



**Australian Government**

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

# **RIIPEO302 Operate and monitor ore car dumpers**

**Release: 1**

## **RIPEO302 Operate and monitor ore car dumpers**

### **Modification History**

Not applicable.

### **Unit Descriptor**

This unit covers the monitoring and operation of ore car dumpers in the metalliferous mining industry. It includes preparing for car dumper operations by monitoring operation, carrying out equipment inspections and checks, maintaining equipment, and shutting down and/or isolating car dumpers. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

### **Application of the Unit**

This unit is appropriate for those working in an operational role at worksites within:

- Metalliferous mining
- 

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

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 performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

## Elements and Performance Criteria

1. Prepare for car dumper operations	<p>1.1 Access, interpret and apply <b><i>compliance documentation</i></b> relevant to the work activity</p> <p>1.2 Access and apply rail procedures while working in or around car dumpers</p> <p>1.3 Identify yard layout limit and locations of derailleurs</p> <p>1.4 Establish and maintain communication with other <b><i>personnel</i></b> using approved <b><i>communication methods</i></b></p> <p>1.5 Assist rail operations to position ore cars safely in the car dumper</p>
2. Implement car dumper safety procedures	<p>2.1 Access and identify locations of emergency stops</p> <p>2.2 Locate first aid areas</p> <p>2.3 Identify and report potential risks and hazards</p> <p>2.4 Identify and report <b><i>environmental issues</i></b></p> <p>2.5 Select <b><i>personal protective equipment</i></b> appropriate for work activities</p>
3. Monitor car dumper operations	<p>3.1 Check correct plant operation prior to start-up</p> <p>3.2 Receive, interpret and clarify shift changeover details</p> <p>3.3 Carry out car dumper <b><i>pre-start checks</i></b> on all <b><i>levels</i></b></p> <p>3.4 Conduct prestart checks and ongoing plant inspection, take <b><i>equipment indicator readings</i></b> and identify, rectify and report defects and potential problems</p> <p>3.5 Interpret and respond to car dumper alarms, take actions and notify appropriate personnel</p> <p>3.6 Monitor the ore handling system, equipment operation and personnel safety</p>
4. Maintain car dumper	<p>4.1 Carry out rail isolations in preparation for maintenance</p>

equipment	<p>4.2 <b>Clean</b> plant to maintain condition equipment , <i>level</i> and work area hygiene</p> <p>4.3 Inspect and maintain the work area</p>
5. Shutdown car dumper equipment	<p>5.1 Carry out car dumper shutdown procedures according to equipment configurations, system and safety requirements</p> <p>5.2 Isolate fixed plant and equipment for maintenance</p> <p>5.3 Perform post shutdown and isolation checks</p> <p>5.4 Provide support for maintenance personnel</p> <p>5.5 Complete all required documentation clearly, concisely and on time</p> <p>5.6 Pass on shift change-over details to oncoming shift</p>

- 
- 

## Required Skills and Knowledge

### Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to monitor and operate fixed plant and equipment:

- apply legislative, organisation and site requirements and procedures for monitoring and operating fixed plant and equipment
- operate fixed plant/equipment
- apply safe work practices
- conduct isolations on plant/equipment to site requirements

### Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to monitor and operate auxiliary plant and equipment:

- Rail yard plant configuration and function
- Fixed plant/equipment configuration and function
- breakdown procedures
- emergency procedures
- troubleshooting techniques
- fixed plant and equipment limitations and operating parameters
- plant and equipment safety requirements
- isolation procedures
- occupational health and safety procedures

- operational procedures and checks
- site procedures
- site safety requirements
- environmental requirements and procedures

## Evidence Guide

<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> <li>• knowledge of the requirements, procedures and instructions for monitoring and operating car dumpers</li> <li>• implementation of requirements, procedures and techniques for the safe, effective and efficient completion of car dumper and equipment monitoring and operation</li> <li>• working with others to undertake and complete the monitoring and operation of car dumper and equipment that meets all of the required outcomes</li> <li>• consistent timely completion of car dumper and equipment monitoring and operation that safely, effectively and efficiently meets the required outcomes</li> </ul>
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> <li>• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.</li> <li>• Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances.</li> <li>• The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job.</li> <li>• Customisation of assessment and delivery environment to sensitively accommodate cultural diversity.</li> <li>• Aboriginal people and other people from a non English speaking background may have second language issues.</li> <li>• Where applicable, physical resources should include</li> </ul>

	equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> <li>written and/or oral assessment of the candidate's required knowledge</li> <li>observed, documented and/or first hand testimonial evidence of the candidate's:</li> <li>implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes</li> <li>consistent achievement of required outcomes</li> <li>first hand testimonial evidence of the candidates:</li> <li>undertaking and completing the monitoring and operation of auxiliary plant and equipment</li> </ul>
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

## Range Statement

<b>Relevant compliance documentation</b> may include:	<ul style="list-style-type: none"> <li>legislative, organisational and site requirements and procedures</li> <li>manufacturer's guidelines and specifications</li> <li>Australian standards</li> <li>Employment and workplace relations legislation</li> <li>Equal Employment Opportunity and Disability Discrimination legislation</li> </ul>
<b>Personnel</b> may include	<ul style="list-style-type: none"> <li>rail operations</li> <li>plant operators</li> <li>plant control</li> </ul>
<b>Communication methods</b> may include	<ul style="list-style-type: none"> <li>two way radios</li> <li>hand signals</li> <li>underground cap lamp signals</li> <li>team briefing</li> <li>shift changeover meeting</li> </ul>

<b>Levels</b> must include	<ul style="list-style-type: none"> <li>• ground</li> <li>• barrel</li> <li>• trunnion</li> <li>• vault</li> <li>• apron</li> </ul>
<b>Personal Protective Equipment</b> may include:	<ul style="list-style-type: none"> <li>• safety boots</li> <li>• goggles/face shield</li> <li>• hearing protection</li> </ul>
<b>Pre-start checks</b> may include:	<ul style="list-style-type: none"> <li>• availability of equipment</li> <li>• detection of conditions that are unusual</li> <li>• job requirements</li> <li>• personnel availability</li> <li>• levels</li> <li>• communications</li> </ul>
<b>Environmental issues</b> may include:	<ul style="list-style-type: none"> <li>• dust (dump)</li> <li>• emissions</li> <li>• noise</li> <li>• run-off/spills</li> <li>• waste management and disposal</li> </ul>
<b>Plant and equipment</b> may include:	<ul style="list-style-type: none"> <li>• distribution control system (DCS)</li> <li>• motors/pumps and pumping systems</li> <li>• hydraulic systems and equipment</li> <li>• conveyors and conveyor systems</li> <li>• compressors and compressed air systems</li> <li>• fans and guards</li> <li>• conveyors/conveyor systems</li> <li>• rollers</li> <li>• grates</li> <li>• hoses (air and water)</li> <li>• scrubbers</li> <li>• gauges and meters</li> <li>• feeders</li> <li>• sumps</li> <li>• limit switches</li> <li>• car dumpers</li> <li>• car positioner</li> </ul>
<b>Equipment indicator readings</b> may include:	<ul style="list-style-type: none"> <li>• levels</li> <li>• speed</li> <li>• unusual noises</li> <li>• vibrations</li> <li>• Computer monitoring</li> </ul>



<p><b>Start-up checks and procedures</b> may include the inspection of:</p>	<ul style="list-style-type: none"> <li>• cameras and monitoring</li> <li>• interlocks</li> <li>• distribution control system</li> <li>• hydraulic systems</li> <li>• pumps and pumping systems</li> <li>• screen inspections</li> <li>• valves</li> <li>• visual and audible warning devices and lights</li> <li>• suppression systems</li> <li>• car positioner</li> </ul>
<p><b>Monitor</b> may include:</p>	<ul style="list-style-type: none"> <li>• blockages and spillages</li> <li>• feed rates</li> <li>• wear and tear</li> <li>• levels</li> </ul>
<p><b>Maintenance</b> may include:</p>	<ul style="list-style-type: none"> <li>• lubrication</li> <li>• minor adjustments to fixed operational plant</li> <li>• assisting with temporary small repairs</li> <li>• cleaning plant, equipment and work area</li> <li>• reporting leaks</li> <li>• reporting seal damage</li> </ul>
<p><b>Clean</b> may refer to cleaning methods that may include:</p>	<ul style="list-style-type: none"> <li>• hosing with water</li> <li>• high pressure cleaning</li> <li>• manual removal of build-up</li> </ul>

## Unit Sector(s)

Plant and Equipment Operations

## Custom Content Section

Not applicable.