



Australian Government

CPCPMS3041A Install domestic solid fuel burning appliances

Release 1

CPCPMS3041A Install domestic solid fuel burning appliances

Modification History

Prerequisite unit changed

Minor changes throughout the unit

Not equivalent to CPCPMS3021A

Unit Descriptor

This unit of competency specifies the outcomes required to interpret compliance requirements for domestic solid fuel burning appliance installation, plan and negotiate installation details with clients, and install appliances and flues to meet compliance and quality requirements. Work in this area must be completed according to relevant legislative, industry, customer and organisational requirements, including work health and safety (WHS) policies and procedures.

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

Regulatory mechanisms may apply to this unit. Candidates are advised to check for regulatory limitations.

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

Elements and Performance Criteria

- | | | |
|---|---------------------------|--|
| 1 | Prepare for installation. | <p>1.1 <i>Installation information</i> for <i>domestic solid fuel burning appliances</i> is interpreted and <i>compliance requirements</i> confirmed according to organisational, manufacturer and <i>legislative requirements</i>.</p> <p>1.2 Installation permits are checked or obtained as necessary in consultation with client and local authority.</p> <p>1.3 <i>Installation sites</i> are <i>inspected</i> and <i>appliance installation locations</i> confirmed as suitable or alternative locations negotiated with clients.</p> <p>1.4 Location preparation work required by other contractors is arranged in consultation with client.</p> <p>1.5 Heat sensitivities of building materials at appliance installation locations are confirmed, and <i>heat protection strategies</i> are confirmed with clients.</p> <p>1.6 Tasks are planned and <i>equipment and materials</i> are gathered and checked according to organisational requirements.</p> <p>1.7 <i>Sustainability principles and concepts</i> are observed when preparing for and undertaking work process.</p> |
| 2 | Install appliance. | <p>2.1 Appliance location is measured and marked according to compliance requirements.</p> <p>2.2 Floor protection material is measured and cut or made up and installed according to compliance requirements.</p> <p>2.3 Appliance is positioned and clearance distances are</p> |

- checked to confirm compliance.
- 2.4 Appliance is installed according to compliance and organisational requirements.
- 3 Install flue.
- 3.1 Flue dimensions and components are checked and additional sections or components obtained as required to meet compliance requirements.
- 3.2 Locations and dimensions of ceiling and roof penetrations are calculated, measured, marked and checked according to compliance and organisational requirements.
- 3.3 Penetrations are made with minimal damage to host materials and according to specifications and organisational requirements.
- 3.4 Structural supports are installed according to plans and specifications.
- 3.5 Opening is prepared in compliance with specifications, manufacturer recommendations and regulations.
- 3.6 Flue and associated components are installed according to compliance and organisational requirements.
- 3.7 Flashings and sealants are applied to restore integrity of ceilings and roofs according to compliance and organisational requirements.
- 3.8 Penetration is performance tested to ensure correct fit of completed installation, and remedied as required.
- 4 Finalise installation.
- 4.1 Installed appliance and associated components are checked for complete and correct installation according to compliance and organisational requirements.
- 4.2 Installation site is restored and equipment is cleaned, checked and stored according to organisational requirements.
- 4.3 Operation of appliance is demonstrated to clients and ***factors affecting optimum performance*** are explained.
- 4.4 Conformance certificate is prepared and processed according to compliance and organisational

requirements.

Required Skills and Knowledge

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

Required skills

- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - report faults
 - use language and concepts appropriate to cultural differences
- literacy skills to:
 - complete written documentation, such as:
 - appliance conformance certificates
 - installation compliance certificates
 - local authority permit applications
 - read and interpret instructions, specifications and standards, such as:
 - AS/NZS 2918 Domestic solid fuel burning appliances – installation
 - compliance certification plates on appliances
 - guidelines and updates for legislation and regulations regarding domestic solid fuel burning appliances
 - manufacturer installation instructions and specifications
- numeracy skills to apply measurements and calculations
- planning and organising skills to plan and set out work
- teamwork skills to:
 - work with others to action tasks
 - relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities

Required knowledge

- factors affecting selection of installation locations for appliances
- factors affecting compliance and non-compliance of domestic solid fuel burning appliances
- heat damage protection requirements for appliances
- legislation, regulations and standards that apply to the installation and emissions of domestic solid fuel burning appliances
- heat-response categories of construction materials:
 - heat sensitive
 - heat tolerant

- heat resistant
- installation requirements for different types of domestic solid fuel burning appliances
- job safety analysis (JSA) and safe work method statements covering:
 - asbestos recognition and reporting requirements
 - manual handling of appliances
 - personal protective equipment (PPE) for different tasks and situations
 - working safely at heights
 - worksite housekeeping
- quality requirements
- principles and products of combustion
- requirements and methods for maintaining structural integrity of buildings, roof structures and existing roof coverings
- SI system of measurement
- structure and function of flue elements and principles of flue draw, and effects of:
 - bends and horizontal sections
 - climatic conditions
 - surrounding buildings and trees
- types of domestic solid fuel burning appliances and methods for safe operation
- types and condition of wood used as fuel and impacts on:
 - efficiency of appliances
 - emissions

Evidence Guide

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 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 the ability to:

- apply safety requirements throughout the work sequence, including:
 - work with or near electricity
 - select and use processes, tools and equipment
 - use PPE
 - work at heights
- communicate and work effectively and safely with others
- apply sustainability principles and concepts while installing solid fuel burning appliances
- locate, interpret and apply information, standards and specifications relevant to the installation of domestic solid fuel burning appliances
- install at least two different domestic solid fuel burning appliances according to client, compliance and workplace requirements; appliances may be for:
 - central-heating
 - cooking
 - space-heating
 - water-heating
 - combinations of applications
 - fireplace inserts
 - free-standing
 - in-built
 - non-tested.

Context of and specific resources for

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

assessment

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

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.

- Installation information*** may include:
- AS/NZS 2918 Domestic solid fuel burning appliances – installation (Australian standards are frequently revised and users must always check for currency)
 - client requirements
 - compliance certification plates on appliances
 - JSA
 - manufacturer instructions and specifications
 - National Construction Code (NCC)
 - safe work method statements
 - work order.

- Domestic solid fuel burning appliances*** may include:
- appliances for:
 - central-heating
 - cooking
 - space-heating
 - water-heating
 - combinations of applications
 - fireplace inserts
 - free-standing
 - in-built

- non-tested
- tested.

Compliance requirements may include:

- Australian standards, such as:
 - AS/NZS 2918 Domestic solid fuel burning appliances – installation
 - AS/NZS3500 Plumbing and drainage (set)
- clearance distances to heat sensitive materials, including:
 - ceilings
 - curtains
 - furniture
 - timbers
 - walls
- codes of practice, such as HB39 Installation code for metal roof and wall cladding
- emissions compliance certification plate
- manufacturer specifications
- NCC
- types and dimensions of floor protection.

Legislative requirements may include:

- commonwealth, state and territory, and local legislation and regulations relating to:
 - emissions
 - installation permits
 - work health and safety.

Inspection of installation sites may include:

- assessing height and proximity of neighbouring buildings and trees
- determining structural elements and building materials, especially in regard to presence of asbestos; areas to be assessed include:
 - ceilings
 - floors
 - roofs
 - walls
- measuring dimensions of furniture and fittings close to appliance locations
- finding and noting locations of:
 - electricity
 - power points

- rooftop outlets for heating, ventilation and air-conditioning (HVAC) systems
- structural elements of buildings.

Appliance installation locations should:

- allow clearance distances and accessibility clearance according to manufacturer specifications or AS/NZS 2918 Domestic solid fuel burning appliances – installation
- be suitable for installation of flue according to manufacturer specifications or AS/NZS 2918 Domestic solid fuel burning appliances – installation
- be suitable for operation of fans, if required
- comply with emissions compliance requirements
- comply with health and safety requirements
- minimise discomfort caused by cool air draught
- provide optimum heat circulation.

Heat protection strategies:

- should include:
 - compliant floor protection
 - compliant clearance distances
- may include:
 - additional shielding
 - reduced compliant clearance distances.

Equipment and materials may include:

- appliances and associated components
- drills
- flashing roof materials, including:
 - fibreglass
 - laminate
 - metal roof covers of concealed or pierce fixed types
 - plastic building sheets for walls and roofs
 - polyethylene
 - rainwater goods
 - straw or wool
 - thermal insulation of reflective foil
 - fixings, which may include:
 - metal self drilling and tapping screws
 - rivets
 - sealants such as silicon and solder
- grinders
- hammers

- ladders
- PPE
- rivet gun
- saws
- sealant applicators
- sealants
- steel tape
- tile cutters
- tin snips.

Sustainability principles and concepts:

- cover the current and future social, economic and environmental use of resources
- may include:
 - selecting appropriate material to ensure minimal environmental impact
 - efficient use and recycling of material
 - efficient energy and water use
 - disposing of waste material to ensure minimal environmental impact.

Factors affecting optimum performance
may include:

- general cleaning and maintenance requirements
- type and condition of fuel used in appliances.

Unit Sector(s)

Competency field

Unit sector Plumbing and services

Custom Content Section

Not applicable.