



Australian Government

SFIDIVE315A Perform underwater work in the aquaculture sector

Release 1

SFIDIVE315A Perform underwater work in the aquaculture sector

Modification History

Release	TP Version	Comment
1	SFI11v2	Initial release. Supersedes and is not equivalent to <i>SFIDIVE307B Perform underwater work in the aquaculture sector</i>

Unit Descriptor

This unit of competency involves performing underwater dive work in the aquaculture sector of the seafood industry, including lifting and handling activities, using basic hand tools and undertaking maintenance on an aquaculture farm or holding/display facility.

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

Completion of this and other diving units may lead to further accreditation in occupational diving by industry and/or regulatory authorities. Check with the relevant industry or regulatory body for specific requirements.

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. Enter and leave the water	1.1. Prevailing weather and water conditions are considered when assessing the safety of diving operations and a judgement is made on whether to continue the dive 1.2. Procedures when entering, during and leaving the water from the dive platform meet accepted guidelines and are in accordance with normal dive practices 1.3. Signals to the dive platform prior to descent and following ascent are conducted according to normal dive practices
2. Maintain culture or holding structures and associated equipment	2.1. Culture or holding structure is inspected, its condition assessed and any required action is decided and reported to the relevant supervisor 2.2. Associated equipment is inspected, its condition assessed and any required action decided and reported to the relevant supervisor 2.3. Appropriate maintenance is undertaken
3. Assist in lifting and handling	3.1. The limitations and suitability of winches with hydraulic and air motors for use on the surface and under water are understood and applied 3.2. The correct signs and signals are used during winch operations 3.3. Lifting equipment and ropes of the correct type and safe working load are selected and rigged using the correct mechanical advantage for the load being lifted 3.4. Lifting bags are properly secured and used to raise an object and the load is restrained so that ascent is controlled 3.5. Slings, ropes and lifting bags are inspected and maintained and pre- and post-dive checks on lifting devices are carried out
4. Use basic hand tools and auxiliary devices under water	4.1. A range of basic hand tools is used to complete simple tasks under water 4.2. Auxiliary devices are used in underwater operations safely 4.3. Tools are inspected for defects, maintained appropriately or set aside for repair, if necessary, and stored correctly after use

ELEMENT	PERFORMANCE CRITERIA
5. Apply underwater search and survey techniques	5.1. A range of underwater search and survey techniques is used to locate targeted items

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills include:

- assessing weather conditions for safe diving operations
- attaching slings, ropes and other connection equipment
- communicating with the diver's tender prior to entering the water, during the underwater work and on leaving the water
- communicating with the supervisor to report problems with equipment
- entering and leaving the water
- inspecting and maintaining aquaculture apparatus and associated equipment
- maintaining tools and auxiliary devices
- searching and surveying underwater
- signalling during lifting and handling activities
- using tools underwater
- literacy skills to:
 - follow dive tables
 - read diving information and instruments
- Numeracy skills to perform calculations for diving operations

Required knowledge

Required knowledge includes:

- aquaculture apparatus and associated equipment
- diving signals
- enterprise auxiliary devices
- lifting equipment used in the aquaculture sector, including its suitability and limitations
- lifting signals
- local weather and sea conditions
- methods for entering and leaving the water
- safe working loads and mechanical advantages
- seafood species farmed in aquaculture or holding/display operations or facilities
- tools used in the aquaculture or ornamental/aquarium industry sectors
- underwater search and survey techniques

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:

- assess weather conditions before undertaking a dive
- assist in lifting and handling activities
- enter and leave the water according to standard dive procedures
- search and survey under water for targeted items
- undertake harvesting and maintenance diver duties required on an aquaculture site
- use basic tools and auxiliary equipment under water
- use dive signals when communicating

Assessment must confirm knowledge of:

- diver communication systems
- local climatic conditions
- maintenance procedures on an aquaculture site
- seafood species common to the enterprise or industry
- search and survey techniques

Context of and specific resources for assessment

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

Resources may include:

- suitable diving environment
- diving equipment
- aquaculture apparatus and associated equipment
- tools used in the aquaculture sector
- any relevant auxiliary devices

Method of assessment

The following assessment methods are suggested:

- observation of practical demonstration
- practical exercises
- written or oral short-answer testing

Guidance information for

This unit may be assessed holistically with other diving

EVIDENCE GUIDE	
assessment	units.

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.

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

- business or workplace operations, policies and practices
- ESD principles, environmental hazard identification, risk assessment and control
- fisheries or aquaculture regulations, permits and licences
- health and welfare of aquatic animals
- Indigenous land rights and cultural activities
- maritime and occupational diving operations, safety at sea and pollution control
- OHS hazard identification, risk assessment and control

OHS guidelines may include:

- appropriate workplace provision of first aid kits
- 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 and contractors 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
- safe systems and procedures for outdoor work, including protection from solar radiation, 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

RANGE STATEMENT	
	the appropriate use, maintenance and storage of PPE
ESD principles may include:	- improving energy efficiency - increasing use of renewable, recyclable and recoverable resource - managing environmental hazard identification, risk assessment and control - managing stock health and welfare, especially for handling, holding, transport and slaughter - managing sustainable fisheries or broodstock/seedstock collection requirements, such as size limits, quotas, season restrictions, population dynamics, fishing impacts, reducing by-catch, fisheries management strategies and maintaining biodiversity - managing, controlling and treating effluents, chemical residues, contaminants, wastes and pollution - preventing genetically modified organisms and live cultured or held organisms from escaping into environment - protecting native and protected flora and fauna, marine or land parks or areas, adhering to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), the Ramsar Convention, World Heritage and other international treaties for which Australia is a signatory - reducing emissions of greenhouse gases - reducing energy use - reducing use of non-renewable resources
PPE may include:	- buoyancy vest or personal floatation device (PFD) - personal locator beacon or Emergency Position Indicating Radio Beacon (EPIRB) - sun protection (e.g. sun hat, sunscreen and sunglasses)
Dive platform may include:	- holding cage or culture structure - jetty - platform - shore or beach - vessel

RANGE STATEMENT	
Guidelines may include:	• Australian standards • codes of practice • guidelines • OHS regulations • other regulations
Culture or holding structures may include:	• cages, pontoons, enclosures and pens, including associated moorings, anchors, floats and markers • dams, ponds and pools • display tanks, aquaria and aquascapes • greenhouses, hothouses and igloos • grow out facilities, hatcheries and nurseries • harvesting swimways, canals or channels • live holding tanks, bins, cages and pens • longlines, posts, racks and rails, rafts, fences, socks, trays, sticks, baskets, modules, barrels, bags and panels • open, flow-through, closed and semi-closed systems • pest, predator and disease control structures • purging or depurating systems • tanks, raceways and recirculating systems • water supply and disposal or effluent systems, including pumps, pipes, canals, channels, settlement ponds and storage dams
Associated equipment may include:	• blowers, aerators, paddlewheels and aspirators • anchors and moorings • buoys • chains • clamps • floats • ropes and lines • shackles • weights
Lifting may include:	• air bag • block and tackle • boom • capstan • chain hoist • crane

RANGE STATEMENT	
<i>Slings</i> may include:	• multiple leg • pulley • single strop
<i>Tools</i> may include:	• cold chisel • files • hacksaw • hammers • knives • netting needles • open and ring spanners • screwdrivers • shackle spanners • shifting spanners
<i>Auxiliary devices</i> may include:	• pressure cleaners • remotely operated vehicles • underwater propulsion devices: • shark-proof cages • underwater scooters

Unit Sector(s)

Diving operations