



Australian Government

MARF5001A Control safe access to and on vessel

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 TDMMF2107B Control safe access to and on vessel.

Unit Descriptor

This unit involves the skills and knowledge required to control safe access to and on a vessel.

Application of the Unit

This unit applies to maritime workers working in the maritime industry as a Watchkeeper Deck; as a Master, Chief Mate or Watchkeeper Deck on ships of less than 500 gross tonnage (GT) in any operating area; or as Master or Chief Mate of vessels less than 3000 GT operating in near coastal waters.

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 Rig equipment | <p>1.1 Preparations for the rigging of access equipment are made according to manufacturer instructions and organisational procedures</p> <p>1.2 Access equipment is deployed according to organisational procedures</p> <p>1.3 Safety checks and precautions are carried out according to organisational procedures</p> <p>1.4 Defective equipment is identified and reported, repaired or replaced according to organisational procedures</p> <p>1.5 Access equipment is unrigged and stowed after use</p> |
| 2 Monitor access of persons to and on vessel | <p>2.1 Persons accessing the vessel are advised and instructed on the procedures for using access equipment</p> <p>2.2 Access of persons to and on vessel is supervised</p> <p>2.3 Any problems with persons accessing the vessel are identified and resolved or reported</p> |
| 3 Monitor safety of personnel working aloft and over side of vessel | <p>3.1 Personnel going aloft or over side are instructed on the procedures and safety precautions to be followed</p> <p>3.2 Equipment for going aloft or over side is rigged and checked prior to operations commencing</p> <p>3.3 Appropriate personal protective equipment for working aloft or over side is made available and instructions are provided on its use</p> <p>3.4 Faulty equipment is identified, isolated and reported to enable prompt repair and/or replacement</p> <p>3.5 Emergency and rescue procedures are confirmed and agreed before work commences</p> <p>3.6 Operations of personnel aloft or over the side are supervised and any problems are identified and resolved or reported</p> <p>3.7 Safety incidents arising in the course of work aloft or over side are reported and recorded according to statutory requirements and organisational procedures</p> |
| 4 Monitor safety of personnel working in confined spaces | <p>4.1 Risk assessment of confined space entry is conducted and documented according to organisational and regulatory requirements</p> <p>4.2 Permission to enter and work in a confined space is sought from authorised personnel according to regulatory requirements</p> |

on a vessel

- 4.3 **Permits** are completed with conditions of validity and submitted for approval to designated personnel according to regulatory requirements
- 4.4 **Appropriate plan** is prepared for the completion of the work activity in the confined space
- 4.5 Operations of personnel working in confined spaces are supervised and any problems are identified and resolved or reported
- 4.6 Planned emergency and rescue procedures are followed in the event of an accident or other emergency
- 4.7 Evacuation of confined space is supervised and sign out is completed on entry permit

Required Skills and Knowledge

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

Required Skills:

- Communicate effectively when controlling safe access to and on vessel
- Complete entry permits and other related documentation
- Conduct atmospheric assessments with oxygen meter and gas detecting equipment
- Identify and control hazards in confined spaces
- Interpret relevant legislative responsibilities in relation to working in confined spaces
- Read, interpret and apply instructions relevant to the rigging of personnel and pilot access ways on a vessel
- Recognise routine problems that may occur when controlling safe access to and on a vessel and take appropriate action
- Select and use rigging and safety equipment according to standard operating procedures and safety management systems
- Tie required knots and handle ropes
- Use emergency and safety equipment according to operating instructions
- Work safely and collaboratively with others working in a confined space
- Work safely and collaboratively with others when rigging personnel and pilot access ways to and on a vessel

Required Knowledge:

- Applicable personal protective safety equipment and procedures for its use
- Atmospheric hazards and assessment methods
- Communication techniques used when entering and working in a confined space
- Electrical safety
- Emergency entry and exit procedures
- Equipment used in confined space entry
- Hazard identification procedures
- Hazards to health and safety in confined spaces
- Maintenance and storage procedures for equipment used when working aloft or over side
- Maritime security levels and their impact on security measures and procedures on board ship and in port facilities
- Precautions to be taken:
 - when entering enclosed spaces
 - before and during repair and maintenance work
- Principle design and safety features and component parts of personnel and pilot access ways typically used on vessels

- Safety measures for hot and cold work
- Security reporting procedures
- Ship/shore safety checklist
- Relevant sections of applicable maritime regulations
- Relevant work health and safety (WHS)/occupational health and safety (OHS) legislation and policies
- Risk management strategies for entry to confined spaces
- Role of standby personnel while a person enters and works in a confined space
- Routine problems that may occur when controlling safe access to and on a domestic vessel and appropriate action and solutions
- Safe systems of work
- Special procedures and permit requirements for particular types of work in confined spaces
- Standard operating procedures and safety precautions to be followed when working:
 - aloft or over side
 - in confined spaces
- Standard operating procedures for rigging personnel and pilot access ways
- Types of confined spaces encountered in the maritime industry
- Types of knots, bends and hitches required when rigging personnel and pilot access ways, their characteristics, applications and limitations, and methods of tying them using synthetic and fibre rope of varying construction and size
- WHS/OHS requirements for confined space entry

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:

- rigging personnel and pilot access ways
- managing safety of personnel aloft and over side of vessel
- supervising persons working in confined spaces.

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 controlling safe access to and on vessel 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 controlling safe access to and on a vessel
- direct observation of the candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for

Holistic assessment with other units relevant to the industry

assessment

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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| Access equipment may include: | <ul style="list-style-type: none">• Gangways• Gas and oxygen meters• Pilot hoist• Pilot ladder• Staging |
| Equipment for going aloft or over side may include: | <ul style="list-style-type: none">• Fall arrest devices• Ladders• Ropes• Safety harness• Staging |
| Personal protective equipment for working aloft or overside may include: | <ul style="list-style-type: none">• Hard hats• Immersion suit• Life jacket• Thermal protective aids• Safety lines |
| Confined spaces may include: | <ul style="list-style-type: none">• Ballast or oil tank• Cargo hold• Cargo tank• Double bottom tank• Duct keel• Space entered through a small hatchway or access point• Void space |
| Risk assessment may include: | <ul style="list-style-type: none">• Atmosphere that contains potentially harmful levels of contaminants• Atmospheric conditions such as high temperature and humidity that cause fatigue• Corroded or otherwise damaged ladders and landings• Engulfment by 'fluid' cargo such as grains• External hazards connected to or adjacent to the space• Harmful non-toxic or non-explosive dusts• Isolation of electrical equipment• Operation of radar scanners• Oxygen deficiency or excess• Poor visibility and lighting |

- Regulatory requirements may include:
- Restricted access and movement making escape and rescue difficult
 - Slippery conditions that might result in injury from falls
 - Toxic liquids, solids, vapours, gases and dusts
 - Work processes which may introduce flammable, volatile and/or toxic gasses and vapours
 - Australian Standard AS/NZS 2865:2001 Safe working in a confined space
 - Vessel and organisation safety management system plans, procedures, checklists and instructions
- Authorised personnel may include:
- Chief engineer
 - Master
 - WHS/OHS representative
- Permits may include:
- Gas free certificate
 - Hot work permit
 - Permit to enter
- Appropriate plan may include:
- Atmospheric tests
 - Communications system
 - Emergency and rescue arrangements
 - Identification of standby person/s
 - Isolation of confined space
 - Permits
 - Personal protective equipment
 - Procedures for entering and exiting a confined space
 - Strategy for recovery of injured and unconscious person/s
 - Ventilation of space

Unit Sector(s)

Not applicable.

Competency Field

Operational Quality and Safety