Australian Government

Department of Education, Employment and Workplace Relations

SFIAQUA220A Use waders

Release: 1

SFIAQUA220A Use waders

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency involves preparing and using waders in freshwater or marine work environments. The unit does not cover the risks associated with working in high flow water. The unit includes risk minimisation and safe practices, and the personal survival and rescue skills required in situations of flooded waders, lost footing, sudden immersion and other aquatic emergencies that may be complicated by the wearing of waders. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	This unit has relevance for anyone who uses waders in fishing operations, aquaculture operations and fisheries compliance sectors of the seafood industry. The unit could have application in other industries. 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***.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for safe use of waders	1.1. ***Types of waders*** with suitable characteristics for the type of work to be undertaken are selected and checked for condition, fit and adjustment. 1.2. Potential ***environmental hazards*** and ***factors contributing to aquatic emergencies*** are identified. 1.3. Risks associated with ***sudden immersion in cold water*** are identified and minimised in the preparations for use of waders. 1.4. The ***types of aquatic emergencies*** that might arise when working in waders are identified and risks minimised. 1.5. Water temperatures are identified and in-water survival times calculated, taking into account ***factors that influence cold water survival***. 1.6. ***Appropriate clothing and safety equipment*** are donned.
2. Use safe wading techniques	2.1. Selection of ***entry technique*** accounts for potential environmental hazards. 2.2. ***Wading techniques*** are appropriate for water and environmental conditions.
3. Apply simple survival skills on sudden immersion and loss of footing	3.1. ***Wader safety tuck position*** is adopted when footing is lost and on sudden entry to water. 3.2. ***Survival techniques*** are appropriate to water conditions. 3.3. ***Techniques to extend survival time*** are applied in deep water. 3.4. ***Survival strokes*** are used to swim to exit point. 3.5. Independent exits from the water, with and without waders, are performed.
4. Perform a simple water rescue	4.1. A ***person in need of assistance*** is identified. 4.2. The situation is assessed and a ***rescue plan*** is developed according to ***best practice principles of water safety***. 4.3. Simple ***search techniques*** are demonstrated in shallow water. 4.4. A ***simple rescue*** is performed and the person assisted to exit the water. 4.5. Appropriate ***first aid and after-care*** is provided.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
• identifying factors leading to emergencies in aquatic workplaces • improvising in the use of workplace equipment to assist a rescue • prioritising rescue techniques and performing a simple rescue of one person in difficulty • providing first aid and after-care, including management of immersion-related illness and injury • recognising and assessing aquatic emergencies and situations requiring a rescue response • selecting and preparing wading and safety equipment • undertaking safe entry, wading and exit techniques • utilising OHS for prevention of illness and injury in aquatic environments • utilising personal water safety and survival skills, including self-preservation in rescue situations. **Literacy skills used for**: • checking data on weather and water conditions • reading safety instructions. **Numeracy skills used for**: • determining immersion times.
Required knowledge
• characteristics of a person in difficulty • characteristics of different types of waders and their safe use • factors that contribute to aquatic emergency situations • first aid and resuscitation techniques • hazards in marine and freshwater environments and workplaces • local water temperatures and factors that influence survival time • physiological effects of cold water immersion • principles of individual and group survival in aquatic emergencies • principles of water rescues, including how to prioritise rescues, and rescue techniques • relevant equipment and safety requirements, including OHS and legislative

REQUIRED SKILLS AND KNOWLEDGE
requirements • treatment of temperature-related illnesses • water rescue equipment and principles for improvised use of other equipment to assist rescue.

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 and evidence required to demonstrate competency in this unit	Assessment must confirm the ability to: • identify factors that contribute to an aquatic emergency • minimise risks associated with use of waders in a natural environment • dress appropriately and prepare waders for use in the workplace • enter water safely whilst wearing waders as an individual and in a group • respond appropriately to a situation where footing is lost or unexpected deep water encountered • manage an individual and group cold water survival situation wearing waders • correctly identify a casualty requiring assistance and perform a rescue that minimises risk to self and others • assess the condition of a casualty and provide first aid and after-care consistent with current guidelines • accurately report incident and notify other relevant personnel according to legislative, regulatory and organisation requirements. Assessment must confirm knowledge of: • factors that influence survival time in water • hazards and risks associated with use of waders • principles of individual and group survival in aquatic emergencies • water rescue techniques.
Context of and specific resources for assessment	This unit of competency must be assessed in the context of marine or freshwater workplaces in which waders are used. For valid and reliable assessment there must be access to water of varying depths, including water too deep to stand up in. The environment should be safe, with simulation of the hazards and circumstances likely

EVIDENCE GUIDE	
	to be encountered in a real workplace, such as the simulation of waves or tidal affects. The following resources must be available at assessment: • a real or simulated aquatic work environment • bucket, container or similar object that can be used to assist flotation • buoyant equipment • PFDs • poles or boat hook or other equipment used to reach someone in difficulty • ropes • rules, policies and regulations of relevant peak bodies and/or employer organisations • safety and rescue equipment normally used in the workplace • suitable clothing normally worn under or with waders • waders • wide adjustable belt, such as a diver's webbing belt with quick release buckle.
Method of assessment	This unit must be assessed with candidates wearing the type of clothing, including waders that will be worn in the workplace and with access to the type of equipment that is likely to be used in survival and rescue situations. Competency must be assessed in water that is shallow enough to stand in before candidate is assessed in deeper water. The following assessment methods are suggested: • consideration of required attitude to safety • demonstration of processes and procedures • oral and/or written questioning on required knowledge and application of required skills • performance of survival and rescue tasks.
Guidance information for assessment	This competency should be assessed independently of other units, and before candidate undertakes work in waders.

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 • correct marketing names and labelling • safety at sea • OHS hazard identification, risk assessment and control.
OHS guidelines may include:	• appropriate clothing and safety equipment for use with waders • appropriate workplace provision of first aid • 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 • safe systems and procedures for outdoor work, including protection from solar radiation, use of waders 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.
Types of waders include:	• neoprene waders • PVC waders • waders with and without bibs.
Environmental hazards may	• bottom composition

RANGE STATEMENT	
include:	• changing bottom characteristics over time • cold air temperature, including wind chill factor • cold water • floating debris and equipment • sudden changes in water depth or bottom composition • underwater obstructions and snags • water clarity • water depth • water movement (e.g. currents, tides and flow) • wave action.
Factors contributing to aquatic emergencies may include:	• condition of casualty • consumption of alcohol or use of prescription or other drugs that might affect performance • environmental conditions • equipment failure • risk taking behaviour • slippery surfaces • swimming ability • vessel instability or capsize.
Sudden immersion in cold water may result in:	• changes in blood circulation and pressure • gasp reflex and hyperventilation, including reduced breath-holding capacity • heart attack • hypothermia • impaired physical performance • Mammalian Diving Reflex • stroke.
Types of aquatic emergencies may include:	• bleeding wound • cramping • flooding of waders • injury • insect or aquatic organism bite or sting • loss of footing • medical emergency (e.g. heart attack, stroke and asthma) • weak or non-swimmer in difficulty • temperature related illness • unexpected immersion.

RANGE STATEMENT	
Factors that influence cold water survival time include:	• body composition and size • buoyancy aids • clothing • duration of immersion • heat escape lessening techniques • level and type of physical activity • sea or water conditions • water temperature • wind chill.
Appropriate clothing and safety equipment may include:	• hat • helmet • jacket • non-slip footwear • personal flotation device (PFD) • thermal or woollen wear • wide belt to assist trapping of air.
Entry techniques may include:	• wade into water of shallow depth • slide into water of unknown depth and obstructions • step into water of known depth without obstructions • dive into clear water of known depth without obstructions.
Wading techniques include:	• adjustment of equipment to prevent water ingress • feeling with feet when wading in turbid water • leaning against water when wading • maintaining a safe working depth.
Wader safety tuck position includes:	• appropriate orientation for safe movement through water • positioning on back • sculling for efficient propulsion • tucking legs to trap air in waders.
Survival techniques include:	• heat escape lessening techniques, including Heat Escape Lessening Posture (HELP) and huddle • in-water removal of clothing and waders to achieve exit • sculling and tread water techniques • use of a belt to assist trapping of air in waders

RANGE STATEMENT	
	• use of buoyant objects, including PFD.
Techniques to extend survival time include:	• energy conservation • HELP and huddle techniques • retention of clothing in cold water • use of buoyant aids • use of thermal protective clothing.
Survival strokes may include	• head and feet first sculling • kicking on back • underwater recovery arm action on front or back.
A person in need of assistance may include:	• injured swimmer • non-swimmer • unconscious person • weak or tired swimmer.
A rescue plan may include:	• availability of assistance • availability of rescue aids • awareness of personal capabilities • condition of person in difficulty • environmental factors • rescue priorities in the situation of more than one person in need of assistance • self-preservation.
Best practice principles of water safety may include:	• guidelines and techniques published by water safety organisations, such as the Royal Life Saving Society Australia and Surf Life Saving Association Australia • relevant legislation • workplace procedures and guidelines.
Search techniques include:	• wading individually or in formation with others • marking search area • use of systematic search pattern appropriate to water depth and turbidity • feeling with a stick or feet in turbid water.

Simple rescue techniques may include:	• dry rescues:
	  • reach rescue using pole, boat hook, paddle or other object
	  • rope throw rescue using weighted and unweighted rope
	  • throwing of a buoyant object, such as

RANGE STATEMENT	
	PFDs, lifebuoy or improvised aid • use of watercraft • in-water rescues: • accompanied swim rescue • wade rescue • talking the casualty to safety.
First aid and after-care may include:	• hospitalisation in the case of near-drowning • protection against environmental conditions with particular attention to hypothermia • treatment according to current first aid guidelines.

Unit Sector(s)

Unit sector	Aquaculture operations

Co-requisite units

Co-requisite units		

Competency field

Competency field	