



**Australian Government**

# **AURREA4004 Manage environmental compliance in a marine workplace**

**Release 1**

## AURREA4004 Manage environmental compliance in a marine workplace

### Modification History

| Release   | Comment                                                                                                                                                                                                                                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Release 1 | Replaces AURR471182A Plan and manage compliance with environmental regulations in the marine service and repair industry<br>Unit code updated to meet policy requirements<br>Minor changes to unit title<br>Reference to OHS legislation replaced with new WHS legislation<br>Licensing statement added to unit descriptor |

### Unit Descriptor

|                 |                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit descriptor | <p>This unit of competency covers the competency required to plan and implement an appropriate management system that ensures the protection of the environment in a marine repair and service business.</p> <p>Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.</p> |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Application of the Unit

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application of the unit</b> | <p>This unit is applicable to marine qualifications at both Certificate IV and V level.</p> <p>Competence may be demonstrated in workplaces involved in the repair and service of vessels.</p> <p>Work is carried out in accordance with legislative obligations, environmental legislation, Australian standards, health regulations, manual handling procedures and organisation insurance requirements.</p> <p>Work requires individuals to demonstrate discretion, judgement and problem-solving skills to improve environmental performance by reducing environmental risk and waste.</p> |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

Not applicable.

## Employability Skills Information

|                             |                                          |
|-----------------------------|------------------------------------------|
| <b>Employability skills</b> | 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. Plan and manage compliance with of environment regulations                                                | <p>1.1.Reasons for ethical environmental practice in a marine repair and/or service workshop are identified</p> <p>1.2.Environmental responsibilities of employers and staff in a marine repair and/or service workshop are identified</p> <p>1.3.Penalties for company and individual breaches of legislation are identified</p> <p>1.4.Waste products are minimised and facilities are provided for waste materials, including biological material (marine biota) to be stored for recycling or disposal</p> <p>1.5.Collection and recycling arrangements are sourced and implemented for liquids, sludge, solids and other waste</p> <p>1.6.Suppliers with minimal excess packaging on goods received are sourced. Packaging on goods received is sorted and disposed of appropriately</p> <p>1.7.Waste and energy conservation strategies are identified and implemented strategies are identified and implemented</p>                                                                                   |
| 2. Manage potential hazards to stormwater systems, foreshores and marine environments to avoid contamination | <p>2.1.Systems are in place to ensure wastewater or contaminants do not enter stormwater systems, foreshores or marine environments</p> <p>2.2.All drains and flows are identified on a site map or directly indicating where they flow</p> <p>2.3.Appropriate trade waste permits are put in place</p> <p>2.4.Slipways and hardstand areas are fitted with a containment system that prevents wastewater from entering the stormwater systems, foreshores and the marine environment</p> <p>2.5.Undercover, bunded and/or graded areas are provided and used for surface cleaning and preparation and the storage of all parts and components containing environmentally hazardous material</p> <p>2.6.Clearly identifiable storage or recycling containers are provided for all liquid wastes</p> <p>2.7.Oil separator and pits are cleaned and maintained as per manufacturer and/or component supplier/component supplier specifications</p> <p>2.8.An appropriate system is sourced and implemented</p> |

| ELEMENT                                                           | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                   | <p>for the disposal of bilge water</p> <p>2.9. Spill kit is provided and used as needed by staff trained in its use to prevent the contamination of stormwater systems, foreshores and marine environments</p> <p>2.10. Workplace is kept clean to prevent unintentional pollution of stormwater systems, foreshores and marine environment</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3. Manage potential hazards to air quality to avoid contamination | <p>3.1. Activities generating fine particles in particular anti-foulant or other deleterious material removal are identified, minimised and contained</p> <p>3.2. A slipway, hardstand or approved method/area is provided for abrasive sanding activities</p> <p>3.3. An undercover and well ventilated area is provided for Fibre glassing</p> <p>3.4. Identify whether an approved spray booth is necessary for surface coating operations and if so ensure that it is properly maintained</p> <p>3.5. A well ventilated room is provided for paint preparation</p> <p>3.6. A well ventilated area is provided for any welding activities</p> <p>3.7. Hazards of gases and fumes are identified, minimised and contained</p> <p>3.8. Clean-up of guns and general tools and equipment is conducted in an environmentally safe manner</p> |
| 4. Minimisation of noise hazards is planned and managed           | <p>4.1. Noise generating activities are minimised and carried out within approved operating hours</p> <p>4.2. Fixed machinery has silencers fitted or is contained within a noise minimisation structure</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5. Management systems                                             | <p>5.1. An environmental policy and contingency plan suitable to the needs of the business is developed and implemented</p> <p>5.2. Waste to landfill is calculated and possible savings through reuse and recycling are calculated</p> <p>5.3. Payback period on environmental equipment is calculated</p> <p>5.4. Manage staff adherence to environmental responsibilities</p> <p>5.5. Environmental records are accurately and legibly maintained and stored securely in a form accessible</p>                                                                                                                                                                                                                                                                                                                                           |

| ELEMENT | PERFORMANCE CRITERIA     |
|---------|--------------------------|
|         | for reporting procedures |

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

Required skills include:

- collect, organise and understand information related to environmental procedures from legislation, regulations, policies, guidelines, standards and workplace best practices in a marine repair and service business
- communicate ideas and information to enable all work undertaken is in accordance with environmental best practice
- seek support from stakeholders for implementing suitable innovation and continuous improvement
- plan and organise activities, including the preparation of equipment and materials, recycling and waste management system and the selection of appropriate worksite to avoid any environmental contamination, backtracking, workflow interruptions or wastage
- promote work with others and in a team by recognising dependencies and using cooperative approaches to minimise wastage, optimise workflow and productivity
- use planning, checking and inspection techniques to avoid environmental contamination and wastage
- use mathematical ideas and techniques to correctly complete measurements and estimate material requirements required for the work and calculate wastage rates of various methods
- use the workplace technology related to environmental protection and recycling equipment

#### Required knowledge

Required knowledge includes:

- aspects of environmental legislation and its relationship with workplace health and safety (WHS), financial and risk management
- requirements for trade waste permits
- spill clean-up procedures
- characteristics and potential environmental impact of products used in the repair and service of vessels

**REQUIRED SKILLS AND KNOWLEDGE**

- philosophy of sustainability through prevent, reduce, reuse and recycle
- procedures for rectifying machinery faults and material defects
- action to be undertaken in case of significant environmental threat in the workplace
- reporting procedures for significant environmental damage occurring in the workplace
- awareness of the environmental effects of tributyltin, arsenic, mercury, copper, lead, hydrocarbons, oil/oily water and DDT on marine environments
- cleaner production and eco-efficient strategies to avoid the production of waste

## 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

- Plan and manage safe handling requirements for equipment, products and materials, including use of personal protective equipment.
- Plan and manage environmental protection procedures in the business.
- Identify materials used in the repair and service process and assess and manage their environmental impact.
- Effective recycling processes are in place.
- Plan and manage work instructions, operating procedures and inspection processes are followed to:
  - minimise the risk of injury to self and others
  - maintain a clean workplace
  - prevent damage and wastage of goods, equipment and products
  - dispose of waste in accordance with legislative requirements and best practice
  - maintain required production output and product quality.
- Report significant environmental damage or spills.
- Plan and manage operator maintenance on tools and equipment to ensure environmental efficiency.
- Plan and manage operator maintenance on spray booth and spray equipment is conducted where applicable, to ensure environmental efficiency.
- Manage effective planning and teamwork related to environmental best practice.
- Develop/implement or audit an existing business environmental policy which covers at a minimum:
  - waste, recycling, hazards to stormwater, air quality, noise, energy minimisation and costs.
- Modify activities to cater for variations in workplace context and the environment.

##### Context of, and specific resources for assessment

- Assessment may occur on the job or in a workplace simulated facility with process equipment, materials, work instructions and deadlines.

| <b>EVIDENCE GUIDE</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | <ul style="list-style-type: none"> <li>• Access to a marine repair and service workshop with access to marine or components requiring repair, maintenance, testing or installing of components and/or systems, parts washers, recycling bins, bunded/graded wash bays, oil water separator liquid, sludge and solid wastes.</li> <li>• Resources may include, pressure washing and facilities for the use of recycled water.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Method of assessment</b>                | <ul style="list-style-type: none"> <li>• Assessment methods must confirm consistency of performance over time and in a range of workplace contexts.</li> <li>• Assessment should be by direct observation of tasks and questioning on underpinning knowledge.</li> <li>• Assessment should be conducted over time and may be in conjunction with assessment of other units of competency.</li> <li>• Assessment of this competency is most likely to be project related under real or simulated conditions and require portfolios or other forms of indirect evidence of process. Direct evidence may include, certification of compliance of the final outcome/product or authorisation for use by a component authority.</li> <li>• Assessment must confirm the inference that competency is able not only to be satisfied under the particular circumstances, but is able to be transferred to other circumstances.</li> <li>• Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.</li> </ul> |
| <b>Guidance information for assessment</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Range Statement

| <b>RANGE STATEMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>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.</p> |

| <b>RANGE STATEMENT</b>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Marine repair and service workshop</b> | <p>Marine repair and service workshop includes:</p> <ul style="list-style-type: none"> <li>marine workshop undertaking the repair or service of marine and marine components</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Work requirements</b>                  | <p>Work involves the planning and management of normal activities of a marine repair and service workshop, including:</p> <ul style="list-style-type: none"> <li>the installation, removal, repair, testing and replacement of marine craft engines and associated components</li> <li>the installation, removal, repair, testing and replacement of marine electrical systems and components</li> <li>welding, soldering and thermal cutting of marine components</li> <li>water testing</li> <li>cleaning and washing of external and internal surfaces, including glass and wet areas</li> <li>the removal and preparation of vessel surfaces and components for painting with anti-foulant based products</li> </ul> |
| <b>WHS</b>                                | <p>WHS requirements include:</p> <ul style="list-style-type: none"> <li>safety management systems, hazardous substances and dangerous goods code and safe operating procedures</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Tools and equipment</b>                | <p>Tools and equipment are to include:</p> <ul style="list-style-type: none"> <li>spill kits, recycling bins and drums, parts washers, bunded/graded wash bays, air extraction equipment, slipways or hardstand areas with pollution control measures and diversion valves, an oil water separator, a containment area for hazardous substances and a wastewater management system</li> </ul>                                                                                                                                                                                                                                                                                                                            |
| <b>Materials</b>                          | <p>Materials may include:</p> <ul style="list-style-type: none"> <li>material data safety sheets (MSDS), manufacturer and/or component supplier/component specifications, environmental records and costings of equipment</li> <li>staff environmental induction material</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                     |

**RANGE STATEMENT****Personal protective equipment**

Personal protective equipment is to include that prescribed under legislation, regulations and enterprise policies and practices

**Information and procedures**

Information and procedures may include:

- environmental legislation, regulations and advice
- workplace procedures relating to the use of tools and equipment
- work instructions and procedures
- site environmental policy
- workplace procedures relating to reporting and communication
- manufacturer and/or component supplier/component supplier specifications and operational procedures
- local council and waterways regulations

**Unit Sector(s)****Unit sector**

Marine

**Co-requisite units**

Not applicable.

**Competency field****Competency field**

Environment