



Australian Government

UEPMNT356 Maintain instrumentation equipment

Release: 2

UEPMNT356 Maintain instrumentation equipment

Modification History

Release 2. Minor release to update superseded pre-requisite units.

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 the maintenance of instrumentation equipment including, but not limited to, process measurement, control and analytical instrumentation.

Instrumentation equipment measures, monitors or controls flows, temperature, levels or pressure and typically forms part of the control system in a power generation facility. Maintenance is an essential part of the ongoing care and upkeep required to ensure all instrumentation equipment is operationally efficient.

Competency in this unit requires the ability to plan work, maintain instrumentation equipment and to report on all completed 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

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

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, in accordance with workplace procedures, for compliance with job specifications
- 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 and site procedures

2 Carry out instrumentation equipment maintenance

- 2.1** Isolations are confirmed, in accordance with workplace procedures and site requirements
- 2.2** Instrumentation equipment is maintained, in accordance with workplace procedures, plans, drawings and manuals

- 2.3 Calibration or adjustments are carried out to ensure instrumentation equipment operates within plant parameters, in accordance with workplace procedures
 - 2.4 Maintenance and calibration adjustments are completed, in accordance with workplace procedures, without damage or unnecessary loss to other equipment
 - 2.5 Final inspection is carried out, in accordance with 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 cleaned, 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 UEPMT356B Maintain instrumentation equipment.

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 UEPMNT356 Maintain instrumentation equipment

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:
 - hazard identification
 - risk control measures
 - safe working practices
 - using emergency procedures
- carrying out maintenance on instrumentation equipment
- communicating with personnel
- completing work as per scheduled requirements
- determining permit to work requirements
- identifying and selecting materials
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- maintaining instrumentation equipment using maintenance and calibration techniques and procedures
- performing with testing and measurement instruments
- planning for instrumentation equipment maintenance work
- utilising tools and equipment
- working with data analysis techniques and tools

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
- installing electronic instrumentation equipment

- instrument installation practices
- isolations
- legislation, industry standards, codes of practice and regulations
- maintenance and instrument calibration techniques
- manufacturers' specifications and manuals
- permit to work system
- test and measurement instruments
- types of instrumentation equipment
- typical arrangements of power production plant
- WHS/OHS legislated requirements including:
 - hazard identification
 - risk control measures
 - safe working practices
 - using emergency procedures
- 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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