



Australian Government

TLIW5001A Apply rail communications systems

Release 1

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Modification History

Release 1. This is the first release of this unit.

Unit Descriptor

This unit involves applying rail communications systems. It includes preparing to apply rail communications systems, recording and logging communications and ensuring safeworking systems are incorporated into communications systems.

Licensing, legislative, regulatory or certification requirements are not applicable to this unit at the time of publication.

Application of the Unit

This unit provides knowledge of rail communications systems in general terms across all types of rail systems.

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

1 Prepare to apply rail communications systems

- 1.1 Communications systems used in the rail industry are outlined
- 1.2 Main components of fixed and mobile communications systems are identified and explained
- 1.3 Functions of the different types of communications systems used in the rail industry are explained
- 1.4 Effectiveness of different types of communications systems are compared
- 1.5 Communications system/s appropriate to a situation are selected in accordance with organisational policies and procedures
- 1.6 Working order of selected communications system/s is ensured in accordance with organisational policies and procedures

2 Record and log communications

- 2.1 Purpose of recording and logging communications is identified
- 2.2 Methods by which communications are recorded and logged are identified and explained
- 2.3 Effectiveness of different types of communications recording and logging processes are outlined
- 2.4 Communications recording and logging processes most appropriate to a situation are selected in accordance with organisational policies and procedure
- 2.5 Relevant communications systems plans are identified, explained and implemented in accordance with organisational policies and procedures

3 Ensure safeworking systems are incorporated into communications systems

- 3.1 Different methods of safeworking are identified and communications used for each type are outlined
- 3.2 Potential problems that can occur with different communications systems are identified and explained

3.3 Methods to overcome identified problems are developed and implemented

Required Skills and Knowledge

This section describes the knowledge and skills required for this unit.

Required knowledge:

- Changes in rail industry operations and technology with implications for rail safety
- Duty holders and their duties under rail safety legislation
- Key concepts and definitions relating to rail communications systems
- Key principles and practices associated with railway operations
- Key regulatory and standards for participants in the rail industry
- Rail industry terminology, including terminology used in technical standards
- Rail regulatory framework
- Rail safety management systems
- Relevance of national and international standards to the rail industry

Required skills:

- Access and use rail safety industry standards
- Communicate effectively with others and interpret complex information relating to rail operations
- Develop and maintain currency of rail industry knowledge and regulatory requirements
- Network and build relationships with a diverse range of rail industry organisations
- Research information related to the rail industry and rail safety regulation
- Review changing regulatory information
- Work ethically in accordance with legislation

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include demonstration of applying:

- required knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
- an appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment, and
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests.

Practical assessment must occur:

- through activities in an appropriately simulated environment, and/or
- in an appropriate range of situations in the workplace.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Communications systems may include:	• internet • radios • telephones
Different types of communications systems may include:	• fixed communications: • fixed radios • post phones • recoding equipment • telephones • mobile communications systems: • mobile phones • mobile radios • passenger information systems: • emails • passenger information displays (PIDs) • public address (PA) equipment • texts
Relevant communications systems plans may include:	• contingency plans • emergency plans • energy efficiency plans • implementation plans • information communication plans • maintenance plans • resources plans • training plans
Safeworking systems may include:	• automatic train control (ATC) • block working • centralised train control (CTC) • track protection systems • train orders

Unit Sector(s)

Not applicable.

Competency Field

W – Equipment and Systems Operations