



Australian Government

Assessment Requirements for CPCPWT4011 Design and size heated and cold-water services and systems

Release: 1

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Modification History

- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is equivalent to CPCPWT4011B Design and size heated and cold-water services and systems. Updated to meet the Standards for Training Packages 2012.

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- designing, sizing and documenting the layout and schematic details for a commercial building with the design incorporating:
 - an approved heated/tempered circulating system and cold-water system to a minimum of seven floor levels. Each floor level must include a hydrant and hose reel system
 - at least five levels with the following fixtures on each floor level:
 - a disabled bathroom incorporating a water closet (WC) and basin
 - male toilet facilities including three WCs, three basins and three individual urinals or an equivalent sized urinal slab incorporating a mains pressure flush valve system
 - female toilet facilities including five WCs and three basins
 - a shower
 - a kitchen sink for tea making purposes
 - one floor level containing a commercial kitchen with food preparation area including at least:
 - a commercial dishwasher
 - a commercial pot wash facility
 - a commercial glasswasher
 - a basin
 - one floor level containing a plant room
- designing, sizing and documenting the layout and schematic details for a residential building with the design incorporating:
 - an approved heated/tempered water system and a drinking and non-drinking cold water system to a minimum of seven floor levels, inclusive of basement, to include fixtures on each floor level (excluding the basement).
 - at least the following fixtures on each floor level:
 - three baths

- six showers
- six WCs
- six basins
- three kitchen sinks
- three dishwashers
- three laundry tubs
- three clothes washing machines.

Knowledge Evidence

To be competent in this unit, a person must demonstrate knowledge of:

- process of designing, sizing and documenting the layout of heated, tempered and cold-water services and systems
- properties of water, including pressure and flow rates
- heated, tempered and cold-water services and flushing systems, and fire hydrant and hose reel systems, including non-drinking water requirements
- mains pressure flushing devices
- selection requirements for installing:
 - thermostatic mixing valves
 - backflow prevention devices
- drawing instruments and sketching techniques, including the use of conventional symbols
- use of computers for documentation
- computer-aided design software
- how to access relevant information, including codes and standards
- tools, materials and equipment used to design and size heated and cold-water services and systems
- work health and safety (WHS) requirements for designing and sizing heated and cold-water services and systems.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>