



Australian Government

Department of Education, Employment and Workplace Relations

RIINHB216A Assist underground in-seam directional drilling

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers assisting with underground in-seam directional drilling in underground coal mines. It includes planning and preparing for assisting with drilling, supporting the drilling process and carrying out basic maintenance of tools and equipment.

Application of the Unit

Underground in-seam directional drilling is conducted for gas extraction and water drainage, barrier proving and exploration in underground coal mining operations. This unit is appropriate for those working in drillers assistant roles, at worksites within:

- Coal mining
- Drilling

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 assisting with drilling	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Identify, manage and report all potential hazards 1.3. Obtain, confirm and apply work instructions for the allocated task 1.4. Resolve coordination requirements with others at the site prior to commencing and during work activities 1.5. Load, unload, move, handle directional drilling equipment and all associated tools and connecting
2. Support the drilling process	2.1. Position and number drill rods in readiness for drilling 2.2. Inspect in-hole drilling components for damage 2.3. Fit and remove in-hole drilling components to and from the drill string as instructed 2.4. Apply housekeeping 2.5. Maintain communication with all relevant personnel 2.6. Identify unplanned gas and water leakage and other environmental hazards
3. Carry out basic maintenance of tools and equipment	3.1. Monitor the drill rods for wear and damage and dress and grease threads 3.2. Rotate rods in stack 3.3. Monitor all drill equipment and hoses and ancillary equipment and carryout remedial action 3.4. Apply environmental controls 3.5. Ensure that drill fluids are appropriately contained and disposed of appropriately

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 assist with underground in-seam directional drilling:

- apply legislative, organisation, site and manufacturer's requirements and procedures
- apply safe manual handling practices
- operate ancillary equipment including:
 - pumps
 - ventilation equipment and
 - personal protective equipment
- apply communication procedures
- apply inspection and monitoring procedures
- apply maintenance procedures

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 assist with underground in-seam directional drilling:

- legislative, organisation's and site OHS requirements
- potential underground drilling, underground work environment hazards and underground environmental hazards
- organisation's and manufacturer's operational requirements and procedures
- equipment handling requirements
- housekeeping requirements and procedures

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 assisting with underground in-seam directional drilling • implementation of requirements, procedures and techniques for the safe, effective and efficient assisting with underground in-seam directional drilling • working with others to undertake and complete underground in-seam directional drilling that meets all of the required outcomes • consistent timely assisting with underground in-seam directional drilling 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. • 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 the work environment. Selection and use of resources for particular worksites may differ due to 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 underground in-seam directional drilling tasks
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 • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Hazards may include:	• handling, loading, moving, using and storing underground directional drilling equipment • working in proximity to drilling rig • inadequate communication with drill crew • entanglement in rotating equipment • inhalation or ignition of noxious or flammable gases • vehicles • mining equipment • roof and rib spalls • the presence of gases and water
Work instructions may come from:	• briefings, handovers, plans and work orders and may be written or verbal, formal or informal and may include: • nature and scope of tasks • specifications • quality of finished works • achievement targets • operational conditions • obtaining of permits required • site layout • out of bounds areas • worksite inspection requirements • lighting conditions • plant or equipment defects

	• hazards and potential hazards • coordination requirements or issues • contamination control requirements • environmental control requirements • barricade and signage requirements
Coordination requirements may include:	• other equipment operators • maintenance personnel • supervisors • mine personnel
In hole drilling components may include:	• drill rods • drill bits • reamers • survey tools • down-hole motors
Relevant personnel may include:	• drill crew members • mine staff and supervisors • site safety personnel • statutory persons
Ancillary equipment may include:	• pumps • water disposal lines and • ventilation equipment
Remedial action may include:	• clear or remove obstructions • replace damaged hoses • top-up lubricants

Unit Sector(s)

Drilling (General)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.