



Australian Government

DEFWDV026 Dive using surface-supplied breathing apparatus (SSBA) in open water to 30 metres

Release: 1

DEFWDV026 Dive using surface-supplied breathing apparatus (SSBA) in open water to 30 metres

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 dive to a maximum depth of 30 metres using surface-supplied breathing apparatus (SSBA) and complete occupational post-dive activities. It includes the ability to check and connect equipment, prepare a dive plan, carry out an open water dive and conduct post-dive equipment checks.

It includes operating a surface-supply panel and inspecting and operating SSBA equipment.

This unit relates, in part, to existing standards in the Australian Diver Accreditation Scheme (ADAS).

This unit was developed for Defence divers but may be applicable to anyone 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

Elements describe the essential outcomes.

1 Operate a surface-supply panel

PERFORMANCE CRITERIA

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

1.1 Ensure surface-supply panel and associated equipment is in date and serviceable

1.2 Connect main and reserve breathing gas supplies and confirm supply

1.3 Check seals and connections for integrity, correct function and correct line up

1.4 Ensure each umbilical from the surface-supply panel is safely connected to a diver's helmet

1.5 Perform routine user level maintenance on surface-supply panel

1.6 Conduct surface-supply panel post-dive inspections and serviceability checks and report defects, as required, in accordance with manufacturer specifications and organisational procedures

2 Conduct SSBA dive operations

2.1 Participate in developing a dive plan and risk assessment for SSBA dive operation using industry approved decompression tables in accordance with organisational procedures

2.2 Select, inspect, fit and test SSBA in accordance with manufacturer specifications and ensure independent equipment check prior to diving

2.3 Conduct dive/s using SSBA and demonstrate dive contingencies in accordance with organisational procedures

2.4 Undertake tender duties in an SSBA diving operation according to organisational procedures

2.5 Complete SSBA equipment post-dive serviceability checks in accordance with manufacturer specifications and report defects, as required, in accordance with organisational procedures

2.6 Re-stow surface-supply panel and SSBA equipment in

- accordance with organisational procedures
- 3 Perform open water diving operations using SSBA**
- 3.1** Perform entry and exit techniques at the assigned entry and exit points
- 3.2** Undertake open water SSBA diving operations to a maximum depth of 30 metres according to dive plan
- 3.3** Manage descent and ascent in accordance with dive plan and dive operations manual
- 3.4** Follow decompression and emergency procedures according to dive plan and dive operations manual
- 3.5** Establish and maintain effective communication with surface and dive team
- 3.6** Transmit and receive messages using electronic communications devices in accordance with dive plan and communication protocols
- 4 Identify and manage dive-specific emergencies and problems**
- 4.1** Identify and respond to hazards in accordance with the emergency response plan, dive plan and risk assessment
- 4.2** Recognise signs and symptoms of diving-related illnesses in self and others and take corrective action immediately in accordance with dive plan and safety procedures
- 4.3** Manage umbilical to avoid entanglement and resolve entanglement issues promptly
- 4.4** Maintain spatial awareness in low visibility conditions and recover promptly when balance is lost
- 4.5** Recognise potential and escalating problems and report to supervisor
- 4.6** Follow instructions of supervisor promptly to resolve problems and report outcomes of actions taken

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 not equivalent to DEFWDV004 Dive using surface-supplied breathing apparatus in open water to 30 metres.

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 DEFWDV026 Dive using surface-supplied breathing apparatus (SSBA) in open water to 30 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 the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant industry standards, and organisational policies and procedures
- conducting in-water checks
- conducting surface-supply panel operator level maintenance
- confirming independent third-party equipment checks
- diving using surface-supplied breathing apparatus (SSBA) in open water to 30 metres
- entering and exiting the water appropriate to the launch platform, equipment and conditions
- implementing contingency and emergency response plan
- maintaining equipment during dive
- maintaining records according to organisational policies and procedures
- operating surface-supply panel
- preparing equipment for dive
- preparing surface control panel for dive
- switching from SSBA primary to reserve breathing gas system.

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 physics and decompression tables
- dive physiology and medicine, including:
 - decompression illnesses
 - hypothermia and hyperthermia compression illnesses
- diving descent and ascent techniques, including decompression procedures
- general occupational/diving safety awareness, including:
 - diving in harbours
 - diving in tidal waters, currents and tides
 - diving on and/or near a ship's hull

- entrapment/foul lines
- lost/separated
- marine animal threats
- marine hazards
- pollution/weeds
- working in confined spaces
- working in sites with potential differential pressure hazards (Delta P)
- organisational policies and procedures
- relevant industry standards
- safe operating ranges for breathing gas supplies
- SSBA dive equipment characteristics and limitations
- surface-supply panel and SSBA dive equipment serviceability checks
- surface-supply panel and SSBA dive equipment storage requirements
- surface-supply panel characteristics and limitations
- surface-supply panel operational maintenance requirements.

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

Companion Volume Implementation Guides are found on VETNet -

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