



Australian Government

MARF008 Prevent and fight fires on board a vessel

Release: 2

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Modification History

Release 2. ISC upgrade. KE amended to better align with the STCW and working effectively as part of a team included in KE and PE.

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to prevent fires and to respond effectively to any fire emergency on board a vessel.

This unit applies to deck and engine workers working in the maritime industry requiring a Certificate of Safety Training.

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

Elements describe the essential outcomes.

- 1 Actively prevent fire**
- 2 Prepare response to fire**

PERFORMANCE CRITERIA

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

- | | |
|-----|---|
| 1.1 | Fire hazards (pre-conditions for fire) on board a vessel are identified and rectified according to workplace procedures |
| 1.2 | Onboard procedures for preventing fire are accessed and implemented |
| 2.1 | Location and class of fire is identified |
| 2.2 | Alarm is raised |

- 2.3 Condition of firefighting equipment and systems in work area is monitored according to planned maintenance schedules
 - 2.4 Realistic drills and musters are practised to ensure pre-incident readiness of response personnel
 - 2.5 Appropriate protective clothing and equipment including self contained breathing apparatus (SCBA) is made ready
 - 2.6 All available means to limit the spread of fire and smoke are employed
 - 2.7 Appropriate pump/s and ancillary equipment are readied to support firefighting operations
 - 2.8 Extinguishing media/agent is selected according to the class/classes of fire
- 3 Combat fire**
- 3.1 Threats to life or health are identified within the emergency area
 - 3.2 Activities and tactics to combat the fire are selected so that the safety of the vessel and all on board is not compromised
 - 3.3 Fire is located and access is gained in the safest and most timely manner
 - 3.4 Fire is attacked using the extinguishing media/agent and application techniques appropriate to the class and size of fire
 - 3.5 SCBA is donned and used correctly while undertaking fire extinguishment and rescue
 - 3.6 Effectiveness of combat activities and tactics is evaluated and altered as required
 - 3.7 Communication is maintained to ensure safety and efficiency of firefighting operation
- 4 Complete post-fire activities**
- 4.1 Fire watch is maintained to prevent further outbreak
 - 4.2 Equipment is restored to operational condition
 - 4.3 Fire scene is preserved prior to investigation, if appropriate
 - 4.4 Information relating to the incident is provided as part of fire debriefing session

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.

Fire hazards must include:

- accommodation
- cargo areas
- engine rooms
- electrical distribution systems
- fuel handling systems
- galleys
- lack of maintenance
- laundry
- poor housekeeping
- smoking
- stores areas

Classes of fire must include:

- A Carbonaceous Solids
- B Flammable Liquids
- C Flammable Gases
- D Combustible Metals
- E Energised Electrical Equipment
- F Cooking Oils and Fats

Firefighting equipment

- hoses
- fixed fitted detection and suppression systems

- and systems must include:
- foam applicators
 - international ship-to-shore connection
 - nozzles
 - portable and semi-portable extinguishers
 - stretchers/ropes and lines
- Protective clothing and equipment must include:
- head protection /helmet
 - hand protection /gloves
 - radiant heat protection /coat
 - foot protection/ boots
 - firefighter outfit as per current Fire Safety Systems Code (as applicable)
 - SCBA
- Extinguishing media/agent must include:
- extinguishing powder
 - foam
 - gaseous extinguishing agents
 - water
- Firefighting activities must include:
- boundary control
 - containing the spread of fire
 - evacuation of casualties from heated smoke filled environments
 - extinguishment
 - overhaul/fire watch
- Firefighting tactics must include:
- combination of attack
 - cooling the fuels
 - direct offensive (attack team)
 - direction of attack
 - exclusion of oxygen – smothering
 - indirect defensive (fixed system)
 - interrupting the chemical chain reaction
 - removal of fuels - starvation
- Restoring equipment must include:
- cleaning
 - re-stowing
 - recharging according to Australian Standards
 - servicing

Unit Mapping Information

This is a new unit. This unit is equivalent to MARF3005A Prevent 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>