



Australian Government

**DEFWDV007 Dive using closed-circuit
breathing apparatus (HeO₂) in open water
to a maximum depth of 60 metres**

Release: 1

DEFWDV007 Dive using closed-circuit breathing apparatus (HeO2) in open water to a maximum depth of 60 metres

Modification History

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

Application

This unit specifies the skills and knowledge required to dive using closed circuit breathing apparatus (CCBA) (HeO2) in an open water environment to a maximum depth of 60 metres.

It includes operating the HeO2 compressor/handbooster pump, inspecting and operating CCBA (HeO2) equipment, and conducting CCBA (HeO2) specific contingency drills.

This unit applies to persons working as Defence Divers but could also apply to others working as work divers.

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.

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

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.

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|---|--|
| 1 Operate an HeO2 compressor/hand-booster pump | 1.1 Inspect compressor and associated equipment for serviceability and report faults in accordance with operational procedures |
| | 1.2 Fit appropriate protective equipment in accordance with organisational procedures |
| | 1.3 Connect leads and hoses to compressor in accordance with manufacturer instructions |
| | 1.4 Charge gas cylinders to maximum working pressure and record details in relevant logs in accordance with organisational procedures |
| | 1.5 Conduct operator level maintenance on compressor and report faults, as required in accordance with organisational procedures |
| | 1.6 Undertake activity to de-service compressor after use in accordance with operational requirements |
| 2 Conduct dive operations | 2.1 Select, inspect and fit CCBA (HeO2), and conduct apparatus test as part of dive preparations prior to entering water and in water, in accordance with dive plan |
| | 2.2 Undertake dive activities using CCBA (HeO2) and demonstrate relevant dive contingencies in accordance with organisational procedures and dive plan |
| | 2.3 Undertake activity to de-service CCBA (HeO2) and report defects in accordance with operational procedures |
| | 2.4 Maintain situational awareness of other divers during dive operations |
| | 2.5 Conduct a mid-water casualty handover between an HeO2 standby diver and an air standby diver, in accordance with dive plan |

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 replaces but is not equivalent to DEFVDV007B Dive using closed-circuit breathing apparatus (HeO2) in open water to a maximum depth of 60 metres.

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 DEFWDV007 Dive using closed-circuit breathing apparatus (HeO2) in open water to a maximum depth of 60 metres

Modification History

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

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 four separate dives, with diver diving to a depth not greater than 60 metres using closed-circuit breathing apparatus (CCBA) (HeO2) in open water (oceans, seas, lakes and rivers) and include:

- applying relevant industry standards, and organisational policies and procedures
- conducting CCBA (HeO2) dive operations:
 - in open water to a maximum depth of 60 metres during the day and at night
 - in water time of 60 minutes
 - with a total accrued sub-surface time of 0–60 minutes
 - in a range of sub-surface conditions including:
 - a range of surface and sub-surface hazards
 - current (0–2 knots)
 - temperature (0 degrees +)
 - visibility (0 metre +)
- conducting unconscious companion diver drills in accordance with dive plan
- identifying changes in divers, including distress and illness at depth
- inspecting and preparing CCBA (HeO2) equipment and gauges monitoring CCBA (HeO2) equipment and gauges
- operating an HeO2 compressor/handbooster pump in accordance with manufacturer specifications.

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 include knowledge of:

- CCBA (HeO2) characteristics and limitations
- CCBA (HeO2) dive equipment specifications and limitations
- dive physics
- dive physiology and medicine including:
 - heat and cold illnesses

- compression illnesses
- decompression 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
 - lost/separated
 - entrapment/foul lines
 - marine animal threats
 - pollution/weeds
 - working in confined spaces
- hazards of Heliox
- relevant diving safety awareness
- relevant industry standards, and organisational policies and procedures
- safe operating ranges for airsupplies
- standby diver responsibilities.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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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 other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- oceans, seas, lakes and rivers with a range of conditions, and diurnal and nocturnal environments
- relevant documentation including organisational procedures, regulations, codes of practice and CCBA (HeO2) operation manuals.

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

Links

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