MPQMG21
Drill holes to drilling specification

Overview

This standard is designed for the candidate to demonstrate your competence in drilling holes in rock or ground to specification. This includes determining the position of the holes, the orientation of the drilling equipment and the monitoring of the operation during drilling of the holes. It also addresses the conclusion to the operation including stopping and emergency shut-down procedures.

The standard applies to anyone using powered drilling plant or machinery to drill holes in rock or ground.

Performance criteria

You must be able to:

P1 agree with others the work to be carried out

P2 check and confirm the drilling specification is correct and complete for the working area and work activity

P3 check the availability and suitability of the **resources** required for the work activity

P4 check the drilling site conditions are safe and suitable for the positioning, orientation and stabilising of the drill rig and drilling the specified holes

P5 confirm the position of the drill holes are to specification and conform to operational requirements

P6 set up the drill at the specified positions, inclinations and orientations

P7 check monitoring and warning devices are set and operational

P8 drill hole depths, direction and angles to drilling specification

P9 monitor the drilling of the drill holes

P10 check and control dust from drilling activity

P11 carry out the work minimising risks to yourself, others, plant and machinery and the work environment

P12 make adjustments to the work plan as required to complete the work within the limits of your responsibilities

P13 identify changes in ground conditions and strata

P14 record changes in hole conditions and strata, and all variations from drilling specification

P15 follow shut down procedures according to organisational and safety requirements

P16 report according to organisational requirements

P17 carry out the work activity in accordance with **approved policies, procedures and practices**

Knowledge and understanding

You need to know and understand:

K1 the organisational **approved policies, procedures and practices** as appropriate to the work activity

K2 the organisational information, communications and reporting arrangements relating to the work activity

K3 drilling specifications and logs, plans, sketches, symbols and terminology used in relation to the work activity

K4 the different types of drilling action

K5 how to check and confirm that the area for the drilling activity is as specified and in a safe and suitable condition for the specified work activity

K6 the **resources** required to support the work activity, their uses, how to check them, and how to secure, store or dispose of after use

K7 how to measure, set out and mark the positions of drill holes

K8 the acceptable tolerances for measuring, setting out, marking and drilling holes in the context of the work activity

K9 how to position, set up, stabilise, start up, drill holes, monitor, adjust and shut down (in routine and emergency situations)

K10 drilling monitoring and warning devices and their purpose

K11 the wear, tolerances and clearance requirements for in-hole drilling equipment

K12 drilling action varying feed requirements

K13 the hazards and risks associated with the work activity, how they affect yourself, others and the work environment, and how they are controlled

K14 problems that can occur when drilling holes, and how to respond to them

K15 how to verify that holes are drilled to specification

K16 the possible consequences of drilling holes that are not to specification

K17 the techniques for removal of cuttings

K18 the tools, equipment, techniques and procedures for the retrieval of tools and equipment (damaged or undamaged) from drilled holes

K19 why and how to suppress drilling dust

K20 the possible effects of adverse environmental or site conditions on positioning or stabilising drill rigs, and the drilled holes

K21 the site environmental and waste disposal arrangements

K22 the limits of your own role and responsibilities

K23 the actions to be taken in the event of damage, breakdown or unsatisfactory performance of plant, machinery, equipment or resources

K24 the actions to be taken on conclusion of the work activity

K25 the recording and reporting arrangements for the work activity

Additional information

Scope/range

1 **approved policies, procedures and practices**: legislative, organisational, operational, accident or emergency, health and safety, first aid, and environmental as appropriate to the mine, plant or machinery, and work activity

2 **resources**: tools; equipment; utilities and services; consumables; attachments; replaceable parts; other resources as appropriate to the work activity

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