



Australian Government

Department of Education, Employment and Workplace Relations

TLIC4023A Operate train with due consideration of route conditions

Release: 1

TLIC4023A Operate train with due consideration of route conditions

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to operate a train with due consideration of route conditions in accordance with safeworking and regulatory requirements and workplace procedures. This includes identifying route requirements, applying route knowledge to the planning of a train journey, and using route knowledge during a train journey in accordance with workplace requirements and standards. 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 each 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 operate a train with due consideration of route conditions 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 Identify and interpret route information	<p>1.1 Information on anything likely to affect critical aspects of a train route is accessed in accordance with workplace procedures</p> <p>1.2 Information on critical aspects of a train route is interpreted and analysed for use when planning a train journey and operating a train during a journey</p>
2 Apply route knowledge when planning a train journey	<p>2.1 Route information is applied to the planning of a train journey in accordance with workplace procedures and safeworking codes of practice and regulations</p> <p>2.2 Events and circumstances likely to affect planned running schedule are communicated to relevant personnel</p> <p>2.3 Relevant codes of practice, safeworking and signalling requirements are applied when planning train operations</p> <p>2.4 Instructions concerning planned train operation are communicated to relevant personnel to ensure safe and efficient on-time running</p>
3 Use route knowledge during a train journey	<p>3.1 Route information is evaluated and applied to the management of train operations during a train journey in accordance with workplace procedures and safeworking codes of practice and regulations</p> <p>3.2 Hazardous situations along the train route are recognised and appropriate action is taken to minimise risk to personnel and equipment</p> <p>3.3 Communications are maintained with traffic control and other relevant personnel during the train journey in accordance with the relevant codes of practice, safeworking systems and workplace procedures</p> <p>3.4 Train control and other instructions are received, interpreted and applied to ensure safe and effective operation of the train</p>

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 each applicable state and territory together with any nationally approved compliance codes and/or guidelines
- Relevant OH&S and environmental procedures and regulations

REQUIRED KNOWLEDGE AND SKILLS

- Route information including track/bridge limitations, speed limitations, gauge limitation, curves and gradients, curfews, location of signals and crossings, emergency cross-overs, end of safeworking system locations, stations and platforms, abnormal weather conditions along the route, track work along the route, reports of accidents or breakdowns along the route, yard and siding layouts and typical problems that can occur along a train route
- Procedures for identifying and/or anticipating route problems and related action that can be taken
- Operational instructions
- Local procedures and operating requirements
- Safe operational procedures and techniques for optimising efficiency, minimising wear and tear on rolling stock and motive power units, using route knowledge and terrain for advantage and optimising the quality of ride for passengers
- Procedures for operating electronic communications equipment with required protocol
- Motive power unit controls, instruments and indicators and their purpose, location and use
- Driving procedures
- Braking and safety system procedures
- Procedures for operating controls to start, accelerate, decelerate and stop
- Procedures for complying with speed and load limits
- Procedures for adjusting controls to maximise efficient and safe running
- Procedures for managing hazardous situations
- Procedures for operating ancillary systems
- Motive power unit systems and equipment including monitoring devices, braking and drive equipment, ancillary systems and signalling systems

Required skills:

- Communicate effectively with others when operating a train with due consideration of route conditions including fixed and hand signals and the use of train communications equipment
- Read and interpret instructions, procedures, route information and signs relevant to the operation of a train with due consideration of route conditions
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to the operation of a train with due consideration of route conditions
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when operating a train with due consideration of route conditions
- Promptly report and/or rectify any identified problems that may occur when operating a train with due consideration of route conditions in accordance with regulatory requirements and workplace procedures

Required skills:

- Implement contingency plans for unexpected events when operating a train with due consideration of route conditions
- 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
- Apply fatigue management knowledge and techniques
- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Operate and adapt to differences in equipment in accordance with standard operating procedures
- Apply route knowledge to train operations
- Monitor train performance and its security to facilitate optimum safe operation and quality of ride to passengers (where applicable)
- 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 competent performance of the following in a range of situations:
 - identifying and interpreting information relevant to a number of routes
 - applying identified information to route planning
 - maintaining effective communications with

EVIDENCE GUIDE

- appropriate personnel
- 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.

- Trains may be operated:
- over tracks owned and maintained by different organisations
- Motive power units include any motive power units in service within Australian rail systems and may include:
- diesel locomotives
 - electric locomotives
 - railcars
 - multiple units
 - electric multiple units

RANGE STATEMENT

- Rolling stock includes:
- any rolling stock in service within Australian rail systems
- Operations may be conducted:
- by day or night
 - in all weather conditions
- Critical route information may include but is not limited to:
- track/bridge limitations
 - speed limitations
 - gauge limitation
 - curves and gradients
 - curfews
 - location of signals and crossings
 - stations and platforms
 - emergency cross-overs
 - abnormal weather conditions along the route
 - track work along the route
 - reports of accidents or breakdowns along the route
- Depending on context, train management considerations to which route information may be applied may include but are not limited to:
- safety of the train and passengers/freight
 - comfort and quality of ride of passengers
 - use of track terrain for the advantage of train operations
 - optimisation of the efficiency of operations
 - on-time running
 - wear and tear on rolling stock and motive power units
 - security of freight in the case of a freight train
 - size and dimensions of a freight train and its load
- Relevant personnel may include:
- train controllers
 - train examiners
 - maintenance personnel
 - train crews
 - yard and other operational personnel
 - those providing operational assistance
 - signals staff
 - passengers
 - station staff
- Communication protocols may include but are not limited to:
- general safety
 - emergency messages
 - testing communications equipment
 - transmitting and receiving messages
 - identification
 - standard radio terms
 - phonetic alphabet
 - spoken figures

RANGE STATEMENT

Communications equipment may include but is not limited to:

- train intercom
- hand-held or portable radio equipment
- fixed radio equipment
- computer-based communications equipment
- mobile/satellite phone

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:

- motive power unit log book
- train running sheets
- route information
- local instructions
- track speed, length and load limitations
- train notices, records and requests
- weather information and alerts
- specified operating limits and optimum efficiency running speeds for motive power units
- operational instructions, protocols, policies and procedures, including:
 - those related to preventing trains from moving
 - track speed, length and load limitations
 - monitoring and complying with signals
 - operating in accordance with track condition
- equipment operation manuals and maintenance specifications
- emergency procedure manuals
- two-way radio operation procedures
- procedures for using protective clothing and equipment
- emergency procedures manual
- conditions of service, legislation and industrial agreements including workplace agreements and awards

Applicable regulations, legislation and codes may include:

- legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines
- relevant state/territory codes of practice and safeworking system requirements
- relevant Australian standards and related requirements
- relevant state/territory OH&S legislation

RANGE STATEMENT

- relevant state/territory environmental protection legislation

Unit Sector(s)

Not Applicable

Competency Field

Competency Field C - Vehicle Operation