



Australian Government

**Assessment Requirements for MEM18091
Maintain and repair multistage, cascade
and/or ultra-cold industrial refrigeration
systems**

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Modification History

Release 1. Supersedes and is equivalent to MEM18091B Maintain and repair multi stage, cascade and/or ultra-cold industrial refrigeration 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 on at least two (2) occasions, on at least two (2) systems, and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting charts, lists, catalogues, specifications, drawings and relevant legislation with respect to maintaining and repairing multi-stage, cascade and/or ultra-cold industrial refrigeration systems
- checking the temperature, pressure, properties, noise and vibration levels for conformance with specifications
- carrying out preventative maintenance tasks according to manufacturers' specifications using refrigeration techniques/practices
- checking components for correct operation using appropriate tools, techniques and test equipment and assessing component performance/operation against specifications
- identifying and localising faulty components and confirming malfunction by inspection/testing, making required adjustments to achieve specifications
- removing the refrigerant from the system and containing in accordance with procedures and regulatory requirements
- removing/dismantling and reassembling faulty components and selecting replacement parts from manufacturers' catalogues to meet the required specifications
- undertaking calculations and numerical operations associated with maintaining and repairing industrial refrigeration systems
- charging the system and verifying correct operation of the equipment to meet specifications
- completing all maintenance records/reports 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)

- measuring instruments/equipment and specifications for checking the temperature/s and properties of the controlled medium/s
- tools, equipment, techniques and procedures for performing preventative maintenance and sequence of implementation
- procedures for performing safety equipment checks and sequence of implementation
- tools, equipment, techniques and procedures for dismantling, repairing, reassembling and testing components
- procedures for safely removing the refrigerant from the system and all legislative and regulatory requirements
- measuring instruments/equipment and specifications for checking component noise and vibration levels
- specifications and processes for identifying system components
- operational characteristics of the system components
- procedures for completing maintenance records/service reports and reporting non-conformances.

Assessment Conditions

- Assessors must:
 - have vocational competency in maintaining and repairing multi-stage, cascade and/or ultra-cold industrial refrigeration 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. 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>