



Australian Government

Department of Education, Employment and Workplace Relations

DEFCA306B Assist in the construction of dry gap crossings

Release: 1

DEFCA306B Assist in the construction of dry gap crossings

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to assist in the preparation, construction, maintenance and recovery of ***dry gap crossing bridging equipment***, including multiple and single span bridges, to cross any form of gap including rivers and streams to facilitate the movement of personnel, vehicles, cargo and equipment.

A dry gap crossing is defined as a bridge over or spanning the gap rather than one that floats or contours the surface. Bridges will normally be constructed on a temporary basis in ***field conditions*** to meet the operational need to provide a crossing point over a gap to carry personnel and equipment. When the crossing is no longer required the bridge is either recovered to storage or redeployed to another crossing. The individual will usually be engaged in bridge construction as part of a team under supervision, but may undertake some autonomous tasks.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s	BCG1004A Carry out measurements and calculations
	BCG1006A Use small plant and equipment
	BSBCMN311A Maintain workplace safety
	DEFCA301B Shift loads manually using non-motorised equipment

Employability Skills Information

Employability Skills	This unit contains employability skills.
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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

ELEMENT

PERFORMANCE CRITERIA

- | ELEMENT | PERFORMANCE CRITERIA |
|---|--|
| 1. Plan and prepare for dry gap crossing operations | <ul style="list-style-type: none">1.1 Appropriate personal protective equipment is selected and worn in accordance with OH&S requirements1.2 Site layout and preparation is conducted in accordance with standard procedures1.3 All bridging components are checked against inventory and materials list for completeness and are prepared for operation with faults and deficiencies reported to the supervisor1.4 Tools and equipment required for the task are selected, checked for serviceability and faults are reported to the supervisor |
| 2. Construct a dry gap crossing | <ul style="list-style-type: none">2.1 Jigs, fixtures and tools to be used in construction are assembled and adjusted ready for use2.2 Bridge components are assembled and checked for compliance, accuracy and alignment in accordance with standard procedures2.3 Equipment is operated in accordance with standard procedures |
| 3. Maintain and clean up site and equipment | <ul style="list-style-type: none">3.1 Gap crossing sites and crossing systems are maintained in accordance with standard procedures3.2 Gap crossing equipment, tools and unused materials are recovered, cleaned, maintained and documentation is completed, with any faults and deficiencies reported in accordance with standard procedures3.3 Gap crossing equipment, tools and materials are either stored or redeployed to another site in accordance with standard procedures |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- work safely to instructions
- select and use tools and equipment appropriate to the task
- follow instructions/directives and report information
- participate in team
- encourage other team members
- use a variety of verbal and non-verbal communication techniques including language style, active listening

Required Knowledge

- OH&S workplace and equipment safety requirements
- materials handling while operating tools
- site safety while working with plant
- checking components against inventory
- techniques for supporting others
- composition of teams and roles and responsibilities of team members
- verbal and non-verbal communication techniques including language style, active listening

Evidence Guide

EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to assist in the construction of at least two dry gap crossings using two types of dry gap crossing bridging equipment listed in the Range Statement. Individuals should be assessed participating in the construction of:

- at least one bridge of not less than 15 metres span
- at least one bridge constructed at night.

Assessment must also confirm the ability to:

- prepare the work site
- check components, tools and equipment
- participate in the assembly, construction and recovery of the crossing systems
- identify faults/problems and take action to rectify them
- work as part of a team and interactively communicate with others.

Consistency in performance

Competency should be demonstrated under field conditions over a time frame that allows for individuals to be assessed in the various tasks related to the construction of at least two dry gap crossings using two types of equipment listed in the Range Statement

Context of and specific resources for assessment

Context of assessment

Competency should be assessed by observing the individual assisting in the assembly, construction, operation and maintenance of various types of dry gap crossing equipment in accordance with standard procedures and instructions, by day and night and should cover all of the Critical aspects of evidence.

Specific resources for assessment

Access to:

- selected dry gap crossing equipment and components (multiple or single span gap crossing equipment, fixed clear-span equipment, non-equipment bridging, improvised and/or expedient materials, suspended cable equipment, aerial ropeways)
- tools, equipment and materials required to support the construction and operation of dry gap crossing

EVIDENCE GUIDE

- equipment
- suitable dry gap training area.

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 in the Performance Criteria is detailed below.

Dry gap crossing bridging equipment and components may include	- Multiple or single span gap crossing equipment - Fixed clear-span equipment - Non equipment bridging - Improvised and/or expedient materials - Suspended cable equipment - Aerial ropeways
Field conditions may include	- A range of terrain, soil and vegetation - Under all weather conditions - By day or night and under illumination
Personal protective equipment may include	- Boots - Safety glasses/goggles - Ear plugs/muffs - Dust masks/respirators - Gloves - Hard hat/cap - Life vests
OH&S requirements may include	- Workplace operations and safety procedures - Use of protective clothing and equipment - Safe working on platforms and scaffolding
Site layout and preparation may include	- Preparing site plan - Marking out site - Removing vegetation - Constructing approaches including access roads, tracks and bridge launching areas - Positioning components and materials for assembly - Determining datum line
Standard procedures may	Plant equipment

RANGE STATEMENT**include**

Anchorage
Expedient road and tracking i.e. materials obtained locally to construct improvised roads and tracks
Measuring tape/rule
Spirit level
Straight edge
Weights
String lines
Jigs
Clamps
Mechanical advantage devices, including blocks and tackle
Hand and power tools

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s	Nil
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