



Australian Government

Assessment Requirements for UEERS0022 Find and repair rail signalling system faults

Release:

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Modification History

Release 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.

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:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - implementing workplace procedures and practices
 - using risk control measures
 - applying rail safe working practices and rail safety regulations
- locating and repairing rail signalling system faults, including:
 - interpreting plans and specifications correctly
 - identifying and interpreting fault history
 - confirming fault history and symptoms through observation and application of first-line tests
 - identifying faults efficiently
 - rectifying faults promptly using appropriate diagnostic techniques
 - minimising interruption to rail traffic and services
 - using testing equipment and tools correctly and safely
 - confirming the integrity of the signalling system
 - completing relevant technical reports, documentation and records
- applying relevant industry standards and codes of practice
- applying sustainable energy principles and practices
- dealing with unplanned events.

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 system fault finding and repair, safe working practices and relevant standards, codes and regulations, fault-finding and diagnostic techniques including:
 - establishing an accurate description of the fault situation by appropriate questioning of client or operator
 - questioning techniques to efficiently and effectively obtain a description of a fault situation from a client/operator
 - confirming the fault history and symptoms through observation and application of first-line tests
 - drawing valid conclusions from observations
 - identifying concepts of broad first-line testing
 - in the absence of the client or operator, to establish the symptoms through application of systematic tests and observation
 - identifying appropriate diagnostic tests for given symptoms using manufacturers' charts, handbooks and specification sheets
 - using results of systematic tests to identify symptoms
- rail signalling system fault finding including:
 - system operational and safety requirements
 - common mechanical faults, symptoms and testing
 - common electrical faults, symptoms and testing
 - common control faults, symptoms and testing
- rail signalling system repairs including:
 - system operational and safety requirements
 - fault/circuit/system isolation
 - repairing/replacing faulty components
 - component testing
 - reconnection of component/circuit/system
- relevant job safety assessments or risk mitigation processes, including possessions protection and management
- relevant industry standards, codes of practice, regulations and WHS/OHS legislated requirements
- relevant manufacturer specifications and manuals
- relevant workplace documentation, 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 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 other 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 locating and repairing rail signalling system faults
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

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