



Australian Government

Department of Education, Employment and Workplace Relations

RIINHB203A Support drilling process

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers supporting the drilling process in resources and infrastructure industries. It includes: planning and preparing for supporting the drilling process, operating ancillary equipment, cleaning all equipment at drilling site, maintaining levels of supplies, and performing basic measurement and calculations.

Application of the Unit

This unit is appropriate for those working in drillers assistant roles, at worksites within:

- Civil construction
- Coal mining
- Drilling
- Extractive industries
- Metalliferous 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 supporting the drilling process	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Obtain, confirm and apply work instructions for the allocated task 1.3. Identify, manage and report all potential hazards 1.4. Resolve coordination requirements with others at the site prior to commencing and during work activities
2. Operate ancillary equipment	2.1. Start-up, run, and close down ancillary equipment
3. Clean all equipment at drilling site	3.1. Maintain clean working conditions to minimise any associated safety hazards 3.2. Clean and store vehicles routinely after use to requirements 3.3. Maintain machines and equipment in a clean and serviced condition at all times 3.4. Use cleaning equipment safely and effectively 3.5. Apply approved instructions and occupational health and safety requirements on the use of hazardous chemicals for cleaning and drilling 3.6. Ensure that all cleaning equipment is kept in good working condition
4. Maintain levels of supplies	4.1. Keep driller informed on current stock levels 4.2. Check on availability of consumable items in the workplace regularly 4.3. Complete record keeping, stock counts and paper work as required
5. Perform basic measurement and calculations	5.1. Read tape measure accurately to carry out simple measurements 5.2. Carry out simple calculations and measurements 5.3. Record legibly on all reports
6. Carry out basic operator maintenance	6.1. Identify hazards, and methods of minimising hazards, in conducting maintenance, particularly in the field

	6.2. Carry out minor repairs and replacements as required 6.3. Overcome minor breakdowns and bogging using recovery techniques as required 6.4. Carry out vehicle washing and housekeeping regularly
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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 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 support the drilling process:

- apply legislative, organisation and site requirements and procedures
- operate pressure cleaners
- apply basic operator servicing and maintenance of plant and vehicles
- apply communication procedures
- use lifting equipment
- identify weathered and fresh rock

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 support the drilling process:

- site and equipment safety requirements
- equipment characteristics, technical capabilities and limitations
- operational and maintenance procedures
- layout of basic hydraulic circuits
- hydraulic and pneumatic systems
- basic geological and technical data
- environmental requirements and procedures
- team roles and objectives
- interpretation and prediction techniques using graphical representation, e.g. maps and diagrams
- requirements to ensure cost effective operations, including work practices that limit damage to equipment and minimise use of consumables

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 supporting the drilling process • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of support of the drilling process • working with others to undertake and complete the support of the drilling process that meets all of the required outcomes • consistent timely completion of the support of the drilling process 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. • 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 the support of the drilling process
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
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
Hazards may include:	• spread of contaminants as a result of drilling or cleaning processes • working in proximity to drilling rig • use of high pressure air for drilling operations • entanglement in rotating pipes • string makeup and breakout hazards

	• drilling equipment and down-hole tools
Coordination requirements may include	• driller • other equipment operators • maintenance personnel • supervisors • mine personnel
Ancillary equipment may include:	• generators (welding/lighting) • pumps • compressors • high pressure cleaning equipment (gernies) • power tools • hand tools • grout mixing • drill fluid (mud) mixing equipment
Cleaning equipment may include:	• pressure cleaning • chemical cleaning • manual cleaning • abrasive mechanical cleaning
Calculations and measurements may include:	• diameters of drill bits, casing, hole • rod volumes • hole volumes • tank volumes • annular volumes • length of casing

Unit Sector(s)

Drilling (General)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.