Incident involving the disposal of residual black powder

WHAT HAPPENED

After completing a normal days drilling and shot firing a quarry deputy 8(1) (d) made the decision to dispose of leftover black powder by burning it rather then returning it to the magazine as was stated in the shotfiring rules.

The 8(1)(d) took the remaining powder behind some large rocks, placed a length of safety fuse, approx 300mm long, into the powder and then whilst squatting down over the powder struck a match to ignite the safety fuse. At this point it is unclear whether the spark from the match or the fuse ignited the powder but it was instant and the 8(1) (d) received extensive burns to the hands and face. The incident was reported to HSE who attended site to carry out a separate investigation

Although the quarry deputy was carrying out a suggested means of disposal as taught on his shotfirers course, the method which he employed was incorrect.The shotfiring course suggested burning or drowning as recognised means for disposal of black powder but burning as the most common method of disposal. It also suggested

that the powder should be doused in kerosene or diesel and that ignition should take place against the wind to avoid sparks causing premature ignition. Further information and advice on the correct disposal of black powder should be sought from a recognised and approved source.

The following images show the results of the incorrect disposal of 37.5g of black powder.





LEARNING POINTS / ACTIONS TAKEN

Immediate review of the following:

- All shotfiring qualifications and appointments

- Procedures for the issue and control of explosives

- Shotfiring rules (updated to include disposal of black powder procedures)

Follow up:
- Review training records and update where required

- Quarry Managers to communicate the revised check sheets, rules, appointments etc. to all quarry personnel via team briefs to ensure they are all aware of, and understand why the changes have been made

- Quarry Managers to organise TBTs which identify the correct procedures which must carried out with regards to the disposal of all explosives including ancillaries.

- Quarry Managers to identify, and where required, arrange training for all personnel involved in the handling and use of explosives and ancillaries e.g. detonators, safety fuse, Cordtex etc.

LOCATION:	**QUARRY**	**ALERT STATUS:**	**Normal**
ACTIVITY:	**PRODUCTION AND PROCESSING**	**DATE ISSUED:**	**22/08/2013**
SUB ACTIVITY:	**DIMENSION STONE**	**INCIDENT No:**	**00369**