



Australian Government

Assessment Requirements for UEERA0078 Resolve problems in ultra-low temperature 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 legislations, industry standards, codes of practice and regulations
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - applying safe working practices
 - hazard identification and reporting
 - implementing risk control measures
- completing work and documenting problem-solving activities and justification for the solutions used in ultra-low temperature refrigeration systems
- determining need to test or measure live work
- isolating circuits/machines/plant
- obtaining and assessing relevant information to resolve problems, including:
 - ‘as-installed’ drawings
 - maintenance and service records
 - system specifications
 - manufacturer specifications and manuals
- preparing to resolve problems in ultra-low temperature refrigeration systems
- resolving problems in ultra-low temperature refrigeration systems effectively
- using methodical fault-finding techniques
- using relevant tools, equipment and testing devices.

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:

- maintenance schedules
- normal operating parameters of ultra-low temperature refrigeration systems

- operating and control principles of ultra-low temperature refrigeration systems
- relevant manufacturer specifications
- relevant measurements and calculations
- relevant risk mitigation processes, including:
 - environmental and sustainable energy principles and practices
 - risk control measures
 - safe working practices
- relevant standards, codes of practice and regulations
- relevant tools, equipment and testing devices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- suitability of refrigerants for each application
- system faults and testing methods
- system specifications, 'as-installed' drawings, maintenance and service records
- ultra-low temperature refrigeration systems, including:
 - applications
 - characteristics
 - components
 - compound and cascade systems
 - construction
 - design features
 - typical layout arrangements.

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>