Underground Mine Safety Alerts Fatality File

Safety alert issued after worker injured by underground rock fall.

WorkSafe Victoria recently issued a safety alert about the importance of managing the risks associated with rockfall while charging development headings in underground mines following an incident in which an employee was injured by a rock.

An underground development heading was being charged (loaded with explosives) by two employees. The first employee was at ground level close to the development heading face and was loading explosives into drill holes.

The second employee was several metres back from the face operating a pneumatic trigger. The development drive was fully ground supported up to the face through a combination of shotcrete, mesh, spilling bars, friction bolts and mechanical lock bolts.

The face had been mechanically scaled by a jumbo drill post face drilling and manually checked scaled prior to charging. Approximately 75 per cent of the face was charged ‘top-down’.

The first employee was struck by a rock on the helmet that fell approximately 3.5m from the centre of the development face, and the employee was knocked backwards receiving injuries to their shoulder and neck, requiring admission to hospital.

Upon investigation, several pieces of rock were located within the drop zone and had an accumulated weight of approximately 80kg.

The alert said common safety issues associated with charging underground development headings include:

- exclusion zones not being maintained
- batter stability/ground failure/rockfall
- fire and/or explosion (including plant fire, misfires)

To reduce the risk of ground failure, the alert said mine operators must:

    - ground support for securing development faces (e.g. partial or full-face meshing further to mechanical and manual scaling).
    - exclusion zones and separating distances from the unsupported ground.
- Include a broad range of expertise and personnel when developing risk assessment teams to ensure all aspects of risk are considered.