



**Australian Government**

# **CPCCN2002B Prepare for off-site manufacturing process**

**Release 1**

# CPCCJN2002B Prepare for off-site manufacturing process

## Modification History

This version first released with CPC08 Construction, Plumbing and Services Training Package Version 9.

- Minor changes in required knowledge and range statement
- Other minor editorial changes

Equivalent to CPCCJN2002A Prepare for off-site manufacturing process

## Unit Descriptor

This unit specifies the outcomes required to prepare material for the manufacturing process and assemble components to form manufactured units.

## Application of the Unit

This unit of competency supports the achievement of skills and knowledge to prepare for the off-site manufacturing process, which may include working with others and as a member of a team.

## Licensing/Regulatory Information

No licensing, legislative and regulatory requirements apply to this unit at the time of endorsement.

## Pre-Requisites

CPCCOHS2001A      Apply OHS requirements, policies and procedures in the construction industry

## 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 | Plan and prepare.                                                         | 1.1 | Work instructions and operational details are obtained using relevant <b><i>information</i></b> , confirmed and applied for <b><i>planning and preparation</i></b> purposes.                       |
|   |                                                                           | 1.2 | <b><i>Work health and safety (WHS)</i></b> requirements are followed in accordance with safety plans and policies.                                                                                 |
|   |                                                                           | 1.3 | Signage and barricade requirements are identified and implemented.                                                                                                                                 |
|   |                                                                           | 1.4 | <b><i>Tools and equipment</i></b> selected to carry out tasks are consistent with job requirements, checked for serviceability and any faults are rectified or reported prior to commencement.     |
|   |                                                                           | 1.5 | Material quantity requirements are calculated in accordance with plans, specifications and <b><i>quality requirements</i></b> .                                                                    |
|   |                                                                           | 1.6 | <b><i>Materials</i></b> appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.                                                          |
|   |                                                                           | 1.7 | <b><i>Environmental requirements</i></b> are identified for the project in accordance with environmental plans and <b><i>statutory and regulatory authority</i></b> requirements, and are applied. |
| 2 | Identify, select and prepare materials for use in the off-site production | 2.1 | Materials are identified and selected as suitable for off-site production of components.                                                                                                           |
|   |                                                                           | 2.2 | <b><i>Fixings and fasteners</i></b> , adhesives and sealants are identified and selected appropriate to manufacturing                                                                              |

- process. process and are used to manufacturer specifications and safety data sheets (SDS) data.
- 2.3 Material acquisition and *preparation techniques* are identified and used as appropriate.
- 3 Identify fabricated components and method of assembly
- 3.1 Types of *component parts* are identified from working drawings and specifications.
- 3.2 Terminology and dimension limitations specified by standards governing design are referenced and able to be identified.
- 3.3 Processes are identified for manufacture, assembly and joining techniques and components.
- 4 Process for manufacture, assembly, fabrication and sequencing is monitored.
- 4.1 Space requirements for preparation of *manufactured units or products* are identified and located.
- 4.2 Component parts are acquired and checked for accuracy, quality and suitability according to plans, drawings and specification.
- 4.3 Assembling process is identified according to sequential order of events.
- 4.4 Typical common faults in product and/or process problems and appropriate remedial actions are identified according to set workplace operating procedures.
- 5 Clean up.
- 5.1 Unused materials are recycled or returned to store.
- 5.2 Tools, equipment and plant are cleaned, maintained and stored and work area is cleaned and waste disposed of safely.
- 5.3 Packaging/handling technique and methods of protecting material edge and surface are used.

## Required Skills and Knowledge

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

### Required skills

Required skills for this unit are:

- ability to recognise procedures, respond to change and contribute to workplace responsibilities, such as current work site environmental or sustainability frameworks or management systems
- communication skills to:
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
  - follow instructions
  - read and interpret drawings
  - use and interpret non-verbal communication
  - use language and concepts appropriate to cultural differences
- innovation skills to select appropriate tools and equipment, respond to workplace challenges and put ideas into action
- numeracy skills to apply measurements
- planning and organisational skills to identify requirements, apply relevant resources and sequence tasks
- problem solving skills to recognise and take action to rectify minor faults and problems
- teamwork skills to be able to work with others to action tasks and relate to people from a range of cultural, social, ethnic backgrounds and with varying physical and mental abilities.

### Required knowledge

Required knowledge for this unit is:

- National Construction Code (NCC) and relevant Australian standards
- construction materials and their characteristics
- fasteners and fixings relevant to unit assembly processes
- interpretation of workshop drawings and specifications
- job safety analysis (JSA) and safe work method statements
- measurement and calculation processes relevant to manufacturing work
- types and uses of static machines
- types of adhesives relevant to unit assembly processes
- types of construction material and component manufacturing processes
- workplace and 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, provided that simulated or project-based assessment techniques fully replicate construction 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 prepare materials and components for manufacture and assembly of at least one of the manufactured units or products listed in the range statement, providing evidence of the ability to:

- comply with WHS regulations applicable to workplace operations
- comply with organisational policies and procedures, including quality assurance requirements within the context of preparation of materials
- indicate a clear understanding of construction requirements of maximum and minimum dimension standards and governing authority, where applicable
- adopt and use sound techniques to identify material requirements, including allowances for joints
- indicate a clear understanding of joining methods and method of assembly of unit
- select and use appropriate processes, tools and equipment to carry out tasks
- demonstrate sound techniques in the selection and handling of material for components
- demonstrate sound techniques in handling and storing materials to ensure surfaces and edges are protected
- demonstrate sound and safe techniques to prepare

material for manufacturing process

- communicate with others to ensure safe and effective workplace operations.

### **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:

- work area appropriate to task
- working drawings and specifications relevant to task
- procedure documents appropriate to manufacturing processes
- tools, plant and equipment relevant to manufacture process
- materials appropriate to proposed project activity.

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 a reasonable inference that competency is not only verified under the particular assessment circumstance, but is 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 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.

***Information*** includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- memos
- regulatory and legislative requirements pertaining preparing for an off-site manufacturing process
- relevant Australian standards
- safe work procedures relating to preparing for an



off-site manufacturing process

- SDS
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

**Planning and preparation** include:

- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.

**Work health and safety** is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- hazard control
- hazardous materials and substances
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
  - concealed services (water, power and gas)
  - lighting
  - restricted access barriers
  - traffic control
  - work site visitors and the public
  - working at heights
  - working in confined spaces
  - working in proximity to others
- use of firefighting equipment
- use of lifting equipment
- use of machines
- use of tools and equipment
- workplace environmental requirements and safety.

**Tools and equipment** include:

- angle grinders
- bevels
- bolt-cutters
- buzzers

- circular saws
- compressors
- docking saws
- drop saws
- guillotines
- hammers
- measuring tapes
- metal cutting saws
- overhead/pendant cranes and forklifts
- squares
- thicknessers
- trolleys
- wire cutters.

***Quality requirements*** include:

- control of handling procedures
- cutting and dressing procedures
- quality of materials
- relevant regulations, including:
  - internal company quality policy and standards
  - manufacturer specifications where specified
  - National Construction Code
  - relevant Australian standards
  - workplace operations and procedures
- use and maintenance of equipment
- workplace operations and procedures.

***Materials*** include:

- aluminium
- laminated material
- medium density fibreboard (MDF)
- metallic and non-metallic materials
- plastic with solid core
- plywood
- timber
- veneered particleboard and sheeting.

***Environmental requirements***  
include:

- clean-up management
- dust and noise
- stormwater protection
- waste management.

***Statutory and regulatory authority***  
includes:

- federal, state and local authorities administering applicable Acts, regulations and codes of practice.

***Fixings and fasteners*** include:

- nail plates
- nails
- nuts and bolts
- screws.

***Preparation techniques*** include:

- cutting to length
- dressing to dimensional size
- marking for identification
- ripping to size
- stacking.

***Component parts*** include:

- balusters
- bearers
- handrailing
- joists
- multiple railing
- newels
- risers
- strings
- treads.

***Manufactured units or products*** include:

- doors
- fitments
- prefabricated framework
- shopfronts
- stairs
- windows.

## **Unit Sector(s)**

Construction

## **Custom Content Section**

Not applicable.