

Plumbing Solutions – edition 12

SA Water Backflow Prevention Requirements for Water Services

20mm metered water connections

When applying for new water connection/s the plumber must assess and provide information on the potential hazard level of the proposed on-site activities, either a low, medium or high hazard.

SA Water will provide all new 20mm drinking water meters with a 20mm residential dual check valve as standard practice.

20mm drinking water connections that have a greater hazard rating than low will require the containment backflow protection device to be **supplied and installed by the plumber** at the property boundary adjacent to the water meter. A Certificate of Compliance and a valve location plan must be submitted to SA Water within 7 days of installing a backflow device.

Table F3 of AS/NZS 3500.1:2003 'Water Supply' may be used as reference.

25mm and larger water metered connections

When applying for drinking water connection/s 25mm or larger the plumber must assess and provide information relating to the potential hazard level of the proposed on-site activities, either a low, medium or high hazard.

Metered drinking water supplies greater than 20mm will require the plumber to supply and install the appropriate backflow protection device based on the potential hazard level of the proposed site activity. The backflow prevention device is to be situated at the property boundary adjacent the water meter. Testable backflow prevention devices are to be commissioned and tested annually by an accredited plumber who must forward the completed Certificate of Compliance to SA Water.

Table F3 of AS/NZS 3500.1:2003 'Water Supply' may be used as reference.

NOTE: The isolation valves are to be located either side of a testable backflow prevention device. The isolation valves on DN 80 and larger metered water services are to be gear activated

Existing property water connection

Any introduction of another water supply or change in the site activity on the property may alter the hazard level of the backflow prevention requirements. A reassessment of the level of protection will depend on the size of the water connection and the level of hazard as assessed by the plumber (refer to above information).

Fire hydrants or sprinkler services

A single spring-loaded check valve shall be provided in the pipe work system within 3 metres of the property boundary and adjacent to the point of connection with the Corporation's water supply. There shall be no branches to other services prior to the spring loaded check valve.

Where there are two or more fire services interconnected within the property, the spring-loaded check valve shall be of an in-line testable type with certified resilient seated gear activated isolating valves installed either side of the check valve to permit maintenance and testing.

Test Gauge Kit for Backflow Prevention

The test kits used for backflow prevention valve testing are “precision instruments” and need to be treated with the appropriate care. They need to be sent away every 12 months for testing and certifying, ask your merchant supplier for details of local test/certify facilities. SA Water does audit test kits for current calibration/certification.

Australian Standard states “Test equipment used for the field testing of backflow prevention devices shall be annually calibrated and certified by a registered laboratory”.

Reduced Pressure Zone Devices

Everyone is aware after having completed their backflow prevention training that the valves “have the relief drain outlet located not less than 300 mm above the surrounding surface”. The installation below started off as a double check for a commercial irrigation system, medium hazard rated. The system was upgraded to a chemical injection system, rated as high hazard which requires that a reduced pressure zone device be installed.

If you have any questions about Backflow Prevention or the AS/NZS 3500 Plumbing and Drainage Standards or alternatively, if you would like copies of this or various editions of Plumbing Solutions, please contact (08) 7424 1360 or email plumbooking@sawater.com.au

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