



Australian Government

RIINHB218E Assist grouting and cementing operations

Release: 1

RIINHB218E Assist grouting and cementing operations

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 assist grouting and cementing operations in drilling. It prepares individuals to operate ancillary equipment, perform basic measurements and calculations, grout and cement hole and clean equipment on completion of task.

It applies to those working in assistant driller roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures.

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

Unit Sector

Drilling

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 assist grouting and cementing operations	1.1 Obtain, read and confirm work requirements 1.2 Access, interpret and apply assist grouting or cementing operations, documentation and ensure work activity is compliant 1.3 Identify and minimise environmental issues and potential hazards, and assess and address risks within scope of own role and according to workplace procedures 1.4 Select and wear personal protective equipment required for work activities 1.5 Communicate with other personnel on site as required and confirm briefings and handover details are communicated and

ELEMENT	PERFORMANCE CRITERIA
	received 1.6 Obtain and interpret emergency procedures and identify steps in case of fire, accident and other emergencies
2. Operate ancillary equipment	2.1 Start-up ancillary equipment according to manufacturer specifications 2.2 Run ancillary equipment according to operational requirements 2.3 Shut down ancillary equipment according to manufacturer specifications
3. Perform basic measurement and calculations	3.1 Use and read tape measure 3.2 Carry out simple calculations and measurements of tank capacities, casing and rod lengths 3.3 Record or complete tally sheets for number of lengths of casing placed in the hole 3.4 Record results on reports as required
4. Grout and cement hole	4.1 Mix grout and additives according to task requirements 4.2 Access, interpret and apply safety data sheets (SDS) requirements for all materials used 4.3 Apply grout or cement according to task requirements and using required techniques 4.4 Avoid spillage of grout, cement and additives 4.5 Construct well head, hole identification and install hole security devices 4.6 Dispose of excess grout and cement as required according to site waste management procedures 4.7 Monitor hazards and risks, and confirm safety of self, other personnel, plant and equipment
5. Perform clean-up and completion tasks	5.1 Operate cleaning equipment according to safety and job requirements 5.2 Confirm that cleaning equipment is kept in good working condition 5.3 Complete housekeeping activities to workplace requirements 5.4 Process records according to workplace procedures

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	Performs basic calculations and measurements relating to tank capacities, casing and rod lengths
Oral Communication	Listens to short, explicit instructions for work procedures and asks questions to clarify and confirm

Unit Mapping Information

Supersedes and is equivalent to RIINHB218D Assist grouting or cementing operations.

Links

Companion Volume implementation guides is found on VETNet -

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

Assessment Requirements for RIINHB218E Assist grouting and cementing 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:

- assist grouting and cementing operations on at least two occasions, including:
 - measuring tank dimensions and calculating volumes
 - recording casing lengths and quantities accurately
 - mixing grout and additives
 - applying grout and cement as required using required techniques
 - constructing well head, hole identification and installing hole security devices
 - disposing of excess grout and cement as required.

During the above, the candidate must:

- locate and apply documentation required for assisting grouting and cementing operations
- implement the requirements, procedures and techniques for assisting with grouting and cementing operations, including:
 - operating cleaning equipment
 - using mixing equipment
- work with others to assist grouting and cementing operations that meets required outcomes, including:
 - complying with reporting requirements and procedures
 - communicating with others to receive and clarify work instructions
 - communicating with others to meet coordination requirements prior to commencing and during 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 policies, procedures and established requirements for assisting grouting and cementing operations, including those for:
 - work, health and safety
 - emergencies
 - relevant environmental practices
 - operating ancillary equipment
 - measuring tank capacities, casing and rod lengths
 - grouting and cementing
 - disposing of excess grout and cement
 - cleaning after grouting and cementing
 - housekeeping
- reading, interpreting and complying with safety data sheets (SDS)
- identifying possible effects of grout, cement or cement additives on health
- drilling team roles and objectives
- identifying properties of grout, cement or cement additives.

Assessment Conditions

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

- include access to:
 - grouting and cementing equipment
 - personal protective equipment
- 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 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 RII 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.

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