UEERS0006 Install and maintain computer-based interlocking rail 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 computer-based electronic equipment for rail network signalling system.

It includes preparing and installing/maintaining computer-based interlocking (CBI) equipment. It also includes completing installation/maintenance of CBI systems and replacing faulty equipment 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	PERFORMANCE CRITERIA
Elements describe the essential	Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1	**Prepare to install/maintain CBI rail equipment**	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	Materials needed for the installation/maintenance work are obtained in accordance with workplace procedures and checked against job specifications
		1.5	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 CBI rail system**	2.1	WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
		2.2	Reports or fault logs are identified by accessing diagnostic terminal
		2.3	Fault correction activities are prioritised by reviewing the fault reports and previous corrective actions
		2.4	Records of previously corrective actioned faults are deleted/cleared from the terminal
		2.5	Source of the fault is identified by assessing the diagnostics terminal
		2.6	Corrective action required is determined and implemented
		2.7	Appropriate mechanisms for the safe and efficient rectification of the fault are determined
		2.8	Methods for dealing with unplanned situations are determined on the basis of safety and specified work outcomes
		2.9	Rail system monitoring is conducted efficiently, without

waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy practices

	2.10	Replacement equipment is obtained from spare stock to comply with identified fault repair requirements
	2.11	Faulty component/equipment is identified and removed in accordance with organisation practices and procedures
	2.12	Replacement component/equipment is installed and connected to power in accordance with manufacturer specifications
	2.13	Correct test procedures are identified and implemented to confirm all operations are within specifications
	2.14	Equipment operations are monitored to ensure system integrity
	2.15	Signal and voltage levels are monitored, checked and adjusted, as required, in accordance with operational requirements
	2.16	Completed statistical records and equipment/operational management information are accurately recorded and maintained to support ongoing monitoring of systems and equipment performance
3 Complete CBI rail system installation/maintenance	**3.1**	WHS/OHS risk control work completion measures and workplace procedures are followed
	3.2	Non-conforming equipment is identified and tagged for repair type and extent of fault is identified and recorded, as required
	3.3	Faulty equipment requiring repair is segregated and appropriate records are completed in preparation for despatching to repairer
	3.4	Spare equipment stocks are reviewed to ensure adequate availability
	3.5	Priority for repair and/or replacement of equipment is determined by evaluation of stock levels and fault logs
	3.6	Work completion is documented and appropriate person/s notified of repair and replacement priorities in

accordance with workplace procedures 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 UEENEEN114A Install and maintain computer based interlocking rail systems.

Links

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