



Australian Government

RIIUND207E Conduct underground lifting 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 underground lifting operations in coal mining. It includes developing preliminary lifting plans, preparing anchors, directing load movements, connecting load to movement devices and dismantling and removing or restoring load shifting equipment.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take some responsibility for the quality of work outcomes.

No licensing, legislation or certification requirements apply to this unit at the time of publication.

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 for underground lifting	1.1 Obtain, interpret, confirm and clarify work requirements 1.2 Access, interpret and apply documentation required for conducting underground lifting operations 1.3 Develop preliminary underground lifting plan according to job requirements 1.4 Confirm control measures for hazards associated with the use of lifting equipment and other lifting devices with relevant personnel 1.5 Finalise and confirm underground lifting plan and schedule resources according to job requirements
2. Prepare for	2.1 Identify, select, inspect and assemble underground lifting

ELEMENT	PERFORMANCE CRITERIA
underground lifting	equipment, materials and tools according to job requirements 2.2 Label unserviceable equipment, materials and tools according to site requirements 2.3 Select and prepare appropriate anchors according to strata control plan
3. Move loads	3.1 Identify and confirm appropriate safe working loads and centre of gravity 3.2 Direct load movement in an underground environment, according to job requirements, using standard load moving signals 3.3 Connect lifting gear to load according to site requirements 3.4 Connect load to movement device, according to site requirements, using appropriate and certified equipment 3.5 Confirm stability of the load by applying load movement, temporary bracing and/or load support procedures 3.6 Comply with required specifications during placement and securing of load 3.7 Dismantle and remove/restore load shifting equipment 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
Self-management	Monitors and minimises own exposure to worksite risks and hazards during activities

Unit Mapping Information

Supersedes and is equivalent to RIIUND207D Conduct underground lifting 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 RIIUND207E Conduct underground lifting operations

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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 underground lifting operations on at least two occasions, including:
 - developing a preliminary lifting plan, including a minimum of five of the following:
 - confirmed details of underground lifting requirements
 - confirmed dimensions
 - site access and egress
 - suitability and availability of materials
 - tools and equipment
 - identification of potential hazards
 - probable control measures
 - identification of site coordination requirements
 - obtaining, interpreting and clarifying work requirements, including in the following forms:
 - shift briefings
 - handover details
 - work orders
 - selecting and preparing appropriate anchors
 - identifying and confirming appropriate safe working loads and centre of gravity
 - directing load using appropriate signals
 - connecting load to movement device
 - applying load movement procedures to ensure stability of the load
 - dismantling and removing or restore load shifting equipment.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures and confirm work activity is compliant

- implement the requirements, procedures and techniques for the safe, effective and efficient conducting of underground lifting operations, including:
 - selecting and using the required tools and equipment
 - identifying and label unserviceable equipment, materials and tools
 - moving loads laterally using multiple lifting devices
- work with others to conduct underground lifting 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.

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 policies, procedures and documentation required to conduct underground lifting operations, including those related to:
 - work health and safety
 - site and equipment safety
 - operational and maintenance activities
 - record maintenance and reporting
- principles and techniques for developing preliminary lifting plans, including:
 - confirmed details of underground lifting requirement
 - confirmed dimensions and mass
 - site access and egress
 - suitability and availability of materials
 - tools and equipment
 - identification of potential hazards
 - probable control measures
 - identification of site coordination requirements
- principles and techniques for identifying and responding to relevant hazards and emergencies
- principles and techniques for interpreting underground lifting work requirements, including in the following forms:
 - shift briefings
 - handover details
 - work orders
- characteristics, technical capabilities and limitations of hand tools and equipment required for underground lifting operations, including:
 - slings

- ropes
- shackles
- eye-bolts
- chain blocks
- lever hoists
- elephants foot
- verbal and hand signal techniques for load moving
- principles and techniques for applying movement devices, including:
 - load haul dump (LHD) jib attachments
 - manual and mechanically operated chain blocks/lever pullers
 - roof supports and winches
- site requirements for housekeeping, completing maintenance records and reporting requirements
- basic techniques for communicating job activities with others.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to conduct underground lifting operations
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be best assessed where infrastructure is available to facilitate lateral load movement using multiple lifting devices; 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 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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