



Australian Government

Department of Education, Employment and Workplace Relations

CPCBC4046A Erect and dismantle advanced scaffolding

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to erect and dismantle advanced scaffolding, including planning and preparation for work, conducting operational checks, safely and effectively erecting and dismantling advanced scaffolding activities for a range of tasks, including erecting and dismantling hung scaffolds, suspended scaffolds, and tube and coupler scaffolding systems to provide work platforms, edge protection and access ways in accordance with designated Australian standards.

A Certificate of Competency/Licence in Intermediate Scaffolding issued by a state or territory OHS authority is a prerequisite for this unit.

Application of the Unit

Application of the unit

This unit may have application in a range of industries, including civil construction, defence, electro technology, entertainment, maritime and mining, in addition to general construction.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units Nil

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 for operation.	<p>1.1. Applicable <i>safety (OHS)</i>, licensing, <i>legislative</i> and <i>organisational requirements</i> relevant to erecting and dismantling advanced scaffolding are verified and complied with.</p> <p>1.2. <i>Work order</i> is reviewed, confirmed and clarified with <i>appropriate personnel</i>.</p> <p>1.3. Type of operations to be conducted for <i>advanced scaffolding</i> are assessed and prepared.</p> <p>1.4. <i>Equipment</i> is selected appropriate to work requirements and checked for operational effectiveness in accordance with manufacturer recommendations.</p> <p>1.5. Advanced scaffolding operations are planned in accordance with site procedures.</p> <p>1.6. <i>Environmental protection measures</i> are adhered to in accordance with environmental plans and regulations.</p> <p>1.7. Communication with others is established and maintained in accordance with OHS requirements.</p>
2. Erect scaffolding.	<p>2.1. Purpose for scaffolding is confirmed and associated work <i>tasks</i> are specified.</p> <p>2.2. Design loading on scaffold and supporting structure is verified using load tables in accordance with appropriate limits, standards and specifications.</p> <p>2.3. Site access and egress routes are verified.</p> <p>2.4. Scaffolding and components are selected and inspected with damaged components isolated, labelled, tagged and rejected.</p> <p>2.5. <i>Footings</i> are prepared in accordance with regulations, legislation, codes of practice, manufacturer specifications and engineer's instructions.</p> <p>2.6. Scaffolding is set out and <i>erected</i> in accordance with regulatory requirements and manufacturer specifications.</p> <p>2.7. <i>Lifting devices</i> are assembled and erected in accordance with manufacturer specifications and regulatory requirements.</p> <p>2.8. Site <i>hazards</i> associated with scaffolding operations are detected, risks assessed and safe operating techniques used to eliminate or control risks.</p>

ELEMENT	PERFORMANCE CRITERIA
3. Erect ancillary scaffolding equipment.	<p>3.1. Fall protection is erected and installed in accordance with job specifications and regulatory requirements.</p> <p>3.2. Cantilevered hoist, with a lifting device working load limit not exceeding 500kg, is erected and checked for serviceability.</p>
4. Inspect, repair and alter erected scaffolding.	<p>4.1. Erected hung or suspended scaffolding and tube and coupler scaffolding are inspected for damage, corrosion, wear and compatibility prior to use.</p> <p>4.2. Faulty components are isolated, labeled, tagged, rejected or replaced immediately.</p> <p>4.3. Existing use of scaffolding is checked against original design to be in accordance with regulations and specifications.</p> <p>4.4. Scaffolding stability is inspected and confirmed in accordance with OHS regulations.</p> <p>4.5. Alterations and repairs are carried out on specified equipment or where faults are discovered to ensure regulatory compliance.</p> <p>4.6. Inspection log and handover are completed and dated.</p>
5. Dismantle scaffolding and clean up.	<p>5.1. Scaffolding is isolated and appropriately signed and barricaded to ensure safe dismantling.</p> <p>5.2. Scaffolding is dismantled using reverse procedure as for erection.</p> <p>5.3. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specifications.</p> <p>5.4. Tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.</p> <p>5.5. Work completion procedures are applied and appropriate personnel is notified that work is finished.</p> <p>5.6. Advanced scaffolding operations and faults are recorded and reported to appropriate personnel.</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:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - clarify and confirm work order with appropriate personnel
 - follow instructions
 - participate in on-site meetings
 - read and interpret:
 - instructions
 - work orders
 - other relevant documentation
 - report faults and respond appropriately
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
 - written skills to:
 - complete inspection log
 - document hazards
 - record and report faults
- compliance with legislation, regulations, standards, codes of practice and established safe practices and procedures for erecting and dismantling advanced scaffolding
- efficiently and safely erect and dismantle advanced scaffolding
- numeracy skills to calculate rated capacity and working load limits
- use and maintain relevant tools, machinery and equipment.

Required knowledge

Required knowledge for this unit is:

- advanced scaffolding capabilities and gear
- designs and functions of equipment
- environmental protection requirements relating to the disposal of waste material
- established communication channels and protocols in the workplace
- federal, and state or territory OHS legislation, regulations, standards and codes of practice relevant to the full range of processes for erecting and dismantling advanced scaffolding
- job safety analysis (JSA) and safe work method statements
- lifting devices and capabilities

REQUIRED SKILLS AND KNOWLEDGE

- material safety data sheets (MSDS) and material handling methods
- organisational and site standards, requirements, policies and procedures for erecting and dismantling advanced scaffolding
- procedures for recording, reporting and maintaining workplace records and information
- rated capacity and working load limit tags
- risk assessment and management
- safe working at heights and fall arrest
- types of tools and equipment, and procedures for their use, operation and maintenance
- typical routine problems encountered in the process and with equipment and adjustments required for correction
- weather considerations.

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 by providing evidence of safely and efficiently erecting and dismantling advanced scaffolding according to organisational and regulatory requirements.

This unit of competency can 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:

- comply with organisational and site policies and procedures, including quality requirements and state or territory legislation applicable to workplace operations

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- comply with OHS and environmental regulations, policies and procedures
- communicate effectively and work safely with others in the work area
- conduct risk assessment and management procedures
- complete the planning, erection and dismantling of suspended and hung scaffold system, in accordance with JSA and safe work method statements and regulations, including a minimum of:
 - two bays hung
 - support suspension system for a single stage
 - edge protection
- conduct pre and post-operational checks of advanced scaffolding.

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:

- workplace location or simulated workplace
- materials and equipment relevant to erecting and dismantling advanced scaffolding
- specifications and work instructions.

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

EVIDENCE GUIDE

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

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.

Safety (OHS) 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 disability are a factor
- hazard control
- hazardous materials and substances
- housekeeping
- organisational first aid
- personal protective equipment (PPE) prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - machines
 - man-made structures
 - obstructions
 - recently filled trenches
 - restricted access barriers
 - safe parking
 - security from unauthorised access or movement
 - signage and barricades
 - surrounding structures
 - traffic control
 - underground or overhead services
 - uneven or unstable surfaces or terrain
 - work site visitors and the public
 - working at heights
 - working in proximity to others
- use of firefighting equipment

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- Legislative requirements** include:
- use of tools and equipment
 - workplace environmental requirements and safety.
 - award and organisation agreements and relevant industrial arrangements
 - confidentiality and privacy requirements
 - environmental issues
 - equal opportunity
 - industrial relations and anti-discrimination
 - OHS issues
 - relevant industry codes of practice
 - relevant legislation from all levels of government that affect business operation.
- Organisational requirements** include legal, organisational and site policy, guidelines and procedures relating to:
- access and equity principles and practices
 - consultative processes
 - emergency and evacuation procedures
 - equipment maintenance and storage procedures
 - ethical standards
 - OHS policies
 - own role and responsibility
 - procedures and programs
 - quality and continuous improvement processes and standards
 - quality assurance or procedures manuals
 - recording and reporting procedures.
- Work order** includes:
- organisational work specifications and instructions issued by authorised personnel for erecting and dismantling advanced scaffolding and respective tasks.
- Appropriate personnel** includes:
- client
 - colleague
 - manager
 - supervisor
 - supplier.
- Advanced scaffolding:**
- includes:
 - cantilevered and spurred scaffolding
 - cantilevered crane loading platforms
 - couplers
 - hung scaffolds (scaffold hanging from tubes, wire ropes and chains)

RANGE STATEMENT

Equipment:

- sloping platforms
- suspended scaffolds (swing stages, boatswain chairs, multiple layer, single layer and articulated layer supported by wire ropes and may include maintenance units)
- tube and fitting scaffolding systems with mast climbers, cantilevers, barrow ramps, spurs, longitudinal and transverse braces, random planks and putlogs
- may include:
 - modular scaffolding.
- includes:
 - bracket scaffolds (tank and formwork)
 - cantilevered hoists (materials only with maximum working load limit not exceeding 500kg)
 - couplers
 - fibre ropes
 - gin wheels
 - hung scaffolds
 - manual and/or motorised winches
 - modular stages (aluminium or steel)
 - safety nets
 - static lines
 - suspended scaffolds
 - tube and fitting scaffolding
- may include:
 - adjustable base plates
 - box spanners
 - braces
 - cutters
 - forklifts
 - guardrails
 - hammer drills
 - hammers
 - ledgers
 - mast climbers
 - materials hoists

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- mesh guards
- mid rails
- pallet trolleys
- perimeter safety screens and shutters
- podgers hammers
- prefabricated components
- relevant maintenance equipment
- scaffold belts
- scaffolding planks (including laminated)
- shovels
- sledgehammers
- spanners
- spirit levels
- stairs or ladders
- standards
- steel and aluminium tubes
- tape measures
- torpedo levels
- transoms
- wheelbarrows
- wire nips
- wrenches.

Environmental protection measures include organisational and project requirements, including:

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

Tasks include:

- access ways
- edge protection
- falsework
- grandstands
- provision of work platforms
- stages and covered walkways.

Footings include:

- review of JSA and safe work method statements to determine the bearing capacity of ground or working surfaces
- components, including sole boards or base plates.

Erection includes:

- levelling
- placement

RANGE STATEMENT

- sequencing
 - squaring
 - tying to a structure.
- Lifting devices*** include:
- manual or motorised winches
 - mast climbers cantilevered hoists and gin wheels.
- Hazards*** include:
- buildings and structures
 - chemicals and hazardous materials
 - fires
 - movement of equipment, goods or material
 - traffic
 - underground or overhead services
 - uneven or unstable surface or terrain.
- Fall protection:***
- includes:
 - a full body rescue harness connected to a fall line and working platform edge protection while the scaffold is erected
 - static lines include:
 - static lines that can sometimes be used to form part of a travel restraint system that are horizontal lines, generally constructed from steel wire rope, to which lanyards are usually connected
 - static lines may be used:
 - as part of a travel restraint system where access is required close to an unprotected edge, or on a sloping or slippery surface.
- Cantilevered hoist*** includes:
- that with a working load limit not exceeding 500kg which only moves materials and is erected subsequent to the scaffold.
- Alterations and repairs*** may be required due to:
- accidents
 - misuse
 - process changes
 - storm damage.
- Handover*** includes:
- signing of the handover certificate which certifies that scaffold is ready for service and complies with Australian standards in its entirety.
- Records and reports*** include:
- advanced scaffolding operations and maintenance of equipment
 - costs

RANGE STATEMENT

- dangerous occurrences or equipment malfunctions using logbooks, pro formas, production reports and maintenance records
- difficulties or issues faced
- environmental issues
- hazards
- incidents or injuries
- logbooks, pro formas, production reports and maintenance records recording dangerous occurrences or equipment malfunctions
- recommendations for future work
- results.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area