



Australian Government

Assessment Requirements for MEM23125 Evaluate maintenance systems

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM23125A Evaluate maintenance systems.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- investigating sustainability implications of maintenance processes
- identifying and reviewing features, functions and trends of maintenance and information systems and their associated implementation strategies and software
- evaluating work health and safety (WHS), regulatory, risk management, and sustainability requirements
- evaluating maintenance systems, scheduling and prioritising, and continuous improvement and implementation on at least two occasions
- auditing plant, facilities and services, provision of parts and consumables, labour, skills and technical support on at least two occasions
- reporting and documenting results of scoping, principles and techniques identification and evaluation of maintenance systems, layouts, schedules, performance analysis, flow charts, calculations, programs and files.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- maintenance requirements of different organisations and industry trends
- features of integrated management systems within organisations, and industry trends including:
 - monitoring, adjustment, lubrication, consumables, breakdown maintenance required by typical plant equipment and facilities
 - labour and training requirements for typical maintenance systems
 - maintenance performance indices including mean time between failure (MTBF) and overall equipment efficiency (OEE), and relationship to maintenance strategies, business financial objectives and maintenance system design criteria, including life cycle cost and break-even point
 - maintenance management systems including terotechnology
 - maintenance management within integrated logistics support (ILS)
- sources of information, software and hardware required by maintenance systems

- systems thinking in relation to maintenance, failure analysis, problem-solving and decision-making processes, constraint and contingency management
- compliance requirements of WHS, regulations and standards relevant to maintenance
- risk management requirements and analyses for maintenance of plant including failure mode effects analyses (FMEA)
- maintainability and reliability related to life cycle costing, system design, cost predictions and break-even analysis
- audit processes for plant, facilities and services, provision of parts and consumables, labour, skills and technical support
- maintenance system data generation and collection, reporting and response processes
- data storage and performance analysis for process improvement against performance parameters including MTBF and OEE
- manual and automated condition monitoring, testing and analysis
- maintenance system and implementation strategies including corrective, preventative, predictive, precision, proactive, total productive and reliability-centred maintenance
- facilities and service maintenance response systems
- asset categorisation and maintenance scheduling and prioritising
- organisational maintenance safety procedures including:
 - risk management procedures
 - WHS committees
 - standard operating procedures (SOPs)
 - safe work method statements (SWMS)
 - material safety data sheets (MSDS)
 - permits
 - standards related to significant maintenance or plant modifications
- terotechnology
- engineering, plant, facilities and services maintenance requirements
- continuous process improvement
- data generation, analysis, storage and feedback
- reporting techniques and documentation requirements.
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Assessment Conditions

- Assessors must:
 - have vocational competency in evaluating maintenance systems at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015 or its replacement* and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.

- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- 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.
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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>