



Australian Government

DEFEXO111 Conduct underwater explosive demolitions

Release: 2

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Modification History

Release 2. Modifications made to Foundation Skills and Assessment Conditions.

Release 1. This unit was released in DEFTP Defence Training Package release 1.0 and meets the Standards for Training Packages.

This unit supersedes and is equivalent to DEFEO714C Conduct underwater explosive demolitions.

- Unit code updated
- Content and formatting updated to comply with the new standards
- All PC transitioned from passive to active voice

Application

This unit describes the skills required to conduct explosive demolitions in an underwater environment. The unit also covers the conduct of maintenance on the established demolition circuits and includes the requirement to disarm and disassemble the demolition. The individual is also required to handle, transport and protect explosives in an underwater environment.

This unit applies to those required to assemble and disassemble firing circuits, and to fix detonators, primers, firing devices and explosive charges in accordance with the demolition supervising officer's plan in an underwater environment.

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 and procedures must be consulted and adhered to.

Those undertaking this unit would work individually and as part of a team, under indirect supervision. They would use discretion and judgement and take responsibility for the quality of their outputs, conducting routine tasks in a range of complex contexts that could be unpredictable.

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

Pre-requisite Unit

Not applicable.

Competency Field

Explosive Ordnance

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Prepare for underwater demolitions

- 1.1** Analyse work task and worksite data to determine the specific requirements for the explosive demolition
- 1.2** Develop a work plan consistent with the dive plan
- 1.3** Select, inspect and prepare explosives, associated equipment and protective equipment
- 1.4** Secure explosives and associated equipment to/from the dive site
- 1.5** Assess access obstructions and other hazards and take action to remove/reduce the risk

2 Conduct underwater demolition

- 2.1** Secure explosives and associated equipment on self
- 2.2** Establish work-safe area at the demolition site and confirm location of divers prior to commencing demolition task/s
- 2.3** Identify and manage hazards relevant to the application of explosives and associated equipment
- 2.4** Fix and place demolition charges, lay line, set timing devices, establish firing point and connect and test circuit
- 2.5** Confirm location and safety of personnel prior to firing the demolition charge
- 2.6** Fire demolition charge

3 Conduct post-demolition procedures

- 3.1** Minimise environmental impact from use of explosives and recover waste products
- 3.2** Disassemble demolition circuit

- 3.3** Recover, de-service and store for re-use explosives and associated equipment, or dispose
- 3.4** Record usage of explosives and associated equipment

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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit supersedes and is equivalent to DEFEO714C Conduct underwater explosive demolitions.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for DEFEXO111 Conduct underwater explosive demolitions

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and includes:

- conducting demolition operations
- diving using self-contained underwater breathing apparatus in open water to 30 metres
- handling explosives
- implementing diving safety awareness strategies
- operating specialist equipment
- setting up explosive circuits

Knowledge Evidence

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

- basic knowledge of:
 - oceanography
- operational knowledge of:
 - dive equipment
 - dive physics
 - environmental effects on explosives
 - explosive charge design
 - explosive initiation techniques
 - general occupational/diving safety awareness
 - land-based explosive demolitions

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 this is not appropriate, assessment must occur in simulated workplace operational situations that reflect 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
- acceptable means of simulation assessment
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and PPE currently used in industry.

Links

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