



**Australian Government**

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

# **TLIB3099A Examine track infrastructure**

**Release: 1**

## **TLIB3099A Examine track infrastructure**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit Descriptor**

This unit involves the skills and knowledge required to examine track and right of way infrastructure in accordance with safeworking and regulatory requirements and workplace procedures. It includes preparing for examination, examining track and right of way, analysing examination results, and reporting findings. 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 applicable legislated rail safety requirements including acts and regulations from each state and territory 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 routine operational principles and procedures to the examination of track infrastructure 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
<b>1 Prepare for examination</b>	1.1 Examination task is reviewed to establish requirements 1.2 Equipment appropriate to task is selected and checked for correct operation in accordance with manufacturers instructions and workplace procedures
<b>2 Examine track</b>	2.1 Examination task is undertaken in accordance with workplace procedures 2.2 Condition of track or right of way infrastructure being examined is recorded in accordance with workplace procedures 2.3 Measurements of track or right of way infrastructure being examined are taken and recorded in accordance with workplace procedures
<b>3 Analyse examination results</b>	3.1 Available data is analysed to identify trends, defects or variations from allowable tolerances 3.2 Appropriate action is taken to safeguard operation of the rail system
<b>4 Report findings</b>	4.1 Examination schedule or work report data is completed in accordance with workplace procedures 4.2 Defects and deficiencies are reported to enable repairs to be effected in a timely manner 4.3 Results of analysis are prioritised and reported to relevant personnel in accordance with workplace procedures 4.4 Required documentation is completed in accordance with 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:

- Relevant safety, OH&S and environmental procedures and regulations
- Workplace procedures for the examination, recording and reporting of track and right of way infrastructure
- Track and right of way infrastructure condition standards
- Problems that may occur during the examination of track and right of way
- Hazards that may exist when examining track and right of way infrastructure, and ways of controlling the risks involved

## **REQUIRED KNOWLEDGE AND SKILLS**

- Track measurement equipment and techniques
- Track and right of way defects and their causes
- Track deterioration rates under differing operating conditions
- Data analysis techniques for the analysis of track and right of way infrastructure parameters
- Relevant records procedures

### **Required skills:**

- Read and interpret instructions, procedures, information, plans, drawings and specifications relevant to the examination of track and right of way infrastructure
- Read and interpret track recording data
- Apply track and right of way infrastructure condition standards
- Undertake track and right of way infrastructure examination tasks
- Identify condition of track and right of way infrastructure
- Measure, calculate and record data accurately
- Analyse data and prioritise identified defects
- Take appropriate action to repair or protect defects
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to the examination of track and right of way infrastructure
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when examining track and right of way infrastructure
- Promptly report and/or rectify any identified problems when examining track and right of way infrastructure in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events
- Monitor work activities in terms of planned schedule
- Work systematically with required attention to detail without injury to self or others
- Identify, select and use tools
- 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

## EVIDENCE GUIDE

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:
  - preparing for examination
  - examining track and right of way
  - analysing examination results
  - reporting findings

### **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 at the registered training organisation, 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:
- by day or night
  - in all relevant weather conditions
- Work may involve:
- exposure to chemicals, and dangerous or hazardous substances
  - movements of equipment, goods and vehicles
- Work may be conducted in:
- restricted spaces
  - exposed conditions
  - controlled or open environments
- Track and right of way infrastructure may include:
- track components
  - turnouts
  - formation
  - drainage
  - earthworks
  - trackside signs
  - fencing
  - level crossings
- Examination methods may include:
- visual assessment
  - measurement of parameters
  - analysis of recorded data
- Examination tasks may include:
- component condition and wear
  - geometry
  - clearances
  - stability
  - post irregularity examinations
  - special seasonal examinations
- Available data may include:
- previous examination results
  - current examination results
  - track recording car data
  - track patrol reports
  - work reports
  - track condition history
- Depending on the type and seriousness of identified defects, appropriate action may include:
- stop trains
  - speed restrictions
  - immediate repair action
  - report for programmed repair action
  - monitor for further deterioration

## RANGE STATEMENT

- Liaison may include:
- internal or external personnel from other work areas
- Tools and equipment may include:
- hand tools
  - track boards
  - measuring rules
  - gauges
  - electronic measuring equipment
- Communication equipment may include:
- two-way radios
  - telephones/mobile phones
  - agreed audible or hand signals
- Safety and personal protective equipment may include:
- high visibility clothing
  - hearing protection
  - gloves
  - sunscreen
  - sunglasses
  - safety glasses
  - dust mask
  - insect repellent
  - safety headwear
  - safety footwear
  - portable radios/mobile phone
  - hand lamps
  - flags
  - safety devices
- 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:
- maintenance notices, records and requests
  - local authority regulations and procedures
  - work orders
  - technical instructions
  - local instructions
  - manufacturers or workplace equipment operation manuals
  - operational instructions, policies and workplace procedures
  - emergency procedure manuals
  - two-way radio/mobile phone operation procedures
  - QA plans, data and document control
  - conditions of service, legislation and industrial agreements



## RANGE STATEMENT

Applicable regulations and legislation may include:

- including workplace agreements and awards
  - 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 regulations, codes of practice and safeworking system requirements
  - relevant Australian Standards and related requirements, including AS 4292
  - relevant state/territory OH&S legislation
  - relevant state/territory environmental protection legislation
- Information may be provided:
- electronically
  - in writing, via forms/documents/plans
  - orally, via face-to-face communications

## Unit Sector(s)

Not Applicable

## Competency Field

**Competency Field**

B - Equipment Checking and Maintenance