



Australian Government

Department of Education, Employment and Workplace Relations

TLIC3046A Drive and operate electric passenger train

Release: 1

TLIC3046A Drive and operate electric passenger train

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to drive and operate an electric passenger train to operational requirements in accordance with safeworking and regulatory requirements and workplace procedures. This includes applying train management techniques to manage the movement of a train, conducting all movements and related activities required to meet operational requirements, changing ends, and handing over a train to a relief crew. Licensing or certification requirements are not applicable to this unit.

Application of the Unit

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

Work is generally performed without supervision and within a team environment. It involves the application of routine operational principles and procedures to drive electric passenger trains to operational requirements as part of workplace activities across a variety of operational contexts within the Australian rail system.

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 Drive train efficiently and effectively	1.1 Train is operated in accordance with the relevant codes of practice, workplace procedures and instructions 1.2 Train is operated safely within track/road characteristics and route conditions 1.3 Train operations are controlled to minimise wear, maximise efficiency and avoid damage 1.4 Train is operated with due care for passenger comfort and quality of ride 1.5 Train is safely operated to specified timetable and schedule in accordance with on-time running standards 1.6 Performance of equipment and rolling stock is monitored to maintain optimum running conditions and identify faults, defects and efficiencies 1.7 Relevant codes of practice, OH&S and environmental requirements are followed to prevent injury and damage
2 Operate train according to standard operating procedures	2.1 Train documentation is received, interpreted and followed 2.2 Relevant codes of practice, safeworking and signalling requirements are adhered to throughout train operations 2.3 Train control instructions and other instructions are received, interpreted and applied to ensure safe and effective control of the train 2.4 Communications are maintained with relevant personnel during the train journey in accordance with the relevant codes of practice and safeworking systems 2.5 Instructions concerning train operation are given to relevant personnel to ensure safe and efficient running
3 Maintain/manage communications	3.1 Where applicable, passengers are advised of station identification, emergency situations and other critical information, using the train communications system 3.2 Train control and other instructions are received, interpreted and applied to ensure safe and effective control of the train 3.3 Communications are maintained with train control and other relevant personnel during the train journey in accordance with the workplace procedures, relevant codes of practice and safeworking systems 3.4 Instructions concerning train operation are given to relevant personnel to ensure safe and efficient on-time running 3.5 Instructions are verified, when required, interpreted and followed, in accordance with relevant codes of practice, safeworking systems and requirements and organisational policies and procedures, to ensure that actions taken are

ELEMENT	PERFORMANCE CRITERIA
	appropriate and safe
	3.6 Fixed and hand signals and verbal movement commands are interpreted and followed, in accordance with relevant codes of practice, safeworking systems and organisational policies and procedures, to ensure that actions taken are appropriate and safe
4 Change ends	4.1 Arrival procedures are carried according to organisational policies and procedures 4.2 Checks and terminus inspections are carried out according to organisational policies and procedures 4.3 Departure procedures are carried out according to organisational policies and procedures
5 Carry out in-service inspections	5.1 Train checks are made in accordance with workplace procedures 5.2 Problems and defects are identified and reported/rectified in accordance with workplace procedures, other regulatory requirements and manufacturers instructions 5.3 Incidents or unusual occurrences are reported to relevant personnel in accordance with established policies and procedures
6 Hand over train to relieving driver	6.1 If required, identity of relieving driver is checked and confirmed 6.2 Relieving driver is advised of condition and, if applicable, location of the train 6.3 Relieving driver is updated and, where applicable, is made aware of any relevant documentation
7 Accept train hand-over as relief driver	7.1 Relieving driver is positioned at correct time and location as per organisational requirements 7.2 If required, present identification to train driver being relieved 7.3 If required, relevant documentation is identified and referred to as per organisational requirements

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

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

Required knowledge:

- Legislated rail safety requirements including acts and regulations from the applicable state and territory together with any nationally approved compliance codes and/or guidelines

REQUIRED KNOWLEDGE AND SKILLS

- Relevant OH&S and environmental procedures and regulations
- Operational instructions
- Train controls, instruments and indicators and their purpose, location and use
- Train operating procedures
- Procedures for carrying out in-service checks
- Requirements for completing relevant documentation
- Train characteristics including: track and train dynamics, and monitoring principles and procedures
- Train equipment and systems including: monitoring devices, braking and drive equipment, ancillary systems, and signalling systems
- Track and road characteristics including: track limitations, speed limitations, gauge limitation, curves and gradients, location of signals and crossings, cross-overs, and yard and siding layouts
- Local procedures and operating requirements
- Procedures for operating electronic communications equipment with required protocol
- Fatigue management knowledge and techniques including: causes and effects of fatigue, strategies to manage fatigue, factors which increase fatigue-related accidents, and lifestyles which promote the effective long-term management of fatigue

Required skills:

- Communicate effectively with others when driving and operating an electric passenger train to operational requirements
- Read and interpret instructions, procedures, information and signs relevant to driving and operating an electric passenger train
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to the driving and operating of an electric passenger train to operational requirements
- Operate electronic communication equipment to required protocol
- Work collaboratively with others as part of a train crew
- Identify and assess train defects and deficiencies and take appropriate action to report, isolate, repair or replace any identified defective equipment as per workplace procedures
- Implement contingency plans for unplanned events
- Apply precautions and required action to minimise, control or eliminate hazards that may exist when driving and operating an electric passenger train to operational requirements
- Recognise problems that may arise when driving and operating an electric passenger train, and take appropriate action
- Modify activities depending on differing operational contingencies, risk situations and environments

Required skills:

- Work systematically with required attention to detail without injury to self or others, or damage to vehicles or equipment
- Adapt to differences in trains, associated trains and ancillary equipment
- Select and use required personal protective equipment conforming to industry and OH&S standards
- Monitor train performance to facilitate optimum safe operation
- Apply information about the track or road to train operations
- Secure a train
- Maintain on-time running
- Apply fatigue management knowledge and techniques

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 competent performance of the following in a range of situations:
 - correctly operating the electric passenger train in accordance with operational requirements
 - appropriately using communication equipment including use of correct protocols
 - carrying out correct train hand over
 - changing ends correctly

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

EVIDENCE GUIDE

	other simulated practical and knowledge assessment, and 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: - 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.

Trains may be:	any electric passenger train operated in the Australian rail system
Operations may be conducted:	- by day or night - in all weather conditions
Train may be secured by:	- power brakes - hand/park brakes
Track/road characteristics may include:	- track limitations - speed limitations - gauge limitation - curves and gradients - location of signals and crossings - cross-overs
Relevant personnel may include:	- train controllers - those providing operational assistance - signals staff

RANGE STATEMENT

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|---|---|
| Communication protocols may include but are not limited to: | <ul style="list-style-type: none"> • passengers • station staff • train crew • general safety • emergency messages • identification • standard radio terms • phonetic alphabet • spoken figures |
| Communications equipment may include but is not limited to: | <ul style="list-style-type: none"> • train intercom • hand-held or portable radio equipment • fixed radio equipment • computer-based communications equipment • mobile phones |
| Depending on the type of organisation concerned and the local terminology used, workplace procedures may include: | <ul style="list-style-type: none"> • company procedures • enterprise procedures • organisational procedures • established procedures |
| Information/documents may include: | <ul style="list-style-type: none"> • operational instructions, protocols, policies and procedures, including: <ul style="list-style-type: none"> • train operation procedures • procedures to prevent trains from moving unintentionally or against safeworking rules • track speed • procedures for monitoring and complying with signals • procedures for operating in accordance with track/route conditions • train log or record book • train timetables • procedures/instructions for dealing with emergencies or abnormal situations • quality and customer service standards, policies and procedures • maintenance notices, records and requests • communication equipment procedures • equipment operation manuals and maintenance specifications • conditions of service, legislation and industrial agreements including workplace agreements and awards |
| Applicable regulations, legislation | <ul style="list-style-type: none"> • legislated rail safety requirements including acts and |

RANGE STATEMENT

and codes may include:

regulations from the applicable state/territory together with any nationally approved compliance codes and/or guidelines

- relevant state codes of practice and safeworking system requirements
- relevant Australian Standards and related requirements including AS 4292 Part 1
- relevant state OH&S legislation
- relevant state environmental protection legislation

Unit Sector(s)

Not Applicable

Competency Field

Competency Field

C - Vehicle Operation