



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TDMMU507B ENSURE COMPLIANCE WITH ENVIRONMENTAL CONSIDERATIONS IN A SMALL DOMESTIC VESSEL**

**Release: 1**

## **TDMMU507B ENSURE COMPLIANCE WITH ENVIRONMENTAL CONSIDERATIONS IN A SMALL DOMESTIC VESSEL**

### **Modification History**

Not applicable.

### **Unit Descriptor**

UNIT DESCRIPTOR:

**This unit involves the skills and knowledge required to operate a coastal vessel up to 24 metres in length in compliance with marine regulations and environmental considerations.**

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### **Application of the Unit**

<b>Application of the unit</b>	The unit applications in qualifications for Coxswain, Master 5, Skipper 3, i.e. Certificate II in Transport&Distribution (Coastal Maritime Operations - Coxswain), Certificate III in Transport&Distribution (Coastal Maritime Operations - Master Class 5) and for Marine Engine Drivers 2 and 3, i.e. Certificate III in Transport&Distribution (Marine Engine Driving - Grade 2) and Certificate II in Transport&Distribution (Marine Engine Driving - Grade 3).
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### **Licensing/Regulatory Information**

<b>Licensing/legislative requirements</b>	The unit is consistent with the relevant maritime regulations describing mandatory compliance with marine environmental considerations on coastal vessels.
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### **Pre-Requisites**

Not applicable.

## Employability Skills Information

Not applicable.

## Elements and Performance Criteria Pre-Content

<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.</i>
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<b>1 Apply relevant domestic legislative requirements</b>	<ul style="list-style-type: none"><li>a Relevant domestic legislative and administrative requirements are identified, understood and applied to vessel operations</li><li>b Basic need for management of environmental issues is identified, understood and addressed during vessel operations</li><li>c Implications and concerns on environmental issues other than those managed by marine safety authorities are identified and interpreted, and appropriate action is taken in respect of vessel operations</li></ul>
<b>2 Apply principles for preventing oil pollution and for responding to pollution incidents</b>	<ul style="list-style-type: none"><li>a Generic precautions for preventing spillage of oil through refuelling bilge pumping transfer of fuel, maintenance, loss of deck cargo, loss of vessel are understood and applied during vessel operations</li><li>b Generic responses to spilled fuel are understood and applied during vessel operations and pollution incidents</li><li>c Requirements for the responsible disposal of waste oil are understood and applied during vessel operations and maintenance</li></ul>

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<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
<b>3 Apply requirements for management of garbage</b>	<ul style="list-style-type: none"> <li>a The rules of disposal of garbage are understood and applied during vessel operations</li> <li>b A garbage record book is maintained in accordance with regulatory requirements and workplace procedures</li> <li>c Principles of responsible management of garbage are applied during vessel operations</li> </ul>
<b>4 Apply basic principles of ballast water management</b>	<ul style="list-style-type: none"> <li>a Basic reasoning and principles for ballast water control are understood and applied during vessel operations</li> </ul>
<b>5 Apply the principles of management of sewage discharges</b>	<ul style="list-style-type: none"> <li>a Basic reasoning and principles for sewage control are applied during vessel operations</li> <li>b Responsible management of sewage is demonstrated during vessel operations</li> </ul>
<b>6 Apply environmental and safety principles during the stowage and management of explosive and flammable material</b>	<ul style="list-style-type: none"> <li>a Environmental and safety principles and regulatory requirements are applied during stowage and management of flammable/explosive liquids, gases, solids and other materials normally carried on board</li> <li>b Dangers inherent with the above materials are understood and appropriate precautions are taken in accordance with regulatory requirements and workplace procedures</li> </ul>

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## **Required Skills and Knowledge**

### **REQUIRED KNOWLEDGE**

This describes the knowledge required for this unit.

- 1 Relevant legislation, codes of practice, policies and procedures to protect the marine environment
- 2 Effects on the marine environment of various possible pollution incidents
- 3 Pollution control problems and related measures to protect the marine environment
- 4 Certificates and other documents required by relevant Australian and/or international legislation and conventions for the protection of the marine environment
- 5 Operational characteristics of emission control equipment used on various types and sizes of vessels
- 6 Operational requirements of water, bilge, waste, pollution and recycling management processes used on various types and sizes of small vessels
- 7 Requirements under Australian and/or international legislation and conventions for reporting incidents related to breaches of the statutory codes and measures for the protection of the marine environment
- 8 Safety implications of the carriage and stowage of flammable or hazardous material in a small vessel

### **REQUIRED SKILLS**

This describes the basic skills required for this unit.

- 1 Use basic verbal communication skills
- 2 Read and interpret instructions and procedures related to environmental considerations
- 3 Work safely and collaboratively with others when implementing environmental

## REQUIRED KNOWLEDGE

considerations

- 4 Give instructions and directions on environmental considerations on a coastal vessel
- 5 Recognise pollution control problems and hazards that may occur on a coastal vessel and take appropriate action
- 6 Complete required documents related to breaches of environmental protection requirements that may occur on a small domestic vessel
- 7 Adapt to any changes in environmental protection procedures in the workplace

## Evidence Guide

### Evidence Guide

<b>TDMMU507B ENSURE COMPLIANCE WITH ENVIRONMENTAL CONSIDERATIONS IN A SMALL DOMESTIC VESSEL</b>
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*The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.*

<b>1 Critical aspects of evidence required to demonstrate competency in this unit</b>	Assessment must confirm appropriate knowledge and skills to: <ol style="list-style-type: none"><li>a Maintain compliance with legislative requirements for protection of the marine environment</li><li>b Implement preventative and remedial anti-pollution procedures as per relevant regulations and procedures</li><li>c Identify typical pollution control problems and take appropriate action</li><li>d Maintain all records concerning anti-pollution measures and breaches of anti-pollution regulations</li><li>e Communicate effectively with others concerning measures to protect the marine environment</li></ol>

**2 Evidence required for demonstration of consistent performance**

- a Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- b Consistently applies underpinning knowledge and skills when:
  - 1 completing activities aimed at compliance with relevant regulatory requirements for protection of the marine environment
  - 2 identifying and evaluating problems related to compliance with relevant regulations for environmental protection and determining appropriate courses of action
  - 3 following anti-pollution procedures
  - 4 assessing compliance of vessel with relevant regulatory requirements for protection of the marine environment
  - 5 stowing flammable or hazardous materials on board
- c Shows evidence of application of relevant workplace procedures, including:
  - 1 relevant regulatory requirements dealing with environmental protection
  - 2 OH&S regulations and hazard prevention policies and procedures
  - 3 job procedures and work instructions related to environmental protection
  - 4 on-board housekeeping processes
  - 5 waste, pollution and recycling management processes, where relevant
- d Action is taken promptly to report and/or rectify breaches of environmental protection regulations
- e Work is completed systematically with required attention to detail

## Evidence Guide

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<b>2 Evidence required for demonstration of consistent performance</b>	f Recognises and adapts appropriately to cultural differences in the workplace, including modes of behaviour and interactions among crew and others
<b>3 Context of assessment</b>	<p>a Assessment of competency must comply with the assessment requirements of the relevant maritime regulations</p> <p>b Assessment of this unit must be undertaken within relevant marine authority approved and audited arrangements by a registered training organisation:</p> <ol style="list-style-type: none"> <li>1 As a minimum, assessment of knowledge must be conducted through appropriate written/oral examinations, and</li> <li>2 Appropriate practical assessment must occur: <ol style="list-style-type: none"> <li>i at the registered training organisation; and/or</li> <li>ii on an appropriate working or training vessel</li> </ol> </li> </ol>
<b>4 Specific resources required for assessment</b>	<p>Access is required to opportunities to:</p> <p>a demonstrate performance in suitably simulated activities aimed at the protection of the marine environment covering an appropriate range of situations experienced on a vessel and/or</p> <p>b contribute to measures to protect the marine environment on a vessel in an appropriate range of situations, weather and loading conditions</p>



## Range Statement

### Range Statement

<b>TDMMU507B ENSURE COMPLIANCE WITH ENVIRONMENTAL CONSIDERATIONS IN A SMALL DOMESTIC VESSEL</b>
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*The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.*

<b>VARIABLE</b>	<b>SCOPE</b>
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#### 1. GENERAL CONTEXT

<b>a. Work must be carried out:</b>	1 in compliance with mandatory rules and regulations concerning protection of the marine environment.
<b>b. Work is performed:</b>	1 relatively independently under broad operational requirements, with limited accountability and responsibility for self and others in achieving the prescribed outcomes
<b>c. Work involves:</b>	1 the application of regulations and measures to ensure the protection of the marine environment in a wide variety of operational contexts.

#### 2. WORKSITE ENVIRONMENT

<b>a Vessel may include:</b>	1 any Australian or international commercial vessel
<b>b Dangers to the marine environment may occur:</b>	1 by day or night in both normal and emergency situations 2 under any possible conditions of sea and weather 3 while underway

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	4 during berthing and unberthing operations
	5 while anchoring or mooring
	6 while moored or at anchor
	7 during loading and unloading operations
	8 during maintenance operations
<b>c Items and equipment which may be checked as part of anti-pollution measures include:</b>	1 pumps 2 valves 3 emission control equipment 4 water management equipment, including: cooling water, ballast water and bilge systems 5 waste storage and recycling equipment

**Range Statement (continued)**

**TDMMU507B ENSURE COMPLIANCE WITH ENVIRONMENTAL CONSIDERATIONS IN A SMALL DOMESTIC VESSEL**

<b>VARIABLE</b>	<b>SCOPE</b>
<b>d Preventative measures to protect the marine environment may include:</b>	1 prevention of spillages of cargo 2 prevention of spillages of fuel and oil 3 control of polluting emissions of gas and smoke 4 effective management of waste, pollution and recycling processes 5 effective management of ballast operations 6 shipboard housekeeping

<b>VARIABLE</b>	<b>SCOPE</b>
	7 pollution control instructions
<b>e Environmental issues other than those managed by marine safety authorities may include but are not restricted to:</b>	1 fishing restrictions 2 damage to sensitive environments through anchoring 3 laying pots/traps/moorings 4 noise 5 ballast water management
<b>f Flammable/explosive liquids, gases, solids and other hazardous materials may include but are not restricted to:</b>	1 spare fuel 2 lubricants 3 LPG cooking gas 4 cleaning products 5 chemicals
<b>g Sources of information and documentation may include:</b>	1 operational orders 2 relevant regulations for the type of vessel involved 3 company procedures related to the protection of the marine environment 4 equipment manufacturer's instructions and recommended procedures 5 instructions of relevant maritime authorities 6 vessel's log where relevant 7 certificates and other documents required by regulations for the protection of the marine environment 8 relevant standards related to the protection of the marine

VARIABLE	SCOPE
	environment, including guidelines issued under the Australian Intergovernment Agreement on a National System for the Prevention and Management of Marine Pest Incursions

### Range Statement (continued)

<b>TDMMU507B ENSURE COMPLIANCE WITH ENVIRONMENTAL CONSIDERATIONS IN A SMALL DOMESTIC VESSEL</b>
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VARIABLE	SCOPE
<b>h Dependent on the type, size and range of service of the vessel, applicable regulations and legislation may include:</b>	<ol style="list-style-type: none"> <li>1 relevant sections of maritime regulations related to protection of the marine environment</li> <li>2 relevant sections of the NSCV related to protection of the marine environment</li> <li>3 MARPOL Convention</li> <li>4 relevant Australian and/or State/Territory legislation related to protection of the marine environment</li> <li>5 the National Plan to Combat the Pollution of the Sea by Oil</li> <li>6 Australian Intergovernment Agreement on a National System for the Prevention and Management of Marine Pest Incursions</li> </ol>

### Unit Sector(s)

Not applicable.

## Field

Field U Environment

## Relationship to other units

<b>Relationship to other units</b>	The unit may be assessed in conjunction with other units that relate to the functions of the occupation(s) concerned.
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