



Australian Government

Assessment Requirements for CPCPGS4023 Install, commission and service Type B gas appliances

Release: 3

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Modification History

- Release 3 This version first released with CPC Construction, Plumbing and Services Training Package Release 6.2.
- Updated imported prerequisite unit UEENEEP012A Disconnect/reconnect composite appliances connected to low voltage installation wiring to UEERL0004 Disconnect-reconnect electrical equipment connected to low voltage (LV) installation wiring.
- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
- Typographical error corrected in Element and Performance Criteria 6.2.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is not equivalent to CPCPGS4023B Install, commission and service Type B gas appliances. 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:

- planning, installing, commissioning and maintaining one Type B gas appliance.

In doing so the person must:

- complete all work according to approved design specifications, workplace procedures, standards, codes and regulatory and manufacturer requirements within agreed timeframes
- apply safety requirements throughout the work sequence.

Knowledge Evidence

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

- relevant standards:
 - AS 3814 Industrial and commercial gas-fired appliances
 - AS/NZS 5601 Gas installations set
 - AS1375 Industrial fuel fired appliances
 - AS 2593 Boilers - Safety management and supervision systems

- AS/NZS 3000 Electrical installations (known as the Australian/New Zealand Wiring Rules)
- AS/NZS 4836 Safe working on low-voltage electrical installations
- flue gas analysis techniques and processes
- gas terminology and conventional symbols
- gas safety and isolation procedures
- combustion characteristics and effects
- purging requirements, techniques and critical calculation processes
- types, characteristics, uses and limitations of Type B gas appliance components
- ventilation techniques and calculation processes
- workplace and equipment safety requirements
- design specification:
 - air controls
 - combustion air blowers
 - flame safeguards
 - gas pressure regulation
 - gas valve trains
 - manual shut-off valves
 - markings and instructions
 - materials
 - over-pressure protection systems
 - process controls
 - safety shut-off valve systems
- Type B gas appliances:
 - those above 10 megajoules (MJ) for which a certification scheme does not exist
 - gas types:
 - combination fuels
 - liquefied petroleum gas (LPG)
 - natural gas (NG)
 - tempered LPG
 - bio-gas
 - special requirements for design and operation:
 - after burners - process
 - air gas mixing machines and mixing blowers
 - atmosphere generators and special atmospheres
 - direct gas fired air heaters
 - high input gas fired appliances
 - incinerators and generators
 - multi-fuel firing systems
 - ovens - direct fired

- smoke ovens - direct fired
- stationary gas engines and turbines
- steam and heated water boilers
- water heaters
- Type B appliance operation specifications:
 - flame establishment periods
 - interlocks
 - operation of gas appliance and burners
 - operational sequences
 - pre-purging
 - start gas rates
- determination of site suitability for installation
- commissioning procedure for a Type B appliance in accordance with relevant standard
- types of valve trains
- types of burners:
 - atmospheric
 - nozzle mix
 - package
 - pre-mix
- testing and servicing of Type B gas appliances requirements
- how to access relevant information, including codes and standards
- tools, materials and equipment used to install, commission and service Type B gas appliances
- work health and safety (WHS) requirements for installing, commissioning and servicing Type B gas appliances
- properties of gas, gas safety, combustion principles, pressure and flow rates.

Assessment Conditions

Assessors must satisfy the requirements for assessors listed 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>