



Australian Government

MARF002 Follow procedures to minimise and fight fires on board a vessel

Release: 2

MARF002 Follow procedures to minimise and fight fires on board a vessel

Modification History

Release 2. Mapping information has been corrected.

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to apply defined policies and procedures when carrying out fire minimisation procedures and fighting a fire on board a vessel.

This unit applies to deck and engine workers working in the maritime industry on vessels up to 80 metres. They could be working independently or as part of a vessel crew.

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 Carry out fire minimisation procedures

- 1.1 Fire hazards and risks on board vessel are identified and reported to designated personnel according to workplace procedures
- 1.2 Workplace procedures and work instructions for controlling fire risks are followed
- 1.3 Firefighting equipment is regularly checked and appropriate action is taken to ensure it is operational
- 1.4 Participation in fire drills and musters is undertaken to ensure readiness for fire emergencies

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| 2 Follow instructions during response to a fire emergency | <ul style="list-style-type: none">2.1 Location and class of fire are identified and alarm is raised and/or responded to according to workplace procedures2.2 Appropriate protective clothing and equipment requirements are made ready2.3 Instructions to contain the spread of fire and smoke are acted upon2.4 Fire is attacked using appropriate method, firefighting equipment and extinguishing media/agent according to instructions2.5 Collaboration and communication is maintained with others to support the safety and efficiency of the firefighting operation |
| 3 Support post-fire operations | <ul style="list-style-type: none">3.1 Fire watch is carried out as instructed to prevent further outbreak3.2 Equipment is restored to operational condition according to workplace instructions3.3 Assistance is provided to preserve fire scene prior to investigation, as required3.4 Information relevant for fire incident debrief is provided |

Foundation Skills

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

Range of Conditions

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

- Fire hazards and risks must include:
- cargo
 - clothing
 - cooking oils
 - cordage
 - electrical arcing

	• fuels and lubricants • furnishings • paints • poor housekeeping • poor work practices • smoking • spontaneous combustion
Firefighting equipment must include the following:	• fire blankets • hydrant hoses and nozzles • international shore connection • portable extinguishers • pumps
Classes of fire must include:	• A – Carbonaceous solids • B – Flammable liquids • C – Flammable gases • E – Electrically energised equipment • F – Cooking fats or oils
Protective clothing and equipment must include:	• foot protection • hand protection • radiant heat protection
Extinguishing media/agent must include:	• extinguishing powder • foam • gaseous extinguishing agents • water
Restoring equipment must include:	• cleaning • servicing (as required) • re-stowing

Unit Mapping Information

This unit replaces and is equivalent to MARF1002A Follow procedures to minimise and fight fires on board a 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 MARF002 Follow procedures to minimise and fight fires on board a vessel

Modification History

Release 2. Change to Performance Evidence to specify the extinguishing agents that must be used. Clarification of guidance information in Performance Evidence, Knowledge Evidence and Assessment Conditions.

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, performance criteria and range of conditions on at least one occasion and include:

- operating a fire extinguisher
- applying extinguishing media to a fire
 - water extinguisher
 - foam extinguisher
 - dry chemical extinguisher
 - fire bucket
- communicating and working collaboratively as a member of a team in a firefighting operation
- correctly using vessel closure and shutdown systems
- conducting effective boundary cooling
- using a fire blanket to extinguish a fire
- using water spray as an effective firefighting agent:
 - fire hose lines (jet spray to fog stream)

Knowledge Evidence

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

- alarms and signals during onboard emergencies
- chemistry of fire and its relationship to flash point, vapour density, auto ignition temperature and spontaneous combustion
- classes of fire applicable to Australian and New Zealand standards
- detection and suppression systems including fixed firefighting systems
- extinguishing media including firefighting foams

- firefighting tactics, techniques and procedures including team dynamics
- fire tetrahedron
- hazards and threats to life or health during onboard firefighting operations
- methods of heat transfer
- onboard emergency response organisation and procedures
- portable fire extinguishers – colour codes and suitability for class of fire
- principles underlying spread of fire on a vessel
- principles and methods of extinguishment of each class of fire
- safe working practices
- types of fire detection, firefighting equipment and systems used on vessels, their features, principles of operation, procedures for their use and problems that can occur
- ventilation procedures
- vessel construction as it relates to fire prevention/protection
- work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices

Assessment Conditions

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

Assessment must satisfy the National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) standards.

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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