



Australian Government

UEERA0089 Service refrigeration appliances

Release: 1

UEERA0089 Service refrigeration appliances

Modification History

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

Application

This unit involves the skills and knowledge required to service refrigeration appliances operating on flammable and non-flammable refrigerants.

It includes working safely, locating and rectifying refrigeration appliance faults and defective components, and completing required service documentation.

Individuals will typically work independently to service and repair domestic refrigeration appliances.

To undertake this unit, the learner must have a Trainee Refrigerant Handling Licence as it includes work on refrigeration and air conditioning equipment that carries the risk of a fluorocarbon refrigerant being emitted.

The skills and knowledge described in this unit may require a national Refrigerant Handling Licence as it includes work on refrigeration and air conditioning equipment that carries the risk of a fluorocarbon refrigerant being emitted while decanting the refrigerant or manufacturing, installing, commissioning, servicing, maintaining or decommissioning refrigeration and air conditioning equipment.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, a relevant contract of training, such as an Australian Apprenticeship, is required.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

Competency Field

Refrigeration and air-conditioning

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Prepare to service refrigerated appliance

- 1.1** WHS/OHS hazards, risk control methods, relevant standards, codes and legislation are obtained and applied in accordance with workplace procedures
- 1.2** Extent of work to be completed is determined from service and fault requests and/or discussions with supervisor/appropriate person/s in accordance with workplace procedures
- 1.3** Advice is sought, as required, from supervisor to ensure work is coordinated with others
- 1.4** Sources of materials and parts required for work are identified in accordance with workplace procedures
- 1.5** Tools, equipment and testing devices to locate faults are obtained in accordance with workplace procedures and checked for operational safety

2 Service refrigerated appliance

- 2.1** Need to test or measure live electrical work is determined in accordance with workplace procedures and WHS/OHS requirements
- 2.2** Appliance is checked as being isolated, where necessary, in accordance with workplace procedures and WHS/OHS requirements
- 2.3** Safety hazards resulting from defect or fault are identified and documented, and risk control measures are implemented in accordance with workplace procedures and in consultation with appropriate person/s
- 2.4** Appliances are tested and components are inspected for wear or defects in accordance with workplace procedures, manufacturer specifications and industry codes of practice

- 2.5 Appliance faults, and their cause, are identified using measured and calculated values of appliance parameters in accordance with workplace procedures
 - 2.6 Appliance is dismantled, where necessary, and parts are safely stored to protect them against loss or damage in accordance with workplace procedures
 - 2.7 Defective, worn or faulty appliance components are rechecked and their status is confirmed
 - 2.8 Replacement parts to rectify defects/faults are obtained in accordance with workplace procedures
 - 2.9 Effectiveness of repair work is tested in accordance with workplace procedures
 - 2.10 Appliance is reassembled, given a final test and prepared for return to service in accordance with workplace procedures
 - 2.11 Unexpected situations are resolved in accordance with workplace procedures, safety guidelines and with the approval of an authorised person/supervisor
 - 2.12 Servicing of refrigerated appliance is completed without damage to apparatus, circuits, the surrounding environment and/or services using relevant sustainable energy practices in accordance with workplace procedures
- 3 Complete and report fault-finding and repair activities**
- 3.1 Work area is cleaned and made safe in accordance with workplace procedures
 - 3.2 Service report is completed and verified by an appropriate person/supervisor in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work

environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

- Servicing refrigerated appliances must include at least the following:
- appliances using flammable and non-flammable refrigerants
 - two types of appliances:
 - single door refrigerators
 - two door refrigerators or freezers
 - single door freezers either cyclic defrost or frost free
 - four defects/faults:
 - higher energy use than previously experienced
 - not cold enough
 - appliance ices up
 - appliance light not working
 - electric shock received from appliance cabinet

Unit Mapping Information

This unit replaces and is equivalent to UEENEEJ155A Service refrigeration appliances.

Links

Companion Volume implementation guides are found in VETNet - -

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

Assessment Requirements for UEERA0089 Service refrigeration appliances

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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 (OHS) requirements, including:
 - applying safe working practices
 - identifying hazards
 - using risk control measures
- completing and reporting fault-finding and repair activities
- implementing legalisation, industry standards, codes of practice and regulations
- preparing to service refrigerated appliance
- servicing refrigerated appliances, including:
 - completing service report
 - dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
 - determining work from service request
 - finding faults
 - flammable and non-flammable refrigerants
 - identifying defective components affecting appliance
 - rectifying defects or faults
 - testing appliance functions
- using manufacturer specifications and manuals.

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:

- flammable and non-flammable refrigerants
- service appliance refrigeration systems, including:

- appliance refrigeration systems
- capillary systems
- major electrical refrigeration appliances, including refrigerators and freezers
- operational principles of major domestic appliances that use electrical, gas and/or water services that incorporate refrigeration
- operational testing and set-up procedures
- retrofitting of domestic refrigeration systems
- relevant legislation, industry standards, codes of practice and regulations
- relevant manufacturer specifications
- relevant risk mitigation processes, including:
 - potential hazards
 - risk control measures
 - safe working practices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and 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, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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