



Australian Government

UEERS0014 Install and maintain vital relay interlocking 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 install/maintain vital relay interlocking systems in a rail network.

It includes preparing and installing/maintaining vital relay interlocking system. It also includes completing the installation/maintenance of vital relay interlocking system, repairing system faults, performing operational tests and reporting requirements.

Persons achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and comply with relevant codes of practice, rules and/or guidelines.

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

Pre-requisite Unit

UEERS0005 Install and maintain active level crossing equipment

UEERS0009 Install and maintain power-operated point actuating devices

UEERS0012 Install and maintain trackside signal and train protection equipment

Competency Field

Rail Signalling

Unit Sector

Electrotechnology

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 Prepare to install/maintain vital relay interlocking system**
 - 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified, obtained and clarified
 - 1.2** Hazards are identified, WHS/OHS risks assessed, and control measures and workplace procedures are implemented in preparation for work
 - 1.3** Scope of installation/maintenance work is determined from job specifications, drawings and regulatory requirements
 - 1.4** Appropriate rail safe working person/s is consulted to ensure work is coordinated effectively with others to minimise traffic disruptions
 - 1.5** Materials needed for installation/maintenance work are obtained in accordance with workplace procedures and checked against job specifications
 - 1.6** Tools, equipment and testing devices needed for installation/maintenance work are obtained in accordance with workplace procedures and checked for correct operation and safety
- 2 Install/maintain vital relay interlocking system**
 - 2.1** WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
 - 2.2** Visual inspection of installation wiring and equipment is carried out to identify damaged or faulty equipment
 - 2.3** Damaged or faulty component/s identified during inspection is replaced in accordance with technical instructions, manufacturer specifications and workplace maintenance procedures
 - 2.4** Installation/maintenance is performed efficiently, without waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy practices
 - 2.5** Systems are investigated using appropriate fault-finding and diagnostic techniques to identify faults
 - 2.6** Fault circuit indicators and maintenance records are used to assist in the identification of electrical faults
 - 2.7** Repairs, replacement and/or adjustment of

equipment/systems are carried out using appropriate tools and test equipment to ensure equipment/systems function to relevant technical and operational standards

- 2.8** Faulty, worn, damaged or insecure components are repaired/replaced or secured whilst ensuring system safety integrity is maintained in accordance with technical and/or manufacturer specifications
 - 2.9** Methods for dealing with unplanned situations are determined on the basis of safety and specified work outcomes
 - 2.10** Vital relay interlocking system is inspected and tested in accordance with workplace test procedures and relevant equipment is used to ensure it operates within specified technical parameters
- 3 Complete vital relay interlocking system installation/maintenance**
- 3.1** WHS/OHS work completion risk control measures and workplace procedures are followed
 - 3.2** Reusable, faulty and worn components are tagged and despatched for repair in accordance with workplace procedures
 - 3.3** Maintenance work activities are recorded in accordance with workplace procedures and organisation requirements
 - 3.4** Documentation, including component faults test results, authorisations and permits, is completed to provide an accurate database and facilitate follow-up action and relevant reports produced

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.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEN112A Install and maintain vital relay interlocking systems.

Links

Companion Volume implementation guides are found in VETNet - -

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