



Australian Government

RIIMCU307E Conduct longwall face equipment operations

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to conduct longwall face equipment operations in coal mining, including operating longwall coal conveying equipment and completing scheduled longwall face inspections.

It applies to those working in operational roles. They generally work under minimal supervision to undertake a broad range of tasks in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Coal mining (underground)

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to conduct longwall face operations	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply documentation required for longwall face equipment operations 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures according to site requirements 1.4 Select and wear personal protective equipment according to site requirements 1.5 Access, interpret and apply mine environmental data according to site requirements

ELEMENT	PERFORMANCE CRITERIA
	1.6 Conduct scheduled longwall face inspections according to site requirements 1.7 Obtain and interpret emergency procedures and identify steps required to respond to emergencies
2. Operate longwall equipment	2.1 Coordinate activities with others within scope of own role 2.2 Carry out pre-start and start-up procedures according to manufacturer specifications and site requirements 2.3 Advance roof support equipment in sequence, maintain correct face alignment and support roof according to extraction plan and site requirements 2.4 Operate longwall coal conveying equipment according to manufacturer specifications and site requirements 2.5 Identify, monitor and respond to changing geological conditions according to site requirements 2.6 Monitor hazards and risks and confirm safe operation of plant and equipment 2.7 Monitor systems and alarms and rectify or report factors adversely affecting production according to site requirements 2.8 Carry out shutdown, isolation and secure equipment procedures according to manufacturer specifications and site requirements
3. Carry out operator maintenance	3.1 Prepare machine and equipment for maintenance according to manufacturer specifications and site requirements 3.2 Conduct inspection and fault finding according to manufacturer specifications and site requirements 3.3 Carry out scheduled maintenance tasks according to manufacturer specifications and site requirements 3.4 Carry out housekeeping activities according to site requirements 3.5 Complete maintenance records according to site requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	Calculates basic measurements including mass and dimensions
Reading	Identifies and interprets information from workplace documentation and legislation

SKILL	DESCRIPTION
Self-management	Monitors and minimises own exposure to worksite risks and hazards during activities
Writing	Completes workplace reports using sector-specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIIMCU307D Conduct longwall face equipment operations.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIMCU307E Conduct longwall face equipment operations

Modification History

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- conduct longwall face equipment operations on at least two occasions, including:
 - operating longwall coal conveying equipment and confirming work requirement details, including:
 - equipment and equipment defects
 - cutting height
 - achievement targets
 - required survey data
 - geological conditions
 - hazards and potential hazards
 - coordination requirements/issues
 - completing coordination with others involved, including:
 - shearer operator
 - longwall ancillary equipment operator
 - completing scheduled longwall face inspections.

During the above, the candidate must:

- locate and apply relevant documentation, policies and procedures and confirm work activity is compliant
- implement the requirements, procedures and techniques for conducting longwall face operations, including:
 - reading, interpreting, applying and communicating technical information
 - identifying and minimising environmental issues, potential hazards and risks
 - selecting and using relevant tools and equipment
 - complying with environmental requirements and constraints
 - identifying work requirements

- applying fault finding techniques
- interpreting mine survey and geological data
- work effectively with others to conduct longwall face operations in a way that meets required outcomes, including:
 - organising work activities to meet task requirements
 - communicating clearly and concisely with others to receive and clarify work instructions
 - complying with reporting requirements and procedures
 - determining coordination requirements throughout work activities.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- key legislation required to conduct longwall face operations
- key policies, procedures and documentation required to conduct longwall face operations, including site operational safety procedures
- techniques for confirming work requirement details for longwall operations, including:
 - equipment and equipment defects
 - cutting height
 - next cutting sequence
 - achievement targets
 - required survey data
 - geological conditions
 - hazards and potential hazards
 - coordination requirements and issues
- longwall face equipment characteristics, technical capabilities and limitations, including:
 - longwall coal conveying equipment, including:
 - armoured face conveyors
 - stage loaders
 - boot ends
 - control systems
 - roof support equipment, including:
 - shield types
 - control systems
 - test equipment
- techniques for applying mine geology and survey information, including:
 - ventilation/gas data
 - deputy reports
 - geological hazard plan
 - longitudinal and cross sectional survey plans

- mine ventilation system characteristics, technical capabilities and limitations
- principles and techniques for completing scheduled longwall face inspections
- principles and techniques for identifying and responding to relevant hazards and emergencies, including those relating to:
 - high pressure hoses
 - high gas
 - faults
 - adverse mining conditions
 - face spall
 - lack of ventilation
 - gas inundation (high gas levels)
 - roof/rib falls
 - fires
 - floods
 - flash/ignition
 - emergency stop procedures
 - injury to personnel
 - explosions
- site requirements for housekeeping, completing maintenance records and reporting requirements
- techniques for coordinating and communicating job activities with others, including:
 - shearer operators
 - longwall ancillary equipment operators.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - longwall coal conveying equipment
 - personal protective equipment
 - equipment required to conduct longwall face equipment operations
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Assessor requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should	

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
		be in-line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.

*Guidance on simulated environments has been stipulated in the Companion Volume Implementation Guide located on VETNet.

**Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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