



Australian Government

SFIFISH211A Provide support for diving operations

Release 1

SFIFISH211A Provide support for diving operations

Modification History

Release	TP Version	Comment
1	SFI11v2	Initial release. Supersedes and is not equivalent to <i>SFIFISH201C Provide support for diving operations</i>

Unit Descriptor

This unit of competency involves providing assistance to personnel conducting diving operations for work purposes. Support responsibilities may include performing checks on equipment, identifying occupational hazards and performing lookout duties. It may also include carrying out the roles and responsibilities of supervision when specified by industry guidelines.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Therefore it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.

Application of the Unit

This unit is applicable to a diving assistant in the fishing, aquaculture or ornamental/display sectors of the seafood industry.

Diving using breathing equipment is not required in this unit.

Codes of practice covering diving **operations** for an industry sector and/or a geographic region may not require the support of a diving assistant. Reference should be made to local codes of practice and industry standards covering diving operations.

All enterprise or workplace procedures and activities are carried out according to **relevant government regulations, licensing and other compliance requirements**, including **occupational health and safety (OHS) guidelines**, maritime and occupational diver codes of practice and procedures and **ecologically sustainable development (ESD) principles**.

Equipment operation, maintenance, repairs and calibrations are undertaken in a safe manner that conforms to manufacturer instructions. Appropriate **personal protective equipment (PPE)** is selected, checked, used and maintained.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

HLTFA311A Apply first aid

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Complete pre-dive safety checks	1.1.Availability of all <i>essential equipment</i> is confirmed 1.2.Major components of diving equipment are <i>checked</i> to ensure they are working efficiently and safely
2. Identify occupational hazards	2.1.Watch keeping techniques are used to identify occupational hazards and divers requiring assistance 2.2. <i>Occupational hazards</i> that may cause injury or harm are <i>assessed</i> and action is taken to remove or minimise hazards 2.3.Systems and procedures to reduce hazards are devised and implemented
3. Support diving operations	3.1.Pre-dive plan is devised in consultation with divers to identify hazards and contingencies 3.2.Diver is briefed to establish and confirm the procedures to be used during the diving operation 3.3.Equipment is used to supply the diver with a safe and suitable working environment 3.4.Checks are made as required in the pre-dive plan 3.5. <i>Records</i> describing checks made and events occurring above water are kept 3.6.Dive <i>procedures</i> used on the surface are followed according to the pre-dive plan 3.7.Assistance is provided to diver in monitoring dive times and dive frequency
4. Monitor the physical condition of the diver and provide assistance, as required	4.1.Signs and symptoms of injury and other information relevant to the situation are monitored on a continuous basis and used to assess the diver's <i>physical condition</i> 4.2. <i>Assistance</i> appropriate to the diver's physical condition is provided to minimise injury or harm 4.3. <i>Decompression procedures</i> are applied, as required, to minimise the risk of an adverse medical condition
5. Store and maintain diving equipment	5.1.Equipment is checked for serviceability, faulty equipment is marked and maintenance is arranged 5.2.Equipment is stowed 5.3.Records are completed in a legible manner and forwarded to supervisor or stored

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills include:

- administering first aid
- checking equipment to ensure operability
- communicating with diver on pre-dive plan and procedures
- conforming with dive procedures relevant to the role of diver's attendant
- maintaining diving equipment and identifying and rectifying basic faults
- using equipment required for the support of diving operations (note: diving using breathing equipment is not required in this unit)
- watch keeping
- literacy skills to:
 - interpret industry codes of practice and guidelines
 - keep records
 - read the diver's medical companion in case of emergency
 - complete 'dive accident medical information' forms
- numeracy skills to:
 - perform basic calculations involving pressure-volume-temperature relationships
 - use dive decompression tables

Required knowledge

Required knowledge includes:

- diving procedures relating to surface activities specified by enterprise and industry guidelines
- hazards which may be encountered by a diver
- principles of diving physics relating to the practical application of the gas
- procedures for using decompression tables
- symptoms and signs of a diver's physical conditions as observed in a diver

Evidence Guide

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 evidence required to demonstrate competence in this unit

Assessment must confirm the ability to:

- stow and maintain diving equipment, and identify and rectify basic faults
- assist personnel conducting diving operations to perform work in the fishing, aquaculture or ornamental/display sectors of the seafood industry
- devise and implement systems and procedures that reduce underwater hazards
- maintain a surface supply of air to the diver
- maintain a watch to identify hazards, assess the hazards and take appropriate action
- record and access diving information
- respond to emergency situations and access assistance as required

Assessment must confirm knowledge of:

- content of the pre-dive plan that forms the basis of dive briefings
- decompression procedures
- hazards associated with the operation
- physics as it relates to gas laws
- symptoms and signs of diving medical conditions

Context of and specific resources for assessment

Assessment is to be conducted at the workplace or in a simulated work environment.

Resources may include:

- a realistic but predictable diving environment with assistance at hand
- diving equipment as listed in the range of variables

Method of assessment

The following assessment methods are suggested:

- demonstration
- practical exercises

EVIDENCE GUIDE	
	<ul style="list-style-type: none">• project (work or scenario based)• written or oral short-answer testing
Guidance information for assessment	This unit may be assessed holistically with other units within a qualification.

Range Statement

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.

Operations may be for:

- checking and removing tangles from vessel propeller
- checking underwater equipment
- collecting lost tools and equipment, dead animals and debris
- collecting sea animals:
 - abalone
 - bivalve molluscs
 - beche-de-mer
 - corals, live rock or other invertebrates
 - crayfish and lobsters
 - sea urchin
 - seaweed or algae
- collecting sediment or other environmental samples
- eradicating or removing predators
- installing, servicing and maintaining ponds, cages, longlines and associated equipment
- tending aquacultured or held (display) animals

Relevant government regulations, licensing and other compliance requirements may include:

- biodiversity and genetically modified organisms
- biosecurity, translocation and quarantine
- Australian Quarantine Inspection Service (AQIS) and other import requirements
- business or workplace operations, policies and practices
- ESD principles, environmental hazard identification, risk assessment and control
- fisheries or aquaculture regulations, permits and licences
- food safety, Hazard Analysis Critical Control Point (HACCP), hygiene and temperature control along chain of custody

RANGE STATEMENT	
	<ul style="list-style-type: none"> • health and welfare of aquatic animals • Indigenous land rights and cultural activities, including fishing by traditional methods • maritime and occupational diving operations, safety at sea and pollution control • OHS hazard identification, risk assessment and control
<i>OHS guidelines</i> may include:	<ul style="list-style-type: none"> • appropriate workplace provision of first aid kits and fire extinguishers • clean, uncluttered, hygienic workplace • codes of practice, regulations and/or guidance notes which may apply in a jurisdiction or industry sector • enterprise-specific OHS procedures, policies or standards • hazard and risk assessment of workplace, maintenance activities and control measures • induction or training of staff, contractors and visitors in relevant OHS procedures and/or requirements to allow them to carry out their duties in a safe manner • OHS training register • safe lifting, carrying and handling techniques, including manual handling, and the handling and storage of hazardous substances • safe systems and procedures for outdoor work, including protection from solar radiation, fall protection, confined space entry and the protection of people in the workplace • systems and procedures for the safe maintenance of property, machinery and equipment, including hydraulics and exposed moving parts • the appropriate use, maintenance and storage of PPE
<i>ESD principles</i> may include:	<ul style="list-style-type: none"> • applying animal welfare ethics and procedures • controlling effluents, chemical residues, contaminants, wastes and pollution • controlling weeds, pests, predators and diseases, and stock health maintenance • improving energy efficiency • increasing use of renewable, recyclable and recoverable resources

RANGE STATEMENT

	<ul style="list-style-type: none"> • maintaining biodiversity by sustainable fisheries or broodstock/seedstock collection • minimising noise, dust, light or odour emissions • reducing emissions of greenhouse gases • reducing use of non-renewable resources • reducing energy use • reducing interactions with native and protected flora and fauna, marine or land parks or areas • reducing live cultured or held organisms from escaping into environment • undertaking environmental hazard identification, risk assessment and control • undertaking facility quarantine, biosecurity and translocation of livestock and genetic material • using and recycling of water, and maintaining water quality
PPE may include:	<ul style="list-style-type: none"> • buoyancy vest or personal floatation device (PFD) • non-slip and waterproof boots (gumboots) or other safety footwear • personal locator beacon or Emergency Position Indicating Radio Beacon (EPIRB) • protective eyewear, glasses and face mask • protective outdoor clothing for tropical conditions • respirator or face mask • safety harness • sun protection (e.g. sun hat, sunscreen and sunglasses) • uniforms, overalls or protective clothing (e.g. mesh and waterproof aprons) • waterproof clothing (e.g. wet weather gear and waders)
Essential equipment may include:	<ul style="list-style-type: none"> • decompression equipment: <ul style="list-style-type: none"> • depth gauge • shot-line • spare air • watch • diving suits:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • dry • warmed • wet • self-contained underwater breathing apparatus (SCUBA) • surface-supplied breathing apparatus (SSBA) • safety and emergency: <ul style="list-style-type: none"> • first aid kit • oxygen • bail out bottle • weights, tools, fins, mask, buoyancy apparatus and catch bags
Major components of diving equipment are <i>checked</i> for:	<ul style="list-style-type: none"> • presence, suitability and operability of: <ul style="list-style-type: none"> • vessel equipment • diving equipment • safety and emergency equipment • pre-dive conditions • diving conditions • post-dive conditions
<i>Occupational hazards</i> may include:	<ul style="list-style-type: none"> • aquatic animals • entanglement • isolation of the dive site • other vessels • sharp objects • water character: <ul style="list-style-type: none"> • clarity • current • temperature • weather • underwater terrain
Occupational hazards can be <i>assessed</i> by:	<ul style="list-style-type: none"> • identifying causes • listing hazards • predicting potential for and likelihood of hazards
<i>Records</i> may include:	<ul style="list-style-type: none"> • air quality checks • catch, location and number of dives • diving equipment maintenance • manually recorded or dive computer data: <ul style="list-style-type: none"> • air use

RANGE STATEMENT	
	<ul style="list-style-type: none"> • clarity • current • dive duration • entry and exit times • injury • maximum depth • temperature
<i>Procedures</i> may relate to:	<ul style="list-style-type: none"> • pre-dive • dive • post-dive • maintenance • shore diving • vessel diving
<i>Physical condition</i> may include:	<ul style="list-style-type: none"> • burns • decompression sickness: <ul style="list-style-type: none"> • factors affecting predisposition • hypothermia • hyperventilation • lung or ear drum barotrauma • near drowning, drowning and saltwater aspiration • poisoning, toxicity and narcosis resulting from: <ul style="list-style-type: none"> • carbon monoxide • carbon dioxide • oxygen • stings and wounds inflicted by marine animals • shock from bleeding • squeezes
<i>Assistance</i> may be:	<ul style="list-style-type: none"> • first aid • from external sources • routine • using radio or electronic communications equipment
<i>Decompression procedures</i> may include:	<ul style="list-style-type: none"> • ascent rate • diving physics: <ul style="list-style-type: none"> • partial pressures in gas mixtures • pressure-depth relationship

RANGE STATEMENT

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| | <ul style="list-style-type: none">• pressure-volume-temperature relationship for gasses• flight time exclusion• pressure-solubility relationship for gases• repetitive group• safety stops• surface interval |
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Unit Sector(s)

Fishing operations