



Australian Government

Department of Education, Employment and Workplace Relations

RIIPEO301A Conduct conveyor-car high wall mining operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers conducting conveyor-car high wall mining operations in coal mining industries. It includes planning and preparing for operations, positioning the launch, mining coal, and carrying out operator maintenance.

Application of the Unit

This unit is appropriate for those working in a role assisting with conducting conveyor-car high wall mining 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

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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare for operations	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Obtain, interpret and clarify / confirm work requirements before proceeding. 1.3. Access, interpret and apply geological and survey data required to complete the allocated work in accordance with site procedures. 1.4. Identify and obtain / schedule resources required for operations to support the mining sequence. 1.5. Access and apply safety information and procedures throughout the work.
2. Position the launch	2.1. Co-ordinate activities related to the positioning of the launch with others at the site prior to commencement of, and during, the work activity. 2.2. Carry out pre-start, start-up and shutdown procedures in accordance with manufacturer instructions and site procedures. 2.3. Position the launch correctly in accordance with manufacturer instructions and site procedures/plans. 2.4. Act on or report monitoring systems and alarms in accordance with manufacturer instructions and site procedures. 2.5. Recognise and respond hazardous conditions in accordance with manufacturer instructions and site procedures.
3. Mine coal	3.1. Co-ordinate activities related to the mining of coal with others at the site prior to commencement of, and during, the work activity. 3.2. Complete function tests on the miner and belts in accordance with manufacturer instructions and site procedures. 3.3. Conduct and control mining procedures in accordance with manufacturer instructions and site procedures. 3.4. Maintain supply of coal to the stacker in

	accordance with manufacturer instructions and site procedures. 3.5. Act on or report monitoring systems and alarms in accordance with manufacturer instructions and site procedures. 3.6. Recognise and respond to hazardous and emergency situations in accordance with manufacturer instructions and site procedures. 3.7. Complete work in accordance with the agreed plan and outcomes and within the operating capacities of the allocated equipment.
4. Carry out operator maintenance	4.1. Carry out equipment inspections and fault finding in accordance with manufacturer instructions and site requirements. 4.2. Carry out routine operational servicing, lubrication and housekeeping tasks in accordance with manufacturer instructions and site authorised procedures and practices. 4.3. Carry out minor maintenance to manufacturer instructions and site requirements. 4.4. Provide operator support during preparation for, and conduct of, major maintenance tasks in accordance with site requirements. 4.5. Process records in accordance with site requirements.

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 conveyor-car high wall operations:

- apply legislative, organisation and site requirements and procedures for conducting conveyor-car high wall operations
- apply operational safety requirements
- access, interpret and apply technical information
- apply hand-eye coordination
- work wearing noise protection equipment
- apply diagnostic techniques
- use relevant hand tools
- maintain equipment records
- 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 conveyor-car high wall operations:

- site and equipment safety procedures
- site mining systems and procedures
- conveyor-car high wall mining equipment characteristics, technical capabilities and limitations
- conveyor-car high wall mining maintenance systems and procedures
- site geological and survey data
- mining conditions and related methods / techniques
- mine gases and their properties / impacts
- gas monitoring systems, processes and responses
- site system monitoring capabilities and uses
- cable management procedures
- hazard identification and response procedures, including retraction, evacuation and fire
- site environmental requirements and constraints related to conveyor-car high wall mining operations

Evidence Guide

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.

Overview of assessment	
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 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: • knowledge of the requirements, procedures and instructions for conducting conveyor-car high wall mining operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of conveyor-car high wall mining operations • working with others to undertake and complete the conveyor-car high wall mining operations that meets all of the required outcomes • consistent timely completion of conveyor-car high wall mining operations that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	• 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. • Evidence for assessment is best gathered using the outcomes of products and processes in the workplace. • 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. • Customisation of assessment and delivery

	environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • 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. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	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: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to undertake and complete the insert unit information
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

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. 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.

Relevant compliance documentation may include:	• legislative, organisational and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Work requirements may be in the form of:	• shift briefings • handover details • work orders
Work requirements may include:	• equipment/plant identification/allocation • nature and scope of the work • working conditions • achievement targets • site lighting arrangements • defects of machine • hazards and potential hazards
Geological and survey data may include:	• go/no-go zones • high-wall stability • drive position • gas conditions • seam pitch • seam conditions • other operational and safety related issues
Resources may include:	• correct lighting • loaders • dozers • cameras • water supply • fuel supply • inertisation or flushing equipment • lubricants • power supply

	• consumable parts
Safety information and procedures may be contained in:	• legislation and regulations • relevant Australian standards • management plans • manager's rules • mining plans • OHS policy • code of practice • manufacturer instructions • safe working or job procedures (or equivalent)
Monitoring systems and alarms are those which indicate vital signs and out of specification activities/operations.	
Function tests may include:	• chain conveyor • cutter-heads • traction • shear-up/down • camera sprays • pan up/down • water sprays • steering wings • stab-jack • belt tracking • propulsion
Conveyor-car high wall mining system may be powered by electric (overhydraulic systems) and include:	• launch vehicle • stacker • continuous miner • conveyor cars
Specific safety requirements are to include:	• boarding and disembarking procedures • relocation procedures • shift blasting schedules • advance and retraction procedures • operational signal procedures
Coordination and monitoring requirements in relation to the positioning of the launch may include:	• pit preparation • survey controls • stacker positioning
Coordination requirements related to the mining coal may involve the	

functions of pinman/deckman and the loader driver.	
Operator controls may include:	• TV/computer monitors • navigation screen • miner controls • conveyor controls • hydraulic pump controls • fault monitoring • gas monitoring • supervisory control and data acquisition • communication
Supply stacker adjustments may include:	• levelling and re-aligning of stacker • bridge conveyor
Mining monitoring and response requirements may include:	• pitch • roll • spalling • guttering • roof conditions • water (in-rush) • floor conditions • coal flow • gaseous situations
Work area monitoring and response requirements may include:	• high wall stability • low wall stability • lighting • associated / close proximity machinery • equipment and personnel • impact of weather conditions.
Responses to gaseous situations may include:	• inertisation • flushing • ceasing mining • interpretation of Coward's triangle • extraction • retraction • methane monitoring
Hazards may include:	• wet weather • gas • fire • explosions • highwall collapse

	• falling material
Emergency response requirements to unscheduled power outage may include:	• auxiliary power supply • haulage jewellery • retrieval gear (sheave blocks)
Emergency response requirements to roof fall may include:	• retrieval gear • jewellery • increased hydraulic pressure to rams
Operator (operational) maintenance procedures are those established and authorised for the site.	

Unit Sector(s)

Coal Mining (General)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.