



Australian Government

UEEEL0029 Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase

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 conduct compliance inspection of low voltage (LV) electrical installation with demand exceeding 100 ampere (A) per phase.

It includes preparing and conduction compliance inspection, and actioning and reporting on findings.

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.

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 Verify compliance and functionality of low voltage 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

UEEEL0030 Conduct compliance inspection of single phase LV electrical installations

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

UEEEL0021 Solve problems in electromagnetic devices

UEEEL0014 Isolate, test and troubleshoot low voltage electrical circuits

UEEEL0008 Evaluate and modify low voltage heating equipment and controls

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

UEEEL0010 Evaluate and modify low voltage socket outlets circuits

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

UEEEL0025 Test and connect transformers

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

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Competency Field

Electrical

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to conduct compliance inspection

PERFORMANCE CRITERIA

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

- 1.1** WHS/OHS 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

and risk control measures are implemented in consultation with appropriate person/s

1.4 Installation documentation and relevant industry standards are reviewed and applied

1.5 Appropriate person/s is consulted to ensure the work is coordinated effectively with others

1.6 Tools, equipment and testing devices to verify compliance are obtained and checked for operation and safety in accordance with workplace procedures

2 Conduct compliance inspection

2.1 WHS/OHS risk control measures and workplace procedures for carrying out work are followed

2.2 Need to test and measure live electrical work is determined in accordance with WHS/OHS requirements and workplace procedures

2.3 Circuits/machines/plant are checked and isolated in accordance with WHS/OHS requirements and workplace procedures

2.4 Inspection of the mains and main switchboard is conducted of protection metering earthing circuit arrangements and markings in accordance with relevant industry standards

2.5 Inspection of circuits is conducted for compliance of the installed wiring accessories switchgear/control gear and current-using devices in accordance with relevant industry standards

2.6 Electrical equipment compliance with relevant safety requirements and industry standards is obtained from appropriate person/s

2.7 Inspection is conducted to verify compliance of earthing insulation polarity circuit connections and operation of residual current devices (RCDs) in accordance with relevant industry standards

2.8 Fault-loop impedance is determined as being sufficiently low by testing calculation and compliance with arrangement of the installation in accordance with relevant industry standards

2.9 Unplanned events are responded to in accordance with workplace procedures in a manner that minimises risk to

		personnel and equipment
3 Act and report on inspection findings	3.1	WHS/OHS work completion risk control measures and procedures are followed
	3.2	Non-compliance defects are identified and documented in accordance with relevant industry standards and workplace procedures
	3.3	Actions for non-compliance defects within the scope of inspection responsibilities are in accordance with workplace procedures and relevant industry standards
	3.4	Inspection report is completed and issued to appropriate person/s in accordance with workplace procedures and relevant industry standards

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.

Conducting compliance inspection must include at least two electrical installations comprising of the following:

- consumer mains
- distribution boards related to the control of an individual occupier's portion of a multiple installation
- earthing system
- final sub-circuits
- main earthing system
- main switchboard
- sub-mains

Unit Mapping Information

This unit replaces and is equivalent to UEENEEG123A Conduct compliance inspection of LV electrical installations with demand exceeding 100 A per phase.

Links

Companion Volume implementation guides are found in VETNet - -

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