



Australian Government

Assessment Requirements for CPCPMS5013 Design hydronic heating and cooling systems

Release: 2

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Modification History

- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
- Performance Evidence formatted for clarity.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is equivalent to CPCPMS5013A Design hydronic heating and cooling 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 details for a hydronic heating and cooling system for a residential or commercial building with a three split level home incorporating a roof top plant room and under croft level.

Knowledge Evidence

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

- application of the National Construction Code (NCC) and relevant Australian standards and codes, manufacturer specifications and operating procedures relevant to the sector
- common terminology and definitions used in design of hydronic heating and cooling systems for all classes of building
- drafting principles
- nature of materials used in hydronic heating and cooling systems and effects of performance under various conditions
- principles of technology in the design of hydronic heating and cooling systems
- work health and safety (WHS) requirements, relevant statutory regulations, codes and standards
- hydronic applications for buildings:
 - fire rating of pipework and penetrations
- sustainability principles and concepts
- statutory and regulatory requirements and relevant Australian Standards and codes
- types and system components of boilers

- health risks associated with heated water supply
- health risks associated with cooling towers
- types of insulation and sheathing
- pipe supports
- testing and commissioning schedules
- operation and maintenance manuals.

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>