



Australian Government

Assessment Requirements for SISOSCB008 SCUBA dive using Enriched Air Nitrox

Release: 1

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Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- plan and complete two EANx SCUBA dives, each for different parameters
- prior to each dive:
 - select a supplier and order a blend of EANx suitable for dive requirements
 - analyse and confirm blend requirements and complete required log documents
 - safely and accurately assemble all equipment in line with the particular requirements of EANx use
- during each dive, use effective techniques to control:
 - entry and exit
 - buoyancy
 - underwater swimming
 - ascent and descent
 - buddy management
- after each dive, disassemble equipment and complete basic maintenance tasks, at water's edge, in line with elevated oxygen mix effects on equipment.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- compositions and recreational uses of:
 - standard air
 - Enriched Air Nitrox (EANx) within the range of 22% to 40% oxygen
 - EANx above 40% oxygen at a fundamental level of understanding
- different terminology and abbreviations used to describe enriched air and composition, e.g. Enriched Air Nitrox, EANx22, Enriched Air 22, Enriched Air Nitrox 22, Nitrox 22
- primary benefits of using EANx, commonly used blends and benefits of different blends
- how use of EANx of different composition affects, or has no particular effect on:
 - no stop limits (no decompression limits)
 - decompression illness (DCI)
 - narcosis

- the primary medical hazard of central nervous system oxygen toxicity (CNS toxicity) associated with use of EANx when diving:
 - causes
 - prevention
 - signs and symptoms
 - first aid treatments
- for Enriched Air Nitrox (EANx) cylinders:
 - why cylinders are dedicated for use with EANx, and hazards associated with mixing use of dedicated and standard compressed air cylinders
 - identifying features and their purpose including:
 - colours, colour bands, wording
 - visual inspection stickers (decals)
 - oxygen service standard stickers (decals)
 - contents stickers or tags
 - any unique markings required by local regulations
- for obtaining EANx and equipment:
 - quality standards that apply to provision of EANx
 - quality standards that apply to servicing cylinders
 - how to choose a quality provider for renting, filling, and servicing cylinders and other equipment to avoid risks to divers
- special usage, maintenance, service considerations and manufacturer's recommendations that can apply to the use of EANx with other equipment:
 - regulators
 - buoyancy control devices (BCD)
 - submersible pressure gauges (SPG)
- primary equipment related hazards associated with use of EANx and precautions taken to avoid risks:
 - fire and combustion when filling and analysing content of mixed gases
 - deterioration of equipment when exposed to high levels of oxygen
- processes to personally analyse and log the EANx blend in filled cylinders before use:
 - how to calibrate an oxygen analyser between uses using manufacturer's recommendations
 - how to use an oxygen analyser to determine the oxygen content using manufacturers' recommendations
 - how to complete logs
- how to use dive computers for use with EANx to:
 - determine no-decompression limits for single and repetitive dives
 - properly plan and execute a dive
 - determine PO₂ and how to establish equivalent air depth mix
 - determine maximum operating depth (MOD)
- the advantages of dive computers over dive tables when planning and completing dives.

Assessment Conditions

Skills must be demonstrated in an open water site suitable for EANx diving. Dives can be completed from either boats or from the shore.

During assessment:

- direct vertical access to the surface must be possible; aquatic plants are not considered an overhead obstruction
- the following resources must be available to replicate industry conditions of operation:
 - first aid equipment
 - oxygen equipment
 - communication equipment for emergency response
 - diver flags of a type and size that meet local maritime regulator requirements.

Assessment must ensure use of:

- a diving buddy with whom the candidate can dive
- fins
- masks
- snorkels
- clearly marked and designated Enriched Air Nitrox cylinders and valves, including stickers and tags which comply with local regulations
- buoyancy control devices with low-pressure inflators
- regulators suitable for use with enriched air
- submersible pressure gauges
- alternate air source
- weight ballast systems
- exposure suits suitable for conditions
- timing devices
- depth gauges
- oxygen analysers
- dive computers compatible for use with EANx defined as a dive computers that calculate adjusted no stop (no decompression limits) and oxygen exposure for differing blends of enriched air
- Enriched Air fill log pages.

Assessors must satisfy the Standards for Registered Training Organisations requirements for assessors, and:

- be an individual who is currently certified and sanctioned by an industry authorised organisation to teach and assess enriched air nitrox SCUBA diving and to authorise the issuance of enriched air certification (C-Card).

Links

Companion Volume Implementation Guides -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>