



Australian Government

**Assessment Requirements for MARB044
Operate and maintain ship power systems
exceeding 1,000 volts**

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

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 two separate occasions and include:

- applying work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- applying safe operations and maintenance of high voltage (HV) systems procedures, including:
 - de-energising
 - earthing down
 - isolating and switching procedures
 - testing HV electrical systems
- identifying and interpreting complex numerical and graphical information in electrical diagrams
- identifying and suggesting ways of rectifying electrical hazards and emergency situations on a ship
- reading and interpreting written information related to electrical circuitry and components on a ship
- using electrical measuring and testing instruments.

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:

- electrical propulsions of the ships, electrical motors and control systems
- electrical:
 - layout systems
 - measuring and testing instruments
 - shipboard equipment
 - symbols, electrical diagrams/circuits

- HV electrical permit system, including:
 - earthing down
 - isolation and verification methods
 - HV switching
- HV technology
- relevant industry standards
- safety precautions and procedures, including electrical risk mitigation control measures
- special technical types of HV systems and the danger resulting from operational voltage of more than 1,000 volts (V)
- WHS/OHS requirements, including safe electrical working practices.

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.

Practical assessment must occur in a workplace, or realistic simulated workplace, under the normal range of ship 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 system, workplace procedures and operational manuals
- HV electrical system
- tools, equipment, machinery, materials and personal protective equipment (PPE) currently used in industry.

Links

Companion Volume implementation guide can be found in VetNet -

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