



Australian Government

MARN014 Plan and manage safe loading, unloading, securing and stowage of cargo

Release: 1

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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 plan and ensure safe loading, stowage, securing and care during the voyage and unloading of cargo, including dangerous goods.

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

- Master of a commercial vessel Unlimited.

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 Master Unlimited 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

N – Seamanship

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Develop cargo plan

- 1.1** Cargo properties and characteristics are identified and their impact on safety, the environment and vessel operations are outlined
- 1.2** Communication is conducted with terminal personnel to establish loading and unloading arrangements
- 1.3** Information and equipment are used in planning to ensure hull stress is kept within acceptable limits
- 1.4** Cargo plan is prepared according to legislative and organisational requirements

2 Oversee cargo operations

- 2.1** Preparations for loading are monitored according to the cargo plan and organisational procedures
- 2.2** Regulations, procedures and instructions are interpreted to ensure that cargo is correctly identified, inspected and confirmed against documentation
- 2.3** Communication is maintained with crew and terminal personnel involved in cargo loading/unloading to facilitate loading/unloading
- 2.4** Cargo operations are managed to ensure they comply with regulations, procedures and instructions
- 2.5** Vessel stability is monitored during loading/unloading operations
- 2.6** Ballast management procedures are carried out according to organisational procedures and port authority requirements
- 2.7** Action is taken in a cargo handling incident or emergency to secure the cargo and the vessel and to maintain the safety of persons involved
- 2.8** All cargo handling documentation is completed according to organisational procedures and regulatory requirements

3 Comply with legislation

- 3.1** Regulations, procedures and instructions are interpreted

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| for dangerous cargo | to ensure that dangerous cargo is correctly identified, inspected and confirmed against documentation, prior to cargo operations |
| 3.2 | Information regarding dangerous cargo is made readily available in an incident |
| 3.3 | Cargo operations are managed to ensure they comply with regulations, operational and security procedures, and cargo plan |
| 3.4 | Safety data sheets (SDS)/material safety data sheets (MSDS) are accessed and interpreted to identify relevant cargo-related hazards to vessel and to personnel |
| 3.5 | Procedures for safety and safety management are identified and documented |
| 3.6 | Hazards associated with dangerous cargo are identified and action is taken to minimise risk to personnel, cargo, vessel and the environment |
| 3.7 | Action is taken in a dangerous cargo handling incident or emergency to secure cargo and vessel, and to maintain the safety of persons involved |
| 3.8 | All documentation is completed according to organisational procedures and regulatory requirements |
| 4 Manage the care of cargo during the voyage | 4.1 |
| | Plan for the care of cargo during the voyage is prepared according to organisational and customer requirements and relevant regulations |
| 4.2 | Cargo care operations are managed to ensure they comply with regulations, procedures and instructions |
| 4.3 | Cargo stowage and security is managed to ensure stability and stress conditions remain within safe limits at all times during the voyage |
| 4.4 | Extent and frequency of cargo condition monitoring is determined appropriate to its nature and prevailing conditions |
| 4.5 | Hazards associated with cargo stowage are identified and action is taken to minimise risk to personnel, cargo, vessel and the environment |
| 4.6 | Unacceptable or unforeseen variations in the condition or specification of the cargo is promptly recognised and |

- remedial action is taken immediately to safeguard the safety of the vessel and those onboard
- 4.7** Documentation is completed according to organisational procedures and regulatory requirements
- 5 Manage emergencies related to cargo**
- 5.1** On becoming aware of emergency, initial actions are taken according to contingency plans, urgency of the situation and nature of the emergency
- 5.2** Onboard personnel are given information and instructions clearly and accurately
- 5.3** Procedures are implemented to combat emergency and protect persons onboard
- 5.4** Communications are established with others to facilitate the emergency response process
- 5.5** Injured persons are provided with assistance
- 5.6** Contact is maintained with others at all times to keep them briefed on the emergency response process
- 5.7** Preparation for abandoning vessel is undertaken, as required
- 5.8** Cessation of emergency is communicated to appropriate personnel
- 6 Prevent pollution of the environment**
- 6.1** Procedures to prevent pollution are identified and observed at all times
- 6.2** Measures to prevent pollution during normal and emergency situations are applied according to regulatory requirements and organisational procedures
- 6.3** All relevant information is immediately reported to appropriate persons when a vapour leak or cloud is detected or a malfunction has occurred that poses a risk of a vapour leak or cloud
- 6.4** Shore-based response personnel are promptly notified when a vapour leak or cloud occurs
- 7 Complete documentation related to cargo**
- 7.1** Correct logbook entries are made relating to cargo operations and incidents according to regulatory requirements and organisational procedures
- 7.2** Letter of protest is completed in an incident relating to

cargo operations and care

- 7.3 Cargo reports and documentation are completed and maintained according to regulatory requirements and organisational procedures
- 7.4 Independent cargo surveyor reports are received and acknowledged as required
- 7.5 Cargo samples are correctly documented and secured as required

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 MARN006 Manage cargo operations.

Links

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