



Australian Government

**Assessment Requirements for MARC024
Operate and maintain a steam engine up to
750 kW and steam auxiliary equipment**

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:

- applying relevant work health and safety/occupational health and safety (WHS/OHS) requirements and work practices
- carrying out lubrication processes on an item of steam plant
- communicating effectively with others when operating and monitoring performance of an item of steam plant
- completing documentation related to operating and monitoring performance of an item of steam plant
- identifying and assessing steam plant defects and deficiencies, and taking appropriate action to report, isolate, repair or replace identified defective equipment according to workplace procedures
- implementing contingency plans for emergency situations
- monitoring performance of an item of steam plant
- operating an item of steam plant
- providing required amount of detail in reports and recordkeeping
- reading and interpreting instructions, procedures, information and signs relevant to operating and monitoring an item of steam plant
- recognising problems that may arise when operating and monitoring an item of steam plant and taking appropriate action
- selecting and using required personal protective equipment (PPE) that conforms to industry and WHS/OHS standards.

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:

- own ability and limits to rectify irregularities and faults
- applicable legislation relating to steam plant and nationally approved compliance codes and/or guidelines and codes of practice
- basic principles of steam plant operation, monitoring devices and auxiliary systems
- lubricants including open steam engine oils, enclosed crankcase steam engine oils, compounded steam cylinder oils and non-compounded steam cylinder oils
- methods for:
 - adjusting controls to maximise efficient and safe running
 - operating and monitoring performance of auxiliary steam plant equipment
 - identifying equipment defects and assessing them for appropriate action
- PPE required when operating an item of steam plant and procedures for its use
- procedures for:
 - operating and monitoring an item of steam plant
 - managing safety incidents and hazardous situations that may arise when operating and monitoring performance of an item of steam plant
 - maintaining, cleaning, lubricating and servicing an item of steam plant
- procedures to be followed in an emergency when operating an item of steam plant
- relevant licensing, legislative, regulatory or certification requirements
- relevant WHS/OHS and environmental procedures and regulations
- requirements for completing relevant documentation during and after operation and monitoring of performance of an item of steam plant
- steam plant controls, instruments and indicators and their purpose, location and use
- typical problems that can occur with an item of steam plant and related action that should be taken to repair, isolate, replace, report and record faulty equipment.

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 operating and maintaining a steam engine up to 750 kW and steam auxiliary equipment 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 when operating and maintaining a steam engine

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>