



Australian Government

Assessment Requirements for MEM23144 Contribute to the design of a commercial refrigeration system

Release: 1

Assessment Requirements for MEM23144 Contribute to the design of a commercial refrigeration system

Modification History

Release 1. Supersedes and is equivalent to MEM23144A Contribute to the design of a commercial refrigeration system.

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:

- identifying and interpreting drawings, specifications, manufacturer data, tables, relevant standards and regulatory requirements appropriate to the design task
- implementing work health and safety (WHS) procedures and practices including the use of risk control measures
- designing a commercial refrigeration system including using relevant software tools
- designing a commercial refrigeration system with one application related to food storage on at least two occasions
- communicating technical and procedural requirements to others
- dealing with unexpected situations
- documenting technical information and designs in accordance with procedures.

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:

- WHS requirements
- organisational procedures
- appropriate personnel to consult
- standards and codes relevant to commercial refrigeration systems
- calculation of capacity in heat exchangers
- commercial refrigeration system features and components including:
 - applications
 - system requirements
 - operating conditions and criteria
 - refrigerants
 - refrigeration cycle
 - evaporators
 - condensers

- compressors
- liquid expansion devices
- system load balance point
- line sizing
- automatic controls
- commercial refrigeration and integration with an energy management system (EMS)
- EMS control components and the function and operating parameters
- EMS system design, applications, operation and maintenance
- environmental considerations.
-

Assessment Conditions

- Assessors must:
 - have vocational competency in contributing to the design of a commercial 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 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.
-

Links

Companion Volume Implementation Guides are available on VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>