



**Australian Government**

# **UEPOPS525 Coordinate and direct switching program**

**Release: 1**

# UEPOPS525 Coordinate and direct switching program

## Modification History

**Release 1.** This is the first release of this unit of competency in the UEP Generation Training Package.

## Application

This unit involves the skills and knowledge required to coordinate and direct resources for a switching program.

An electrical switch can alternate a load between two sources either manually or automatically when sensors detect one of the sources has lost or gained power. A switch is typically installed where the backup generator is located so that the generator can be used to provide temporary electrical power, as required.

Competency in this unit requires the ability to prepare for a switching program, coordinate and direct a switching program, maintain dynamic integrity of power generation system and complete all documentation. Individuals will, in general, work as a switching program coordinator, in a power generation facility.

Power generation plant operators are typically 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.

### **Note: Workplace practice**

The application of the skills and knowledge described in this unit may require a licence or training permit to practice in the workplace where work is carried out on gas and electrical installations. Additional conditions may apply under state and territory legislative and regulatory licensing requirements.

## Pre-requisite Unit

UEPOPS456 Perform switching to a switching program

## 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.

#### 1 Prepare for switching program

- 1.1 Qualifications and authorisations of personnel performing switching operations are established, in accordance with workplace procedures
- 1.2 Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations, industry standards, legislative requirements codes of practice and environmental obligations are identified, applied and monitored
- 1.3 Contingency plan is evaluated and discussed with key stakeholders, in accordance with workplace procedures, and any amendments made are relayed to all appropriate personnel
- 1.4 Permit and access requirements are established prior to switching program commencement, in accordance with workplace procedures
- 1.5 Documentation is distributed, in accordance with workplace procedures, to relevant personnel prior to switching program commencement

#### 2 Direct switching program

- 2.1 Personnel are advised of switching programme and directed to locations, in accordance with workplace procedures
- 2.2 Communication is established with key stakeholders and personnel, in accordance with workplace procedures, and is maintained throughout duration of switching program
- 2.3 Network system schematic diagram, or equivalent, is updated, in accordance with workplace procedures, as switching program proceeds
- 2.4 Access to power generation plant is controlled, in accordance with workplace policies and procedures
- 2.5 Work groups are coordinated and directed throughout switching programme, in accordance with workplace procedures

- |                                               |            |                                                                                                                                                 |
|-----------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | <b>2.6</b> | Permits issued are monitored and recorded, in accordance with workplace procedures                                                              |
|                                               | <b>2.7</b> | Switching program is controlled, in accordance with workplace procedures, to ensure outage coincides with planned timetable                     |
| <b>3 Maintain dynamic integrity of system</b> | <b>3.1</b> | Switching program steps are verified before and after each operation, in accordance with workplace procedures                                   |
|                                               | <b>3.2</b> | Switching program steps are recorded, in accordance with workplace procedures, upon successful completion of each operation                     |
|                                               | <b>3.3</b> | Network system conditions or stability is constantly monitored, in accordance with workplace procedures                                         |
|                                               | <b>3.4</b> | Alternative switching program steps are quickly and accurately developed, in accordance with workplace procedures, if unexpected problems occur |
| <b>4 Complete documentation</b>               | <b>4.1</b> | Equipment problems and status are reported, in accordance with workplace procedures                                                             |
|                                               | <b>4.2</b> | 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 Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to UEPOPS525A Coordinate and direct switching program.

## 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 UEPOPS525 Coordinate and direct switching program

## Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

## Performance Evidence

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

- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
  - emergency procedures
  - risk control measures
  - safe working practices
- communicating with personnel
- completing documentation
- coordinating and directing switching programs
- identifying power generation plant status including:
  - monitoring network system integrity and stability
  - analysing system operational information
  - recognising abnormal power generating plant and/or network system operating conditions
  - determining corrective actions
- implementing legislation, industry standards, codes of practice and regulations
- interpreting power generation plant drawings and network system diagrams
- liaising with stakeholders
- maintaining dynamic integrity of power generation system
- preparing for switching program
- using manufacturers' specifications and manuals
- utilising contingency plans
- 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, performance criteria and range of conditions and includes knowledge of:

- contingency plans

- coordination and direction of switching programs
- legislation, industry standards, codes of practice and regulations
- permit to work system
- plant drawings, network system diagrams, manufacturers' specifications and manuals
- power generation network system diagrams
- power generation system integrity and stability monitoring processes and procedures
- preparations for switching programs
- stakeholder liaison
- switching operation processes and procedures
- typical arrangements of power production plant including:
  - corrective actions
  - power generation plant and equipment, its location and operating parameters
  - power generation plant status
  - switchgear types and characteristics
  - systems network
- WHS/OHS legislated requirements including:
  - emergency procedures
  - risk control measures
  - safe working practices
- workplace documentation
- workplace policies and procedures

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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 personal protective equipment currently used in industry
- applicable documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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