



Australian Government

UEPMNT315 Maintain wind turbines

Release: 1

UEPMNT315 Maintain wind turbines

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 for the removal from service and overhaul of wind turbines.

An overhaul includes a thorough examination of the wind turbine, with repairs or changes made, if required. This may mean taking apart the wind turbine to examine and repair it.

Competency in this unit requires the ability to plan work, disassemble wind turbine, inspect wind turbine components, repair wind turbine and/or components and report on all completed work tasks. Individuals will, in general, work under supervision in an electrical, electronic and/or mechanical equipment repair workshop or onsite.

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 from work orders and are 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, in accordance with workplace procedures, 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 Disassemble wind turbine

- 2.1** Isolations are confirmed, where appropriate, in accordance with workplace procedures
- 2.2** Wind turbine is disassembled, in accordance with workplace procedures and manufacturers' specifications
- 2.3** Wind turbine components are removed, in priority, in accordance with workplace procedures and manufacturers' specifications
- 2.4** Wind turbine disassembly is carried out, in accordance

- with workplace procedures
- 2.5** Components are measured, and clearances are taken, to determine conformity to manufacturer's limits, to ensure assembly is in accordance with workplace procedures and manufacturers' specifications
 - 2.6** Measurements and clearances are recorded, in accordance with workplace procedures and manufacturers' specifications
- 3 Inspect wind turbine components**
- 3.1** Components are cleaned and inspected, in accordance with workplace procedures
 - 3.2** Faults are identified and recorded, in accordance with workplace procedures
 - 3.3** New components are inspected for compliance to manufacturers' specifications, in accordance with workplace procedures
 - 3.4** All components are prepared for assembly, in accordance with workplace procedures
- 4 Repair wind turbine or components**
- 4.1** Repairs are carried out, in accordance with workplace procedures
 - 4.2** Repairs are tested, and results are analysed, to ensure conformance to manufacturers' specifications, in accordance with workplace procedures
 - 4.3** Data from testing is recorded, in accordance with workplace procedures
- 5 Complete work**
- 5.1** Work is completed and appropriate personnel are notified, in accordance with workplace procedures
 - 5.2** Work area is cleared of waste, cleaned, restored and secured, in accordance with workplace procedures
 - 5.3** Tools and equipment are cleaned, maintained and stored, in accordance with workplace procedures
 - 5.4** 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 UEPMNT315B Maintain wind turbines.

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 UEPMNT315 Maintain wind turbines

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
 - identifying hazards
 - risk control measures
 - safe working practices
- collecting and interpreting data
- communicating with personnel
- completing work as per scheduling requirements
- determining permit to work
- diagnosing and testing wind turbine and components
- disassembling wind turbines using removal and replacement techniques and procedures
- inspecting wind turbine components
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specification and manuals
- maintaining wind turbines using maintenance techniques and procedures
- planning for wind turbine maintenance work
- recognising worn, damaged or faulty components
- repairing wind turbine or components

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:

- data recording techniques
- diagnostic and testing techniques
- isolations

- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- permit to work system
- typical arrangements of a power production plant
- wind turbine types and characteristics
- wind turbine's main components
- wind turbines, plant and equipment, and its location
- WHS/OHS legislated requirements including:
 - emergency procedures
 - identifying hazards
 - risk control measures
 - safe working 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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