



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TLI21310 Certificate II in Rail Infrastructure**

**Release: 1**

## TLI21310 Certificate II in Rail Infrastructure

### Modification History

Not Applicable

### Description

**Rationale:**

This is a general qualification for a person engaged in basic operations within the rail infrastructure environment undertaking a range of tasks involving known routines and procedures, and taking some responsibility for the quality of work outcomes.

**Job roles:**

Job roles and titles vary across different sectors. Possible job titles relevant to this qualification include:

**Rail infrastructure - Track Work:**

This includes, but is not limited to, the following job roles:

- Track Worker
- Track Installer
- Track Maintainer

**Rail infrastructure - Structures:**

This includes, but is not limited to, the following job roles:

- Structures Maintainer

**Rail infrastructure - Track Surfacing:**

This includes, but is not limited to, the following job roles:

- Plant Operator
- Mobile Plant Operator
- Way Gang Driver
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### Pathways Information

Not Applicable

### Licensing/Regulatory Information

Not Applicable

### Entry Requirements

Not Applicable

## Employability Skills Summary

### Employability Skills Summary for TLI21310 Certificate II in Rail Infrastructure

The following table contains a summary of the employability skills as identified by the Transport and Logistics Industry for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on packaging options.

<b>Employability Skill</b>	<b>Industry/enterprise requirements for this qualification include:</b>
<b>Communication</b>	<ul style="list-style-type: none"> <li>• Use communication systems and procedures used in construction and/or maintenance of rail infrastructure</li> <li>• Read and follow relevant, instructions, manuals, notices and signs applicable to their role within the construction and/or maintenance of rail infrastructure</li> <li>• Speak clearly and directly on matters related to their role within the construction and/or maintenance of rail infrastructure</li> <li>• Complete documents as part of duties, including completion of relevant forms</li> <li>• Recognise and interpret non-verbal signs, signals and behaviour</li> <li>• Use relevant communication equipment.</li> </ul>
<b>Teamwork</b>	<ul style="list-style-type: none"> <li>• Participate in the resolution of any interpersonal conflicts that may arise during construction and/or maintenance of rail infrastructure</li> <li>• Avoid and prevent the harassment of others in the workplace</li> <li>• Collaborate with others in the course of construction and/or maintenance of rail infrastructure</li> <li>• Work with persons of different ages, gender, race, religion, political persuasion, etc.</li> </ul>
<b>Problem solving</b>	<ul style="list-style-type: none"> <li>• Identify and solve or report problems arising in the course of construction and/or maintenance of rail infrastructure</li> <li>• Recognise problems that may occur in the course of construction and/or maintenance of rail infrastructure and take appropriate action to report or resolve the problems within limits of responsibility</li> <li>• Recognise hazards and risks in a range of rail situations and take appropriate precautions.</li> </ul>
<b>Initiative and enterprise</b>	<ul style="list-style-type: none"> <li>• Respond appropriately to any changes in equipment, standard operating procedures and the working environment.</li> </ul>

**TLI21310 Certificate II in Rail Infrastructure (continued)**

- Planning and organising**
- Follow and apply operational and emergency plans, systems and procedures
  - Comply with applicable rail and safety regulations and codes of practice
  - Follow and apply workplace security and safety management systems and safeworking requirements
  - Collect and interpret information needed in the course of the construction and/or maintenance of rail infrastructure within limits of responsibility
  - Manage time in the course of construction and/or maintenance of rail infrastructure.
- Self management**
- Interpret and apply applicable instructions and procedures
  - Follow work plans and schedules
  - Check own work performance.
- Learning**
- Participate in updating of own knowledge and skills required for rail activities, in response to any changes in the processes and equipment used in the construction and/or maintenance of rail infrastructure.
- Technology**
- Operate equipment and tools required during the construction and/or maintenance of rail infrastructure
  - Follow and apply operational and servicing instructions for equipment used during the construction and/or maintenance of rail infrastructure
  - Follow and apply the applicable safeworking requirements and OH&S procedures when using rail equipment and facilities.

## Packaging Rules

### Requirements for completion of the qualification:

A successful assessment outcome for a total of **16 to 17 units** of competency (depending on the group) comprising:

- the **8 core units** listed below

plus

- **all units** from the selected **group** listed below

plus

- **2 elective units** which should be taken from **Elective units A** listed below, however **1 unit** may be selected from **Elective units B** as listed below.

Where imported units are selected, care must be taken to ensure that all pre-requisites specified are complied with.

**TLI21310 Certificate II in Rail Infrastructure (continued)****Core units:**

<b>Field</b>	<b>Unit</b>
<b>B Equipment Checking and Maintenance</b>	TLIB1028A Maintain and use hand tools
<b>D Load Handling</b>	TLID1001A Shift materials safely using manual handling methods
<b>E Communication and Calculation</b>	TLIE1003A Participate in basic workplace communication
<b>F Safety Management</b>	TLIF1001A Follow occupational health and safety procedures TLIF2010A Apply fatigue management strategies TLIF2062A Apply awareness of safeworking rules and regulations CPCCOHS1001A Work safely in the construction industry
<b>U Environment</b>	TLIU2008A Apply environmental procedures to rail infrastructure

**Select one Group from the following options:**

Track Work  
Structures  
Track Surfacing

**Group A**

<b>TLI21310 Certificate II in Rail Infrastructure</b>	
<b>(Track Work)</b>	
<b>Field</b>	<b>Unit</b>
<b>B Equipment Checking and Maintenance</b>	TLIB2085A Apply track fundamentals TLIB2092A Operate minor mechanical equipment TLIB2101A Install and maintain rail joints
<b>S Construction and Installation</b>	TLIS2030A Carry out track ballasting TLIS2031A Install railway sleepers TLIS2032A Install rail

<b>TLI21310 Certificate II in Rail Infrastructure</b> <b>(Track Work)</b>	
	TLIS2034A Install and repair rail fastening systems

**TLI21310 Certificate II in Rail Infrastructure (continued)****Group B**

<b>TLI21310 Certificate II in Rail Infrastructure</b> <b>(Structures)</b>	
<b>Field</b>	<b>Unit</b>
<b>B Equipment Checking and Maintenance</b>	TLIB2084A Carry out routine maintenance of structures TLIB2086A Apply awareness of structures fundamentals TLIB2092A Operate minor mechanical equipment
<b>E Communication and Calculation</b>	RIICCM201A Carry out measurements and calculations RIICCM203A Read and interpret plans and specifications
<b>S Construction and Installation</b>	TLIS2036A Use chemical repair products

**Group C**

<b>TLI21310 Certificate II in Rail Infrastructure</b> <b>(Track Surfacing)</b>	
<b>Field</b>	<b>Unit</b>
<b>B Equipment Checking and Maintenance</b>	TLIB1001A Check and assess operational capabilities of equipment TLIB2085A Apply track fundamentals TLIB2091A Measure and record track geometry TLIB1093A Clean equipment and restore worksite
<b>C Vehicle Operation</b>	TLIC2041A Operate self-propelled equipment on track

<b>TLI21310 Certificate II in Rail Infrastructure</b>	
<b>(Track Surfacing)</b>	
<b>S Construction and Installation</b>	TLIS2030A Carry out track ballasting

**TLI21310 Certificate II in Rail Infrastructure (continued)****Elective units A:**

<b>Field</b>	<b>Unit</b>
<b>B Equipment Checking and Maintenance</b>	TLIB2081A Repair timber structures
	TLIB2082A Repair steel structures
	TLIB2083A Maintain bridge bearings
	TLIB2091A Measure and record track geometry
	TLIB1093A Clean equipment and restore worksite
	TLIB2096A Repair concrete/masonry structures
	TLIB2097A Install and maintain guard rails
<b>C Vehicle Operation</b>	TLIC3045A Operate road/rail vehicle
<b>D Load Handling</b>	TLID1002A Shift a load using manually-operated equipment
<b>E Communication and Calculation</b>	TLIE2001A Present routine workplace information
	TLIE2007A Use communication systems
	TLIE2008A Process workplace documentation
<b>F Safety Management</b>	TLIF1002A Conduct housekeeping activities
	RIOHS204A Work safely at heights
<b>G Teamwork</b>	TLIG1001A Work effectively with others
<b>I Customer Service</b>	TLII1002A Apply customer service skills
<b>J Quality</b>	TLIJ2001A Apply quality procedures
<b>S Construction and Installation</b>	CPCCCO2004A Carry out concrete work
	CPCCSF2004A Place and fix reinforcement materials
	TLIS2013A Install minor structures
	TLIS2027A Install and maintain surface track

<b>Field</b>	<b>Unit</b>
	drainage TLIS2028A Install and replace transoms TLIS2033A Install and repair temporary track supports TLIS2034A Install and repair rail fastening systems TLIS2035A Install and repair fences and gates RIICCM205A Carry out manual excavation RIICCM207A Spread and compact materials manually RIICCM208A Carry out basic levelling
<b>W Equipment and Systems Operations</b>	TLIW2001A Operate under track protection rules CPCCPD3010A Apply protective paint coating systems CPCCCM2007A Use explosive power tools CPCCSF2003A Cut and bend materials using oxy/LPG equipment

### TLI21310 Certificate II in Rail Infrastructure (continued)

#### Elective units B:

<b>Field</b>	<b>Unit</b>
<b>B Equipment Checking and Maintenance</b>	TLIB2034A Maintain poles and associated hardware
<b>C Vehicle Operation</b>	RIIMPO319A Conduct backhoe/loader operations RIIMPO320A Conduct civil construction excavator operations RIIMPO321A Conduct civil construction wheel loader operations RIIMPO322A Conduct civil construction tracked front end loader operations RIIMPO318A Conduct skid steer loader operations
<b>F Safety Management</b>	RIIOHS205A Control traffic with a stop-slow bat



<b>Field</b>	<b>Unit</b>
	RIIOHS302A Implement traffic management plan
<b>S Construction and Installation</b>	CPCCCM2008A Erect and dismantle restricted height scaffolding CPCCCA2003A Erect and dismantle formwork for footings and slabs on ground CPCCSF2004A Place and fix reinforcement materials TLIS2004A Install and maintain rail bonding systems TLIS2020A Install overhead wiring structure TLIS3023A Erect and mount structures and housings for signalling equipment
<b>W Equipment and Systems Operations</b>	CPCCCM3001A Operate elevating work platforms