



**Australian Government**

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

# **RIIMPO330A Conduct bucket-wheel operations**

**Release: 1**

## RIIMPO330A Conduct bucket-wheel operations

### Modification History

Not applicable.

### Unit Descriptor

This unit covers conducting bucket-wheel operations in the coal mining industry. It includes: planning and preparing for operations; operating and relocating the bucket-wheel excavator; and carrying out operator maintenance.

### Application of the Unit

This unit is appropriate for those working in mobile plant operator roles, at open-cut operations within:

- Coal mining

### Licensing/Regulatory Information

Refer to Unit Descriptor.

### Pre-Requisites

Not applicable.

### Employability Skills Information

This unit contains employability skills.

### Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare for operations	1.1. Access, interpret and apply <b><i>compliance documentation</i></b> relevant to conducting <b><i>bucket-wheel operations</i></b> 1.2. Obtain, interpret and clarify/confirm <b><i>work requirements</i></b> and <b><i>shift details</i></b> before proceeding 1.3. Access, interpret and apply <b><i>geological and survey data</i></b> required to complete the allocated work 1.4. Access and apply <b><i>safety information and procedures</i></b> throughout the work
2. Operate bucket-wheel excavator	2.1. Coordinate activities with others at the site prior to commencement of, and during, the work activity 2.2. Carry out pre-start, start-up, park-up and shutdown procedures 2.3. Operate bucket-wheel controls to remove and place burden 2.4. Act on monitoring systems and alarms or report problems 2.5. Recognise and respond to <b><i>hazardous and emergency situations</i></b> 2.6. Complete work in accordance with the agreed plan and outcomes and within the operating capacities of the allocated equipment 2.7. Steer, travel and maintain alignment to optimise digging capacity according to mine plan 2.8. Optimise digging performance 2.9. Maintain design bed and batter slopes according to mine plan
3. Relocate bucket-wheel excavator	3.1. Receive and confirm route and location plan if necessary by site inspection 3.2. Complete <b><i>ground preparation</i></b> 3.3. Carry out cable location and handling 3.4. Resolve <b><i>coordination issues</i></b> , including support equipment and personnel 3.5. Conduct steering and travel to relocate bucket wheel excavator

<p>4. Carry out operator maintenance</p>	<p>4.1. Carry out bucket-wheel inspections and fault-finding</p> <p>4.2. Carry out authorised routine operational servicing, lubrication and housekeeping tasks</p> <p>4.3. Carry out authorised minor maintenance</p> <p>4.4. Provide authorised operator support during preparation for, and conduct of, major maintenance tasks</p> <p>4.5. Inspect and test structures and components for fault conditions, wear and need of repair or replacement</p> <p>4.6. Process records</p>
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## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to conduct bucket-wheel operations:

- apply legislative, organisation and site requirements and procedures
- apply operational safety requirements
- access, interpret and apply technical information
- apply hand-eye coordination
- apply procedures for working at heights
- apply diagnostic techniques
- use relevant hand tools
- apply environmental constraints
- apply equipment records maintenance requirements
- apply required procedures for the dispose of environmentally sensitive fluids and materials
- apply chemical and fuel safety measures

### Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to conduct bucket-wheel operations:

- site and equipment safety procedures
- site operational procedures
- equipment characteristics, technical capabilities and limitations
- operational procedures
- site environmental requirements and constraints
- hazard identification and response procedures
- maintenance systems and procedures

## Evidence Guide

<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p><b>Overview of assessment</b></p>	
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></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 conducting bucket-wheel operations</li> <li>• implementation of requirements, procedures and techniques for the safe, effective and efficient completion of bucket-wheel operations</li> <li>• working with others to undertake and complete bucket-wheel operations that meet all of the required outcomes</li> <li>• consistent timely completion of bucket-wheel operations that safely, effectively and efficiently meet the required outcomes</li> </ul>
<p><b>Context of and specific resources for assessment</b></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>• 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</li> </ul>

	<p>language issues.</p> <ul style="list-style-type: none"> <li>• Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular work sites may differ due to site circumstances.</li> <li>• Where applicable, physical resources should include equipment modified for people with disabilities.</li> <li>• Access must be provided to appropriate learning and/or assessment support when required.</li> </ul>
<b>Method of assessment</b>	<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: <ul style="list-style-type: none"> <li>• implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes</li> <li>• consistently achieving the required outcomes</li> </ul> </li> <li>• first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• working with others to undertake and complete bucket-wheel operations</li> </ul> </li> </ul>
<b>Guidance information for assessment</b>	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

## Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><b>Relevant compliance documentation</b> may include:</p>	<ul style="list-style-type: none"> <li>• legislative, organisation and site requirements and procedures</li> <li>• manufacturer's guidelines and specifications</li> <li>• Australian standards</li> <li>• codes of practice</li> <li>• Employment and workplace relations legislation</li> <li>• Equal Employment Opportunity and Disability Discrimination legislation</li> </ul>
<p><b>Bucket-wheel operations</b> may include:</p>	<ul style="list-style-type: none"> <li>• the positioning and digging of burden as part of a terrace dig</li> <li>• rehandling and responding to changes in depth, grade and crossfall</li> </ul>
<p><b>Work requirements</b> may be in the form of:</p>	<ul style="list-style-type: none"> <li>• shift briefings;</li> <li>• handover details</li> <li>• work orders</li> </ul>
<p><b>Shift details</b> may include:</p>	<ul style="list-style-type: none"> <li>• nature and scope of the work</li> <li>• working conditions</li> <li>• achievement targets</li> <li>• site lighting arrangements</li> <li>• defects on equipment</li> <li>• hazards and potential hazards</li> <li>• coordination requirements/issues</li> </ul>
<p><b>Geological and survey data</b> may include:</p>	<ul style="list-style-type: none"> <li>• safety factors relating to natural fall</li> <li>• grades</li> <li>• levels</li> <li>• faults</li> <li>• slips</li> <li>• strata</li> <li>• drainage</li> </ul>
<p><b>Safety information and procedures</b> may be contained in:</p>	<ul style="list-style-type: none"> <li>• legislation and regulations</li> <li>• relevant Australian standards</li> <li>• management plans</li> <li>• OHS policy</li> </ul>



	<ul style="list-style-type: none"> <li>• code of practice</li> <li>• manufacturer's instructions</li> <li>• safe working procedures (or equivalent)</li> <li>• specific safety requirements , including: <ul style="list-style-type: none"> <li>• boarding and disembarking procedures</li> <li>• identifying and confirming potential hazards</li> <li>• relocating and operational signal procedures</li> </ul> </li> </ul>
<b>Hazardous and emergency situations</b> may include:	<ul style="list-style-type: none"> <li>• sinking</li> <li>• spoil and highwall stabilisation</li> <li>• wet weather operation</li> <li>• electrical start-up and shutdown</li> <li>• belt system fires</li> <li>• electrical fires</li> <li>• windy and dusty conditions</li> <li>• working in close proximity to moving equipment and parts</li> </ul>
<b>Ground preparation</b> for bucket-wheel relocation may include:	<ul style="list-style-type: none"> <li>• pads</li> <li>• roads</li> <li>• rolls</li> <li>• cable route</li> <li>• ramps</li> </ul>
<b>Coordination issues</b> may include:	<ul style="list-style-type: none"> <li>• communication with personnel</li> <li>• awareness of other support plant</li> <li>• equipment</li> </ul>

## Unit Sector(s)

Mobile Plant Operations

## Competency field

Refer to Unit Sector(s).

## Co-requisite units

Not applicable.