



Australian Government

Assessment Requirements for MARF048 Plan marine towage operations

Release: 1

Assessment Requirements for MARF048 Plan marine towage operations

Modification History

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

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 relevant legislative and regulatory requirements in accordance with marine towage operations
- calculating fuel, food and water requirements in accordance with marine towage operations
- determining factors when applying risk assessment and hazard control strategies in accordance with Safety Management System (SMS)
- determining manning requirements and allocation of crew tasks in accordance with marine towage operations
- determining requirements for assessing condition and functionality of towage equipment, gear and machinery in accordance with marine towage operations
- determining the handling of towage equipment safely, including ropes and wires
- reading and interpreting written information needed to review marine towage documentation in accordance with marine towage operations
- recording the details of the towage from the time the operation is started until the towage is completed in accordance with workplace procedures
- reporting and/or rectifying hazards or safety incidents in accordance with workplace procedures
- reviewing and amending, as required, marine towage documentation, including marine towage plan and passage plan
- reviewing suitability of towing vessel, towage arrangements, contingency plans, towage gear, equipment and machinery in accordance with marine towage operations
- using personal protective equipment (PPE) in accordance with workplace procedures
- working safely and collaboratively with others in accordance with safe working practices.

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:

- direction of approach techniques in varying conditions
- documentation used when planning towage operations, including:
 - contracts
 - insurance
 - surveys:
 - off-hire
 - on-hire
 - tow gear
 - towage certificates
- environmental conditions, including:
 - current
 - displacement
 - drift of the tow
 - tidal streams
 - water depths
 - windage
- estimating size, shape and special requirements of marine towage operations
- evaluating contingency plans and procedures and responding to emergency situations, including:
 - adverse weather conditions
 - collision
 - fire
 - girding risk
 - loss of steerage
 - person overboard
 - pollution
 - propulsion failure
 - towline failure
 - working line failure
- extra loads of vessel
- factors to be taken into consideration when developing and contributing to towage plan, including:
 - suitability of towing vessel and object to be towed,:
 - bollard pull
 - cargo
 - cargo securing arrangements
 - characteristics of the cargo (e.g. liquification)
 - day or night towage operations
 - manning requirements
 - manoeuvrability of vessel under tow

- shape
- size
- special requirements
- stability
- strong points of object being moved
- towage configurations
- towage gear, equipment and machinery including:
 - amount and type of gear, equipment and machinery required
 - condition and functionality
 - vessel strong points to be used for emergency towing
- fundamentals of domestic and international conventions, regulations and legislation relevant to planning marine towage operations, including:
 - Convention of the International Regulations for Preventing Collisions at Sea (COLRegs)
 - International Convention for the Prevention of Pollution from Ships (MARPOL)
 - International Convention for the Safety of Life at Sea (SOLAS)
 - International Maritime Dangerous Goods (IMDG) Code
 - Marine Orders
 - state/territory and port regulations
 - survey and classifications
- identifying, selecting and using relevant equipment processes and procedures
- lines, types of lines and loads, including:
 - appropriate length for towline
 - depth of the catenary
 - working load limit (WLL)/safe working load (SWL)
- personal protective equipment (PPE), including:
 - immersion suits
 - lifebuoy
 - lifejackets
 - personal locating beacons (PLB)
 - portable lights
 - radiocommunication equipment
 - wet weather protection
- recording duration of towing operation
- the company SMS and standard operating procedures for marine towage operations, including:
 - obligation to formally advise the company if the towage operations is non-conforming with the SMS system
- towage equipment, including:
 - emergency release system
 - emergency towline

- emergency towing equipment
- hydraulic systems
- ropes
- shackles
- towage fittings
- towline attachment
- towing winch brakes
- winches
- wires
- towage information, including:
 - insurance/underwriter permit
 - port clearance
 - scope and requirements information
 - surveyors permit
- towage methods, including:
 - hipping up
 - methods of connecting tow
 - operations with multiple towing vessels
 - selection of towage method in relation to conditions
 - towing across bars
- vessel stability book.

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.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Resources for assessment must include access to:

- a vessel capable of conducting marine towage operations
- applicable documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- tools, equipment, machinery, materials and relevant PPE currently used in industry.

Links

Companion Volume Implementation Guides are found in VETNet -

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