



Australian Government

**UEERA0008 Audit HVAC/R control
systems for compliance with regulations
and standards**

Release: 1

UEERA0008 Audit HVAC/R control systems for compliance with regulations and standards

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 audit heating, ventilation and air conditioning/refrigeration (HVAC/R) control systems for compliance with regulations and standards.

It includes working safely, setting up and conducting evaluation measurements, evaluating performance from measured parameters, and documenting results and recommending any resulting corrective actions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEERA0021 Design control systems for refrigeration or heating, ventilation and air conditioning systems

UEERA0060 Produce HVAC/R control system diagrams

UEERA0001 Analyse the operation of HVAC air and hydronic systems

UEERA0002 Analyse the psychrometric performance of HVAC/R systems

and

UEERA0003 Analyse the thermodynamic performance of HVAC/R systems

or

UEERA0094 Verify functionality and compliance of refrigeration and air conditioning installations

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

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEECD0016 Document and apply measures to control WHS risks associated with electrotechnology work

UEERA0059 Prepare and connect refrigerant tubing and fittings

- UEERA0036 Establish the basic operating conditions of vapour compression systems
- UEERA0035 Establish the basic operating conditions of air conditioning systems
- UEERA0050 Install refrigerant pipe work, flow controls and accessories
- UEERA0081 Select refrigerant piping, accessories and associated controls
- UEERA0031 Diagnose and rectify faults in air conditioning and refrigeration control systems
- UEERA0092 Solve problems in low voltage refrigeration and air conditioning circuits
- UEERL0005 Locate and rectify faults in low voltage (LV) electrical equipment using set procedures

Competency Field

Refrigeration and air-conditioning

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to audit HVAC/R control systems

PERFORMANCE CRITERIA

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

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified, obtained and understood
- 1.2** WHS/OHS risk control measures and workplace procedures are followed in preparation for work
- 1.3** Examination and testing areas are checked for safety hazards and risk control measures implemented in accordance with WHS/OHS requirements and workplace procedures
- 1.4** Relevant documentation is obtained and interpreted to determine the performance/certification requirements of the system to be assessed in accordance with workplace procedures and relevant industry standards
- 1.5** Advice is sought from the work supervisor to ensure the

- work is coordinated effectively with others
- 1.6** Tools, testing devices and materials required to carry out work are obtained and checked for correct operation and safety
- 2 Audit HVAC/R control systems**
- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
- 2.2** Need to test and measure live work is determined in accordance with WHS/OHS requirements and workplace procedures
- 2.3** Circuits/machines/plant are checked and isolated, as required, in accordance with WHS/OHS requirements and workplace procedures
- 2.4** Performance and energy efficiency requirements of HVAC/R system and assessment methods are applied to the audit process in accordance with workplace procedures
- 2.5** Control system examination and tests for particular parameter/s are conducted in accordance with relevant test methods and workplace procedures
- 2.6** Control system examination and tests are carried out methodically and results noted in accordance with workplace procedures
- 2.7** Unplanned situations are dealt with safely and with the approval of relevant person/s
- 2.8** Audit is carried out without damage to systems, circuits, the surrounding environment or services using sustainable energy practices
- 3 Complete auditing work and document results**
- 3.1** WHS/OHS work completion risk control measures and workplace procedures are followed
- 3.2** Worksite is cleaned and made safe in accordance with workplace procedures
- 3.3** Examination and test results are evaluated and non-compliance issues identified in accordance with workplace procedures
- 3.4** Examination test results and comments on non-compliance issues are documented and reported to relevant person/s 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.

auditing HVAC/R control systems must include at least the following:

- two different HVAC/R control systems
- four different control scenarios

Unit Mapping Information

This unit replaces and is equivalent to UEENEEJ148A Audit HVAC/R control systems for compliance with regulations and standards.

Links

Companion Volume implementation guides are found in VETNet - -

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