



Australian Government

MARF012 Control safe access to and on vessel

Release: 1

MARF012 Control safe access to and on vessel

Modification History

Release 1. New unit of competency.

Application

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

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.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

F – Operational Quality and Safety

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Rig equipment	1.1	Preparations for the rigging of access equipment are made according to manufacturer instructions and organisational procedures
	1.2	Access equipment is deployed according to organisational procedures
	1.3	Safety checks and precautions are carried out according to organisational procedures
	1.4	Defective equipment is identified and reported, repaired or replaced according to organisational procedures
	1.5	Access equipment is unrigged and stowed after use

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| 2 | Monitor access of persons to and on vessel | 2.1 | Persons accessing the vessel are advised and instructed on the procedures for using access equipment |
| | | 2.2 | Access of persons to and on vessel is supervised |
| | | 2.3 | Any problems with persons accessing the vessel are identified and resolved or reported |
| 3 | Monitor safety of personnel working aloft and over side of vessel | 3.1 | Personnel going aloft or over side are instructed on the procedures and safety precautions to be followed |
| | | 3.2 | Equipment for going aloft or over side is rigged and checked prior to operations commencing |
| | | 3.3 | Appropriate personal protective equipment for working aloft or over side is made available and instructions are provided on its use |
| | | 3.4 | Faulty equipment is identified, isolated and reported to enable prompt repair and/or replacement |
| | | 3.5 | Emergency and rescue procedures are confirmed and agreed before work commences |
| | | 3.6 | Operations of personnel aloft or over the side are supervised and any problems are identified and resolved or reported |
| | | 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 |
| 4 | Monitor safety of personnel working in confined spaces on a vessel | 4.1 | Risk assessment of confined space entry is conducted and documented according to organisational and regulatory requirements |
| | | 4.2 | Permission to enter and work in a confined space is sought from authorised personnel according to regulatory requirements |
| | | 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

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Access equipment includes one or more of the following:

- gangways
- gas and oxygen meters
- pilot hoist
- pilot ladder
- staging

Equipment for going aloft or over side includes one or more of the following:

- fall arrest devices
- ladders
- ropes
- safety harness
- staging

Personal protective equipment for working aloft or overside includes

- hard hats
- immersion suit
- life jacket

one or more of the following:

- thermal protective aids
- safety lines

Confined spaces includes one or more of the following:

- 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 includes one or more of the following:

- 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
- 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

Regulatory requirements includes one or more of the following:

- 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 include one or more of the following:

- Chief engineer
- Master
- work health and safety (WHS)/occupational health and safety (OHS) representative

Permits include one or more of the following:

- gas free certificate
- hot work permit
- permit to enter

Appropriate plan includes one or more of the following:

- 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 Mapping Information

This is a new unit. This unit is equivalent to MARF5001A Control safe access to and on vessel.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>

Assessment Requirements for MARF012 Control safe access to and on vessel

Modification History

Release 1. New unit of competency.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- communicating effectively when controlling safe access to and on a vessel
- completing entry permits and other related documentation
- conducting atmospheric assessments with oxygen meter and gas detecting equipment
- identifying and controlling hazards in confined spaces
- interpreting relevant legislative responsibilities in relation to working in confined spaces
- managing safety of personnel aloft and over side of vessel
- reading, interpreting and applying instructions relevant to the rigging of personnel and pilot access ways on a vessel
- recognising routine problems that may occur when controlling safe access to and on a vessel and taking appropriate action
- rigging personnel and pilot access ways
- selecting and using rigging and safety equipment according to standard operating procedures and safety management systems
- supervising persons working in confined spaces
- tying required knots and handling ropes
- using emergency and safety equipment according to operating instructions
- working safely and collaboratively with others working in a confined space
- working safely and collaboratively with others when rigging personnel and pilot access ways to and on a vessel.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- 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.

Assessment Conditions

Assessors must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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

Resources for assessment must include access to:

- tools, equipment, machinery, materials and personal protective equipment currently used in industry
- applicable documentation such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- range of relevant exercises, case studies and/or simulations.

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>