



Australian Government

Department of Education, Employment and Workplace Relations

RIINHB218A Assist grouting or cementing operations

Release: 1

RIINHB218A Assist grouting or cementing operations

Modification History

Not applicable.

Unit Descriptor

This unit covers assisting with grouting or cementing operations in drilling industry. It includes: planning and preparing for the process; operating ancillary equipment; performing basic measurement and calculations; grouting and cementing holes; and cleaning all equipment at completion of grouting or cementing.

Application of the Unit

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

- 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 supporting the grouting or cementing process	1.1. Access, interpret and apply compliance documentation relevant to assist grouting or cementing operations 1.2. Obtain, confirm and apply work instructions for the grouting or cementing operations 1.3. Identify, manage and report all potential hazards 1.4. Resolve coordination requirements with others at the site prior to commencing and during the grouting or cementing process 1.5. Obtain and use appropriate personal protective equipment for grouting or cementing operations as listed in the work instructions or materials safety data sheets (MSDS)
2. Operate ancillary equipment	2.1. Start-up, run, and close down ancillary equipment such as grout pumps and mixers
3. Perform basic measurement and calculations	3.1. Read tape measure accurately to carry out simple measurements of tank capacities, casing or rod lengths as required 3.2. Record or complete tally sheets for number of lengths of casing placed in the hole as required 3.3. Carry out simple calculations and measurements 3.4. Record legibly on all reports
4. Grout and cement hole	4.1. Mix grout and any additives 4.2. Follow materials safety data sheets (MSDS) requirements for all materials used 4.3. Grout or cement hole using appropriate equipment and techniques 4.4. Place grout using appropriate techniques 4.5. Construct well head, hole identification and install hole security devices if required 4.6. Dispose of any excess grout or cement according to site waste management procedures
5. Clean all equipment at completion of grouting or	5.1. Avoid spillage of grout, cement or additives to minimise any associated safety

cementing	hazards 5.2. Use cleaning equipment for cleaning safely and effectively 5.3. Apply approved instructions and occupational health and safety requirements on the use of hazardous chemicals for cleaning 5.4. Ensure that all <i>cleaning equipment</i> is kept in good working condition
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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 assist grouting or cementing operations:

- apply legislative, organisation and site requirements and procedures
- operate cleaning equipment
- apply communication procedures
- use mixing equipment
- measure tank dimensions and calculate volumes
- record casing lengths and quantities accurately

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 grouting or cementing operations:

- site and equipment safety requirements
- possible effects of grout, cement or cement additives on health
- environmental requirements and procedures
- team roles and objectives during the grouting or cementing operations
- properties of grout, cement or cement additives
- safe work procedure for the grouting or cementing process

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 grouting or cementing operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of assisting with grouting or cementing operations • working with others to undertake and complete grouting or cementing operations that meet all of the required outcomes • consistent timely completion of assisting with grouting or cementing operations 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 grouting or cementing operations
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 • 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 the grouting or cementing process or cleaning processes • working in proximity to drilling rig • string makeup and breakout hazards • hazardous chemicals
Coordination requirements may	• driller

include:	• other driller's assistants • other equipment operators • supervisors • mine or client personnel
Personal protective equipment includes:	• steel-capped boots and hardhat • gloves • dust mask • eye and hearing protection • general protective and reflective clothing
Ancillary equipment may include:	• lighting generators • pumps • hand tools • grout mixing • drill fluid (mud) mixing equipment
Calculations and measurements may include:	• diameters casing, hole • casing volumes • casing quantities and length • hole volumes • tank volumes • annular volumes • component volumes for grouting
Cleaning equipment may include:	• pressure cleaning • chemical cleaning • manual cleaning • abrasive mechanical cleaning

Unit Sector(s)

Drilling (General)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.