



Australian Government

UEPMNT362 Maintain wind turbine control systems

Release: 1

UEPMNT362 Maintain wind turbine control 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 maintenance of wind turbine control systems

Maintenance of control systems that direct and regulate the behaviour of other devices or systems in a wind turbine includes the regular monitoring, inspection and verification of optimal operation.

Competency in this unit requires the ability to plan work, carry out maintenance and complete all work tasks. Individuals will, in general, work under supervision in an electrical, electronic and/or mechanical equipment repair workshop or on site.

Power generation maintenance personnel are typically trained and authorised to receive permits to work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Note: Workplace practices

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

Pre-requisite Unit

UEENEEG108A Troubleshoot and repair faults in low voltage electrical apparatus and circuits

UEENEEE102A Fabricate, assemble and dismantle utilities industry components

UEENEEE104A Solve problems in D.C. circuits

UEENEEE105A Fix and secure electrotechnology equipment

UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

UEENEEG006A Solve problems in single and three phase low voltage machines

UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits

UEENEEG063A Arrange circuits, control and protection for general electrical installations

UEENEEG101A Solve problems in electromagnetic devices and related circuits

UEENEEG102A Solve problems in low voltage A.C. circuits

UEENEEG106A Terminate cables, cords and accessories for low voltage circuits

Competency Field

Maintenance

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and prepare for work

PERFORMANCE CRITERIA

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

- 1.1** Requirements including scope of work and assigned roles are identified and confirmed with appropriate personnel or by site inspection, in accordance with workplace procedures
- 1.2** Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations, legislative requirements, industry standards, codes of practice, manufacturers' specifications, environmental obligations and workplace procedures are reviewed in preparation for work
- 1.3** Resources are obtained and inspected for compliance with job specification
- 1.4** Relevant plans, drawings and manuals are selected and used, in accordance with workplace procedures
- 1.5** Correct materials and components for work are obtained and inspected for compliance with job specification
- 1.6** Work is planned sequenced and prioritised, in accordance with workplace procedures
- 1.7** Potential hazards are identified and risk control measures are selected and implemented, in accordance with workplace procedures
- 1.8** Work area is prepared, in accordance with workplace

- procedures
- 2 Carry out maintenance**
- 2.1** Isolations are confirmed, in accordance with workplace procedures
- 2.2** Wind turbine control system equipment is maintained using appropriate plans, drawings and manuals in accordance with workplace procedures
- 2.3** Calibration or adjustments are carried out to ensure wind turbine control system equipment operates within manufacturers' requirements, in accordance with workplace procedures
- 2.4** Trips and alarms of wind turbine control system equipment are calibrated or adjusted, in accordance with workplace procedures
- 2.5** Final inspection is carried out, in accordance with the workplace procedures
- 3 Complete work**
- 3.1** Work is completed and appropriate personnel are notified, in accordance with workplace procedures
- 3.2** Work area is cleared of waste, cleaned, restored and secured, in accordance with workplace procedures
- 3.3** Tools and equipment are maintained and stored in accordance with workplace procedures
- 3.4** Work completion details are finalised, 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 UEPMNT362A Maintain wind turbine control 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 UEPMNT362 Maintain wind turbine control 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 Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - emergency procedures
 - hazard identification
 - risk control measures
 - safe working practices
- carrying out maintenance on wind turbine control system equipment using maintenance techniques
- communicating with personnel
- completing work as per scheduled requirements
- determining permit to work requirements
- implementing legislation, industry standards, codes of practice and regulations
- performing isolations
- planning for wind turbine control systems maintenance work
- testing wind turbine control system equipment
- using manufacturers' specifications and manuals
- using tools and equipment

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:

- equipment and materials
- isolations
- legislation, industry standards, codes of practice and regulations
- maintenance techniques
- manufacturers' specifications and manuals

- permit to work system
- power generation plant and equipment and its location
- test and measurement of control system equipment
- typical arrangements of a wind farm power plant
- WHS/OHS legislated requirements including:
 - emergency procedures
 - risk control measures
 - hazard identification
 - safe working practices
- wind turbine control system equipment
- wind turbine control system 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.

Links

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