



Australian Government

UEPOPS107 Operate and monitor supervisory control and data acquisition systems

Release: 1

UEPOPS107 Operate and monitor supervisory control and data acquisition 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 undertake monitoring and operation of screen based supervisory control and data acquisition (SCADA) systems.

SCADA is a control system that uses computers, networked data communications and graphic interfaces. It may also use other peripheral devices to interface with process plant and/or machinery in power generation facilities.

Competency in this unit requires the ability to operate SCADA, monitor and interpret information and enhance screen display. Individuals will, in general, work under supervision, in a power generation facility as an operator.

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.

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 Operate SCADA screen displays | <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 Screen displays and applications are identified and retrieved in accordance with workplace procedures and SCADA system requirements1.4 Functions available from the screen-based equipment are identified and selected in accordance with workplace procedures and SCADA system requirements1.5 Functions available from screen-based equipment are utilised in accordance with workplace procedures and SCADA system requirements |
| 2 Monitor and interpret SCADA information | <ul style="list-style-type: none">2.1 Screen displays are monitored in accordance with workplace procedures and SCADA system requirements2.2 Abnormal values or faults are identified by analysis of information obtained from screen displays in accordance with workplace procedures and SCADA system requirements2.3 Corrective action is taken in accordance with workplace procedures and SCADA system requirements2.4 Alarms are acknowledged, prioritised and responded to in accordance with workplace procedures and SCADA system requirements |
| 3 Enhance SCADA screen display | <ul style="list-style-type: none">3.1 Requirements for the development of new screen displays are identified and confirmed in accordance with workplace procedures and SCADA system requirements3.2 New screen displays are researched, assessed and confirmed with relevant personnel in accordance with workplace procedures and SCADA system requirements |

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 UEPOPS347 Operate and monitor supervisory, control and data acquisition 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 UEPOPS107 Operate and monitor supervisory control and data acquisition 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:

- applying regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- applying work health and safety (WHS)/occupational health and safety (OHS) requirements, including
 - emergency procedures
 - risk control measures
 - safe work practices
- communicating with personnel
- enhancing screen display
- interpreting manuals
- managing screen-based equipment, including the full range of applications
- monitoring and interpreting information from supervisory control and data acquisition (SCADA) system
- operating screen displays
- responding and prioritising response to alarms.

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 include knowledge of:

- alarm systems
- distributed control system (DCS)
- manuals
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- remote telemetry and data acquisition
- SCADA system
- Windows operating system

- WHS/OHS requirements, including:
 - emergency procedures
 - risk control measures
 - safe work 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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