



SIGNIFICANT INCIDENT REPORT NO: 117

UNDERGROUND ELECTRICAL EQUIPMENT – FATAL ACCIDENT

Incident

Late in May 2002, a Drill Jumbo operator sustained a fatal electric shock in an underground mine after contacting 415 volt terminals inside an electrical control box.

A loader operator working nearby immediately became aware of the accident and rendered assistance by pulling the deceased away from the control box, administering CPR and raising the alarm. Resuscitation continued until ambulance paramedics confirmed death later at the mine surface.

Cause

It appears that the deceased opened the control box using a special unlocking tool that was available to him. The deceased was not a licensed electrician and clearly should not have accessed the control box.

Comment and Preventative Action:

Accidents of this kind demonstrate the extreme, irreversible consequences that can result from contact with electricity and all persons should take heed. Further accidents can be avoided by adhering to the following requirements:

- Unauthorised persons must refrain from interfering with electrical equipment and resist every temptation to access electrical enclosures. Regardless of any urgency, a qualified and properly licensed electrician should always be summoned if equipment requires attention.
- Electrical equipment enclosures must be properly maintained and effectively secured with appropriate fastening devices. In view of this accident (and others) the appropriate device for securing individual enclosures installed underground (and on surface) in a mine must be carefully considered. The duty of care provisions of the Mines Safety and Inspection Act require that (so far as is practicable) employers must ensure that their employees are not exposed to hazards. The term "practicable" is defined so as to require (amongst other things) a consideration of the severity of any potential injury which may arise. Clearly, there is potential for electrical contacts to result in death and, therefore, additional (over and above the standard, commonly used, "special tool" locking mechanism) measures may be required to prevent unauthorised access to certain electrical enclosures. Careful consideration should be given to the use of a specially keyed "electrician's padlock" on those enclosures which directly control electricity supply to some types of production-critical mining machinery such as drills, raise borers, scrapers, pumps, compressors and fans etc where there may be temptations associated with some perceived benefit arising from a rapid restoration of a failed supply by unauthorised and (electrically) unskilled personnel.

Responsible persons on all mines are requested to ensure the issues outlined above are brought to the attention of employees and given effect to as matter of urgency.

M.J. Knee
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