



Australian Government

MARF1004A Follow work health and safety, and emergency procedures during shore-based mooring operations

Release 1

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Modification History

Release 1

This is the first release of this unit.

This unit replaces and is equivalent to TDMMF6007A Follow OH&S and emergency procedures during shore-based mooring operations.

Unit Descriptor

This unit involves the skills and knowledge required to interpret and follow work health and safety (WHS)/occupational health and safety (OHS) policy and procedures, and emergency procedures during mooring and untying operations.

Application of the Unit

This unit applies to people working in the maritime industry under supervision as a shore-based linesperson as part of a mooring or untying team.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

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 required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 Follow safety and hazard control procedures during mooring and untying operations | <p>1.1 Tests and inspections of shore ropes and equipment used in mooring and untying operations are conducted according to regulations and company procedures</p> <p>1.2 Hazards are identified and action is taken to eliminate or minimise risk to personnel, port facilities, vessel and the environment</p> <p>1.3 Safety precautions and hazard minimisation procedures and regulations are followed at all times during mooring and untying operations</p> <p>1.4 In a mooring or untying incident or emergency, action is taken to secure vessel and to maintain safety of vessel and persons involved</p> |
| 2 Use personal protective equipment during mooring and untying operations | <p>2.1 Personal protective equipment (PPE) required during mooring and untying operations is obtained and checked prior to commencement of operations according to company WHS/OHS policy and procedures</p> <p>2.2 PPE is correctly used as required during mooring and untying operations</p> <p>2.3 PPE is correctly stored after use according to company procedures</p> |
| 3 Follow emergency procedures | <p>3.1 Wharf and port facility emergency procedures are accessed and implemented</p> <p>3.2 Escape routes and internal and external communications and alarm systems are correctly used according to regulatory requirements and established port procedures</p> <p>3.3 Emergency communications and alarm signals and systems are used according to port emergency procedures and regulatory requirements</p> |
| 4 Report safety incidents and emergencies during mooring and untying operations | <p>4.1 Information about safety incidents or emergencies that occur during mooring or untying operations is correctly and accurately recorded according to regulations and company procedures</p> <p>4.2 Required reports on safety incidents or emergencies that occur during mooring or untying operations are prepared and referred to designated personnel according to regulations and company procedures</p> |

Required Skills and Knowledge

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

Required Skills:

- Communicate effectively with other personnel when mooring and untying a vessel
- Handle rope appropriately and correctly:
 - storing and caring for ropes and lines
 - tying knots such as bowline, reef knot, overhand knot, figure of eight knot, sheet bend and clove hitch
 - applying a chain stopper to a wire rope
 - heaving on a line in collaboration with other members of a mooring team
 - applying a stopper to a synthetic fibre rope
 - applying a chain stopper to a natural cordage rope
 - attaching a line to a bollard or bitt with all lines in correct order such as up through the eye
 - flaking down a rope
 - forming a bight
- Identify and correctly use:
 - PPE
 - various types of ropes, steel wires and mooring equipment
- Interpret and follow WHS/OHS and safety management procedures for mooring and untying operations, including safety instructions and precautions
- Recognise dangers and hazards before and during mooring operations, and take appropriate action to report and rectify them
- Recognise safety-related problems that may occur during mooring operations, and take appropriate action to report and resolve them
- Record and report safety incidents and emergencies
- Work safely as a member of a mooring and untying team

Required Knowledge:

- Dangers associated with mooring duties:
 - being hit by a line being thrown down from a vessel
 - stepping inside the bight of a line
 - being struck by a parting line
 - mixing rings and wire rope
 - falling off the edge of the wharf into the water
 - back strain from carrying a line, heaving on a line or heaving on a line with one hand
 - 'snap back' in the event of a synthetic line breaking
 - trip hazards such as crane lines

- Hazards and safety-related problems that may occur during mooring and untying operations, and appropriate preventative and remedial action and solutions
- Methods for safely mooring and untying ocean-going vessels
- Procedures for calculating stresses on lifting gear used in cargo handling operations
- Relevant documentation and records:
 - mooring and untying plans, procedures, checklists and instructions
 - relevant sections of maritime regulations concerning mooring and untying operations
 - rope and equipment manufacturer instructions and procedures
 - safety instructions and procedures
 - instructions of relevant maritime authorities
 - reports and records of safety incidents or emergencies
- Relevant port and vessel safety and security requirements and regulations
- Relevant WHS/OHS legislation, codes of practice, policies and procedures
- Reporting requirements for safety incidents or emergencies that occur during mooring or untying operations
- Safety instructions for using ropes and other equipment during mooring and untying operations
- Safety management procedures for mooring and untying ocean-going vessels

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, the required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- working systematically with required attention to detail and safety requirements
- promptly reporting and/or rectifying hazards, safety incidents or emergencies.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- industry-approved marine operations site where following work health and safety, and emergency procedures during shore-based mooring operations can be conducted

- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate following work health and safety, and emergency procedures during shore-based mooring operations
- direct observation of the candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required Knowledge.

Assessment processes and techniques must be appropriate to the language and literacy requirements of the work being performed and the capacity of the candidate.

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.

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|---|--|
| Ropes and equipment must include: | <ul style="list-style-type: none">• Radios• Ropes and heaving lines provided by shore• Shackles• Wires |
| Mooring and untying operations may include: | <ul style="list-style-type: none">• Landing a gangway• Preparing a berth• Receiving heaving line from:<ul style="list-style-type: none">• a launch• a vessel• Returning heaving line to a vessel• Untying and letting go a vessel• Working:<ul style="list-style-type: none">• by day or night• in normal and emergency situations• under any permissible conditions of weather• at various shoreside terminals and wharves |
| Hazards may include: | <ul style="list-style-type: none">• Crane movement• Faulty communications equipment• Inadequate lighting• Ship mooring lines and wires in poor condition• Wharf traffic |
| Personnel may include: | <ul style="list-style-type: none">• Mooring:<ul style="list-style-type: none">• launch and crew• supervisor• personnel (bow)• personnel (stern)• Pilot• Tug crew/s• Vessel crew |
| Safety precautions may include: | <ul style="list-style-type: none">• Checking:<ul style="list-style-type: none">• own personal fitness and medical wellbeing• whereabouts of edge of wharf• whereabouts of other members of mooring/untying team• Confirming availability of a personal flotation device upon arrival at mooring operation• Keeping work area hazard-free |

- Obtaining and using required personal protective equipment (such as safety footwear, safety helmet, suitable gloves, safety vest and reflective braces, personal collar insert for flotation device)
 - Removing rings from fingers to avoid them being caught on steel wire ropes
 - Wearing suitable clothing
 - Ensuring ropes and equipment have been tested and are in good condition
 - Placing warning signage in appropriate places
 - Testing equipment prior to operation
 - Personal collar insert for flotation device
 - Reflective braces
 - Safety:
 - footwear
 - helmet
 - vest
 - Suitable gloves
- Hazard minimisation procedures may include:
- Personal protective equipment may include:

Unit Sector(s)

Not applicable.

Competency Field

Operational Quality and Safety