



VENTILATION DOORS: FATAL ACCIDENT

INCIDENT

An underground employee, acting as a Shot-firer's assistant, was fatally injured when the ventilation doors near which he was standing were violently blown open by the air blast from a longhole rise development round as it was fired.

The shot-firer was standing approximately 70 metres away from the doors in a small cuddy nearer to the blast. No injuries were sustained by the shot-firer.

IMMEDIATE CAUSES

The amount of explosives used per hole to charge the round was greater than that required to fire previous rounds.

The air blast created by the rapid release of blasting gases caused the ventilation doors to fly open.

One of the solid steel doors struck the employee, who was standing within the swing arc of the door, and he sustained fatal injuries due to the impact.

PREVENTATIVE ACTION

Charging instructions, both verbal and written, should be comprehensive and clear.

Charging instructions should include the planned quantity of explosives to be used. Any significant positive deviation should be reported to the supervisor before firing takes place. Special written instructions should then be adhered to before firing.

A risk assessment of the use of all ventilation doors in an underground mine should be undertaken. In addition to normal operations associated with pedestrian and vehicular movements, special attention should be given to associated blasting procedures, in particular, door status and safe firing positions.

Blasting procedures should formally include the role of the shot-firer's assistant(s) and their respective position(s) before firing.

Formal critical task observations by supervisors should be conducted regularly and deviations from standard safe practice corrected.

The potential hazards associated with ventilation doors should be made known to all underground employees in their induction training prior to commencing work in a mine where such doors are used.

Appropriate signage should be displayed in accordance with M.S.I. Regulation 4.10 (1) (b) to warn of the hazard, e.g. "Keep clear during blasting".

Systems should be developed to allow the firing of all blasts from central and remote positions following full, verified evacuation of the blast area, or of the entire mine as the case requires.

J M Torlach
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SAFETY AWARENESS SAVES LIVES