



Australian Government

Department of Education, Employment and Workplace Relations

RIIOGD507A Manage and monitor rig-up and rig-up to spud operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers managing and monitoring rig-up and rig-up to spud operations in the drilling industry. It includes Plan and prepare to manage and monitor rig-up and rig-up to spud operations, commencing operations, preparing to spud, and conducting pipe installation/mix mud. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Application of the Unit

This unit is appropriate for those working in a management or supervisory role 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 to manage and monitor rig-up and rig-up to spud operations	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Obtain, confirm and apply work instructions for the allocated task 1.3. Identify, manage and report all potential hazards 1.4. Resolve coordination requirements with others at the site prior to commencing and during work activities
2. Commence operations	2.1. Assess rig up and rig up to spud program and communicate details 2.2. Identify number and expertise of personnel required and obtained 2.3. Assign crews tasks and supervise performance 2.4. Assess safety requirements and communicate to all parties 2.5. Undertake equipment checks and rectify/report faults in accordance with legislative/company requirements 2.6. Establish rig/lease drainage and effluent disposal 2.7. Supervise spotting and rig assembly and rectify performance issues 2.8. Arrange and supervise engine power start-up
3. Prepare to spud	3.1. Supervise installation of rathole, mousehole and conductor pipe, if required 3.2. Reinforce mud preparation and environmental requirements with crew members 3.3. Confirm circulation and rig up are with crew 3.4. Undertake pre-spud safety inspection and confirm with crew to ensure compliance with regulatory/company requirements
4. Conduct pipe installation/mix mud	4.1. Complete tour sheet incorporating depth of auguring, monitor drilling/auguring processes and identify/report problems 4.2. Assess availability of correct casing and

	casing tools and rectify for anomalies 4.3. Establish flowline and conductor pipe requirements and put in place 4.4. Check and approve integrity of cement for application, to guard against washout 4.5. Supervise nipping up flowline and operations 4.6. Establish and monitor circulation and spud in 4.7. Check mud mixing procedures and properties against drilling program and confirm with crew 4.8. Record operating outcomes and report to appropriate officers
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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 of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to manage and monitor rig-up and rig-up to spud operations:

- apply legislative, organisation and site requirements and procedures for managing and maintaining rig-up and rig-up to spud operations
- operate rig components
- oversee forklift operations
- use satellite or ground communication
- issue permits and work orders
- organise work teams into efficient working units
- dog a crane and secure rigging
- troubleshoot breakdowns

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to manage and monitor rig-up and rig-up to spud operations:

- rig up procedures
- rigging and dogging practices
- auxiliary equipment functions and service requirements
- specific auxiliary rig up sequence
- safety and environmental issues
- communication equipment
- emergency procedures
- preventative maintenance
- workplace relations and award conditions

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 managing and monitoring rig-up and rig-up to spud operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of management and monitoring of rig-up and rig-up to spud operations • working with others to plan, prepare manage and monitor rig-up and rig-up to spud operations • evidence of the consistent successful management and monitoring of rig-up and rig-up to spud operations
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. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • 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. • 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 • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: • working with others to undertake and complete the management and monitoring of rig-up and rig-up to spud operations • provision of clear and timely instruction and supervision by the individual of those involved in the management and monitoring of rig-up and rig-up to spud 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
- occupational health and safety (OHS)
- environmental protection
- permit to work
- Petroleum Submerged Lands Act (PSLA)
- duty of care

Work instructions may come from briefings, handovers, plans and work orders and may be written or verbal, formal or informal and may include:

- pre-start safety meetings prior to commencement of each work day
- delegation of work responsibilities to various teams
- priority given to tasks if necessary
- emergency services contacted to inform of new location and approximate period of occupancy
- drilling program
- safety procedures
- environmental considerations
- completion sequence
- well head preparation
- preparation and inspection of loading slings and chains
- material availability if maintenance, servicing or repair is to occur
- smoking restrictions
- safety briefing/induction
- Job Safety Analysis (JSA)
- pre-tour safety meeting

	• weekly safety meetings • nature and scope of tasks • specifications • quality of finished works • achieved targets • operational conditions • obtaining of required permits • site layout • out of bounds areas • worksite inspection requirements • lighting conditions • plant of equipment defects • coordination requirements or issues • contamination control requirements • environmental control requirements • barricade and signage requirements
Hazards may include:	• working in proximity to drilling rig • working in different conditions including: • night time operations • day time operations • hot climates • cold climates • wet weather conditions • high wind
Coordination requirements may include:	• other equipment operators • maintenance personnel • supervisors • site personnel
Communicate may include by:	• 2-way radio • hand signals • telephone • public address system • written work instructions • internet/intranet
Equipment may include:	• cranes • front-end loaders using bucket or forks • winch trucks • prime movers with trailers and dog trailers • carrier mounted rigs and service units

Unit Sector(s)

Drilling (Oil and Gas)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.