



Australian Government

UEPOPS347 Operate and monitor supervisory, control and data acquisition systems

Release: 1

UEPOPS347 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 Generation Training Package.

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.

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

There are no prerequisite units.

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Operate SCADA screen displays

2 Monitor and interpret SCADA information

3 Enhance SCADA screen display

PERFORMANCE CRITERIA

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

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|------------|---|
| 1.1 | Safety issues related to operating and monitoring a Supervisory Control and Data Acquisition (SCADA) system are identified, in accordance with workplace procedures and Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations and legislative requirements |
| 1.2 | SCADA system requirements are identified, in accordance with workplace procedures, from appropriate personnel and documentation |
| 1.3 | Screen displays and applications are identified and retrieved, in accordance with workplace procedures and SCADA system requirements |
| 1.4 | Functions available from the screen based equipment are identified and selected, in accordance with workplace procedures and SCADA system requirements |
| 1.5 | Functions available from screen based equipment are utilised, in accordance with workplace procedures and SCADA system requirements |
| 2.1 | Screen displays are monitored, in accordance with workplace procedures and SCADA system requirements |
| 2.2 | Abnormal values or faults are identified by analysis of information obtained from screen displays, in accordance with workplace procedures and SCADA system requirements |
| 2.3 | Corrective action is taken, in accordance with workplace procedures and SCADA system requirements |
| 2.4 | Alarms are acknowledged, prioritised and responded to in accordance with workplace procedures and SCADA system requirements |
| 3.1 | Requirements for the development of new screen displays are identified and confirmed, in accordance with workplace procedures and SCADA system requirements |

- 3.2** New screen displays are researched, assessed and confirmed with appropriate 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS347B 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 UEPOPS347 Operate and monitor supervisory, control and data acquisition systems

Modification History

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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, performance criteria and range of conditions on at least two separate occasions and includes:

- applying legislation, industry standards, codes of practice and regulations
- 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
- managing screen based equipment including the full range of applications
- monitoring and interpreting information from Supervisory Control and Data Acquisition (SCADA)
- operating screen displays
- responding and prioritising response to alarms
- using manufacturers' specifications and manuals

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:

- alarm systems
- Distributed Control System (DCS)
- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- remote telemetry and data acquisition
- Supervisory Control and Data Acquisition (SCADA) system
- Windows operating system
- WHS/OHS legislated requirements including:

- emergency procedures
- risk control measures
- safe work 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.

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

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.

Links

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