



Australian Government

Department of Education, Employment and Workplace Relations

RIIMCU307A Conduct longwall face equipment operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of longwall face operations in the coal industry. It includes: planning and preparing for operations, operating longwall equipment, and carrying out operator maintenance. 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:

- 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 mine environmental data required to complete the allocated work in accordance with site procedures
2. Operate longwall equipment	2.1. Resolve coordination activities with others at the site prior to commencement of, and during the work activity 2.2. Carry out pre-start, start-up, shutdown and isolation procedures in accordance with manufacturer's instructions and/or site procedures 2.3. Advance roof support equipment in sequence, or according to site conditions, to maintain correct face alignment and support roof in accordance with extraction plan 2.4. Operate longwall coal conveying equipment in accordance with manufacturer's instructions and/or site procedures 2.5. Identify/monitor and respond to changing geological conditions in accordance with site procedures 2.6. Recognise and respond to hazardous and emergency situations in accordance with manufacturer's instructions and/or site procedures 2.7. Rectify or report factors adversely affecting production and monitoring systems alarms in accordance with site procedures
3. Carry out operator maintenance	3.1. Carry out longwall face inspections and fault finding in accordance with manufacturer's instructions and/or site requirements 3.2. Carry out routine operational servicing, lubrication and housekeeping tasks in accordance with manufacturer's instructions and/or site procedures and practices

	<p>3.3. Carry out minor maintenance to manufacturer's instructions and/or site requirements</p> <p>3.4. Provide operator support during preparation for, and conduct of, major maintenance tasks in accordance with site requirements</p> <p>3.5. Process records in accordance with site requirements</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 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 conduct longwall face operations:

- apply legislative, organisation and site requirements and procedures for longwall face operations
- apply operational safety requirements
- access, interpret, apply and communicate technical information
- interpret survey and geological data
- apply diagnostic and fault finding techniques
- use hand tools
- maintain equipment records
- comply with environmental 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 conduct longwall face operations:

- site operational safety procedures
- longwall operational processes and procedures
- longwall face equipment operational procedures
- longwall face equipment characteristics and limitations
- mine geology and survey information
- mine ventilation systems
- longwall face equipment maintenance systems and procedures
- site environmental requirements and constraints relevant to longwall face equipment

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>Overview of assessment</p>	
<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"> • knowledge of the requirements, procedures and instructions for conducting longwall face equipment operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of longwall face equipment operations • working with others to undertake and complete the longwall face equipment operations that meets all of the required outcomes • consistent timely completion of longwall face equipment operations that safely, effectively and efficiently meets the required outcomes
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • 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. • 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. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those

	<p>required on the job.</p> <ul style="list-style-type: none"> • 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. • 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	<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"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete the longwall face operations
Guidance information for assessment	<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>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisational and site requirements and procedures • manufacturer's guidelines and specifications • OHS policy • code of practice • Australian standards • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Work requirements may be in the form of:</p>	<ul style="list-style-type: none"> • shift briefings • handover details • work orders
<p>Work requirements details may include:</p>	<ul style="list-style-type: none"> • equipment, including defects • cutting height • next cutting sequence • achievement targets • essential survey data • geological conditions • hazards and potential hazards • coordination requirements/issues
<p>Mine environmental, geological and survey data may be in the form of:</p>	<ul style="list-style-type: none"> • ventilation/gas data • deputy reports • geological hazard plan • longitudinal and cross sectional survey plans
<p>Roof support equipment may include:</p>	<ul style="list-style-type: none"> • shield types • control systems • test equipment
<p>Longwall coal conveying equipment may include:</p>	<ul style="list-style-type: none"> • armoured face conveyors • stage loaders • boot ends • control systems
<p>Coordination activities may include those with the shearer</p>	

operator and the longwall ancillary equipment (pantech) operator	
Hazards may include:	<ul style="list-style-type: none"> • high pressure hoses • high gas • faults • adverse mining conditions • face spall
Emergency situations may include:	<ul style="list-style-type: none"> • lack of ventilation • gas inundation (high gas levels) • roof/rib fall • fire • flood • flash/ignition • emergency stop procedures • injury to personnel • explosion
Longwall face inspections may include:	<ul style="list-style-type: none"> • shift inspection • daily inspection • weekly inspection • monthly inspection • 3-monthly inspection

Unit Sector(s)

Coal Mining (Underground)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.