



Australian Government

UEERA0037 Establish the basic operating conditions of vapour compression systems - appliances

Release: 1

UEERA0037 Establish the basic operating conditions of vapour compression systems - 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 establish the operating condition of a vapour compression system in a self-contained refrigerated appliance.

Competency in this unit requires the ability to work safely; prepare for and establish operational conditions of vapour compression systems, including determining refrigerant pressures and relevant air temperatures using measurement and calculation methods; as well as completing all required documentation.

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 may, in some jurisdictions, also require a licence or permit to practice in the workplace subject to regulations for undertaking refrigeration and air conditioning 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

Elements describe the essential outcomes.

1 Prepare to determine operating conditions of vapour compression system

2 Determine operating condition of a vapour compression system

PERFORMANCE CRITERIA

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

- 1.1** WHS/OHS hazards, risk control methods, relevant standards, codes and legislation are obtained and applied in accordance with workplace procedures
- 1.2** Safety hazards, which have not previously been identified are reported in accordance with workplace procedures, and advice on risk control measures is sought from supervisor
- 1.3** Details on work are obtained from documentation and/or from supervisor to establish the scope of work to be completed
- 1.4** Advice is sought from supervisor, as required, to ensure work is coordinated with others
- 1.5** Sources of materials required for work are identified and accessed in accordance with workplace procedures
- 1.6** Tools, equipment and testing devices to establish the operating conditions of appliance's vapour compression system are obtained and checked for operational safety
- 2.1** Measuring systems operating parameters are used in accordance with workplace procedures and WHS/OHS requirements
- 2.2** Appliance vapour compression system is checked and isolated, where necessary, in accordance with workplace procedures and WHS/OHS requirements
- 2.3** Actual and specified range of operating conditions of vapour compression system is established from measured and calculated values in accordance with workplace procedures
- 2.4** Unplanned situations are responded to in accordance with workplace procedures and discussed with relevant person/supervisor in a manner that minimises risk to personnel and equipment

- 2.5 Operating conditions of vapour compression system are determined without damage to appliance, circuits, the surrounding environment and/or services using relevant sustainable energy practices in accordance with workplace procedures
- 3 Complete work and report activities**
- 3.1 Worksite and equipment are cleaned and made safe in accordance with workplace procedures
- 3.2 Operating condition of a vapour compression system is documented in accordance with workplace procedures, including identification of any parameter that is not within the specified range for the system
- 3.3 Supervisor is notified of completion of work 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.

Determining operating conditions of a vapour compression system must include the following:

- suction and discharge pressures
- ambient, evaporator and condensing temperatures
- evaporator and condenser temperature difference

Unit Mapping Information

This unit replaces and is equivalent to UEENEEJ195A Establish the basic operating conditions of vapour compression systems - appliances.

Links

Companion Volume implementation guides are found in VETNet - -

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

