Modification history

Release	Comments
Release 1	This version released with SFI Seafood Industry Training Package Version 2.0.

SFIAQU4X3	Apply the use of new or emerging technology in fisheries or aquaculture
Application	This unit of competency describes the skills and knowledge required to apply the use of new or emerging technology in fisheries or aquaculture. The unit applies to individuals who are responsible for the application and use of new or emerging technology to fisheries or aquaculture work processes. It includes the application of upgraded equipment. No licensing, legislative or certification requirements apply to this unit at the time of publication.
Use Prerequisite Unit	Nil
Unit Sector	Aquaculture

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare to use new or emerging technology	1.1 Access the workplace records of the new or emerging technology test results 1.2 Review how the operational features of the proposed new or emerging technology can be used to improve workplace fisheries or aquaculture practices 1.3 Present test results and appropriate manufacturer specifications and work health and safety (WHS) standards to relevant personnel and operators 1.4 Outline equipment upgrading requirements when the new or emerging technology is introduced 1.5 Consider risks, hazards, including environmental impacts and outline trouble-shooting processes to mitigate risk factors 1.6 Discuss considerations, processes and implementation timelines of new or emerging technology with appropriate personnel, in accordance with workplace procedures 1.7 Conduct or organise operator training in the use of the new or upgraded fisheries or aquaculture technology
2. Apply the use of new or emerging technology	2.1 Commence the use of new or emerging technology according to implementation timelines 2.2 Monitor use of new or emerging technology and address any transition or technical issues that may arise
3. Evaluate new or emerging technology performance	3.1 Evaluate new or emerging technology and/or the use of upgraded equipment for performance and usability against predetermined goals, and WHS standards 3.2 Consider environmental implications according to biosecurity standards and regulations 3.3 Seek feedback from users of the new or emerging technology 3.4 Determine the need for further operator training and make arrangements accordingly 3.5 Document new or emerging technology uses, in accordance with workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	• Identifies and interprets relevant manufacturer specifications
Writing	• Records test results with appropriate technical detail
Oral communication	• Uses appropriate technical terminology to communicate technological requirements
Navigate the world of work	• Interprets and follows workplace requirements, and seeks clarification or other assistance when required
Get the work done	• Plans and organises work activities and resources • Combines workplace goals with the use of technology

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
SFIAQU4X3 Apply the use of new or emerging technology in fisheries or aquaculture	N/A		New unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273

TITLE	Assessment requirements for SFIAQU4X3 Apply the use of new or emerging technology in fisheries or aquaculture

Performance Evidence

An individual demonstrating competency must satisfy all of the elements, performance criteria and foundation skills in this unit.

There must be evidence that the individual has applied the use of new or emerging technology in fisheries or aquaculture on at least two occasions.

In doing the above, evidence must also include:
- organising the training of personnel in new or emerging technology
- monitoring the use of new or emerging technology
- observing manufacturer specifications, WHS standards and workplace requirements
- fault finding/trouble shooting
- measuring telemetry to assess stock location
- consulting effectively with relevant personnel
- arranging for the training of personnel or operators.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements, performance criteria and foundation skills of this unit. This includes knowledge of:
- operational processes in fisheries or aquaculture:
  - fish farms
  - hatchery
  - transport of stock and equipment
  - service of equipment
  - feed technology
  - environmental compliance
  - high-energy sites
  - real time platforms
  - probe maintenance
  - computer systems
- land aquaculture operational processes:
  - extensive/semi-intensive (usually pond culture)
  - intensive culture systems (flow through systems and recirculating aquaculture systems - RAS)
- the general features and capabilities of fisheries or aquaculture technology:
  - biological filtration
  - recirculating aquaculture systems (RAS)
  - automation
  - water management systems
- technological/digital advancements:
  - Internet of Things (IoT)
  - 5G
- relevant manufacturer specifications
- fishery or aquaculture WHS standards
- information gathering techniques.

Assessment Conditions

Assessment of skills must take place under the following conditions:
- physical conditions:
  - skills must be demonstrated in a fisheries or aquaculture setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - access to new or upgraded aquaculture technology
- specifications:
  - access to relevant manufacturer specifications
- relationships:
  - evidence of interactions with relevant personnel.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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