

Decontamination of high risk manufactured water systems

Regulation 17 of the South Australian Public Health (Legionella) Regulations (the Legionella Regulations) prescribes the mandatory responses to the detection of *Legionella* bacteria in high risk manufactured water systems (cooling water systems and warm water systems).

When *Legionella* is detected at specified concentrations in a water sample collected from a cooling water system or warm water system, the owner of the system must immediately shut down the system (pending decontamination) or immediately decontaminate the system in accordance with a prescribed decontamination procedure or an alternative decontamination procedure approved by the Minister.

This fact sheet summarises when and how regulated high risk manufactured water systems must be decontaminated.

When must a high risk manufactured water system be decontaminated?

Control strategies and remedial action must be undertaken when *Legionella* is detected, as specified in the Legionella Regulations and Schedule 4 of the Guidelines for the Control of Legionella in Manufactured Water Systems in South Australia (the Legionella Guidelines).

Control strategies (including the detailed decontamination procedure) must be documented in the system's operation and maintenance manuals. *Legionella* detection results and responses must be documented in the system's logbook.

Cooling water systems:

- > must be immediately shut down (pending decontamination) or decontaminated immediately, and the relevant authority (usually the local council) notified within 24 hours, upon the receipt of a report indicating the presence of *Legionella* at a concentration of 1000 or more cfu/mL in a water sample collected from a cooling water system.
- > should be decontaminated immediately if *Legionella* is detected at levels equal to or greater than 100 cfu/mL in a post decontamination re-test, as specified in Part 1 of Schedule 4 of the Legionella Guidelines.

- > Must be decontaminated if the relevant authority requires a decontamination procedure to be undertaken. This may include when the system is suspected of being associated with a case or outbreak of legionellosis or if the system is not being maintained in accordance with the requirements of the Legionella Regulations.

Warm water systems:

- > must be routinely decontaminated at least every 6 months.
- > must be immediately shut down (pending decontamination) or decontaminated immediately, and the relevant authority (usually the local council) notified within 24 hours, upon the receipt of a report indicating the presence of *Legionella* at a concentration of 10 or more cfu/mL in a water sample collected from a warm water system.
- > must be decontaminated if the relevant authority requires a decontamination procedure to be undertaken. This may include when the system is suspected of being associated with a case or outbreak of legionellosis or if the system is not being maintained in accordance with the requirements of the Legionella Regulations.



How to decontaminate a high risk manufactured water system

Cooling water systems

A system decontamination procedure must be performed as prescribed in Part 1 of Schedule 3 of the Legionella Guidelines.

Note: The prescribed decontamination procedure requires the entire system to be shut down and fully drained. Alternatively, the system owner can apply for approval from the Minister to use an alternative decontamination procedure.

Warm water systems

A system decontamination procedure must be performed as prescribed in Part 2 of Schedule 3 of the Legionella Guidelines.

Note: The prescribed decontamination procedures require chlorination or pasteurisation of the system. Alternatively, the system owner can apply for approval from the Minister to use an alternative decontamination procedure.

How to apply for approval for an alternative decontamination procedure

The system owner must complete an application form and submit it to SA Health with the relevant application fee.

The most up to date schedule of fees is published on SA Health's website along with the relevant application form and a fact sheet providing more information on applying for an approval from the Minister.

Note: An approval may be subject to conditions. It is an offence to contravene or not comply with a condition of an approval, which may result in expiation, prosecution and / or revocation of the approval.

System operation and maintenance manuals and logbooks

Up-to-date system operation manuals, maintenance manuals and logbooks must be kept on the premises in a readily accessible place and made available for inspection on request by an authorised officer.

Further information

For further information visit:

<http://www.sahealth.sa.gov.au/legionella>

For more information

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