



Australian Government

UEPOPS102 Operate and monitor hydro plant auxiliary systems

Release: 1

UEPOPS102 Operate and monitor hydro plant auxiliary systems

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 operate, inspect and monitor hydro plant auxiliary systems.

A variety of auxiliary plant systems and related controls are used in power generation facilities to support the operation of hydro generating units. Auxiliary plant systems may include ancillary equipment such as pumps, valves, screens and seals.

Competency in this unit requires the ability to plan work, operate hydro plant auxiliary system, test hydro plant auxiliary system, analyse hydro plant auxiliary faults, monitor and inspect hydro plant, and complete all documentation. 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 Plan and prepare work | <ul style="list-style-type: none">1.1 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 monitored1.2 Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures1.3 Hydro plant auxiliary system running-up and loading schedule are ascertained from relevant documentation in accordance with workplace procedures1.4 Inspection, preoperational tests and field preparation for hydro plant auxiliary system service are carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures1.5 Hydro plant auxiliary system operational prerequisites are established in accordance manufacturers' specifications and workplace procedures1.6 Sequence for recommissioning of hydro plant auxiliary system is determined in accordance with procedures |
| 2 Test hydro plant auxiliary system operation | <ul style="list-style-type: none">2.1 Hydro plant auxiliary system is operated in accordance with manufacturers' recommendations and specifications, and workplace procedures2.2 Operational tests are performed in accordance with workplace procedures2.3 Hydro plant auxiliary system plant is observed for operational response in accordance with workplace procedures2.4 Hydro plant auxiliary system is returned to required operational status upon completion of testing in accordance with workplace procedures |
| 3 Analyse hydro plant auxiliary system faults | <ul style="list-style-type: none">3.1 Cause of abnormal hydro plant auxiliary system operating conditions are identified by analysing technical and operational information in accordance with workplace procedures3.2 Hydro plant auxiliary system integrity and personnel safety is maintained in consultation with relevant |

		personnel and technical and operational documentation in accordance with workplace procedures
4 Monitor and inspect hydro plant auxiliary system	4.1	Hydro plant auxiliary system is monitored and inspected for normal operation and to detect deviations in accordance with workplace procedures
	4.2	Relevant personnel are notified when defects are detected in accordance with workplace procedures
5 Complete documentation	5.1	Hydro plant auxiliary system problems, abnormalities and status are reported in accordance with workplace procedures
	5.2	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 UEPOPS361 Operate and monitor hydro plant auxiliary systems.

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 UEPOPS102 Operate and monitor hydro plant auxiliary systems

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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:

- analysing hydro plant auxiliary system faults using data analysis techniques and tools
- 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 using recording procedures
- identifying hydro plant auxiliary system status
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- monitoring and inspecting hydro plant auxiliary system operations
- operating hydro plant auxiliary system and equipment, including when under the influence of high water pressures and/or flows
- organising resources
- preparing and planning work
- recognising and responding to abnormal hydro plant auxiliary system operating conditions
- testing hydro plant auxiliary system operationally using diagnostic and testing techniques
- using permit to work system
- working with hydro plant auxiliary system and equipment.

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:

- arrangements of power production plant, including hydro generator types and characteristics
- hydro plant auxiliary system and equipment, location and operating parameters
- hydro plant auxiliary system, including equipment behaviours under the influence of high

- water pressure and flows
- manuals
- permit to work system
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- WHS/OHS requirements, including:
 - emergency procedures
 - risk control measures
 - safe working procedures
- 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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