



Australian Government

MARA021 Manage advanced operations of a ship subject to IGF Code

Release: 1

MARA021 Manage advanced operations of a ship subject to IGF Code

Modification History

Release 1. This is the first release of this unit of competency in the MAR Maritime Training Package.

Application

This unit involves the skills and knowledge required to manage operations onboard a ship that is subject to the International Code of Safety for Ships Using Gases or Other Low-Flashpoint Fuels (IGF Code).

This unit applies to people working in the maritime industry in the capacity of:

- Chief Mate
- Deck Officers
- Engineering Officers
- Engineers
- Masters
- Ratings

Licensing/Regulatory Information

This unit is equivalent to and delivers the objectives of the following STCW provisions:

- STCW Reg V/3 (7 and 8) and Code Section A-V/3 (2), Table A-V/3-2.

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 Chief Mate, Deck Officers, Engineering Officers, Engineers, Masters or Ratings for advanced operations on ships subject to IGF Code and to meet regulatory requirements this unit must be delivered consistent with Marine Orders and with the relevant sections of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).
- Those regulatory requirements include STCW International Maritime Organization (IMO) model course competencies and areas of knowledge, understanding and proficiency, together with the estimated total hours required for lectures and practical exercises. Teaching staff should note that timings are suggestions only and should be adapted to suit individual groups of trainees depending on their experience, ability, equipment and staff available for training.

Pre-requisite Unit

Not applicable.

Competency Field

A - Handling Cargo and Vessel Stability

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Perform work safely and monitor all cargo operations

2 Recognise physical and chemical properties of fuels

3 Operate fuel controls

PERFORMANCE CRITERIA

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

- 1.1 Communication with personnel is clear, concise and accurate and information is understood and acted upon
- 1.2 Cargo operations are planned, risk is managed and work carried out in accordance with accepted principles and procedures to ensure safety of operations and avoid pollution of the marine environment
- 1.3 Pumping operations are carried out in accordance with acceptable principles, procedures and type of fuel
- 1.4 Ship operations are carried out safely and take into consideration ship design, systems and equipment
- 2.1 Information resources are used effectively to identify properties and characteristics of oil cargo and their impact on safety and environmental protection
- 2.2 Information resources are used effectively to identify properties and characteristics of related gases and their impact on safety and vessel operation
- 3.1 Plant, auxiliary machinery and equipment are operated in accordance with technical specifications
- 3.2 Plant, auxiliary machinery and equipment are operated in accordance with technical specifications and within

- safe operating limits at all time
- 4 Plan and monitor safe bunkering, stowage and securing of fuel**
- 4.1** Fuel quality and quantity are determined and take into account the current conditions and necessary corrective safe measures
- 4.2** Operations are planned and carried out in accordance with fuel transfer manuals and procedures to ensure safety of operations and avoid spill damages and pollution of the environment
- 4.3** Personnel are allocated duties and informed of procedures and standards of work to be followed in a manner appropriate to the individuals concerned and in accordance with safe operational practices
- 5 Take precautions to prevent pollution of the environment**
- 5.1** Procedures to safeguard the environment are observed at all time
- 5.2** Procedures to safeguard personnel are observed at all times
- 6 Monitor and control compliance with legislative requirements**
- 6.1** Fuel handling is conducted in compliance with relevant IMO instruments, established industrial standards and codes of safe working practices
- 6.2** Operations are planned and performed in accordance with approved procedures and legislative requirements
- 7 Take precautions to prevent hazards**
- 7.1** Cargo-related hazards to the vessel are identified, risk assessed, and control measures are implemented
- 7.2** Cargo-related hazards to personnel are correctly identified and proper control measures are taken
- 7.3** Flammable and toxic gas detection devices are used in accordance with manuals and workplace practices
- 8 Apply work health and safety (WHS)/occupational health and safety (OHS) precautions**
- 8.1** Appropriate safety and protective equipment are used correctly by personnel
- 8.2** Procedures designed to safeguard personnel and the ship are observed at all times
- 8.3** Working practices are followed in accordance with legislative requirements, codes of practice, permits to

work and environmental concerns

- 8.4** Medical emergency procedures are identified and required actions taken conform to current recognised first aid practices and international guidelines
- 9 Prevent and control fire**
- 9.1** Type and impact of the emergency is identified promptly, and response actions confirmed with emergency procedures
- 9.2** Evacuation, emergency shutdown (ESD) and isolation procedures are appropriate to the fuels addressed by the IGF Code

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 is a new unit. No equivalent unit.

Links

Companion Volume implementation guide can be found in VetNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>