



Australian Government

Assessment Requirements for MEM18064 Maintain instrumentation system components

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM18064B Maintain instrumentation system components

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting instrumentation circuits, specifications, drawings, data sheets and manuals and obtaining relevant data with respect to the operation of the instrumentation systems/equipment
- locating, inspecting and testing a range of instrumentation system components using appropriate test equipment, techniques and procedures
- fault finding components and confirming malfunction by inspection and testing using instrumentation principles and procedures
- dismantling/repairing/reassembling faulty components and sourcing replacement parts from manufacturer/supplier catalogues
- checking repaired/replaced instrumentation system components for correct operation and completing all service reports in accordance with SOPs
- undertaking zero, span and range checks and calibrating instrumentation systems/equipment to operational specifications
- recording/documenting test results in accordance with SOPs.

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:

- safe work practices and procedures and use of personal protective equipment (PPE)
- instrumentation principles, including controlling density, level, flow, temperature and composition of a range of materials
- effects of resistance, capacitance, inductance and impedance (R, L, C) upon electrical circuit
- interpretation requirements of schematic, wiring and block diagrams and circuits
- basic principles of hydraulic/pneumatic/electrical flow
- procedures for:
 - inspecting and testing instrumentation system components and equipment to be used

- dismantling, repairing, reassembling and testing faulty instrumentation system components
- recording and completing service reports
- purpose, operational function and specifications, including deviations of instrumentation system components
- correct operation of the instrumentation system.

Assessment Conditions

- Assessors must:
 - have vocational competency in maintaining instrumentation system components 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. This must 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.

Links

Companion Volume implementation guides are found in VETNet -

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