



Australian Government

Assessment Requirements for UETTDRSB35 Maintain discrete control and protection systems

Release: 1

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Modification History

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

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 separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- undertaking functional checks and testing of discrete control and protection devices including all of the following:
 - isolate discrete protection
 - control and indications
 - overcurrent and earth fault relays
 - direct current (d.c.) supplies
 - trip and control circuits
 - alarms and indications
 - function test of discrete devices
- inspecting discrete control and protection devices including at least three (3) of the following:
 - neutral displacement
 - no-volt changeover
 - discrete auto-reclose
 - d.c. frame leakage
 - oil surge (site maintenance)
 - voltage regulation
 - parallel operation
 - thermal overloads
 - transformer temperature control devices
 - CEL fail
- dealing with unplanned events on at least one (1) occasion.

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:

- principles of statutory and safety considerations encompassing:
 - Commonwealth/state/territory legislation, standards, codes, supply authority regulations and/or enterprise requirements associated with working on high voltage (HV)
 - particular reference to state and territory regulations - working near energised conductors, electrical access, heights, confined space, testing procedures and licensing rules
- principles of isolation and tagging procedures associated with protection testing encompassing:
 - standards, codes, Commonwealth/state/territory legislation, supply authority regulations and/or enterprise requirements associated with the installation, maintenance, isolation and tagging procedures
 - requirements for the use of isolation and tagging, manuals, system diagrams/plans and drawings
 - techniques in documenting isolations
 - techniques in appropriate isolation and tagging procedures in accordance with Commonwealth/state/territory legislation, supply authority regulations and enterprise standards
 - techniques in the installation and maintenance procedures protection devices in accordance with Commonwealth/state/territory legislation, supply authority regulations and enterprise standards
- maintenance procedures associated with discrete protection schemes encompassing:
 - standards, codes, Commonwealth/state/territory legislation, supply authority regulations and/or enterprise requirements associated with the maintenance procedures
 - requirements for the use of maintenance manuals, system diagrams/plans and drawings
 - techniques in maintenance procedures – planning, policy and testing techniques
 - close out requirements
- relay manufacturer specifications encompassing:
 - standards, codes, Commonwealth/state/territory and local government legislation, supply authority regulations and/or enterprise requirements applicable to the use and application of relay manufacturer specifications
 - requirements for the use of relay manufacturer manuals, system diagrams/plans and drawings
 - types, function and characteristics of specific relays - differences between specific relays used for the same functionality
- safe handling and/or disposing of insulation materials used in power distribution devices, which are potential environmental pollutants, encompassing:
 - standards, codes, Commonwealth/state/territory and local government legislation, supply authority regulations and/or enterprise requirements applicable to the handling and disposing of insulation or heat dissipation materials used in power distribution devices
 - identification of environmental issues associated with the handling and disposing of

insulation materials

- safety precautions when handling and disposing of heat dissipation materials - safe working practices; WHS/OHS hazards and precautions; identification of hazards; assessing and controlling risks; types, selection, maintenance and uses of personnel protective equipment (PPE); permit to work systems and isolation procedures; types and function of specialised equipment; safe working practices when using specialised equipment; and emergency response and rescue, including first aid
- techniques in the handling and disposing of insulation materials - polychlorinated biphenyls (PCB), asbestos, insulating Oil and sulfur hexafluoride (SF6) gas.

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:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

UET Training Package Companion Volume Implementation Guide is found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>