

Legionella risk management

Plumbing Advisory Note

Issued April 2016

Legionellosis is a potentially fatal disease caused by the bacteria *Legionella*. While there is risk associated with *Legionella* in any water system, those that distribute warm water pose a greater risk.

Heated water services

- Heated water supplied from new heated water services to fixtures and appliances used primarily for personal hygiene must be delivered at a temperature that reduces the likelihood of scalding.
- Heated water must be delivered to fixtures and appliances at flow rates and temperatures that are adequate for those fixtures and appliances to function correctly.
- Sanitary fixtures, sanitary appliances and supply outlets provided with heated water must have a safe and adequate piped heated water supply.

Heated water storage

Heated water must be stored and delivered in a way that avoids the likelihood of *Legionella* bacteria growing.

Dead ends in water services pipe work

Dead ends in both heated water and cold water installations can place the drinking water at risk. A dead end is a branch in a water supply line that does not have an outlet or draw-off point that allows it to be used. When there is no flow in the line, the water in the branch stagnates and the water quality deteriorates. Plumbers must therefore remove dead ends in pipe work to reduce the risk to drinking water.

Legislative requirements

All heated water services must meet the performance requirements of the *National Construction Code Series Volume Three, Plumbing Code of Australia* (PCA).

Performance requirement **BP2.5 Heater water storage** states that 'heated water must be stored and delivered under conditions that avoid the likelihood of the growth of *Legionella* bacteria'.

Plumbing installations completed in accordance with AS/NZS 3500 'plumbing and drainage standard' series are deemed to have satisfied the provisions of the PCA.

All warm water systems must comply with the requirements of the *South Australian Public Health (Legionella) Regulations 2013*, which are supported by the *Guidelines for the Control of Legionella in Manufactured Water Systems in South Australia*.

In heated water systems, a dead end, especially one that branches from a circulatory system, can create ideal conditions for *Legionella* growth. As such, dead ends must be avoided. Dead ends are more commonly created in renovation work rather than new installations. To eliminate dead ends, remove the tee or branch fitting, or disconnect the disused branch pipe and seal the branch.

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Hot water systems not included in the South Australian Public Health (Legionella) Regulations 2013

Hot water systems not captured by the regulations, particularly those providing a supply to vulnerable people (e.g. nursing homes, aged care facilities, hospitals and supported residential facilities), should be operated and maintained in line with the following risk management considerations:

- All heated water storage systems should be monitored to ensure they store and dispense water at or above 60°C at all times.
- All water heaters must be certified to AS 3498.
- Accurate plans and manuals that show all components of the heated water system must be available.
- All components of the heated water system, such as thermostatic mixing valves and backflow prevention devices, must be maintained according to the Plumbing Standards AS/NZS 3500, AS 4032.1 Thermostatic Mixing Valves and AS 4032.2 Tempering Valves.
- A program to reduce the risk of water stagnating should be implemented e.g. flush all outlets at least weekly.

For specific information about controlling Legionella, contact the local council or visit the SA Health website www.sahealth.sa.gov.au/Legionella or email SA Health at legionella@health.sa.gov.au.

For further information about plumbing installations, contact the Office of the Technical Regulator on 1300 760 311 or email otr.plumbenquiries@sa.gov.au.

Contact the Office of the Technical Regulator for more information

Online sa.gov.au/otrplumbing

Email otr.plumbenquiries@sa.gov.au

Phone 1300 760 311



Government of
South Australia