



Australian Government

DEFWDV028 Employ explosive power tools in an underwater environment

Release: 1

DEFWDV028 Employ explosive power tools in an underwater environment

Modification History

Release 1. This is the first release of this unit of competency in the DEF Defence Training Package.

Application

This unit describes the performance outcomes, skills and knowledge required to employ explosive power tools (EPTs) in an underwater environment.

It includes preparing and selecting an appropriate EPT for underwater work task and inspecting it for serviceability. It also includes recovering waste, and post-dive serviceability checks and re-stowing of equipment.

This unit applies to persons working as Defence divers or to others working in this field.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies, dive plan and procedures must be consulted and adhered to.

Persons undertaking this unit work independently and perform specific tasks in a range of contexts that could be unpredictable.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

Defence Work Diving.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Prepare to use EPTs under water

- 1.1** Identify and analyse work task and worksite data to determine EPT specific requirements
- 1.2** Identify obstructions and other hazards to determine risks and to manage appropriate risk control measures
- 1.3** Develop work plan consistent with dive plan
- 1.4** Select, inspect and prepare EPTs, explosive charges and protective equipment in accordance with work plan
- 1.5** Secure EPTs and explosive charges safely to and from dive site

2 Operate EPTs under water

- 2.1** Determine safe work area and confirm location of other divers prior to commencing work task/s in accordance with work plan
- 2.2** Ensure material or base set-out intended for explosive fasteners complies with detailed drawings and work plan specifications
- 2.3** Install EPT attachments and chamber EPT charges in accordance with manufacturer specifications
- 2.4** Secure EPTs and explosive charges on self in accordance with operational and safety procedures
- 2.5** Operate EPTs under water safely and manage identified risks
- 2.6** Check fastener penetration for angle, depth and integrity of base in accordance with work plan
- 2.7** Clear and render safe EPTs in accordance with manufacturer specifications

3 Complete underwater EPT operations

- 3.1** Minimise environmental impact arising from use of EPTs and recover waste products
- 3.2** Complete EPT and protective equipment post-dive serviceability checks in accordance with manufacturer specifications, report defects, as required, and stow in accordance with legislation and organisational requirements
- 3.3** Record explosive charge usage in accordance with organisational procedures.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the DEF Defence Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to DEFWDV015 Employ explosive power tools in an underwater environment.

Links

Companion Volume Implementation Guides are found on VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

Assessment Requirements for DEFWDV028 Employ explosive power tools in an underwater environment

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least two underwater occasions and include:

- applying relevant legislation, standards, and organisational policies and procedures
- applying underwater risk control measures and work plan requirements
- developing underwater explosive power tools (EPT) work plan, including managing identified risks
- firing at least two charges into concrete, masonry or steel
- handling explosive charges and protective equipment safely
- maintaining records according to organisational policies and procedures
- using EPTs safely underwater in accordance with work plan.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and include knowledge of:

- dive equipment
- dive physics
- dive physiology and medicine, including:
 - compression illnesses
 - decompression illnesses
 - heat and cold illnesses
- diving descent and ascent techniques
- general diving safety awareness, including:
 - diving in harbours
 - diving in tidal waters, currents and tides
 - diving on and/or near a ship's bottom
 - entrapment/foul lines
 - lost/separated
 - marine animal threats

- pollution/weeds
- working in confined spaces
- oceanography
- organisational policies and procedures
- principles of underwater EPT operation
- relevant EPT safety distances
- relevant explosive hazards and control measures
- relevant legislation and standards
- relevant underwater workplace hazards and control measures
- self-contained underwater breathing apparatus (SCUBA), surface-supplied and/or closed-circuit breathing apparatus (CCBA) operating techniques.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation, including legislation, regulations, codes of practice, workplace procedures and operation manuals
- documentation specific to the dive operation, including dive plan and risk assessment
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry.

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>