



Australian Government

RIIOGD401E Rig up, conduct pre-spud operations and rig down

Release: 1

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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 rig up, conduct pre-spud operations and rig down in drilling.

This unit applies to those working in supervisory roles. They generally perform tasks involving a broad range of varied activities most of which are complex and non-routine and are responsible for the quantity and quality of the output of others.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

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. Prepare to rig up, conduct pre-spud operations and rig down	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to rig up, conduct pre-spud operations and rig down and confirm 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 at site according to work requirements and confirm briefings and handover details are

ELEMENT	PERFORMANCE CRITERIA
	communicated and received 1.6 Carry out pre rig-up procedure inspections within scope of own role 1.7 Coordinate movement of load and sequence of installation and location 1.8 Check equipment for damage and loss by moving contractor and report and BI
2. Rig up to spud	2.1 Receive and action rig manager authorisation to commence rig-up to spud operations 2.2 Receive detailed verbal and written instructions on use and type of mud from the operator and distribute 2.3 Identify potential rig-up problems and take corrective action as required 2.4 Keep rig manager informed of operations
3. Prepare for drilling of surface hole/subsea hole	3.1 Check drilling and hoist equipment, report any damage to rig manager and record 3.2 Conduct equipment checks for nippling-up or cross-checked with relevant procedures 3.3 Check handling equipment for correct sizing and confirm fit for purpose 3.4 Confirm availability of and inspect, clean, calibrate and record tubulars according to manufacturer specifications 3.5 Check well control equipment according to manufacturer specifications 3.6 Identify special tool requirements and check if fit for purpose and approved for use
4. Prepare for pre-spud operations	4.1 Lock rod racks with drill rod and position drill collars 4.2 Inspect casing running tools for safety and fitness-for-purpose and rectify and report faults and malfunctions as required 4.3 Record casing tallies and report
5. Conduct operations as per drilling program	5.1 Determine optimum circulating and penetration rates and check deviations are in accordance with operators drilling program 5.2 Check mud cleaning equipment and screens for integrity and correct operation according to workplace procedures 5.3 Check drilling fluid quantities with sufficient being in reserve to kill well and keep hole on full trip 5.4 Record mud properties on tour report 5.5 Operate all equipment according to manufacturer specifications and company procedures

ELEMENT	PERFORMANCE CRITERIA
	5.6 Maintain a sound working relationship with third party contractors

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
Reading	Identifies and interprets complex information from workplace procedures, documentation and regulations

Unit Mapping Information

Supersedes and is equivalent to RIIOGD401D Rig up, conduct pre-spud operations and rig down.

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 RIIOGD401E Rig up, conduct pre-spud operations and rig down

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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:

- rig-up, conduct pre-spud operations and rig down on at least two occasions, including:
 - identifying potential rig-up problems
 - checking drilling and hoist equipment
 - determining optimum circulating and penetration rates and checking deviations
 - receiving and actioning authorisation to commence drilling
 - identifying potential rig-down operations
 - carrying out supervision of rig up, pre-spud and rig down operations that meets required outcomes.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures
- implement the requirements, procedures and techniques to rig up, conduct pre-spud operations and rig down, including:
 - identifying, addressing and reporting potential hazards and risks
 - checking equipment for damage and loss by the moving contractor and reporting as required
 - preventing usage of damaged equipment as required
 - identifying, addressing and reporting environmental issues
- work with others to plan, prepare and conduct rig up, pre-spud and rig down operations to meet required outcomes, including:
 - resolving coordination requirements with others at the site prior to commencing and during work activities
 - carrying out pre rig-up procedure inspections within scope of own role
 - coordinating movement of load and sequence of installation and location according to rig movement plan

- preparing for and organising work activities to meet task requirements
- communicating with others to receive and clarify work instructions
- using a range of communication techniques and aids to advise others of work activity and exclusion zones.

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 legislation required for rigging up, conducting pre-spud operations and rigging down
- key policies, procedures and established requirements for rigging up, conducting pre-spud operations and rigging down, including those for:
 - identifying and managing risks
 - identifying, addressing and reporting environmental issues
 - setting up work activity
 - site isolation, signage and erecting barriers
 - work health and safety
 - selecting all plant, tools and equipment to carry out tasks and checking for faults
 - carrying out work to specifications
 - communication techniques relevant to work activities
 - troubleshoot during drilling program
 - carrying out calculations, including:
 - quantities
 - up-hole velocity
 - specific gravity
 - volume
 - hydrostatic pressures
- optimum circulating and penetration rates.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to rig up, conduct pre-spud operations and rig down
- 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 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

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
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.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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