Australian Government

UEERS0022 Find and repair rail signalling system faults

Release:

UEERS0022 Find and repair rail signalling system faults

Modification History

Releae 2. Minor Change: Typographical error in prerequisites corrected.

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

This unit replaces and is equivalent to UEERS0004 Find and repair rail signalling system faults.

Modifications this release include:

- Performance criteria 1.9, 2.2 and 3.4 added.
- Performance and Knowledge Evidence updated for clarity.

Application

This unit involves the skills and knowledge required to find and repair rail signalling system faults.

It includes preparing to find and repair signalling system faults, using appropriate fault-finding techniques, repairing or rectifying faults and completing 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

UEERS0027 Maintain computer-based interlocking systems

or

UEERS0034 Maintain vital relay interlocking systems

Competency Field

Rail Signalling

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Prepare to find and repair rail signalling system fault/s	**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 Safety hazards that have not previously been identified are documented on job safety assessments, risks are assessed, and control measures determined and implemented in consultation with appropriate person/s
	1.4 Appropriate person/s is consulted to determine the nature and scope of the fault/s and to coordinate effectively with others affected by the fault/s
	1.5 Likely causes of the fault/s and order of probability are determined from system data and historical trends
	1.6 Impact of the fault on system is ascertained and appropriate person/s notified in accordance with workplace procedures
	1.7 Materials needed to find and repair the fault are obtained in accordance with workplace procedures and checked against job specifications
	1.8 Tools, equipment and testing devices needed to find and repair the fault/s are obtained in accordance with workplace procedures and checked for correct operation and safety
	1.9 Authorisation to take temporarily out of service or disable systems is obtained in accordance with workplace procedures
	1.10 Circuits/equipment are inspected and checked as being isolated, where necessary, in strict accordance with operational procedures and WHS/OHS requirements

2	**Find and repair rail signalling system faults**	**2.1** WHS/OHS risk control measures and workplace procedures for carrying out work are followed
		2.2 On-track safe working requirements are identified and applied in accordance with workplace procedures and safety management system
		2.3 Signalling system performance parameters/standards are applied to appropriate fault-finding techniques
		2.4 Inspection and tests are conducted to determine the type and location of fault/s
		2.5 Wiring system is visually inspected for physical damage or installation defects, as required
		2.6 Methods for dealing with unplanned situations are selected on the basis of safety, operational requirements and specified work outcomes
		2.7 Ongoing inspections and checks of the signalling system are undertaken to confirm the continued rectification of the fault
		2.8 Fault/s are located and identified efficiently, without waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy practices
		2.9 Signalling system faults are rectified in accordance with workplace procedures
3	**Complete repair/s to rail signalling system**	**3.1** WHS/OHS risk control measures and workplace procedures for carrying out work are followed
		3.2 Unresolved faults are reported to appropriate person/s for further action in accordance with workplace procedures
		3.3 Inspection and test results, actions taken or recommended are documented and appropriate person/s notified in accordance with workplace procedures
		3.4 On-track safe working requirements are removed in accordance with workplace procedures and safety management system
		3.5 Component fault/s, test result/s, authorisation/s and permit/s documentation are completed to provide an

	accurate database and facilitate follow-up action and relevant reports

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.

Essential operating conditions include:	• locating and repairing faults on three different types of rail signalling equipment/systems.

Unit Mapping Information

This unit replaces and is equivalent to UEERS0004 Find and repair rail signalling system faults.

Links

Companion Volume Implementation Guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6