



Australian Government

CPCPPS5000 Design gas bulk storage systems

Release: 2

CPCPPS5000 Design gas bulk storage systems

Modification History

- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Element and Performance Criteria 2.9 rewritten for clarity.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
Supersedes and is equivalent to CPCPPS5000B Design gas bulk storage systems. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to design gas bulk storage systems for residential, commercial and industrial buildings.

The unit covers determining installation requirements, preparing plans and system specifications, producing testing and commissioning schedules and creating maintenance and operation manuals.

The role may involve interaction with architects, builders, suppliers, clients and relevant planning authorities and requires a sound understanding of applicable legislation, standards and codes.

This unit applies to experienced people such as hydraulic design consultants, plumbers or persons in a supervisory capacity who work in plumbing services on a new or existing site.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-requisite Unit

Nil.

Unit Sector

Plumbing and Fire Services

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

- | | | |
|--------------------------------------|-----|---|
| 1 Evaluate design parameters. | 1.1 | Establish scope of work for gas bulk storage systems. |
| | 1.2 | Establish system performance requirements. |
| | 1.3 | Determine design requirements from plans, specifications and client brief. |
| | 1.4 | Review and analyse statutory and regulatory requirements and Australian and New Zealand Standards for the design of gas bulk storage systems. |
| | 1.5 | Conduct research, including a desktop study to identify a range of system options. |
| | 1.6 | Interpret manufacturer requirements and trade and technical manuals for installing gas bulk storage systems. |
| | 1.7 | Conduct a cost-benefit analysis to compare a range materials and system designs. |
| | | |
| 2 Plan and detail system components. | 2.1 | Determine layout of a liquefied petroleum gas (LPG) bulk storage installation according to regulatory authorities. |
| | 2.2 | Prepare site plans for bulk installations, including layout of pipework systems. |
| | 2.3 | Specify fire protection systems according to Australian and New Zealand standards and provide detail of deluge systems. |
| | 2.4 | Plan and detail control valves and fittings. |
| | 2.5 | Analyse and locate content gauges according to code requirements and specify meters and regulators. |
| | 2.6 | Evaluate and specify vaporisers and calculate vaporisation rates. |
| | 2.7 | Perform system calculations for a range of applications according to regulations and manufacturer requirements. |
| | 2.8 | Determine pipe fixings for a range of applications. |
| | 2.9 | Specify approved materials, jointing methods and installation requirements for gas bulk storage systems. |

- | | |
|----------------------------|---|
| 3 Design and size systems. | 3.1 Design complex gas bulk storage systems using plans and details of system components and established design parameters. |
| | 3.2 Design a range of suitable system approaches. |
| | 3.3 Design and size systems using computer software packages. |
| 4 Prepare documentation. | 4.1 Prepare system plans. |
| | 4.2 Prepare system specifications. |
| | 4.3 Prepare system testing and commissioning schedule. |
| | 4.4 Produce operation and maintenance manual. |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPCPPS5000B Design gas bulk storage systems.

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>