



Australian Government

**Assessment Requirements for UEERA0065
Repair and service ammonia refrigeration
systems**

Release: 1

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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 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
- 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 ammonia (R717) refrigerant at various locations in the vapour compression and liquid recirculation system
- locating and rectifying leaks
- recording measurements
- selecting and using appropriate measuring devices correctly
- servicing, pressure testing, charging/discharging refrigerant/lubricants and determining the operating conditions of ammonia vapour compression and liquid recirculation refrigeration system
- 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:

- ammonia refrigeration systems and operating conditions, including:
 - cascade systems
 - direct expansion systems

- flooded systems
- liquid recirculation systems
- multi-staged systems
- revision of vapour compression cycle
- single staged systems
- types of ammonia systems
- vapour compression systems
- properties of ammonia
- safe handling of ammonia
- ammonia refrigeration system's major components, flow controls and ancillary components
- relevant job safety assessments or risk mitigation processes hazards associated with ammonia refrigeration systems
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation, including service manuals and service documentation
- relevant workplace policies and procedures, including workplace emergency response plan
- servicing and repairing techniques for ammonia refrigeration systems, including:
 - adding refrigerant
 - leak detection methods
 - removing refrigerant.
 - servicing procedures.

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, emergency response plan, 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>