



Australian Government

UEPMNT371 Maintain large scale wind turbine generators

Release: 1

UEPMNT371 Maintain large scale wind turbine generators

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 scheduled maintenance of large scale wind turbine generators.

Scheduled maintenance typically includes a list of predetermined maintenance actions carried out at regular time intervals to prevent breakdowns. It includes monitoring, inspecting and maintaining large scale wind turbine generators to ensure their safe and efficient operation.

Competency in this unit requires the ability to plan work, conduct 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 practice

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

There are no prerequisite units.

Competency Field

Maintenance

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.

1 Plan and prepare for work

- 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 Work is planned, sequenced and prioritised, in accordance with workplace procedures
- 1.6 Isolations for work are requested, in accordance with workplace procedures
- 1.7 Work area is prepared, in accordance with workplace procedures

2 Conduct maintenance

- 2.1 Wind turbine generator equipment is replaced, in accordance with manufacturers' specifications and workplace procedures
- 2.2 Documented service checklists, or similar documentation, are followed, in accordance with workplace procedures
- 2.3 Diagnostic testing and data from monitoring systems are used to identify wind turbine generator components requiring maintenance
- 2.4 Wind turbine generator equipment is dismantled for maintenance, in accordance with manufacturers' specifications and workplace procedures

- 2.5 Approved workplace techniques are used to enable identification or reassembly of components or equipment, in accordance with workplace procedures
 - 2.6 New components are obtained and inspected, in accordance with workplace procedures, for compliance with manufacturers' specifications
 - 2.7 Wind turbine generator equipment or components are tested, monitored and adjusted, in accordance with manufacturers' specifications and 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 Maintenance 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 UEPMT371A Maintain large scale wind turbine generators.

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 UEPMNT371 Maintain large scale wind turbine generators

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 including working in high wind velocity
- assembling and dismantling wind turbine generator equipment and components
- communicating with personnel
- completing documentation after maintenance activities
- completing work as per scheduled requirements
- conducting diagnostic testing using which may include use of a diagnostic computer
- conducting maintenance
- determining permit to work requirements
- identifying faults in wind turbine generator equipment and components
- implementing legislation, industry standards, codes of practice and regulations
- interpreting data
- planning for maintenance of large scale wind turbine generator work
- reading maintenance schedules and service checklists
- 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:

- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- permit to work system

- safe working practices including working in high wind velocity
- typical arrangements of, power production plant
- WHS/OHS legislated requirements including:
 - emergency procedures
 - hazard identification
 - risk control measures
- wind turbine generator plant and equipment, its location and operating parameters
- wind turbine generator plant status
- wind turbine generator, types and characteristics
- 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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