



**Australian Government**

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

# **TLIS3025A Implement ballast unloading**

**Release: 1**

## **TLIS3025A Implement ballast unloading**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit Descriptor**

This unit involves the skills and knowledge required to implement ballast unloading in accordance with safeworking and regulatory requirements and workplace procedures. It includes determining the job requirements, carrying out the unloading activity in accordance with work orders, and completing all required documentation. Licensing or certification requirements may be 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 limited supervision, generally within a team environment. It involves the application of routine operational principles and procedures to implement ballast unloading as part of workplace activities across a variety of operational context within the Australian rail system.

Operators of mechanised equipment must have undertaken training and, where appropriate, hold the relevant licence, permit or certificate and be recognised as competent for the class of machinery being used.

### **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 Determine job requirements</b>	1.1 Work requirements are determined for new ballast work and/or repair of existing ballast 1.2 Obstacles in work area are identified and removal or protection are organised as necessary to ensure smooth workflow following workplace procedures 1.3 Resources are organised to meet the scope of the job and work methods selected 1.4 Ballast quantities are determined
<b>2 Undertake ballast unloading</b>	2.1 Appropriate site communications are established and agreed to ensure safe and efficient working conditions 2.2 Ballast unloading operation is implemented to ensure appropriate flow rates and extent 2.3 Ballast is distribution by manual and/or mechanical methods to allow safe operation of trains 2.4 Ballast is removed from sensitive infrastructure to ensure safe operation of trains and safety of public
<b>3 Complete documentation</b>	3.1 Documentation is completed in line with workplace 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:

- Relevant safety, OH&S and environmental procedures and regulations
- Workplace procedures for the implementation of ballast unloading activities
- Problems that may occur when implementing track ballast activities, and action that can be taken to report or resolve the problems
- Hazards that may exist when implementing track ballast activities, and ways of controlling the risks involved
- Functions of ballast
- Required standard of materials and methods involved in implementing ballast unloading activities
- Ballast flow rates
- Ballast hopper operation

## REQUIRED KNOWLEDGE AND SKILLS

- Contents of workplace technical manuals relating to ballast unloading and profile
- Relevant recording and documentation procedures

### Required skills:

- Agree on communication methods and communicate effectively with others including train drivers and equipment operators when implementing ballast unloading activities
- Read and interpret technical plans, specifications, instructions and manuals relevant to implementing ballast unloading activities
- Interpret and follow operational instructions and prioritise work when implementing ballast unloading activities
- Complete documentation related to implementing ballast unloading activities
- Operate communication equipment to required protocol
- Work collaboratively with others when implementing ballast unloading activities
- Promptly report and/or rectify any identified problems, faults or malfunctions that may occur when implementing ballast unloading activities in accordance with regulatory requirements and workplace procedures
- Plan own and team work including predicting consequences and identifying improvements
- 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 equipment
- Select and use required personal protective equipment
- Select and use relevant equipment and tools

## 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

## EVIDENCE GUIDE

- 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:
    - determining job requirements and ensuring unloading operation is carried out correctly
    - ensuring ballast is distributed so as to meet requirements for safe operation
    - completing documentation according to workplace requirements
- 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

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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 weather conditions
- Work may be conducted in:
- restricted spaces
  - exposed conditions
  - controlled or open environments
- Work may involve:
- exposure to chemicals, and dangerous or hazardous substances
  - movements of equipment, goods and vehicles
- Equipment may include:
- front end loaders
  - ballast hoppers
  - road trucks
  - hand tools and small plant
  - ballast forks
  - other mechanical means
- Materials may include:
- gravel ballast
  - crushed rock ballast
  - metal fines/road base
- Obstructions may include:
- underbridges
  - turnouts
  - signalling equipment
  - train detection equipment
  - level crossings
  - lubrication equipment
- Methods may include:
- placing ballast with:
    - ballast hoppers
    - off-track plant
    - ballast regulators
    - ballast cleaning equipment
  - distributing ballast with:
    - ballast ploughs
    - ballast cleaning equipment
    - off-track plant
    - ballast regulators
    - manual methods
- Communications equipment may include:
- two-way radios
  - telephones/mobile phones

## RANGE STATEMENT

Depending on work context, safety and personal protective equipment may include:

- high visibility clothing
- hearing protection
- gloves
- sunscreen
- sunglasses
- dust mask
- safety glasses
- insect repellent
- safety headwear
- safety footwear
- portable radios/radio headsets or 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:

- operational instructions, policies and workplace procedures
- local authority regulations and procedures
- work orders
- technical instructions
- manufacturers or workplace equipment instructions and operation manuals
- emergency procedure manuals
- two-way radio/mobile phone operation procedures
- QA plans, data and document control
- conditions of service, legislation and industrial agreements including workplace agreements and awards

Applicable procedures 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 Australian Standards and related requirements, including AS 4292
- relevant state/territory OH&S legislation
- relevant state/territory environmental protection legislation



## **Unit Sector(s)**

Not Applicable

## **Competency Field**

**Competency Field**                    S - Construction and Installation