



Australian Government

**Assessment Requirements for UEERA0066
Repair and service carbon dioxide
refrigeration systems**

Release: 1

Assessment Requirements for UEERA0066 Repair and service carbon dioxide refrigeration systems

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

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 two separate occasions and include:

- applying relevant legislative, industry standards and practices
- applying relevant work health and safety (WHS)/occupational health and safety (WHS/OHS) requirements and workplace procedures and practices, including using risk control measures
- applying sustainable energy principles and practices
- completing work and reporting on servicing and repairing sub-critical carbon dioxide (CO²) refrigeration systems
- conducting work observing the relevant legislation, regulations, policies and workplace procedures
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- decontaminating and evacuating the system
- discharging/charging refrigerant/lubricants and pressure testing the system without damage to components
- documenting operating conditions correctly
- identifying the conditions of the CO² refrigerant at various locations in the vapour compression and volatile secondary (liquid recirculation) system
- locating and rectifying leaks
- preparing to service and repair CO² refrigeration systems
- pressure testing, charging/discharging refrigerant/lubricants and determining the operating conditions of CO² vapour compression and volatile secondary (liquid recirculation) system
- recording measurements
- selecting and using appropriate measuring devices correctly
- servicing and repairing CO² refrigeration systems
- using calculation methods accurately.

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:

- CO² refrigeration systems, including:
 - basic CO² refrigeration system
 - basic liquid recirculation /cascade system employing CO² refrigerant at sub-critical condition
 - benefits of using CO² as a refrigerant
 - thermophysical properties
- operating conditions of CO² refrigeration systems, including:
 - applicable standards and codes
 - CO² refrigeration compressors and lubricants
 - system components, construction and operation
- servicing and repair techniques for CO² refrigeration systems, including:
 - moisture problems with CO² systems
 - refrigerant conditions
 - refrigerant cylinders and regulators
 - service gauges
 - service procedures
 - system standing pressure as a result of power loss.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

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.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>