



Australian Government

RIINHB324D Carry out grouting or cementing operations

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIINHB324B Carry out grouting or cementing operations
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to carry out grouting or cementing operations in Drilling.

This unit is appropriate for those working in driller roles.

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

Unit Sector

Drilling

Elements and Performance Criteria

1. Plan and prepare for the grouting or cementing process	1.1 Access, interpret and apply grouting or cementing operations documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Communicate and coordinate activities with others throughout the work activity 1.6 Ensure adequate material and equipment is available to complete the task successfully 1.7 Obtain and interpret emergency procedures, and be prepared
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	for fire/accident/emergency 1.8 Select the appropriate grouting or cementing procedure to suite the application
2. Perform measurement and calculations	2.1 Read tape measure accurately to carry out measurements of tank capacities, casing or rod lengths 2.2 Record or complete tally sheets for number of lengths of casing placed in the hole 2.3 Carry out calculations and measurements 2.4 Record legibly on all reports
3. Conduct grouting or cementing of hole	3.1 Start-up, run, and close down ancillary equipment 3.2 Manage mixing grout and any additives 3.3 Access, interpret and apply safety data sheets (SDS) 3.4 Conduct grouting or cementing of hole using appropriate equipment and techniques 3.5 Monitor process to ensure consistency and accuracy of placed grout or cement 3.6 Construct well head, hole identification and install hole security devices where required 3.7 Dispose of any excess grout or cement according to site waste management procedures
4. Respond to problems	4.1 Identify possible operational problems in equipment or process 4.2 Identify symptoms of problems needing remedial action 4.3 Determine possible fault causes 4.4 Rectify problem using appropriate solution within area of responsibility 4.5 Follow through items initiated until final resolution has occurred 4.6 Report problems outside area of responsibility to designated person
5. Complete equipment maintenance and housekeeping	5.1 Ensure there is no spillage of grout, cement or additives to minimise any associated safety hazards 5.2 Ensure cleaning equipment is used safely and effectively 5.3 Provide instructions and occupational health and safety requirements on the use of hazardous chemicals for cleaning 5.4 Maintain tools and equipment kept in good working condition

	5.5	Ensure housekeeping activities are completed
	5.6	Process records

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIINHB324B Carry out grouting or cementing operations

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for RIINHB324D Carry out grouting or cementing operations

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of grouting or cementing operations in the drilling industry including:
 - operating mixing equipment
 - operating cleaning equipment
 - measuring tank dimensions and calculate volumes
 - calculating specific gravity of mixtures and hydrostatic pressures including pressure differences between annulus and inside of casing
 - recording casing lengths and quantities accurately
- works effectively with others to undertake and complete the grouting or cementing operations that meet all of the required outcomes including:
 - complying with written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions
 - communicating clearly and concisely with others to resolve coordination requirements prior to commencing and during work activities
- demonstrates completion of grouting or cementing operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - managing the mixing of grout and any additives
 - accessing, interpreting and applying safety data sheets (SDS)

- ensuring consistency and accuracy of placed grout or cement
- constructing well head, hole identification and installing hole security devices where required
- ensuring there is no spillage of grout, cement or additives to minimise any associated safety hazards
- disposing of any excess grout or cement according to site waste management procedures

Knowledge Evidence

The candidate must demonstrate knowledge in carrying out grouting or cementing operations through:

- accessing, interpreting and applying the organization and site requirements and procedures for;
 - work, health and safety
 - environmental issues
 - operating drill rig
 - housekeeping
- possible effects of grout, cement or cement additives on health
- team roles and objectives during the grouting or cementing operations
- properties of grout, cement or cement additives
- being prepared for fire/accident/emergency

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,

- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 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.	

*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 frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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