



**Australian Government**

# **CPCPGS3052A Maintain Type A gas appliances**

**Release 1**

## **CPCPGS3052A Maintain Type A gas appliances**

### **Modification History**

Prerequisite unit updated

Changes to performance criteria, required skills and knowledge, range statement and critical aspects

Not equivalent to CPCPGS3022A

### **Unit Descriptor**

This unit of competency specifies the outcomes required to perform basic maintenance on Type A gas appliances.

### **Application of the Unit**

Site location for work application may be either domestic or commercial, and may be a new work site or an existing structure being renovated, extended, restored or maintained.

### **Licensing/Regulatory Information**

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

### **Pre-Requisites**

CPCPCM2043A      Carry out WHS requirements

## Employability Skills Information

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

- |   |                                    |     |  |
|---|------------------------------------|-----|--|
| 1 | Prepare for work.                  | 1.1 | Appliance specifications and servicing and manufacturer manuals are obtained for planned work activity.  |
|   |                                    | 1.2 | <b><i>Work health and safety</i></b> (WHS) and <b><i>environmental requirements</i></b> associated with maintenance of <b><i>Type A gas appliances</i></b> are adhered to throughout the work. |
|   |                                    | 1.3 | <b><i>Quality assurance requirements</i></b> for company operations are identified and adhered to.   |
|   |                                    | 1.4 | <b><i>Tools and equipment</i></b> are selected consistent with <b><i>maintaining Type A gas appliances</i></b> , checked for serviceability, and any faults are reported to supervisor.        |
|   |                                    | 1.5 | Tasks are planned in conjunction with others involved in or affected by the work.  |
|   |                                    | 1.6 | Work area is prepared and <b><i>materials</i></b> identified to support the efficient conduct of maintenance of Type A gas appliances.   |
| 2 | Identify maintenance requirements. | 2.1 | Appliance is checked to ensure installation complies with standards and manufacturer requirements.   |
|   |                                    | 2.2 | Electrical safety check is carried out according to authorities' procedures and data is recorded in format required by job specification.  |

- 2.3 Test equipment is used to support visual inspection and to conduct testing according to ***statutory and regulatory authorities'*** requirements.
    - 2.4 ***Sustainability principles and concepts*** are applied throughout the purging process.
  - 3 Conduct maintenance.
    - 3.1 Maintenance tasks are carried out according to specifications and manufacturer requirements.
    - 3.2 Appliances are checked for operation according to specifications, standards and manufacturer recommendations.
    - 3.3 Faults and malfunctions are identified and reported according to workplace requirements.
- 4 Clean up.
  - 4.1 Work area is cleared and materials disposed of, reused or recycled according to legislation, regulations, codes of practice, and job specification.
  - 4.2 Tools and equipment are cleaned, checked, maintained and stored according to manufacturer recommendations and workplace procedures.
  - 4.3 ***Information*** is accessed and documentation completed according to workplace requirements.

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills

- communication skills to:
  - access information
  - determine requirements
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
  - follow instructions
  - inform relevant authorities and supervisors of completion of job
  - use language and concepts appropriate to cultural differences
  - use and interpret non-verbal communication, such as hand signals
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- literacy skills to:
  - complete workplace documentation
  - read and interpret:
    - documentation from a variety of sources
    - plans and specifications
  - record data in writing
- numeracy skills to apply measurements and calculations
- planning and organising skills to:
  - plan and set out work
  - plan work with others
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technology skills to:
  - access and understand site-specific instructions in a variety of media
  - use mobile communication technology
- undertaking routine basic maintenance on Type A gas appliances, including gas, mechanical and appliance construction components

### Required knowledge

- documentation and reporting requirements
- electrical safety and requisite precautions

- how to access relevant information, including codes and technical standards
- job safety analysis (JSA) and safe work method statements (SWMS)
- procedures for maintaining and testing Type A gas appliances
- properties of gas, gas safety, combustion principles, pressure and flow rates
- relevant statutory requirements related to maintaining Type A gas appliances
- SI system of measurements
- workplace and equipment safety requirements

## Evidence Guide

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The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment providing that simulated or project-based assessment techniques fully replicate plumbing and services workplace conditions, materials, activities, responsibilities and procedures.

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- locating, interpreting and applying relevant information, standards and specifications to determine requirements and maintain Type A gas appliances
- applying safety requirements throughout the work sequence, including applying equipotential bonding procedures and using personal protective clothing and equipment
- given the plans and specifications, performing cleaning and routine basic adjustment to two Type A appliances, checking gas supply pressures, effective operation and flue condition, ensuring:
  - application of sustainability principles and concepts
  - correct identification of maintenance procedures and requirements
  - correct selection and use of appropriate processes, tools and equipment
  - completing all work to specification
  - compliance with regulations, standards and organisational quality procedures and processes
  - communicating and working effectively and safely with others.

### Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will

usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the minimum task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry-related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

## Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a



number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

## Range Statement

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The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Work health and safety*** is to be according to commonwealth, state and territory legislation and regulations and may include:

- handling of materials
- hazard control
- personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including recognising and preventing hazards associated with:
  - electricity
  - hazardous materials and substances
  - service lines
  - surrounding structures and facilities
  - trip hazards
  - use of tools and equipment
  - work site visitors and the public
  - working at heights

- working in proximity to others
- use of firefighting equipment
- use of first aid equipment
- workplace environment and safety.

***Environmental requirements***  
include:

- clean-up protection
- waste management.

***Type A gas appliances:***

- are badged appliances of less than 500 megajoules (MJ) for which an Australian Gas Association (AGA) approval scheme exists
- include:
  - decorative heaters
  - ducted heating systems
  - gas stoves and hot plates
  - heated water storage
  - instant heated water heaters
  - space heaters.

***Quality assurance requirements***  
may include:

- Australian standards
- Environment Protection Authority (EPA)
- internal company quality assurance policy and risk management strategy
- International Standards Organisation
- site safety plan
- workplace operations and procedures.

***Tools and equipment*** may include:

- chain blocks
- forklifts
- hand and power tools
- hand trolleys
- hoists and jacks
- lifting and load shifting equipment
- measuring equipment
- rollers
- spanners
- test equipment and instruments, including:
  - manometers
  - multi-meters

- neon testers
- volt sticks
- wrenches.

***Maintenance of Type A gas appliances:***

- includes cleaning or adjusting gas components, including:
  - burners
  - pilots
  - regulators
  - thermocouples
  - thermostats
  - temperature and pressure relief (TPR) valves
- also includes rectifying simple gas supply problems, including meters and regulators
- is to comply with appropriate Australian standards.

***Materials*** for the maintenance of Type A gas appliances:

- may include:
  - piping materials
  - regulators and meters
  - Type A gas appliances
  - other approved materials
- are to comply with appropriate standards for maintaining Type A gas appliances.

***Statutory and regulatory authorities*** include:

- commonwealth, state or territory, and local authorities administering applicable Acts, regulations and codes of practice.

***Sustainability principles and concepts:***

- cover the current and future social, economic and environmental use of resources
- may include appropriate purging medium that has minimal environmental impact.

***Information*** may include:

- charts and hand drawings
- diagrams, sketches or graphics
- instructions issued by authorised organisational or external personnel
- job drawings
- manufacturer specifications and instructions

- maps
- material safety data sheets (MSDS)
- memos
- organisation work specifications and requirements
- regulatory and legislative requirements, particularly those pertaining to:
  - building codes
  - WHS and environmental requirements
  - plumbing and gasfitting authority regulations
- relevant Australian standards
- safe work procedures relating to maintaining Type A gas appliances
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

## **Unit Sector(s)**

### **Functional area**

**Unit sector** Plumbing and services

## **Custom Content Section**

Not applicable.