

Plumbing Code of Australia deemed-to-satisfy and performance solutions

This industry bulletin explains when a performance solution for a plumbing installation is required in accordance with the Plumbing Code of Australia (PCA).

The PCA is a performance-based code adopted in Western Australia, setting the standards for regulated plumbing work and allowing the use of performance-based solutions. This is implemented by a set of mandatory, overarching performance requirements that a plumbing system must meet by applying either the prescribed deemed-to-satisfy (DtS) standards (usually the AS/NZS 3500 series) and/or a performance solution with suitable evidence from recognised experts.

Figure A2G1: NCC compliance structure

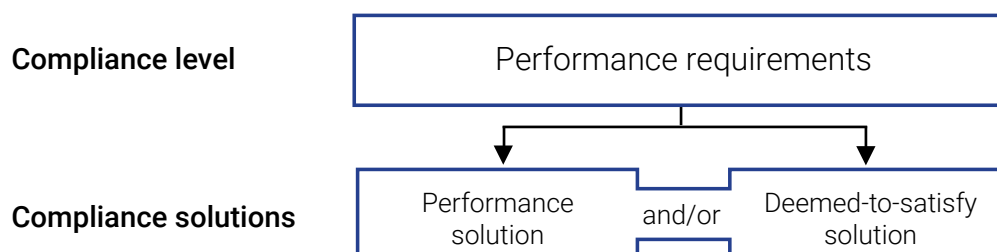


Figure A2G1 shows deemed-to-satisfy (DtS) solutions, performance solutions and the combination of both as assessment methods that must be followed.

Australian standards cannot cater for all scenarios of how plumbing systems are installed and do not necessarily keep up with new technology or innovations. Therefore, licensed plumbing contractors (LPC) must be aware that if there are no DtS provisions for the type of system they are installing, or there is a lack of specified requirements, a performance solution must be submitted in accordance with the PCA.

It should be noted that there are additional DtS clauses within the relevant parts of the PCA itself, which also apply in the construction of regulated plumbing systems.

Current examples where a performance solution is required include:

- Installation of warm water systems.
- Drains installed in other than stable ground.
- Installation of small-bore pumps with carbon vents.

Examples where performance solutions can be applied to improve performance and/or save costs of plumbing systems include:

- Reduction of drain sizes due to introduced water saving measures.
- Reduction of water service pipe sizes due to introduced water saving measures.
- Reduction of hazard levels for cross-connections, therefore a lower protection level of backflow protection devices.

To address a general misunderstanding between the use of DtS standards and Performance Solutions, Building and Energy will be aiming to inform and then enforce the requirement to submit a performance-based solution if no relevant DtS provisions exist. This will require the LPC to engage a recognised expert to provide evidence, demonstrated compliance or verification methods along with a declaration that the solution will meet the relevant performance requirements and the provisions of A2G4 of the PCA.

It is imperative that performance solutions are developed well before the plumbing work on the project commences. The Plumbers Licensing and Plumbing Standards Regulations 2000, under regulations 45A, 45B and 45C set out the process of developing a performance solution.

Further information and guidance on the submission of performance solutions

[Installing performance solutions for plumbing work in Western Australia](#)

Further information on the content, role and use of the PCA (including performance solutions)

[Information and obligations licensed plumbers – Plumbers technical advice](#)

Download the PCA

[ABCB – National Construction Code](#)

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