



Australian Government

UEEEEC0008 Commission large fire protection systems

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.

Application

This unit involves the skills and knowledge required to commission commercial fire protection systems.

It includes commissioning fire protection systems that include multiple connected detection, warning and fire control devices and remote monitoring. It also includes working safely, using fire protection industry standards and protocols, entering system instructions, testing functionality of fire protection components and system operation, and documentation of commissioning activities.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, skills and knowledge described in this unit require a relevant contract of training, such as an Australian Apprenticeship.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Permits may also be required for some work environments, such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation.

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

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

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

UEEEEC0041 Install fire detection and warning system apparatus

UEEEEC0076 Verify compliance and functionality of fire protection system installations

UEEEEC0026 Enter and verify programs for fire protection systems

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare fire protection system for commissioning

PERFORMANCE CRITERIA

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

- 1.1** WHS/OHS requirements and workplace procedures for a given work area are identified and applied
- 1.2** WHS/OHS risk control measures and workplace procedures are followed in preparation for work
- 1.3** Safety hazards which have not previously been identified are risk assessed, documented and risk control measures devised and implemented in consultation with appropriate person/s
- 1.4** Extent of commissioning is determined from reports, documentation and discussions with appropriate person/s
- 1.5** Appropriate person/s is consulted to ensure the work is coordinated effectively with others involved on the work site
- 1.6** Tools, equipment and testing devices needed to commission fire protection system are obtained in accordance with workplace procedures and checked for correct operation and safety

2 Commission fire protection system

- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out commissioning work are followed
- 2.2** Need to test and measure live work is determined in accordance with WHS/OHS requirements and conducted within workplace safety procedures

- 2.3 Circuits/machines/plant are checked and isolated in accordance with WHS/OHS requirements and workplace procedures
 - 2.4 Fire protection system components are verified as complying with design specifications and regulations
 - 2.5 Fire protection devices are checked for correct location and alignment
 - 2.6 Fire protection functions are inspected and tested in accordance with industry standards commissioning requirements
 - 2.7 Sources of fire protection system anomalies are identified and corrected
 - 2.8 Decisions for dealing with unplanned situations are made from discussions with appropriate person/s and job specifications and requirements
 - 2.9 Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
 - 2.10 Commissioning activities are carried out efficiently without waste of materials or damage to fire apparatus, the surrounding environment or services using sustainable energy practices
- 3 Complete and report commissioning activities**
- 3.1 WHS/OHS work completion risk control measures and workplace procedures are followed
 - 3.2 Worksite is made safe in accordance with workplace safety procedures
 - 3.3 'As-installed' fire protection system is documented and appropriate person/s notified 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 UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Commissioning fire alarms and warning systems must include at least the following:

- two different fire alarms and warning systems, including:
 - one fire alarm system with at least 50 input devices, 20 output devices and two system interface controls
 - one fire warning system with at least 50 speakers, five interface communication devices and two warning indicators
 - voice message facilities

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH164A Commission large fire protection systems.

Links

Companion Volume implementation guides are found in VETNet - -

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

Assessment Requirements for UEEEC0008 Commission large fire protection systems

Modification History

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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 (WHS/OHS) requirements, including using risk control measures
- applying sustainable energy principles and practices
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- documenting 'as-installed' system correctly
- identifying and correcting function anomalies
- identifying the extent of the fire protection system
- inspecting and testing system functionality
- verifying compliance of components.

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:

- commissioning planning and documentation
- commissioning process for commercial fire protection system
- initial inspection, tests and adjustments requirements, including industry standards
- input devices, including conventional, analogue or analogue addressable fire detectors, flow switch connections or switch connections
- interface communication devices can be warden in communication phones and remote public address (PA) inputs
- output devices, including shutdown signal, door or system release controls and solenoid valve controls
- purpose of commissioning
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes

- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures, including fire protection system commissioning procedures
- system interface controls, including communication signals to remote control and indicating equipment, building monitoring systems, paging system and colour graphics
- warning indicators, including flashing lights for hearing impaired persons and fire brigade building indication.

Assessment Conditions

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 must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable simulated workplace operational situations that replicate workplace conditions.

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 simulations
- relevant and appropriate materials, tools, facilities, equipment and personal protective equipment (PPE) currently used in industry
- resources that reflect current industry practices in relation to commissioning commercial fire protection systems
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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