

COGODR16 - SQA Unit Code D7WV 04

Control the drilling process



Overview

This unit is about the control of the drilling process by directing the operation of drilling equipment and maintaining drilling parameters. This unit deals with the following:

- 1 Obtain information to plan drilling operations
- 2 Direct the operations of drilling equipment

Performance criteria

You must be able to:

- P1 determined the **range of information** relevant to the proposed drilling activities and gathered it from the appropriate sources
- P2 reviewed information relevant to the proposed drilling activities and sought clarification and confirmation of any data that is unusual
- P3 identified any potential safety, health and environmental risks that may result from the proposed drilling activities
- P4 **planned** the sequence of steps required to carry out the operation safely and efficiently
- P5 ensured that the resources required to undertake the planned drilling activities are available
- P6 maintained effective **communication** with crew members at all times
- P7 ensured that information on the planned drilling activities is understood by all relevant parties.
- P8 made a thorough inspection of the systems and equipment required for the drilling operation
- P9 safely operated drilling systems and equipment as needed to meet operational requirements
- P10 monitored the on-going status and performance of the drilling operation
- P11 promptly dealt with any system and equipment problems, thus keeping disruptions to a minimum
- P12 initiated emergency shutdown procedures promptly when the situation demands it
- P13 provided clear and accurate information on the setting of instruments, recording devices and alarms required
- P14 kept clear and accurate records of all relevant information
- P15 given clear directions and maintain effective communications with crew members throughout the drilling process
- P16 worked safely in accordance with operational requirements and associated **Safe Systems of Work**

Knowledge and understanding

You need to know and understand:

- K1 what sequence of operations are needed to carry out drilling; tripping; running casing; running completions
- K2 what the function is of the operations including logging; fishing; cementing; directional drilling; wireline
- K3 what procedures and practices are currently relevant to drilling operations
- K4 what procedures and practices are currently relevant to health, safety and environmental issues
- K5 what recording and reporting methods can be used in communicating planned activities
- K6 what techniques can be used to promote open communications
- K7 what parameters are used to define operational requirements in drilling; tripping; running; casing; running completions
- K8 what is the function and limitations of each of drilling systems and equipment including air, power and cooling water; hoisting system; rotating system; handling equipment; circulating system; tubulars; derrick
- K9 how to identify and deal with defects and difficulties with drilling system and equipment including hoisting system; rotating system; air, power and cooling system; circulating system; tubulars; handling equipment; derrick
- K10 what additional controls and considerations need to be made during logging; fishing; cementing; directional drilling; wireline
- K11 what actions and considerations need to be taken to undertake an emergency shutdown
- K12 the reporting and recording requirements for drilling operations
- K13 what the roles and responsibilities are of different members of the drilling crew and the information and instructions they need to work effectively

Additional Information

Scope/range

The following terms in bold relate directly to those shown in **bold** in the Performance Statements.

- 1 **Range of information** must include that relating to daily drilling instructions; daily reports; drilling programme; environmental; handover; health and safety; operational guidelines
- 2 **Plan and communicate** must relate to the key activities of drilling; tripping; running casing; running completions
- 3 **Safe Systems of Work** must include processes or systems that incorporate Hazard Identification, Risk Assessment, Permit to Work and any other associated systems

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

- 4 How to use 'Safe Systems of Work' processes to identify hazards and mitigate or reduce risks to as low as reasonably practicable (ALARP)
- 5 How to select, use and care for PPE (to include sight/hearing protection, coveralls, gloves, footwear, hard hats, respirators)
- 6 The implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- 7 How to interpret operational requirements (e.g. relevant policies, procedures, instructions, codes of practice, standards, schedules)

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