



Australian Government

UETDRTS039 Perform current injection testing of secondary devices

Release: 1

UETDRTS039 Perform current injection testing of secondary devices

Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package Release 4.0.

Application

This unit includes the skills and knowledge required to perform current injection testing of secondary devices in the electricity supply industry (ESI).

It includes the testing of secondary devices using current injection testing to determine correct function of secondary circuits, while ensuring testing is conducted in accordance with workplace requirements. It also includes the validation of secondary wiring circuits to determine the correct operation of the scheme.

The application of the skills and knowledge described in this unit requires a licence/registration to practice in the workplace subject to regulations for undertaking of electrical work.

Other conditions may apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

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

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

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

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0021 Solve problems in magnetic and electromagnetic devices

UETDREL005 Work safely in the vicinity of live electrical apparatus

Competency Field

Testing

Unit Sector

Not applicable.

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 perform current injection testing of secondary devices

- 1.1** Workplace organisational requirements for performing current injection testing of secondary devices, are reviewed and determined
- 1.2** Purpose for performing current injection testing of secondary devices is established and tolerances identified
- 1.3** Testing procedures are established in accordance with workplace requirements
- 1.4** Tools, equipment and personal protective equipment (PPE) required for work are determined, obtained and confirmed in working order
- 1.5** Work roles and tasks are allocated according to requirements and individual competencies
- 1.6** Work is prioritised and sequenced for completion in accordance with work plan and workplace requirements
- 1.7** Relevant stakeholders are identified and liaised with
- 1.8** Work permits are determined in accordance with workplace requirements
- 1.9** Hazards are identified, risks assessed, and control measures identified and applied

2 Perform current injection testing of secondary devices

- 2.1** Organisational workplace requirements for the work to be performed are applied and monitored
- 2.2** Lifting, the use of tools, equipment and PPE are carried out in accordance with workplace requirements
- 2.3** Hazard control measures are monitored in accordance with workplace requirements

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| | 2.4 | Incidents or unplanned events are responded to in accordance with workplace requirements |
| | 2.5 | Current injection testing of secondary devices is performed in accordance with workplace requirements |
| | 2.6 | Quality checks of work are undertaken in accordance with work plan and workplace requirements |
| 3 Complete work and documentation | 3.1 | Completed work is checked for compliance against the work plan and workplace requirements |
| | 3.2 | Work records, reports and documentation are completed in accordance with workplace requirements |

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 UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is not equivalent to UETDRTS022 Perform current injection testing using phantom load.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

Assessment Requirements for UETDRTS039 Perform current injection testing of secondary devices

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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 two (2) separate occasions and include:

- applying relevant legislation, regulations, standards, codes of practice and organisational workplace requirements including:
 - work health and safety (WHS)/occupational health and safety (OHS) requirements
- identifying hazards, assessing risks, and identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- dealing with an unplanned event on at least one (1) occasion
- establishing the purpose of current injection testing of secondary devices
- establishing procedures for current injection testing of secondary devices
- testing of secondary devices using current injection test set
- validating of secondary wiring circuits to determine the correct operation of the scheme.

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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including WHS/OHS requirements
- hazard, risk assessment and risk control requirements, including potential hazards
- types and application of PPE
- application, purpose and types of permits
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- workplace records, reports and documentation
- purpose of current injection testing of secondary devices
- current injection testing of secondary devices
- types of secondary injection equipment
- current injection testing purposes

- principles of current transformer operation
- current transformer loading to apply the appropriate level of current required to verify the current transformer ratio, polarity and secondary wiring
- impacts of testing on equipment and data.

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 conditions involving realistic and authentic activities that replicate operational 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:

- relevant and appropriate tools, equipment and PPE currently used in industry
- applicable documentation, including workplace requirements, and operation manuals.

Links

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