



Australian Government

RIINHB318D Install and operate water and gas control equipment

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIINHB318A Install and operate water and gas control equipment
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 install and operate water and gas control equipment in Coal mining and 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

Coal mining

Drilling

Elements and Performance Criteria

1. Plan and prepare for the installation and operation of water and gas control equipment	1.1 Access, interpret and apply water and gas control equipment 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
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	1.6 Prepare and maintain a job plan, in consultation with relevant team members, which makes best use of the available resources and meets the task requirements 1.7 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency
2. Organise installation	2.1 Carry out pre-start and start up, shutdown and secure equipment procedures 2.2 Identify, select and apply rig operational controls 2.3 Select the appropriate water and gas control equipment to meet the requirements of the configuration 2.4 Inspect the water and gas control equipment components for serviceability 2.5 Arrange the delivery of all equipment required for the installation and operation of the water and gas control equipment to the worksite 2.6 Ensure that the drill hole is deep enough to house the down-hole components and adjust depth as necessary 2.7 Insert the down-hole components into the standpipe 2.8 Separate the rod string, leaving sufficient distance between the rod clamp and standpipe (or other attachments) to install the stuffing box
3. Install water and gas control equipment	3.1 Install the control valve, applying appropriate securing method 3.2 Install the 'T' piece, applying appropriate securing method 3.3 Install the stuffing box, applying appropriate securing method 3.4 Pack and secure the seal in accordance with requirements and procedures
4. Operate the water and gas control equipment	4.1 Monitor the water and gas control equipment and ensure its correct operation 4.2 Rectify water and gas control equipment operational problems 4.3 Test the isolation of the water and gas control equipment 4.4 Apply site environmental controls
5. Complete equipment maintenance and housekeeping	5.1 Inspect and fault-find all water and gas control equipment 5.2 Remove and replace defective components 5.3 Ensure housekeeping activities are completed 5.4 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

RIINHB318A Install and operate water and gas control equipment

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 RIINHB318D Install and operate water and gas control equipment

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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 the installation and operating of water and gas control equipment including:
 - accessing, reading, interpreting and applying the project site geological, hydrological, engineering survey information
 - accessing, reading, interpreting and applying the project plans, drill plans, drawings and specifications
 - accessing, reading, interpreting and applying the data and test results
 - identifying water and gas control equipment components
 - interpreting the water and gas control equipment configuration requirements
- works effectively with others to undertake and complete the installation and operating of water and gas control equipment that meets 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 the installation and operating of water and gas control equipment that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:

- selecting the appropriate water and gas control equipment to meet the requirements of the configuration including;
 - standpipe,
 - gate valve,
 - ‘T’ piece,
 - stuffing box, which may be either:
 - NQ gauge
 - HQ gauge
 - four inch hose and
 - gas and water separator
- inspecting the water and gas control equipment components for serviceability
- ensuring that the drill hole is deep enough to house the down-hole components and adjusting depth as necessary
- inserting the down-hole components into the standpipe
- installing the control valve, applying appropriate securing method
- installing the ‘T’ piece, applying appropriate securing method
- install the stuffing box, applying appropriate securing method
- monitoring the water and gas control equipment and ensure its correct operation including;
 - leaks limited to specification
 - water flowing from the ‘T’ piece
 - water flowing to the fines tank
 - valves are serviceable
 - free movement of drill rods
 - rectifying water and gas control equipment operational problems including;
 - adjusting equipment
 - tightening fasteners, and
 - replacing non serviceable items
 - testing the isolation of the water and gas control equipment

Knowledge Evidence

The candidate must demonstrate knowledge in installing and operating water and gas control equipment through:

- work, health and safety
- environmental issues
- operating drill rig
- housekeeping
- typical geology types
- principles of underground in-seam directional drilling operations
- possible variations in water and gas control equipment required in possible situations

- relevant regulations and codes
- 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.
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*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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