



Australian Government

UEEEL0072 Set up and place LV electrical apparatus and associated circuits into service

Release: 2

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Modification History

Release 2. Minor change. Typographic error in prerequisites corrected.

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 set up and place low voltage (LV) electrical apparatus and associated circuits into service.

It includes preparing and setting up electrical apparatus and associated controls, and completing mandatory documentation.

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, may be 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

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

UEEEL0003 Arrange circuits, control and protection for general electrical installations

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0039 Design, install and verify compliance and functionality of general electrical installations

UEEEL0023 Terminate cables, cords and accessories for low voltage circuits

UEEEL0018 Select wiring systems and cables for low voltage general electrical installations

UEEEL0005 Develop and connect electrical control circuits

UEEEL0025 Test and connect transformers

UEEEL0024 Test and connect alternating current (a.c.) rotating machines

UEEEL0021 Solve problems in electromagnetic devices

UEEEL0019 Solve problems in direct current (d.c.) machines

UEEEL0010 Evaluate and modify low voltage socket outlets circuits

UEEEL0008 Evaluate and modify low voltage heating equipment and controls

UEEEL0009 Evaluate and modify low voltage lighting circuits, equipment, and controls

UEEEL0014 Isolate, test and troubleshoot low voltage electrical circuits

UEEEL0012 Install low voltage wiring, appliances, switchgear and associated accessories
and

UEECD0043 Solve problems in direct current circuits

or

UEECD0046 Solve problems in single path circuits

UEECD0044 Solve problems in multiple path circuits

Competency Field

Electrical

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to set up electrical apparatus and associated controls

PERFORMANCE CRITERIA

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

- 1.1** WHS/OHS requirements and workplace procedures for a given work area are identified, obtained and applied
- 1.2** WHS/OHS risk control measures and procedures in preparation for the work are followed

- 1.3 WHS/OHS hazards not previously identified are noted on job safety assessment, risks assessed and risk control measures implemented
 - 1.4 Work is appropriately sequenced in accordance with workplace procedures
 - 1.5 Appropriate person/s is consulted to ensure the work is coordinated effectively with others
 - 1.6 Location of electrical apparatus and controls is determined from site inspection and/or job specifications and diagrams
 - 1.7 Control settings and operating parameters are determined from job specifications and in accordance with workplace procedures
 - 1.8 Tools, equipment and testing devices needed to commission the system are obtained in accordance with workplace procedures and checked for correct operation and safety
 - 1.9 Checks are undertaken to ensure all components are in place and secure in accordance with workplace procedures and relevant industry standards
 - 1.10 Need to inspect, test and measure live electrical work and operating system is determined in accordance with WHS/OHS requirements and workplace procedures
- 2 **Set up electrical apparatus and associated controls**
 - 2.1 WHS/OHS risk control measures and workplace procedures for carrying out work are followed
 - 2.2 Circuits/machines/plant are checked and isolated in accordance with WHS/OHS requirements and workplace procedures
 - 2.3 Electrical apparatus and associated controls are adjusted to the required settings
 - 2.4 Testing/measuring devices are used to observe the operation of electrical apparatus and adjustments of controls, as required
 - 2.5 Methods for dealing with unplanned events are dealt with in accordance with workplace procedures and safe work practices

- 2.6** Set-up is conducted efficiently without waste of materials, services, damage to apparatus or the environment using sustainable energy practices
- 3 Complete documentation**
 - 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** Results of work and final operating parameters are documented and appropriate person/s notified 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.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEG162A Set up and place LV electrical apparatus and associated circuits into service.

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 UEEEL0072 Set up and place LV electrical apparatus and associated circuits into service

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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 and performance criteria on at least one occasion and include:

- selecting appropriate testing/measuring devices
- making initial adjustments of apparatus and controls correctly
- finely adjusting apparatus and controls based of measured observations
- documenting final operating parameters accurately
- dealing with unplanned events
- applying relevant industry standards
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- applying sustainable energy practices
- following job specifications, workplace procedures and instructions
- setting up electrical apparatus and associated controls, including:
 - locating electrical apparatus and controls.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- commissioning processes and procedures and setting up and placing electrical apparatus and associated circuits into service, including:
 - commissioning processes and procedures encompassing:
 - purpose of commissioning
 - commissioning planning and documentation
 - procedures for configuring, calibrating and tuning systems during commissioning systems
 - procedures for validating system performs to specification
 - procedures followed to commission instrument systems
 - purpose and importance of documentation

- problem-solving techniques
- relevant industry standards
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications and operating instructions
- relevant sustainable energy practices
- relevant tool, equipment and testing/measuring devices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies, procedures and job specifications.

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 suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable 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 simulations
- relevant and appropriate materials, tools, facilities, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, relevant industry standards, codes of practice and operation manuals.

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