



Australian Government

UEPOPS057 Manage system restart

Release: 1

UEPOPS057 Manage system restart

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 manage a power generation system restart after the islanding and shutdown of the system and network.

A restart is the process of restoring an electric power generating facility to operation without relying on an external transmission network. Power generation system restarts allow parts of the power system to be re-energised through black start equipped generation capacity following a black out.

Competency in this unit requires the ability to identify cause for power generating system restart, restore power generating system and document work. Individuals will, in general, work as an operator with responsibility for managing system restarts in a power generation facility.

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

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Identify cause for system/network restart

- 1.1** Probable implications of power generation system restart 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** Secondary threats to power generation system restart are identified and monitored in accordance with workplace procedures
- 1.4** Power generation capability is evaluated in accordance with workplace procedures
- 1.5** Power generation system configuration is evaluated in accordance with workplace procedures
- 1.6** External information is collated and assessed in accordance with workplace procedures
- 1.7** Probable cause of power generation system shutdown is identified from available information and resources in accordance with workplace procedures
- 1.8** Communication with key stakeholders is established in accordance with workplace procedures
- 1.9** Roles and work tasks are identified in consultation with relevant personnel in accordance with workplace procedures

2 Restore system/network generation

- 2.1** Power generation system restart response is managed in accordance with workplace procedures
- 2.2** Power generation system restart responses are prioritised in accordance with workplace procedures
- 2.3** Contingency management plan, including power generation system restart, is actioned in accordance with workplace procedures
- 2.4** Additional resources are coordinated and directed, as required, in accordance with workplace procedures

- 3 Document work**
- 2.5 Restart plans are monitored, evaluated and adjusted, as required, in accordance with workplace procedures
 - 3.1 Equipment failure or system restart problems are recorded and processed in accordance with workplace procedures
 - 3.2 Feedback from key stakeholders is recorded in accordance with workplace procedures
 - 3.3 Reports are generated and distributed to relevant personnel in accordance with workplace procedures
 - 3.4 Alternative restart plans or recommendations are communicated to relevant personnel 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 UEPOPS437 Manage system restart.

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 UEPOPS057 Manage system restart

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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) requirements, including
 - emergency procedures
 - risk control measures
 - safe working practices
- communicating with personnel and key stakeholders
- determining corrective actions using diagnostic techniques
- documenting completed work using recording procedures
- identifying power generation system restart cause
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting manuals
- locating power generating plant and equipment
- maintaining power generator unit integrity
- recognising abnormal power generating plant operating conditions
- recognising power generating plant status, including interpreting remote indications of status using data analysis techniques and tools
- restarting and operating power generating plant within design parameters
- restoring power generation system and network generation
- using contingency and restarting plans.

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 power generating plant operating conditions
- arrangements of power production plant, including auxiliary plant and plant operation
- communication with key stakeholders
- contingency and restart plans

- corrective actions using diagnostic techniques
- equipment and generation system restart prerequisites
- manuals
- power generation plant and equipment, location and operating parameters
- power generation plant status
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- WHS/OHS requirements, including
 - emergency procedures
 - 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 personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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