



भारत सरकार / Government of India
श्रम एवं रोजगार मंत्रालय / Ministry of Labour & Employment
खान सुरक्षा महा-निदेशालय / Directorate General of Mines Safety

DGMS Safety Alert: 06/2024

Dhanbad, dated 13.05.2024

SUBJECT: FATAL ACCIDENT DUE TO EXPLOSION OF MISFIRED CHARGE WHILE DRILLING HOLES IN A BUILDING STONE QUARRY

Name of the Mine	:	Sulebyle Building Stone Quarry (QL:688/R1) at survey no. 1, Sulebale Village, Shivamogga Taluk
Name of the Owner	:	Shri Mohemmed Taslim P K
District	:	Shivamogga
State	:	Karnataka
Mineral	:	Building Stone
Date and time of accident	:	29.03.2024 at about 05:30hrs
Place of accident	:	Bench of the quarry
Killed	:	One Name: Gangadhara Designation: Driller Age:40 years Experience on the job: 3 years Total experience: 3 years
Seriously Injured	:	Nil
Brief Cause	:	While two drillers were engaged in drilling blast holes on a bench of building stone quarry by jackhammer drill, the drill rod penetrated a misfired charge from a previous blast, resulting in an explosion of the charge. This caused injuries to one of the drillers from flying fragments, ultimately leading to his death during treatment at the hospital, approximately nine hours later.

Sketch showing the accident:

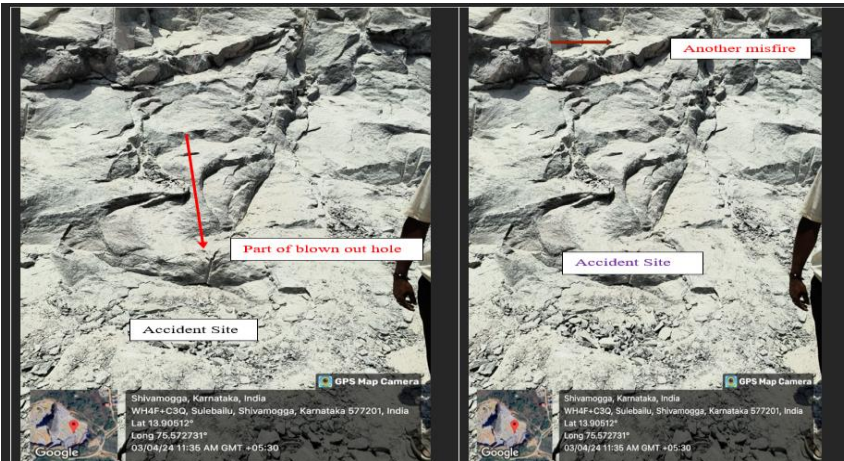


Figure 1 showing part of the blown-out hole at the site of the accident

Figure 2 another misfire nearby to the site of the accident

Best Practices:

- The misfire shall be dealt as per the provisions laid down under regulation 167 of the Metalliferous Mines Regulations, 1961
- Carefully examine for indications of a misfire: inadequate ground movement, undisturbed ground, lack of fracturing, poor fragmentation in areas of the shot, evidence of undetonated explosives, hang-ups on the face, and unusual blast sounds. When there is inadequate ground movement, it falls short of expectations, indicating a potential misfire.
- Avoid the technical failures such as wrong primer/assembly, circuit connection/coupling faults, detonator/poor explosive coupling, use of unsuitable explosives, carelessness leading to damage to initiation systems, or equipment failures like malfunctioning exploders, circuit testers, or firing cables.
- Be aware that the accidents may occur
 - if drilling into misfires (drilling into sockets should be avoided),
 - if loading equipment such as excavators strikes misfires,
 - if misfires are run over by trucks or wheels,
 - if they end up in crushers, on feeders/screens, deposited onto dumps, or taken off-site in tippers.

Safety Alert, a tool utilized by DGMS, informs the mining industry about potential safety issues and offers recommendations to prevent such incident.

Directorate General of Mines Safety : 122 years in the service of the nation