a cooling water system?

Cooling water systems contain one or more cooling towers. These devices are used to circulate cooling water which, in turn, cools the air in air conditioning systems.

A cooling tower reduces the temperature of water through evaporation (evaporative cooling). Cooled water is then piped to an interface with an air-handling system, allowing the water to cool the air. Air ventilation pipes then deliver the cooled air into the building.

Why is the management of cooling water systems important?

Effective management of cooling water systems is essential for protecting public health.

Poorly managed cooling water systems can provide ideal conditions for the growth and transmission of *Legionella* bacteria.

People can become infected by inhaling fine airborne aerosols generated by cooling towers. Infection may cause Legionnaires' disease, a serious and potentially life-threatening condition.

Which laws were changed?

In 2018, NSW Health changed the *Public Health Regulation 2012* (the Regulation). Cooling water systems must also comply with the *Public Health Act 2010* (the Act).

Find the legislation at: www.health.nsw.gov.au/environment/legionellacontrol.

What is the new Regulation about?

The Regulation requires all cooling water systems to be managed according to Australian/New Zealand Standard (AS/NZS) 3666 Part 3 (2011 edition).

This risk management approach requires the individual characteristics and unique risks of each cooling water system to be assessed and controlled.

The Regulation previously allowed a prescriptive or "one size fits all" approach. This required specific actions to be taken, regardless of the system design or risk of *Legionella* contamination, and was based on AS/NZS 3666 Part 2.

What does the new Regulation require?

The Regulation sets out six key requirements or "safeguards" as part of the risk management approach:

1. Assessing risk of *Legionella* contamination and preparing a Risk Management Plan (RMP) - every 5 years (or more frequently if required)
2. Independent auditing of compliance with the RMP and Regulation - every year
3. Providing certificates of RMP completion and audit completion to the local government authority
4. Sampling and testing for *Legionella* and heterotrophic colony count - every month
5. Notifying reportable laboratory test results (*Legionella* count $\geq 1,000$ cfu/mL or heterotrophic colony count $\geq 5,000,000$ cfu/mL) to the local government authority
6. Displaying unique identification numbers on all cooling towers.

Who are the key stakeholders?

There are several important roles in managing a cooling water system:

- **Occupiers** must ensure that their cooling water system is managed in accordance with the Act and Regulation
- **Duly qualified persons** manage the cooling water system on a routine basis
- **Competent persons** undertake a risk assessment and prepare an RMP
- **Independent auditors** conduct audits of compliance with the RMP and Regulation
- **Laboratories** that are accredited by the National Association of Testing Authorities test microbial samples
- **Authorised officers** have powers to ensure that the above stakeholders comply with the Act and Regulation
- **Local government authorities** regulate cooling water systems in their area
- **NSW Health** sets legislation and policy, supports local government authorities, monitors disease, and investigates outbreaks.

Further information on stakeholders is provided in the *NSW Guidelines for Legionella Control in Cooling Water Systems*.

When do the new requirements start?

Requirements commenced on 1 January 2018 for:

- Monthly sampling and testing for *Legionella* and heterotrophic colony count
- Notification of reportable laboratory test results.

Requirements commenced on 10 August 2018 for:

- Risk assessment and development of an RMP every 5 years or more frequently if required
- Independent audit of compliance with RMP and Regulation annually
- Providing certificates of RMP and audit completion to local government authorities
- Displaying unique identification numbers allocated by local government authorities on cooling towers.

The first risk assessments under the amended Regulation will be completed in phases. Local government authorities will allocate systems in their area to a due date of 30 November 2018, 31 March 2019, or 30 June 2019.

Why did NSW Health change the Regulation?

An Expert Panel assembled by NSW Health recommended strengthening the regulation of cooling water systems by taking a risk management approach, consistent with AS/NZS 3666 Part 3.

This approach allows each system to be managed according to its risk of *Legionella* contamination. Six safeguards provide multiple levels of oversight and ensure that problems are pre-empted, escalated and responded to in a timely manner.

The changes reflect extensive feedback from local government, industry, independent experts, and peak industry associations.

The changes bring NSW in line with a number of other jurisdictions in Australia and internationally which follow or recommend a risk management approach.

What guidance and training is available?

The *NSW Guidelines for Legionella Control in Cooling Water Systems* explain the new requirements in detail.

This series of factsheets summarises the key information for each stakeholder. The full set of factsheets can be found on the NSW Health website: www.health.nsw.gov.au/environment/legionellacontrol

NSW Health has developed the *Legionella Control in Cooling Water Systems* training program together with TAFE NSW. All stakeholders are encouraged to complete this training. The course is compulsory for auditors.

FOR MORE INFORMATION

Learn more about the new requirements at www.health.nsw.gov.au/environment/legionellacontrol.

Contact your local council at <https://www.olg.nsw.gov.au/find-my-council> or call your local public health unit on 1300 066 055.

Non-English speaker? Call the Translating and Interpreting Service on 13 14 50.