



Australian Government

Assessment Requirements for UEEIC0034

Set up industrial field control devices

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including implementing risk control measures
- applying sustainable energy principles and practices
- complying with scheduled timeframes
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- documenting field control device set-up in accordance workplace procedures
- identifying field control devices to be set up
- positioning and adjusting devices in accordance with manufacturer operating instructions and system requirements
- preparing and setting up industrial field control devices
- testing and documenting setting up of industrial field control devices
- testing field devices and making final adjustments to correct anomalies.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- industrial processes and the terminology used in measurement, including:
 - forms of energy
 - general classification of transducers
 - measurement technology
 - static accuracy
- devices used in optoelectronic systems, including:
 - physics of light
 - spectral response

- photometry
- light sources and detectors
- lens and mirror theory
- optoelectronic systems and photoelectric switches
- optoelectronic circuits
- the laser
- temperature detection and measurement and their circuit configurations, including:
 - introduction to temperature sensing
 - bimetallic and filled thermal sensors
 - thermocouples, resistance temperature detectors, thermistors, solid state temperature, sensors, integrated circuit temperature sensors and phrometers
 - control circuits using temperature detectors
- measurement of pressure, flow and chemical, including:
 - diaphragm, bellows and venturi
 - strain gauges and load cells
 - ultrasonic and magnetic flowmeters
 - measurement technology and accuracy
 - viscosity, humidity and pH
- linear, angular and rotary motion detection, including:
 - linear motion sensors
 - angular and rotary motion sensors
 - shaft angle encoders
 - linear encoders
 - tachometers
 - accelerometer and vibrometer
- proximity and level detection, including:
 - mechanical
 - ultrasonics
 - microwave
 - passive infrared
 - nucleonics
 - capacitive and inductive proximity
- industrial field control devices set-up, operation, positioning and adjustment
- relevant job safety assessments, including risk control measures
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- sustainable energy principles and practices.

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.

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within 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.

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 (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>