



Australian Government

Assessment Requirements for MARM017 Survey vessel operational systems

Release: 1

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Modification History

Release 1. New unit of competency.

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:

- accurately interpreting relevant codes, standards, rules and regulations for vessel operational systems
- analysing and evaluating available data and observations to form logical conclusions
- applying relevant work health and safety/occupational health and safety (WHS/OHS) requirements and work practices
- carrying out engineering measurements and applying metric and imperial conversions
- developing effective planning documents
- ensuring currency of relevant WHS/OHS skills and knowledge
- inspecting and testing operational systems according to regulatory and organisational requirements
- communicating effectively with others as required, verbally and in writing
- implementing principles of WHS/OHS and marine environment protection measures
- negotiating and resolving conflict
- reading and interpreting:
 - machinery performance readings and indications
 - plans and drawings
 - technical information
- recognising and documenting faulty equipment
- selecting and using appropriate tools and equipment
- undertaking research and analysing reference material and manufacturer data sheets
- writing high quality reports.

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:

- battery types, care and maintenance

- commercial vessel classifications and survey requirements for various operational systems and their components
- compatibility and durability of construction materials
- construction and layout of a typical commercial vessel, including layouts for pipework, tail shaft assembly and installed machinery
- environmental controls and regulations for primary, secondary or ancillary systems and their components
- ethical behaviour and industry codes of practice
- features and characteristics of typical faults and signs of deterioration in operational systems and components
- features of different engine types and sizes
- forms, causes and prevention of corrosion in a marine environment
- insurance, liability and professional indemnity requirements for self and others
- interaction of vessel structures and mechanical systems
- maintaining watertight integrity
- operational characteristics and performance specifications for different types of marine internal combustion engines and propulsion machinery usually found on vessels of up to 750 kW propulsion power
- principal features of fittings and machinery found on typical small vessels and characteristics of engine/plant and ancillary equipment
- procedures for:
 - checking fittings, machinery and components
 - reading and interpreting machinery performance readings and indications
- purpose and content of safety data sheets/material safety data sheets (SDSs/MSDSs)
- relevant sections of state and territory maritime regulations, National Standard for Commercial Vessels (NSCV) and Uniform Shipping Laws (USL) Code dealing with maintaining small vessels
- report writing requirements for a range of different survey tasks
- safety, environmental and hazard control precautions and procedures relevant to checking and basic maintenance of fittings and machinery
- typical problems related to inspecting and maintaining operational systems
- typical vessel and machinery specifications, operating manuals and specifications
- WHS/OHS legislation, policies and procedures.

Assessment Conditions

Assessors must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.

Assessment must satisfy the National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) standards.

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 that replicates workplace conditions, where a survey of vessel operational systems can be conducted.

Resources for assessment include access to:

- relevant documentation including workplace procedures, regulations, codes of practice and operation manuals
- tools, equipment and personal protective equipment currently used in industry.

Performance should be demonstrated consistently over time and in a suitable range of contexts.

Links

Companion Volume implementation guides are found in VETNet -

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