



Australian Government

Assessment Requirements for MARC040 Manage fuel systems

Release: 1

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Modification History

Release 1. New unit of competency. Licensing/regulatory information has been incorporated in accordance with Regulatory requirements. Assessment Requirements have been strengthened in accordance with Regulatory requirements.

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 work health and safety (WHS)/occupational health and safety (OHS) and pollution control, legislation and policies
- carrying out accurate and reliable calculations dealing with bunkering capacity, consumption of fuel, speed and range of vessel, volumes and conversion of volumes to litres
- completing required records
- conducting refuelling completion procedures, including communications with fuel supplier and valve closure
- managing refuelling to ensure safety of operation and avoid pollution of marine environment
- measuring tank levels
- recognising faulty equipment and taking appropriate action
- recognising problems and hazards during refuelling operations and taking appropriate action
- selecting and using relevant equipment required for refuelling operations
- taking appropriate action in response to an accidental spillage or safety incident during refuelling operations.

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:

- appropriate authorities to be notified in the event of an emergency
- arrangement of fuel oil systems
- calculations of volumes
- condensation in fuel tanks
- conversion of volumes to litres
- effect of slack tanks on vessel stability
- emergency situations, including:
 - fire
 - hose rupture or bunker line leak

- ignition of released fuel vapours
- loss of stability
- spillage on deck or overboard
- environmental protection measures to be applied during refuelling or transfer operations
- fuel oil tank components
- fuel tank filling
- functions and responsibilities of crew during refuelling or transfer operations
- hazards and safety precautions to be observed during refuelling or transfer operations
- manufacturer specifications and safety data sheets (SDS)/material safety data sheets (MSDS)
- methods of fuel oil tank content measurement
- process for completing required records including:
 - logbook
 - oil record book
 - port authority documentation
- refuelling and fuel transfer procedures applying to commercial vessels
- refuelling records
- shutdown procedures including communications with fuel supplier and valve closure
- specific fuel consumption
- WHS/OHS and pollution control, legislation and policies.

Assessment Conditions

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

Practical assessment must occur in a workplace, or realistic simulated workplace, under the normal range of workplace conditions. Simulations and scenarios may be used where situations cannot be provided in the workplace or may occur only rarely, in particular for situations relating to emergency procedures and adverse weather conditions where assessment would be unsafe, impractical or may lead to environmental damage.

Resources for assessment must include access to:

- applicable documentation, such as legislation, regulations, codes of practice, safety management systems (SMS), workplace procedures and operational manuals, including:
 - logbook
 - oil record book
 - port authority documentation
 - SDS/MSDS
- a commercial vessel with inboard diesel propulsion power of ≥ 150 kW or appropriate engine ashore

- tools, equipment, machinery, materials and relevant personal protective equipment (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>