



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **CPCCE3013A Operate a crushing plant**

**Release: 1**

## CPCCE3013A Operate a crushing plant

### Modification History

Not Applicable

### Unit Descriptor

#### Unit descriptor

This unit of competency specifies the outcomes required to operate a crushing plant to provide various size ranges of crushed materials.

This unit includes the preparation, inspection, maintenance, operation and shut down of a crushing plant.

### Application of the Unit

#### Application of the unit

This unit of competency supports the attainment of the understanding and skills to operate a crushing plant, 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

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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.	<p>1.1. Work instructions and operational details are obtained using relevant <i>information</i>, confirmed and applied for <i>planning and preparation</i> purposes.</p> <p>1.2. <i>Safety (OHS)</i> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <i>Plant, equipment</i> and tools 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.</p> <p>1.5. <i>Environmental requirements</i> are identified for the project in accordance with environmental plans and regulatory obligations and applied.</p>
2. Prepare for crushing operations.	<p>2.1. <i>Crushing plant</i> daily schedule and the size and type of <i>materials to be crushed</i> are determined from work/supply schedule.</p> <p>2.2. Crushing plant is visually inspected for correct operational condition as per manufacturer requirements.</p> <p>2.3. Daily or other periodic maintenance is carried out in accordance with plant maintenance schedule and manufacturers' instructions.</p> <p>2.4. Faults are identified and corrected or reported to supervisor.</p> <p>2.5. Plant is prepared and set for initial size range of crushings.</p>
3. Operate crushing plant.	<p>3.1. Crushing plant and equipment are operated and tested for correct operation as per manufacturer specifications.</p> <p>3.2. Uncrushed materials are directed into hopper and feed of uncrushed materials is maintained according to manufacturers' instructions.</p> <p>3.3. Crushing plant is stopped, cleared of blocked materials and restarted in accordance with manufacturers' instructions and site safety plan.</p> <p>3.4. Crushing plant settings are maintained in accordance with manufacturers' instructions.</p>
4. Shut down plant.	<p>4.1. Crushing plant is shut down in accordance with manufacturers' instructions and site safety and operation plan.</p>

ELEMENT	PERFORMANCE CRITERIA
5. Clean up.	<p data-bbox="576 293 1311 371">4.2. Faults identified are reported to supervisor and plant is tagged in accordance with workplace procedures.</p> <p data-bbox="576 383 1311 495">5.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.</p> <p data-bbox="576 506 1311 649">5.2. Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.</p>

## 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, 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

## REQUIRED SKILLS AND KNOWLEDGE

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 crushing operations
- job safety analysis (JSA) and safe work method statements
- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- method of operation and maintenance requirements of crushing plant and equipment
- quality requirements
- specifications and work schedules
- techniques associated with the conduct of crushing operations
- types, characteristics, uses and limitations of plant and equipment involved in the conduct of crushing operations
- workplace and equipment safety requirements.

# Evidence Guide

## 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 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
- given a crushing schedule and instructions, crush a minimum of 100 tonnes of demolition material into multiple grades of crushings, ensuring:
  - correct identification of requirement and operation of the plant
  - 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 and environmental constraints.

Assessment of essential underpinning knowledge

## EVIDENCE GUIDE

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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:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the



## EVIDENCE GUIDE

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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

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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. **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
- MSDS
- memos

## RANGE STATEMENT

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***Planning and preparation*** include:

***Safety (OHS)*** is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- regulatory and legislative requirements pertaining to the operation of crushing plant
- relevant Australian standards
- safe work procedures relating to the operation of crushing plant
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.
- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- preparation for and the operation and shutting down of crushing plant to crush demolition material to specified sizes
- work site inspection.
- 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
- 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
  - restricted access barriers
  - surrounding structures
  - traffic control

## RANGE STATEMENT

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- trip hazards
  - work site visitors and the public
  - working at heights
  - working in confined spaces
  - working in proximity to others
  - use of firefighting equipment
  - use of tools and equipment
  - workplace environmental requirements and safety.
- Plant and equipment*** include:
- conveyor belts
  - crusher plants
  - excavators.
- Environmental requirements*** include:
- clean-up management
  - dust and noise
  - sedimentation control
  - vibration
  - waste management.
- Crushing plant*** may be:
- stationary (fixed)
  - mobile.
- Materials to be crushed*** include:
- gravels
  - imported materials
  - in situ demolition site materials
  - recycled materials
  - rocks.
- Materials*** include:
- blocks
  - bricks
  - concrete
  - pavers
  - stone.

## Unit Sector(s)

Unit sector                      Construction

## Co-requisite units

**Co-requisite units** Nil

## **Functional area**

**Functional area**