



Australian Government

Department of Education, Employment and Workplace Relations

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

Revision Number: 1

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

Modification History

Not applicable.

Unit Descriptor

UNIT DESCRIPTOR:

This unit involves the skills and knowledge required to follow and apply established maritime OH&S working practices and procedures and hazard control strategies on a coastal vessel and to take appropriate initial action on becoming aware of an emergency, and to follow established emergency response procedures.

(This unit incorporates the content of the previous units *TDMMF701B Observe safe working practices* and *TDMMF801B Comply with emergency procedures* as it applied to coastal vessels)

Application of the Unit

Application of the unit	The unit covers mandatory requirements in basic pre-sea safety and emergency procedures on coastal vessels and has applications in qualifications for Coxswain, Master 5, Master 4, Skipper 3, Skipper 2, Marine Engine Drivers 1, 2 and 3 and Marine Engineer Grade 3, i.e. Certificate II in Transport&Distribution (Coastal Maritime Operations - Coxswain), Certificate III in Transport&Distribution (Coastal Maritime Operations - Master Class 5), Certificate IV in Transport&Distribution (Coastal Maritime Operations - Master Class 4), Certificate II in Transport&Distribution (Marine Engine Driving - Grade 3), Certificate III in Transport&Distribution (Marine Engine Driving - Grade 2), Certificate IV in Transport&Distribution (Marine Engine Driving - Grade 1), Diploma of Transport&Distribution (Coastal Marine Engineering - Class 3).
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Licensing/Regulatory Information

Licensing/legislative requirements	The unit is consistent with the relevant maritime regulations describing mandatory minimum requirements for basic pre-sea safety and emergency procedures on coastal vessels. This includes applicable sections of the National Standard for Commercial Vessels and State/Territory Maritime licensing and regulatory requirements.
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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
1 Identify and follow workplace procedures for hazard identification and risk control	<ul style="list-style-type: none"> a Safety regulations and vessel's safety and hazard control practices and procedures are obtained, interpreted and applied to day-to-day work activities b Workplace procedures for OH&S and related work instructions for controlling risks on board a vessel are accurately followed c Workplace procedures for dealing with shipboard accidents, fire and emergencies are known and followed d Hazards in the workplace are identified and appropriate action is taken to report them and to minimise or eliminate risk to personnel, vessel and the environment

ELEMENT	PERFORMANCE CRITERIA
<p>1 Identify and follow workplace procedures for hazard identification and risk control (continued)</p>	<p>e Where relevant, procedures and precautions necessary for entry into a pump room, fuel tanks or other confined spaces on a vessel are correctly followed</p> <p>f Personal protection clothing and equipment is correctly used in accordance with established shipboard safety practices and procedures</p> <p>g Appropriate assistance is provided in the event of a shipboard emergency to secure the vessel and its machinery and equipment and to maintain the safety of the vessel and persons involved</p>
<p>2 Contribute to arrangements for the management of OH&S</p>	<p>a OH&S issues and identified safety hazards are raised with designated personnel in accordance with workplace procedures and relevant OH&S legislation</p> <p>b Contributions to OH&S management in the workplace are made within workplace procedures and provisions of relevant legislation</p> <p>c OH&S issues are raised with designated personnel in accordance with workplace procedures and relevant OH&S legislation.</p> <p>d Contributions to participative arrangements for OH&S management in the workplace are made within vessel's procedures and scope of responsibilities and competencies</p>
<p>3 Complete OH&S records</p>	<p>a OH&S records are completed in accordance with workplace requirements</p> <p>b Records of occupational injury and diseases are completed as per legal requirements</p>

ELEMENT	PERFORMANCE CRITERIA
4 Take action on becoming aware of an emergency	<ul style="list-style-type: none"> a Emergency situations are correctly recognised and identified b Response to an emergency situation follows vessel's established emergency response procedures c Correct action is taken on discovery of an actual or potential emergency in accordance with established vessel procedures d Information given on raising alarm is prompt, accurate, complete and clear
5 Follow established emergency procedures	<ul style="list-style-type: none"> a Vessel's contingency plans for emergency response are known and are implemented in real and simulated emergency situations

ELEMENT	PERFORMANCE CRITERIA
5 Follow established emergency procedures (continued)	<ul style="list-style-type: none"> b Escape routes and internal and external communications and alarm systems are correctly used in real and simulated emergency situations as per regulatory requirements and established procedures c Emergency communications and alarm signals and systems are correctly interpreted and required action is implemented as per emergency procedures and regulatory requirements d Planned damage control procedures for dealing with damage to the vessel and its hull are implemented as per company procedures and regulatory requirements

Required Skills and Knowledge

REQUIRED KNOWLEDGE

This describes the knowledge required for this unit.

- 1 Relevant maritime regulations
- 2 The provisions of OH&S Acts, regulations and codes of practice relevant to the workplace, including the rights and responsibilities of the workplace parties under OH&S Acts, regulations and codes of practice;
- 3 The ways in which OH&S is managed on a coastal vessel, and activities required under OH&S legislation, for example:
 - a relevant policies and procedures
 - b equipment operation and maintenance
 - c hazard identification
 - d risk assessment and control
 - e OH&S instruction and training requirements
 - f requirements for the provision of OH&S information to crew and passengers
- 4 Hazards that exist on a coastal vessel
- 5 The preferred order of ways to control risks on a coastal vessel (known as the hierarchy of control)
- 6 Workplace OH&S procedures relevant to the work being undertaken, including procedures for:
 - a recognising and reporting on hazards, for example, work area inspections
 - b procedures and precautions for entering and working in confined spaces
 - c work operations to control risks, for example, permit to work systems and isolation procedures
 - d responding to accidents, fires and emergencies
 - e raising OH&S issues
 - f employee participation in OH&S management, for example, consultative or OH&S committees on a vessel and joint employer/employee inspections

REQUIRED KNOWLEDGE

- 7 The meaning of OH&S symbols found on signs and labels in the workplace
- 8 Designated personnel responsible for OH&S on board a vessel
- 9 Indications of various types of emergency situations that may occur on a coastal vessel and the action to be followed when various types of actual or potential emergency situations are identified
- 10 Emergency alarm signals and systems in use on coastal vessels and procedures to be followed when an emergency alarm is raised
- 11 Escape routes and internal and external communication systems and alarms on board a vessel
- 12 Ways of controlling damage during a fire or flooding emergency on a coastal vessel
- 13 Communication techniques used during emergencies on a coastal vessel

REQUIRED SKILLS

This describes the basic skills required for this unit.

- 1 Use basic verbal communication skills
- 2 Read and interpret OH&S and emergency instructions and procedures
- 3 Work safely and collaboratively with others when implementing OH&S requirements and emergency procedures
- 4 Give instructions and directions on safety issues and emergency procedures on a coastal vessel
- 5 Recognise safety problems and hazards that may occur on a coastal vessel and take appropriate action
- 6 Complete required documents related to safety incidents or emergencies that may occur on a vessel
- 7 Adapt to any changes in safety and emergency equipment and procedures in the workplace
- 8 Use emergency and safety equipment as per operating instructions
- 9 Recognise faulty emergency and safety equipment and take appropriate action

Evidence Guide

Evidence Guide

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

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.

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| 1 Critical aspects of evidence required to demonstrate competency in | <p>Assessment must confirm appropriate knowledge and skills to:</p> <ol style="list-style-type: none">a Follow OH&S procedures, including hazard identification and risk controlb Contribute to arrangements for the management of OH&S on |
|---|---|

Evidence Guide

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<p>this unit</p>	<p>board a vessel</p> <p>c Complete OH&S records and other documentation as required</p> <p>d Take appropriate action in the event of discovering a shipboard emergency</p> <p>e Follow vessel's contingency plans for emergency response</p> <p>f Follow procedures for the use of various safety and emergency equipment on a coastal vessel</p> <p>g Implement damage control following a shipboard emergency as per instructions</p> <p>h Identify typical problems that may occur during a shipboard emergency and take appropriate action</p> <p>i Communicate effectively with others on workplace safety matters and during shipboard emergencies</p> <p>j Participate in drills to prepare shipboard personnel for emergency response</p>
<p>2 Evidence required for demonstration of consistent performance</p>	<p>a Performance is demonstrated consistently over a period of time and in a suitable range of contexts</p> <p>b Consistently applies underpinning knowledge and skills when:</p> <ol style="list-style-type: none"> 1 following workplace OH&S procedures on board a coastal vessel 2 contributing to arrangements for the management of OH&S on board a coastal vessel 3 completing OH&S records as required 4 implementing emergency procedures (during real and simulated emergency situations) 5 participating in drills aimed at preparing shipboard personnel to implement emergency response plans

Evidence Guide

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- c Shows evidence of application of relevant workplace procedures, including:
 - 1 relevant maritime regulations
 - 2 OH&S regulations and hazard prevention policies and procedures
 - 3 relevant procedures and regulations relating to shipboard emergencies and damage control

Evidence Guide (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

2 Evidence required for demonstration of consistent performance (continued)

- 4 shipboard safety procedures
- 5 environmental protection during emergencies
- d Action is taken promptly to report and/or rectify shipboard emergencies in accordance with established procedures
- e Work is completed systematically with required attention to detail
- f Recognises and adapts appropriately to cultural differences in the workplace, including modes of behaviour and interactions between crew and others

3 Context of assessment

- a Assessment of competency must comply with the assessment requirements of the relevant maritime regulations
- b Assessment of this unit must be undertaken within relevant marine authority approved and audited arrangements by a registered training organisation:
 - 1 As a minimum, assessment of knowledge must be conducted through appropriate written/oral examinations, and
 - 2 Appropriate practical assessment must occur:

Evidence Guide (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

	<ul style="list-style-type: none"> i at the registered training organisation; and/or ii on an appropriate working or training vessel
<p>4 Specific resources required for assessment</p>	<p>Access is required to opportunities to:</p> <ul style="list-style-type: none"> a participate in a range of role plays, case studies and/or other simulated practical and knowledge assessments that demonstrate the skills and knowledge to follow OH&S and emergency procedures on board a coastal commercial vessel; and/or b follow OH&S and emergency procedures during real operations and simulated emergency situations on board an operational coastal commercial vessel

Range Statement

Range Statement

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

VARIABLE	SCOPE
<p>1. GENERAL CONTEXT</p>	
<p>a. Work must be carried out:</p>	<p>1 in compliance with the relevant maritime and OH&S regulations.</p>

Range Statement

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b. Work is performed:	1 either individually or in a team environment with some accountability for the safety of self and others.
c. Work involves:	1 involves the application of known and established safe working and hazard control practices and procedures across a variety of normal and emergency contexts on a coastal vessel

2. WORKSITE ENVIRONMENT

a Vessel may include:	1 any Australian coastal commercial vessel less than 80 metres
b Safe working practices and hazard control strategies must be applied at all times, including:	<ul style="list-style-type: none"> 1 by day or night in both normal and emergency situations 2 under any permissible conditions of weather and loading 3 while underway or berthed 4 during berthing and unberthing operations 5 while anchoring or mooring 6 when slipped or in dry dock 7 when bunkering 8 during cargo, fishing or passenger operations 6 when refuelling operations 7 during cargo handling operations
c Emergencies may include:	1 collision with another vessel

Range Statement (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

VARIABLE	SCOPE
<p>c Emergencies may include: (continued)</p>	<p>2 fire or explosion on board vessel</p> <p>3 flooding of vessel</p> <p>4 loss of steering control</p> <p>5 loss of motive power</p> <p>6 foundering</p> <p>7 grounding</p> <p>8 beaching a vessel</p> <p>9 person overboard</p> <p>10 person unconscious in a confined space</p> <p>11 rescue and evacuation of injured personnel</p> <p>12 severe weather</p> <p>13 fishing gear caught on a submerged obstruction</p>
<p>d Damage control measures in an emergency may include:</p>	<p>1 use of appropriate firefighting equipment and techniques such as various types of fire extinguishers, fire blankets, fire hoses and nozzles</p> <p>2 activation of fixed firefighting sprinklers and systems</p> <p>3 removal of fuel or heat source</p> <p>4 operation of bilge pump</p> <p>5 operation of a portable salvage pump</p>

Range Statement (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

<p>e Emergency equipment may include:</p>	<ol style="list-style-type: none"> 1 portable firefighting equipment 2 survival equipment found on a small vessel, including life-jackets and survival craft 3 confined space harnesses and hoists 4 tools and other equipment found on a small vessel
<p>f Workplace hazards may include:</p>	<ol style="list-style-type: none"> 1 moving heavy loads in an unsafe work environment 2 unsecured machinery, components, cargo or repair equipment 3 slippery deck 4 welding equipment 5 sharp tools and implements

Range Statement (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

<p>VARIABLE</p>	<p>SCOPE</p>
<p>f Workplace hazards may include: (continued)</p>	<ol style="list-style-type: none"> 6 power tools 7 moving and rotating machinery 8 flammable liquids, vapours and fuel 9 faulty machinery equipment handling equipment and lifting gear 10 using equipment beyond safe working limits 11 poor housekeeping procedures

Range Statement (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

	<ul style="list-style-type: none"> 12 non-compliance with safe working procedures 13 electrical wiring and systems 14 hot pipes and valves (e.g. steam, fuel oil, lubricating oil) 15 cold pipes and valves (e.g. refrigeration and liquefied gas cargoes) 16 working at heights 17 working in a confined space (potential lack of oxygen, toxic atmosphere) 18 exposed electrical circuits 19 toxic gases and substances, chemicals and other harmful substances 20 damaged cargo 21 fishing gear being set or hauled
g Personnel in work area may include:	<ul style="list-style-type: none"> 1 crew, passengers, contractors, official representatives
h Hazard identification may include activities associated with:	<ul style="list-style-type: none"> 1 checking equipment or the work area before work commences and during work 2 workplace inspections 3 entry into a confined space 4 Housekeeping

Range Statement (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

i Participative arrangements may include:	<ol style="list-style-type: none"> 1 formal and informal meetings of the crew which deal with OH&S issues 2 participating on an OH&S committee on board a vessel 3 acting as a designated OH&S representative on board a vessel 4 suggestions, requests, reports and concerns put forward by vessel's crew
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Range Statement (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

VARIABLE	SCOPE
j Designated personnel may include:	<ol style="list-style-type: none"> 1 senior crew members 2 company OH&S personnel 3 other authorised persons
k Damage control measures in a fire or explosion emergency may include:	<ol style="list-style-type: none"> 1 use of appropriate firefighting equipment and techniques such as various types of fire extinguishers, fire blankets, fire hoses and nozzles, and foam applicators 2 activation of fixed firefighting sprinklers and systems 3 removal of fuel or heat source 4 boundary cooling techniques 5 shutting down of ventilation and sealing off of compartment

Range Statement (continued)

TDMMF5407A OBSERVE SAFETY AND EMERGENCY PROCEDURES ON A COASTAL VESSEL

<p>l Documentation and records may include:</p>	<p>1 vessel's and company's safety policies and procedures</p> <p>2 vessel's operational and emergency plans and procedures</p> <p>3 records required under OH&S legislation:</p> <p style="padding-left: 20px;">i safety management system plans, procedures, checklists and instructions, (where applicable)</p> <p style="padding-left: 20px;">ii safety equipment manuals</p> <p style="padding-left: 20px;">iii hazardous substances registers</p> <p>4 material safety data sheets</p>
<p>m Applicable legislation, regulations and codes may include:</p>	<p>1 relevant sections of the State/Territory maritime regulations and National Standard for Commercial Vessels and USL Code</p> <p>2 OH&S regulations and codes of practice, including regulations relating to hazard control in the workplace or industry</p>

Unit Sector(s)

Not applicable.

Field

Field MF Operational Quality and Safety

Relationship to other units

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