Australian Government

Department of Education, Employment and Workplace Relations

SISOSCB318A Dive in open water using surface supplied air

Release: 2

SISOSCB318A Dive in open water using surface supplied air

Modification History

Not Applicable

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to plan and performs a dive using surface supplied air, complete post dive procedures, and act as dive tender during operation. Dives are to be conducted in a recreational context and are not to exceed 18 metres in depth.

Application of the Unit

This unit applies to current or aspiring dive guides or instructors working in controlled open water recreational environments to a maximum depth of 18 metres. This may include those working for private dive schools or companies.

Licensing/Regulatory Information

This unit does not describe the performance outcomes, skills and knowledge required for commercial seafood harvesting.

Pre-Requisites

SISOSCB301A SCUBA dive in open water to a maximum depth of 18 metres

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the Evidence Guide.
1. Plan for an open water dive using surface supplied air.	1.1. Identify potential ***risks*** and ***emergency procedures*** according to ***relevant legislation***, ***organisational policies and procedures*** and ***industry technical and safety criteria***. 1.2. Identify an appropriate activity site or location according to ***contextual issues***, relevant legislation and organisational policies and procedures. 1.3. Access ***relevant sources*** to interpret ***weather and environmental information*** and determine activity plans. 1.4. Establish a communication system to use with buddy and dive tender while diving.
2. Select and use equipment for open water dives using surface supplied air.	2.1. Select suitable ***equipment*** after consideration of design and or construction features and contextual issues. 2.2. Check working condition of all equipment components and report any faults according to relevant legislation and organisational policies and procedures. 2.3. Select personal clothing for pre and post dive according to conditions. 2.4. Determine and apply ***maintenance procedures*** for surface supplied air diving equipment. 2.5. Assemble, prepare and don all equipment.
3. Conduct an open water dive using surface supplied air.	3.1. Prepare the surface supplied air unit for use. 3.2. Conduct a pre-dive safety check and deep water entry. 3.3. Perform a ***five-point descent***. 3.4. Swim a distance of at least 25 metres underwater on surface supplied air. 3.5. Perform ***diving techniques*** and emergency procedures.

ELEMENT	PERFORMANCE CRITERIA
	3.6. Perform a ***five-point ascent***, followed by a deep water exit. 3.7. Roll and store the diver air hose according to organisational policies and procedures and manufacturer's instructions.
4. Act as dive tender.	4.1. Conduct ***dive tender duties*** for a diver performing an open water dive using surface supplied air. 4.2. Monitor diver progress constantly and respond appropriately to emergencies.
5. Evaluate diving activity.	5.1. Evaluate ***relevant aspects*** of the dive. 5.2. Identify improvements for future diving experiences.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
  - inform progress
  - interact with buddy
  - signal dive tender throughout dive
- teamwork skills to:
  - check, assemble and fit equipment
  - monitor diver at all times while tendering
  - give, recognise and respond to underwater signals
- swimming skills to swim 100 metres on the surface and at least 25 metres underwater on surface supply air
- problem-solving skills to:
  - determine safe entries and exits
  - remove and replace equipment on surface
  - navigate underwater
  - adapt to changing weather and sea conditions
- rescue, first aid and emergency response skills appropriate to the site to enable initial response to emergencies and personal health care.

Required knowledge

- legislation and organisational policies and procedures to enable safe and legal conduct of all activities
- minimal impact interactions and techniques to minimise negative impact on aquatic animal and plant life
- selection, use and maintenance of surface supplied air diving equipment, characteristics and technology, the advantages and disadvantages of the range of equipment, and factors affecting appropriate selection of equipment to enable safe performance
- weather and environmental information to interpret forecast conditions and their effect on the diving activity
- sea features such as currents, waves and tides and how these might impact on the dive
- factors affecting buoyancy during surface supplied air diving
- physics and physiology, such as effects of pressure and signs, symptoms, prevention and treatment of common hookah diving risks such as carbon monoxide toxicity, to enable safe performance in open water to a depth of 18 metres
- underwater communication systems to communicate with buddy and or tender
- emergency, first aid and rescue procedures appropriate to the location to ensure risk minimisation to self and group.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential: • applies relevant process to plan a safe dive and select, maintain and operate surface supplied air diving equipment • demonstrates a range of safe open water dives using surface supplied air and diving techniques such as five point descents and ascents • identifies potential risks and emergency situations commonly associated with open water dives using surface supplied air and implements appropriate emergency management procedures • actively communicates with buddy and tender throughout dive and performs safe tendering of a diver by monitoring and operating surface supply air unit • evaluates and reflects on own performance to identify strengths, weaknesses and areas that need improvement.
Context of and specific resources for assessment	Assessment must ensure participation in open water dives using surface supplied air that are of a sufficient duration to allow the participant to demonstrate competency and consistency of performance. Assessment must also ensure access to: • access to resources and information to accurately plan and select appropriate equipment for the diving activity • access to a suitable open water dive site • access to a suitable buddy and tender to participate in dive process • access to a suitable diving boat • access to surface supplied air diving equipment such as small air compressor, air reserve tank, portable gasoline engine or electric motor, floating air hose, gasoline, regulator, harness, exposure suit, hood, gloves, fins, full face mask, buoyancy compensating device, in line pressure gauge, bail out cylinder and weight system.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of the planning and review process with evidence of reference to resources
- oral or written questioning to assess knowledge of open water hookah diving techniques, risks and emergency procedures
- observation of safe participation and communication with buddy and tender throughout diving process
- third-party reports from a supervisor detailing performance.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Risks may include:

- hypothermia
- heat exhaustion
- injuries
- exhaustion
- lost party or party member
- equipment failure
- carbon monoxide toxicity
- panic
- Decompression Illness (DCI).

Emergency procedures may include:

- tired diver assist
- sharing air
- controlled emergency swimming ascent
- unconscious diver rescue
- system failure.

Relevant legislation may include:

- Occupational Health and Safety
- permits from land and water management authorities
- environmental regulations
- marine regulations.

Organisational policies and procedures may include:

- occupational health and safety
- risk management procedures
- communication protocols
- code of ethics
- minimal impact codes.

Industry technical and safety criteria may include:

- British Sub-Aqua Club (BSAC)
- Professional Association of Diving Instructors (PADI)
- SCUBA Schools International (SSI).

Contextual issues may include:

- weather conditions, including times
- season
- transport
- location
- trip distance and duration
- group objectives

- group size
- amount of fuel available, for boat and compressor
- water conditions
- aquatic life or activity.

Relevant sources may include:

- Bureau of Meteorology
- Media
- land managers or agencies
- coastal patrol or coastguard
- volunteer marine rescue
- local knowledge.

Weather and environmental information may include:

- satellite images
- daily and weekly forecasts
- maximum and minimum temperatures
- weather warnings
- event warnings
- synoptic charts
- high and low tide predictions.

Equipment may include:

- small air compressor
- air reserve tank
- portable gasoline engine or electric motor
- floating air hose
- regulator
- harness
- exposure suit
- hoods
- gloves
- masks
- fins
- in line pressure gauge
- bail out cylinder
- buoyancy compensating device
- weight system
- complete instrumentation to monitor depth, time and direction underwater

Maintenance procedures may include:

- checking buddy's equipment
- checking, cleaning and or replacing filters on compressor as per manufacturer's recommendations
- checking V-belt for signs of deterioration and tension
- regularly running out the diver air hose to

remove twists from the hose
- checking the diver air hose for cuts and abrasions
- checking bail out cylinder and regulator.

Five-point descent may include:
- signalling the intent to descend
- orientating position in the water
- ensuring regulator is correctly fitted
- noting the time
- descending feet first, equalising every metre.

Diving techniques may include:
- adjusting weight system
- clearing dive mask
- sending and receiving messages from the surface
- changing between surface supplied air regulator and bail out regulator
- removing and refitting the surface air supplied hose and belt or harness while using the bail out regulator
- removing and refitting the weight system.

Five-point ascent may include:
- signalling the intent to ascend
- noting the time
- placing right hand over the head for protection
- looking up
- swimming up slowly while ensuring the air hose does not get tangled.

Dive tender duties may include:
- checking diver's equipment before dive
- being attentive to the diver and surface conditions
- responding quickly to emergencies
- communicating with diver
- maintaining gas levels.

Relevant aspects may include:
- objectives
- planning process
- activity site
- weather
- equipment selection
- clothing selection
- food selection
- instructional technique
- assessment technique
- group feedback
- directing techniques

- rescue techniques employed
- identification of risks and emergency procedures
- use of equipment and communication system
- correct surface supplied air diving techniques
- safe tendering of another diver.

Unit Sector(s)

Outdoor Recreation

Competency Field

SCUBA