

Overview

Blast to specification in accordance with approved procedures and practices.

This standard comprises the following:

- 1 Complete and check the initiation circuit
- 2 Clear and secure the danger zone
- 3 Sound warning and fire the blast
- 4 Inspect blast site after detonation
- 5 Collage feedback and record findings of the blast operations

This activity is likely to be undertaken by someone whose work role involves explosives work activities. This includes blasting personnel.

Performance criteria

You must be able to: 1 Complete and check the initiation circuit

P1 the ignition system for the explosive is connected accurately in conformity with the blast specification

P2 connections are protected against adverse environmental conditions, premature ignition and mechanical damage

P3 operational safety procedures are fully implemented whilst preparing the initiation circuit and connecting the ignition system in conformity with approved procedures and practices

P4 the ignition system and initiation sequences are checked thoroughly in accordance with operational and organizational rules and procedures and relevant legislation

P5 faults in the ignition system are accurately identified and appropriate action is taken to rectify them

P6 any faults in the ignition system which cannot be rectified are reported promptly as misfires to the appropriate person

P7 problems and conditions outside the responsibility of the candidate are referred to an authorized person

P8 work is carried out to approved procedures and practices and in compliance with statutory requirements

2 Clear and secure the danger zone

P9 the specified danger zone is cleared and secured effectively in compliance with operational and organizational rules and procedures and the blast specification

P10 sentries are posted correctly in compliance with the blasting specification, operational and organizational rules and procedures

P11 warning systems are checked and confirmed to be operable and working

P12 the firing station is safely located in accordance with the blasting specification

P13 clear notification is given to public of intention to fire the explosive

P14 operational safety precautions are confirmed and maintained in place for the firing of the explosive

P15 problems and conditions outside the responsibility of the candidate are referred to an authorized person

P16 work is carried out to approved procedures and practices and in compliance with statutory requirements

3 Sound the warning and fire the blast

P17 warning and communication systems are confirmed in place in accordance with the operational safety procedures

P18 security of danger zone is confirmed with the sentries via the warning systems

P19 position for firing the explosive is taken at the firing station in accordance with the blasting specification

P20 security of exploder is maintained in compliance with relevant explosives regulations, operational and organizational rules and procedures

P21 the explosive is fired when all safety precautions have been taken and verified

P22 problems and conditions outside the responsibility of the candidate are referred to an authorized person

P23 work is carried out to approved procedures and practices and in compliance with statutory requirements.

4 Inspect blast site after detonation

P24 inspection of the blast area is thoroughly undertaken in accordance with site rules and operational procedures

P25 dangerous conditions are identified and are promptly reported in accordance with operational procedures

P26 re-entry to the area following blasting is only allowed in accordance with operational and organizational rules and procedures

P27 the all clear is given on satisfaction that the area is safe and the blasting operation is complete

P28 problems and conditions outside the responsibility of the candidate are referred to an authorized person

P29 work is carried out to approved procedures and practices and in compliance with statutory requirements.

5 Collate feedback and record findings of the blast operations

P30 all information from the evidence and assessment of the post blast inspection is collated and recorded in accordance with approved procedures and practices and in compliance with statutory requirements

P31 type and quantity of explosive materials and means of initiation are recorded in accordance with organizational and operational procedures

P32 records are maintained of the operation and environmental conditions relevant to the blasting in accordance with organizational and operational procedures

P33 any problems and incidents associated to the blasting are recorded and communicated to the appropriate persons

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P34 any ground vibration and air over pressure surveys are carried out, interpreted accurately and recorded

P35 blast results meet and are recorded according to site requirements

P36 issues arising from the blast are dealt with appropriately

Knowledge and understanding

You need to know and understand: 1 Complete and check the initiation circuit

K1 health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work

K2 types of detonating devices and explosives used

K3 delayed detonators and how the delay is created

K4 effects of adverse environmental and site conditions on system performance and possible premature detonation

K5 how to identify and deal with faults that cannot be rectified

K6 types of approved circuit testers

K7 initiation sequences for blasting patterns and the possible effects on the time delay period between individual charges

K8 how to check that the exploder is appropriately calibrated

K9 blast patterns

K10 circuit testing for electrical initiation

K11 types of initiation and premature ignitions
uses of shottfiring equipment

K12 types and

2 Clear and secure the danger zone

K13 health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work

K14 dangers from flyrock

K15 causes of flyrock

K16 how to access and correctly interpret the relevant guidance

K17 warning systems

K18 public roads and rights of way
duties of sentries

K19 powers and

3 Sound the warning blast

K20 health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work

K21 the issues likely to arise from the blast operation
communication systems

K22 types of

4 Inspect blast site after detonation

K23 health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work

K24 hazards associated with misfires and unexploded charges

K25 recognition of misfires

K26 reasons for post blast slippage of ground and its effects

K27 dangerous effects of fumes created by blasting

K28 effects of adverse environmental and site conditions

5 Collate feedback and record findings of the blast operations

K29 health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work

K30 Monitor and use recordings of ground vibration/air over pressure

K31 record aspects of blast performance

K32 approved procedures and practices in the context of the operations, the work activity and the workplace environment

K33 responsibilities under health and safety statutory requirements.

K34 how to deal with issues arising from the blast

K35 initiation sequences for blasting patterns and the possible effects on the time delay period between individual charges.

K36 blast patterns.

K37 circuit testing for electrical initiation.

K38 types of initiation and premature ignitions.

K39 types and uses of shotfiring equipment.

K45 dangers from

flyrock.

K40 causes of flyrock.

K41 how to access and correctly interpret the relevant guidance.

K42 warning systems

K43 public roads and rights of way.

K44 powers and duties of sentries.

K45 the issues likely to arise from the blast operation.

K46 types of communication systems.

K47 recognition of misfires.

K48 hazards associated with misfires and unexploded charges.

K49 reasons for post blast slippage of ground and its effects.

K50 dangerous effects of fumes created by blasting.

K51 acceptable conditions for the post blast area

K52 monitoring and use recordings of ground vibration/air over pressure.

K53 how to deal with issues arising from the blast.

K54 how to record aspects of blast performance.

K55 approved procedures and practices in the context of the operations, the work activity and the workplace environment

K56 relevant legislation.

K57 responsibilities under the health and safety statutory requirements.

K58 site rules.

K59 types of detonating devices and explosives used.

K60 delayed detonators and how the delay is created.

K61 Effects of adverse environmental and site conditions on system performance and possible premature detonation.

K62 how to identify and deal with faults that cannot be rectified.

K63 types of approved circuit testers.

K64 initiation sequences for blasting patterns and the possible effects on the time delay period between individual charges.

K65 blast patterns.

K66 circuit testing for electrical initiation.

Blast to specification

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