



Australian Government

MARF028 Follow procedures to minimise and fight fires on board a vessel

Release: 2

MARF028 Follow procedures to minimise and fight fires on board a vessel

Modification History

Release 2. This is the second release of this unit of competency in the MAR Maritime Training Package.

- Minor statement changes in unit Application
- Minor statement changes in Assessment Conditions.

Release 1. New unit of competency. Licensing/regulatory information has been incorporated in accordance with Regulatory requirements. Assessment Requirements have been strengthened in accordance with Regulatory requirements.

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 people working in the maritime industry in a deck and or engine room capacity on vessels up to 100 meters and with propulsion power up to 3000 kW within the exclusive economic zone (EEZ).

They could be working independently or as part of a vessel crew.

Licensing/Regulatory Information

Legislative and regulatory requirements are applicable to this unit.

This unit is one of the requirements to obtain Australian Maritime Safety Authority (AMSA) certification as a General Purpose Hand NC, Coxswain Grade 2 NC, Coxswain Grade 1 NC, Marine Engine Driver Grade 3 NC, Master (Inland waters), Master up to 24 m NC, Marine Engine Driver Grade 2 NC, Mate up to 100 m NC, Master up to 45 m NC and Marine Engine Driver Grade 1 NC, as specified in Marine Order 505.

Seafarers seeking certification should check with AMSA.

Pre-requisite Unit

Not Applicable.

Competency Field

F – Operational Quality and Safety

Unit Sector

Not Applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Carry out fire minimisation procedures

PERFORMANCE CRITERIA

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

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

2 Follow instructions during response to a fire emergency

2.1 Location and class of fire are identified and alarm is raised and or responded to according to workplace procedures

2.2 Appropriate personal protective equipment (PPE) requirements are made ready

2.3 Instructions to contain the spread of fire and smoke are acted upon

2.4 Fire is attacked using appropriate method, firefighting equipment and extinguishing media or agent according to instructions

2.5 Collaboration and communication is maintained with others to support the safety and efficiency of the firefighting operation

3 Support post-fire operations

3.1 Fire watch is carried out as instructed to prevent further outbreak

3.2 Equipment is restored to operational condition according to workplace instructions

3.3 Assistance is provided to preserve fire scene prior to

investigation, as required

3.4 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.

Unit Mapping Information

This unit replaces and is equivalent to MARF002 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 MARF028 Follow procedures to minimise and fight fires on board a vessel

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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:

- applying extinguishing media to a fire, including:
 - dry chemical powder
 - water
- applying work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- communicating and working collaboratively as a member of a team in a firefighting operation
- conducting effective boundary cooling
- correctly using vessel closure and shutdown systems
- identifying fire hazards and risks
- using a fire blanket to extinguish a fire
- using 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 and performance criteria and include knowledge of:

- 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, including:
 - A – Carbonaceous solids
 - B – Flammable liquids
 - C – Flammable gases

- E – Electrically energised equipment
- F – Cooking fats or oils
- detection and suppression systems, including fixed firefighting systems
- extinguishing media, and their use, including:
 - extinguishing powders
 - firefighting foams
 - gaseous extinguishing agents
 - water
- fire alarms and signals during on-board fire emergency
- fire hazards and risks, including:
 - cargo
 - clothing
 - cooking oils
 - cordage
 - electrical arcing
 - fuels and lubricants
 - furnishings
 - paints
 - poor housekeeping
 - poor work practices
 - smoking
 - spontaneous combustion
- fire pumps
- firefighting tactics, techniques and procedures, including team dynamics
- hazards and threats to life or health during on-board firefighting operations
- international shore connections
- methods of heat transfer
- on-board fire emergency response organisation and procedures
- portable fire extinguishers – colour codes and suitability for class of fire
- principles and methods of extinguishment of each class of fire
- principles underlying spread of fire on a vessel
- procedure for restoring equipment to operational condition including:
 - cleaning
 - re-stowing
- 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
- using a fire bucket
- ventilation procedures
- vessel construction as it relates to fire prevention or protection
- WHS/OHS requirements and safe work practices.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

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.

Practical assessment must occur in a workplace, or realistic simulated workplace, under the normal range of workplace conditions.

Simulations and scenarios may be used where situations cannot be provided in the workplace or may occur only rarely, in particular for situations relating to emergency procedures and adverse weather conditions where assessment would be unsafe, impractical or may lead to environmental damage.

Resources for assessment must include access to:

- applicable documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- tools, equipment, machinery, materials and relevant personal protective equipment (PPE) that are currently used in industry.

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