



Australian Government

Department of Education, Employment and Workplace Relations

PUADEFDV015B Employ explosive power tools in an underwater environment

Revision Number: 1

PUADEFDV015B Employ explosive power tools in an underwater environment

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to employ explosive power tools (EPT) in an underwater environment.

The unit also include selecting the appropriate **EPT** for the work task and inspecting them for serviceability. The diver must ensure the EPT are secure on own body throughout the dive, and correctly operate the EPT during the work task, with particular attention to safety during firing.

The diver will be responsible for the recovery of any waste arising from the work task to ensure the preservation of the environment. Finally, the EPT must be de-serviced and stored appropriately for ongoing use.

Note: This Unit of Competency relates, in part, to the existing standards of the Australian Diver Accreditation Scheme (ADAS). All information was correct at the time of development of this Unit of Competency; however, any diver seeking ADAS accreditation should consult ADAS and not rely on the information contained in this unit.

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

PUADEFDV001B Dive using self contained underwater breathing apparatus in open water to 30 metres

PUADEFDV008B Employ hand tools in an underwater environment

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 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
1. Prepare to use EPT underwater	1.1 Work task and worksite data are determined and analysed to determine the specific requirements for EPT 1.2 Work plan is developed consistent with the dive plan 1.3 EPT, explosive charges and protective equipment are selected, inspected and prepared 1.4 EPT and explosive charges are secured safely to/from the dive site 1.5 Access obstructions and other hazards are assessed and action is taken to remove/reduce the risk
2. Operate EPT underwater	2.1 EPT and explosive charges are secured on self for ease of accessibility and lack of interference with mobility and dive equipment 2.2 Material or base set out intended for explosive fasteners complies with detailed drawings and specifications 2.3 EPT attachments are installed and EPT charges are chambered 2.4 Work-safe area is established and the location and safety of divers is confirmed prior to commencing work task/s 2.5 EPT are operated underwater ensuring management of their associated hazards 2.6 EPT are cleared and rendered safe to evaluate the work task 2.7 Fastener penetration is checked for angle, depth and integrity of base
3. Conclude underwater EPT operations	3.1 Environmental impact arising from use of EPT is minimised and waste products are recovered 3.2 EPT and protective equipment are de-serviced after use 3.3 Explosive charge usage is documented

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

- ability to dive
- correctly take care with and handle explosive charges
- employ EPT
- implement firing and misfiring drills

Required Knowledge

- dive equipment
- dive physics
- explosive hazards
- explosive power tool usage on land
- general occupational/diving safety awareness
- oceanography
- principles of operation
- relevant references and Australian Standards
- safety distances
- work hazards

Evidence Guide

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

Assessment must confirm the ability to attend to personal and collective safety; to consider the environmental impact as part of the dive plan; and to focus on the integrity of the fasteners in performing the intended role.

Consistency in performance

Competency should be demonstrated during a number of work tasks where the diver fires a minimum of two charges over, at a minimum, two underwater work tasks into concrete, masonry or steel.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the ocean supported by questioning on shore or aboard vessels.

When practicable, assessment should relate to the diver's vocational focus.

Assessment should be conducted over a time frame that allows for the safe demonstration of competency.

Specific resources for assessment

Access to a complete range of diving, safety and accessory equipment; EPT and charges.

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

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.

EPT may include	Direct action
	Indirect action
Work task may include	Fastening
Worksite data may include	Composition of base (refer below for types of base)
	Condition of base
	Current
	Depth
	Gradient
	Hazards
Protective equipment may include	Obstacles
	Boots
	Ear protection
Selecting, inspecting and preparing EPT, explosive charges and protective equipment may include	Gloves
	Date checks
	Reviewing equipment logs
	Visual inspection
Action to remove/reduce the risk may include	Erecting signage
	Using patrol/sentry craft
Material or base may include	Concrete
	Masonry
	Steel
EPT attachments may include	Channel
	Rebate
Operation of EPT may include	Loading
	Firing
	Misfire procedures

RANGE STATEMENT

Hazards may include	Fall zone of objects being worked on
	Impact of EPT on dive equipment (e.g. hoses, gauges, communications)
	Operational zone and danger area of EPT
	Release of fuels and associated chemical contaminants resident at the worksite
Environmental impact may include	Contamination of surrounding water (e.g. leaking oil)
	Physical damage to reef and associated floor eco-systems (e.g. coral)
	Visual pollution of waste material (e.g. concrete and metal parts)
De-servicing may include	Drying
	Logging work details into equipment logs
	Oiling/greasing
	Washing in fresh water

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s	Nil
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