



Australian Government

Department of Education, Employment and Workplace Relations

CPCCEDE3011A Carry out mechanical general demolition

Release: 1

CPCCE3011A Carry out mechanical general demolition

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to demolish buildings, structures and ancillary components using mechanical demolition techniques.

This unit includes the preparation of the site for the demolition process and the removal of materials and debris.

Application of the Unit

Application of the unit

This unit of competency supports the attainment of the understanding and skills to use tools and equipment in mechanical demolition activities, which may include working with others and as a member of a team.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units

CPCCOHS2001A

Apply OHS requirements, policies and procedures in the construction industry

Employability Skills Information

Employability skills 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

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	1.1. Work instructions and operational details are obtained using relevant information, confirmed and applied for planning and preparation purposes. 1.2. Safety (OHS) requirements are followed in accordance with safety plans and policies. 1.3. Signage and barricade requirements are identified and implemented. 1.4. Plant and tools and equipment are selected to carry out tasks that are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement. 1.5. Environmental requirements are identified for the project in accordance with environmental plans and regulatory obligations and applied.
2. Prepare demolition site.	2.1. Requirements of site demolition plan are interpreted in accordance with workplace procedures. 2.2. Structural engineering certificate for floor loadings is obtained and checked for plant and equipment use. 2.3. Audit of property/dilapidation survey is conducted to determine condition of work site and surrounds prior to work commencing. 2.4. Confirmation is obtained from supervisor and regulatory authorities that all existing services have been disconnected. 2.5. Hazardous material is identified for separate handling in accordance with workplace requirements and instructions. 2.6. Fall protection devices are installed and anchored/secured in accordance with workplace requirements. 2.7. Mechanical equipment and plant are positioned in operating locations and appropriate exclusion zone and traffic control are arranged.
3. Demolish structure.	3.1. Mechanical plant is operated in accordance with manufacturer specifications, standards and workplace procedures to carry out demolition process. 3.2. Direction and assistance is provided to plant operators in accordance with workplace procedures during the demolition process. 3.3. Measures are used to reduce dangerous and

ELEMENT	PERFORMANCE CRITERIA
	environmental hazards of fire, dust, noise and vibration in accordance with regulations, standards and workplace requirements.
4. Remove materials from site.	4.1. Materials and debris are removed from demolition area according to demolition method statement and workplace procedures. 4.2. Re-usable and recyclable materials are salvaged and stored in accordance with workplace procedures.
5. Clean up.	5.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification. 5.2. Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills for this unit are:

- communication skills to:
 - determine requirements
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions
 - read and interpret:
 - documentation from a variety of sources
 - drawings and specifications
 - report faults
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
- evaluating own actions and making judgments about performance and necessary improvements
- identifying and accurately reporting to appropriate personnel any faults in tools,

REQUIRED SKILLS AND KNOWLEDGE

equipment or materials

- organisational skills, including the ability to plan and set out work
- recognising procedures, following instructions, responding to change and contributing to workplace responsibilities, such as current work site environmental and sustainability frameworks or management systems
- teamwork skills to coordinate own 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
- technological skills to:
 - use a range of mobile technology, such as two-way radio and mobile phones
 - voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- general construction terminology
- hazards associated with the conduct of mechanical demolition tasks
- job safety analysis (JSA) and safe work method statements
- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- measurement and calculation
- method of operation and maintenance requirements of demolition plant and equipment
- plans, drawings and specifications
- quality requirements
- techniques associated with the conduct of mechanical demolition processes
- types, characteristics, uses and limitations of plant and equipment involved in the conduct of mechanical demolition processes
- workplace and equipment safety requirements.

Evidence Guide

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, 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 provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures including quality requirements
- safely and effectively operate and use tools, plant and equipment
- communicate and work effectively and safely with others
- as a minimum, given a site demolition plan and instructions, using an excavator and selected attachments, knock down a single storey building, relocating salvage on site for later removal and disposal of debris and waste, ensuring:
 - correct identification of requirement and conduct of the demolition
 - correct selection and use of appropriate processes, plant and equipment
 - completing all work to specification
 - compliance with regulations, standards and organisational quality procedures and processes.

Context of and specific resources for assessment

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

EVIDENCE GUIDE

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 mandatory 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:

EVIDENCE GUIDE

- 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

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.

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions,

RANGE STATEMENT

	where specified
	• MSDS • memos • regulatory and legislative requirements pertaining to the conduct of mechanical demolition processes • relevant Australian standards • safe work procedures relating to the conduct of mechanical demolition processes • signage • verbal, written and graphical instructions • work bulletins • work schedules, plans and specifications.
<i>Planning and preparation</i> include:	• assessment of conditions and hazards • determination of work requirements and safety plans and policies • equipment defect identification • work site inspection.
<i>Safety (OHS)</i> 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 • handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight or other issues, such as a disability are a factor • hazard control • hazardous materials and substances, including asbestos, lead-based paints, dust, pesticide residue, animal residue and the safe handling or quarantining procedures for each • 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: • earth leakage boxes • falling objects • lighting • plant movement • power cables, including overhead service trays, cables and conduits

RANGE STATEMENT

- restricted access barriers
- surrounding structures
- traffic control
- trip hazards
- work site visitors and the public
- working at heights
- working in confined spaces
- working in proximity to others
- use of tools and equipment
- workplace environmental requirements and safety.

Plant:

- may be fitted with:
 - buckets, including 4 in 1 buckets
 - grabs
 - pulverisers
 - rippers
 - rock breakers
 - shears
- may include:
 - vibrating plates.

Tools and equipment include:

- angle grinders
- barricades
- bars (crow and pinch)
- bolt cutters
- brooms
- compressors
- concrete saws
- electric testers
- picks and mattocks
- pneumatic picks and rock breakers
- power drills and saws
- quick cut saws
- shovels and spades
- signs
- sledge hammers
- wheelbarrows.

Environmental requirements
include:

- clean-up management
- dust and noise
- sedimentation control

RANGE STATEMENT

- Audit:**
- vibration
 - waste management.
 - is in accordance with:
 - site demolition plan, which documents the demolition process and safe work practices
 - may include:
 - assessment of condition of property and surrounds
 - communication with those who may be affected by the demolition task
 - determination of floor loadings
 - erection of scaffolding
 - identification of hazardous materials
 - identification of position of hoses and cables clear of hazards
 - installation of supports and bracing
 - location of signage and barricades
 - provision for site safety.
- Services include:**
- computer and communication
 - electricity
 - gas
 - telephone
 - water.
- Mechanical equipment and plant:**
- include excavators
 - may be performed by backhoes and skidsteer loaders.
- Demolition** may be performed:
- on a new construction site or an existing structure being renovated or extended which involves the complete or partial removal of components.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area