



Australian Government

UEPOPS117 Operate local L.V. switchgear

Release: 1

UEPOPS117 Operate local L.V. switchgear

Modification History

Release 1. This is the first release of this unit of competency in the UEP Electricity Supply Industry – Generation Sector Training Package Release 2.0.

Application

This unit involves the skills and knowledge required to undertake the local operation of low voltage (L.V.) switchgear.

An L.V. switchgear is a combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electrical equipment. Switchgears de-energise equipment to allow work to be undertaken and to clear faults downstream in electricity power systems.

Competency in this unit requires the ability to plan and prepare L.V. secondary switchgear; operate switchgear; and validate, test and report on L.V. switchgear integrity. Individuals will, in general, work under supervision, in a power generation facility as an operator.

Power generation plant operators are trained and authorised to isolate, prepare plant and issue permits to work.

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

Pre-requisite Unit

There are no prerequisite units

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

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| 1 Prepare to operate L.V. switchgear | 1.1 Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures |
| | 1.2 Work health and safety (WHS)/occupational health and safety (OHS) regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, environmental requirements and workplace procedures are identified, applied and monitored |
| | 1.3 Location of L.V. switchgear is determined from relevant drawings, plans and maps in accordance with workplace procedures |
| | 1.4 Switchgear type and operating procedure is identified in accordance with workplace procedures |
| | 1.5 L.V. switchgear condition is assessed for safe operation in accordance with workplace procedures |
| | 1.6 Related L.V. switchgear protection is suppressed in accordance with workplace procedures |
| 2 Conduct L.V. switchgear operation | 2.1 Mechanical operation and limitations of L.V switchgear are identified in accordance with workplace procedures |
| | 2.2 Implications of L.V. switchgear actions are identified, in accordance with workplace procedures |
| | 2.3 L.V. switchgear is operated and required status is confirmed in accordance with workplace procedures |
| | 2.4 Racking, testing, isolation, circuit earthing and reinstatement processes are carried out in accordance with workplace procedures |
| | 2.5 Test equipment integrity is confirmed and L.V. switchgear circuit is de-energised in accordance with workplace procedures |
| 3 Validate and report L.V. switchgear integrity | 3.1 L.V. switchgear is inspected for safe operation in accordance with workplace procedures |
| | 3.2 L.V. switchgear environment is inspected in accordance with workplace procedures |
| 4 Complete documentation | 4.1 L.V. switchgear plant problems, movements and status are reported in accordance with workplace procedures |

- 4.2** Documentation is updated 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 UEP Electricity Supply Industry – Generation Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS357 Operate local L.V. switchgear

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>

Assessment Requirements for UEPOPS117 Operate local L.V. switchgear

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying work health and safety (WHS)/occupational health and safety (OHS) regulations, including:
 - emergency procedures
 - personal protective equipment (PPE)
 - risk control measures
 - safe working practices
- communicating with personnel
- completing documentation
- conducting isolation and earthing procedures
- identifying status of low voltage (L.V.) switchgear
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- using plant drawings and plans
- planning L.V. secondary switchgear work
- preparing and operating L.V. secondary switchgear protection equipment
- recognising abnormal switchgear operations
- using manuals
- validating switchgear integrity
- working with permit to work system.

Knowledge Evidence

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

- abnormal secondary switchgear operations
- arrangements for power generation plant
- isolation and earthing procedures
- L.V. secondary switchgear operations

- manuals
- permit to work system
- power generating plant, equipment and location
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- WHS/OHS requirements, including:
 - emergency procedures
 - PPE
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures.

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 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 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

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