



Australian Government

Assessment Requirements for MARA010 Manage loading, unloading 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 Release 3.0.

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:

- applying international regulations, codes and standards concerning the safe handling, stowage, securing and transport of bulk cargo and dangerous, hazardous, and harmful cargo
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- carrying out cargo operations according to cargo plan or other documents and established safety rule/regulations, equipment operating instructions and shipboard stowage limitations
- establishing and maintaining effective communications during loading, stowage, transportation and unloading
- initiating timely action in response to defects or damage
- monitoring and anticipating problems and risks associated with loading, unloading, stowage and care of cargo
- monitoring use of equipment in loading, unloading, stowage and care of cargo
- reading, interpreting and applying instructions, regulations, procedures and information associated with loading, unloading, stowage and care of cargo
- reading and interpreting safety data sheets (SDSs)/material safety data sheets (MSDSs), relevant cargo-related hazards to vessel and to personnel, and taking appropriate action according to organisational procedures
- interpreting and applying knowledge of bulk ship, chemical and oil tanker, and liquefied gas tanker layouts, cargo features, characteristics and hazards, and related hazard prevention strategies to duties on various types of vessel
- recognising problems and hazards that can arise when managing safety on a liquefied gas tanker, taking appropriate remedial action and initiating appropriate solutions.

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:

- ballast management issues and procedures
- bulk ships, chemical and oil tanker layouts, liquefied gas tanker layouts, cargo features and characteristics
- dangerous goods classification, signage, stowage and segregation requirements under the International Maritime Dangerous Goods (IMDG) Code and relevant Marine Orders
- cargo handling documentation requirements
- cargo lifting equipment and safe working loads
- hazards and control measures associated with bulk ships, chemical and oil tanker cargo loading, and liquefied gas tanker cargo loading, stowage and unloading
- relevant firefighting operations and the use of firefighting equipment
- effect of cargo, including heavy lifts, on the seaworthiness and stability of the vessel
- effects of different types of cargo operations on vessel trim and stability
- effects on cargo handling of sea conditions, wind and weather
- effects on stability during loading and discharging operations including heeling moments from gear and loads
- methods of caring for various types of cargo
- operational characteristics of different types of shipboard and terminal-based cargo handling equipment and facilities
- procedures for carrying out calculations involving weights, capacities, stowage factors
- relevant firefighting operations and the use of firefighting equipment
- relevant sections of maritime regulations, codes and conventions related to chemical and oil tankers, and liquefied gas tankers
- relevant WHS/OHS and cargo handling legislation, codes of practice, policies and procedures
- safe handling, stowage and securing of cargo including dangerous, hazardous and harmful cargo, and their effect on the safety of life and the vessel
- standard stowage position numbering systems used on container vessels
- typical cargo handling problems and hazards, and appropriate preventative and remedial actions and solutions
- typical types and sizes of shipping containers
- usual methods of container packing, loading and discharging, stowage, dunnaging
- various types of cargo likely to be carried; their peculiar characteristics, liability to damage, decay or deterioration; their measurements, hazards and problems; appropriate preventative and remedial action and solutions
- ways of restricting vessel stress levels within permitted levels within permitted limits during loading/discharging cargo.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

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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.

Assessment must occur in workplace operational situations or where these are not available, in simulated workplace operational situations or an industry-approved marine operations site.

Resources for assessment must include access to:

- gas monitoring equipment including:
 - gas monitoring instruments
 - oxygen indicators
- firefighting equipment including:
 - firefighting agents
 - fixed dry chemical systems
 - fixed foam systems
 - portable foam systems
- tools, cargo handling equipment, piping systems and valves and personal protective equipment currently used in industry
- documentation such as legislation, regulations, codes of practice, workplace procedures and operational manuals, including SDSs/MSDSs.
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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>