



Australian Government

UEERS0003 Develop rail signalling system maintenance programs

Release: 1

UEERS0003 Develop rail signalling system maintenance programs

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 develop rail signalling system maintenance programs for rail signalling equipment and infrastructure.

It includes preparing and developing rail signalling maintenance programs, including identifying tasks and work responsibilities, 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

UEERS0007 Install and maintain non-vital screen-based rail control systems

UEERS0008 Install and maintain non-vital telemetry systems

UEERS0004 Find and repair rail signalling system faults

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 develop rail signalling maintenance program

- 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 implemented in preparation for work
- 1.3** Safety hazards that have not previously been identified are noted on job safety assessments, risks are assessed and risk control measures are implemented
- 1.4** Maintenance program is sequenced in accordance with job schedule and specifications
- 1.5** Appropriate safe working person/s is consulted to ensure maintenance work is coordinated effectively with others involved on the worksite
- 1.6** Location of rail signalling equipment to be maintained is determined from job specifications and diagrams

2 Develop rail signalling equipment and infrastructure maintenance programs

- 2.1** Maintenance programs are developed to cover relevant work requirements in accordance with workplace conditions and constraints
- 2.2** Scheduled maintenance programs are planned and implemented
- 2.3** Programs are circulated in accordance with workplace policies and procedures for review by relevant person/s
- 2.4** Methods for dealing with unplanned situations are discussed with appropriate person/s and documented on job safety assessments

3 Finalise rail signalling maintenance program

- 3.1** Feedback from person/s associated with the maintenance program is addressed and acceptable modifications agreed, as required
- 3.2** Final rosters are documented and distributed to ensure work requirements are accurately communicated

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 UEENEEN126A Develop rail signalling system maintenance programs.

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 UEERS0003 Develop rail signalling system maintenance programs

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 and performance criteria on at least two separate occasions and include:

- interpreting specifications correctly
- checking that technical/operational specifications are met and that equipment is in compliance with work orders
- ensuring safe train movement through work area
- following relevant codes of practice, work health and safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and requirements
- completing relevant technical reports, records and documentation
- dealing with unplanned events
- applying rail safe working practices and relevant industry standards, codes and rail safety regulations
- applying relevant WHS/OHS requirements, including:
 - implementing workplace procedures and practices
 - using risk control measures
- developing rail signalling equipment and infrastructure maintenance programs, including:
 - finalising rail signalling maintenance program, roster and schedule requirements.

Knowledge Evidence

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

- rail signalling maintenance program development, safe working practices and relevant standards, codes and regulations, including:
 - maintenance principles encompassing:
 - maintenance function
 - role of maintenance department
 - WHS/OHS requirements
 - maintenance systems encompassing:
 - maintenance terminology

- preventative maintenance
- predictive maintenance
- corrective maintenance
- data acquisition encompassing:
 - plant history cards/files
 - inspection techniques
 - predictive maintenance
 - remote visual inspection
 - non-destructive testing
 - thermography
 - vibration analysis
 - oil analysis
- rail signalling maintenance plan development encompassing:
 - characteristics of rail signalling operation
 - assessment of failure characteristics
 - link failure characteristics to maintenance systems
 - identification of maintenance windows
 - resources
 - labour
 - materials
 - establish plan
 - implementation procedures and records
 - plan review
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant rail safe working practices, industry standards, codes of practice, regulations and WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures.

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 rail workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable rail 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 other simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to developing rail signalling maintenance programs
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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