



Australian Government

**DEFWDV023 Dive using closed-circuit
breathing apparatus (N₂O₂) in open water
to a maximum depth of 50 metres**

Release: 1

DEFWDV023 Dive using closed-circuit breathing apparatus (N2O2) in open water to a maximum depth of 50 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 using closed-circuit breathing apparatus (CCBA) (N2O2) in an open water environment to a maximum depth of 50 metres.

It includes operating the N2O2 compressor or hand-booster pump, inspecting and operating CCBA (N2O2) equipment, and conducting CCBA (N2O2) specific contingency drills.

This unit applies to persons working as Defence divers but can be applied 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 outcomes.

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

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| 1 Operate a CCBA (N2O2) compressor or hand-booster pump | 1.1 Inspect N2O2 compressor and associated equipment for serviceability and correct gas make-up in accordance with dive brief |
| | 1.2 Fit appropriate protective equipment in accordance with organisational procedures |
| | 1.3 Charge N2O2 gas cylinders to maximum working pressure and record details in relevant logs in accordance with operational procedures |
| | 1.4 Conduct operator level maintenance on N2O2 compressor and report defects, as required, in accordance with organisational procedures |
| | 1.5 Re-stow compressor after use in accordance with operational procedures |
| 2 Conduct CCBA (N2O2) dive operations | 2.1 Select, inspect and fit CCBA (N2O2), and conduct apparatus test prior to entering water and in-water, in accordance with dive plan |
| | 2.2 Use CCBA (N2O2) during dive operations and demonstrate relevant dive contingencies in accordance with organisational procedures and dive plan |
| | 2.3 Complete CCBA (N2O2) post-dive equipment serviceability checks in accordance with manufacturer specifications and report defects, as required, 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 DEFWDV005 Dive using closed-circuit breathing apparatus (N2O2) in open water to a maximum depth of 40 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 DEFWDV023 Dive using closed-circuit breathing apparatus (N2O2) in open water to a maximum depth of 50 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
- arranging for others to check equipment
- conducting closed-circuit breathing apparatus (CCBA) (N2O2) open water dive operations in accordance with dive plan during the day and at night
- conducting in-water apparatus checks
- conducting unconscious companion diver drills in accordance with dive plan
- maintaining equipment during dive operations
- maintaining records according to organisational policies and procedures
- monitoring CCBA (N2O2) equipment and gauges
- operating an N2O2 compressor or hand-booster pump in accordance with manufacturer specifications.

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:

- CCBA (N2O2) characteristics and limitations
- CCBA (N2O2) dive equipment specifications and limitations
- dive physics
- dive physiology and medicine, including:
 - heat and cold illnesses
 - compression illnesses
 - decompression illnesses
 - signs and symptoms of gas toxicity
- diving descent and ascent techniques
- general diving safety awareness, including:
 - diving in harbours

- diving in tidal waters, currents and tides
- lost/separated
- entrapment/foul lines
- marine animal threats
- relevant industry standards
- safe operating ranges for gas mixtures
- CCBA (N2O2) equipment maintenance and servicing recording requirements
- organisational policies and procedures.

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>