



Australian Government

Department of Education, Employment and Workplace Relations

TLIB2111A Assist with testing train braking system on electric passenger train

Release: 1

TLIB2111A Assist with testing train braking system on electric passenger train

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to assist with testing the train braking system on electric passenger trains in accordance with workplace procedures and the requirements of relevant safeworking regulations and codes of practice. It includes preparing for train brake inspection and testing, inspecting and testing train brake operation, dealing with identified faults, and recording/reporting the results of a brake test in accordance with workplace requirements. Licensing or certification requirements are not applicable to this unit.

Application of the Unit

Application of the Unit

Persons achieving competence in this unit will need to fulfil the applicable legislated state and territory rail safety requirements together with any nationally approved compliance codes and/or guidelines.

Work is performed under minimal supervision, generally within a team environment. It involves the application of operational principles, regulations, safeworking codes, protocols and procedures to the testing of a train braking system as part of workplace activities across a variety of operational contexts within the Australian rail industry.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills 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

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for train brake inspection and testing	1.1 OH&S legislation, codes of practice, policies and procedures are identified and followed 1.2 Isolation or securing of train is confirmed in accordance with workplace procedures to make the work area safe for the inspection and test 1.3 Ensure the brake system is ready for inspection and testing
2 Test train brake operation	2.1 Brake tests are conducted to ensure compliance to required standards 2.2 Where required, modified brake tests are conducted to workplace procedures to meet required standard 2.3 Continuity tests are conducted to conform with workplace procedures to ensure train braking system meets functional specifications 2.4 Where faults are identified, appropriate corrective action is taken to ensure operational safety
3 Record / report brake test faults or defects	3.1 Faults or defects found during brake tests are reported and/or recorded as per workplace procedures

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

- Applicable minimum standards and approved compliance codes and/or guidelines
- Relevant OH&S and environmental procedures and regulations including codes of practice for manual handling
- Brake systems, their components and their operation
- Types of brake tests and their purpose
- Diagnostic techniques
- Communication protocols
- Documentation requirements relating to brake testing
- Procedures to be followed in the event of an emergency

Required skills:

- Communicate effectively with others when testing train braking system

Required skills:

- Read and interpret instructions, procedures, information and signs relevant to the testing of train braking system
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to the testing of train braking system
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when testing train braking system
- Promptly report and/or rectify any identified problems, faults or malfunctions when testing train braking system in accordance with regulatory requirements and workplace procedures
- Apply rail safety practices and regulations
- Implement contingency plans for unplanned events
- Apply precautions and required action to minimise, control or eliminate hazards that may exist during work activities
- Monitor work activities in terms of planned schedule
- Modify activities depending on differing operational contingencies, risk situations and environments
- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Assess brake system defects
- Operate and adapt to differences in brakes and related equipment in accordance with standard operating procedures
- Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide**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 competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:
 - the underpinning knowledge and skills
 - relevant legislation and workplace procedures
 - other relevant aspects of the range statement
- Assessment must include exercises which demonstrate

EVIDENCE GUIDE

competent performance of the following in a range of situations:

- correctly performing all types of brake tests applicable to workplace
- identifying different types of failures/defects that could occur
- correctly identifying procedures to be followed in the event of a failed brake test

EVIDENCE GUIDE

Context of and specific resources for assessment

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
 - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
 - access to 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

- Assessment of this unit must be undertaken by a registered training organisation
- 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

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.

Operations may be conducted :

- in all weather conditions
- by day or night

Locations for tests may include:

- depots
- sidings
- platforms

Brake tests may include:

- brake leakage test
- air continuity test
- modified brake test
- train brake test

RANGE STATEMENT

Safety and protective equipment may include:

- power against the brake test
- high visibility clothing
- end of train markers
- gloves
- sunscreen
- sunglasses
- safety glasses
- insect repellent
- safety headwear
- safety footwear
- portable radios
- hand lamps
- flags
- safety devices
- hearing protection

Relevant personnel can include:

- train controllers
- train examiners
- maintenance personnel
- train crews
- yard and other operational personnel
- those responsible for controlling signals

Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:

- company procedures
- enterprise procedures
- organisational procedures
- established procedures

Information/documents may include:

- workplace procedures and instructions and job specification
- induction and training materials
- brake instruction documentation
- safeworking documentation
- brake test certification
- equipment operations manuals
- conditions of service, legislation and industrial agreements including workplace agreements and awards

Applicable regulations and legislation may include:

- applicable state/territory legislated rail safety requirements together with any nationally approved compliance codes and/or guidelines
- relevant state/territory OH&S legislation
- relevant state/territory environmental protection legislation
- relevant Australian Standards

Unit Sector(s)

Not Applicable

Competency Field

Competency Field B - Equipment Checking and Maintenance