

SAFETY ALERT



UNPLANNED MOVEMENT OF REMOTE CONTROLLED MINING MACHINERY

INCIDENT

A number of incidents have occurred where electric motors and hydraulic circuits have initiated continuous miner movement without the operator selecting that particular motion control.

CIRCUMSTANCES

The remote control continuous miners were being operated in remote control. On the selection of one function by the operator, multiple functions were initiated.

INVESTIGATION

In all the incidents:

There was only one radio remote controller in the area.

A single electrical fault on the transmitter caused hazardous movement of the machine.

The remote control system did not comply with AS4240: 1994 "Remote controls for mining equipment" or MDG5001: 1998 "Guidelines for the Design of Remote Controlled Mining Equipment".

Note: The remote control systems are widely used in the coal mining industry on a range of mining machinery (continuous miners, BLS's, roof bolters, bolter miners etc).

RECOMMENDATION(S)

1. As a matter of urgency ALL radio remote control systems are to be assessed to check whether a single electrical fault on the transmitter could cause unintended hazardous motion of a machine.
2. Where an assessment identifies that a single electrical fault on the transmitter can cause unintended hazardous motion of the machine, the transmitter should be modified as a matter of urgency, so that a single electrical fault on the transmitter CAN NOT cause unintended hazardous operation of a machine.
3. ALL radio remote control systems are to be assessed for compliance with the requirements of AS4240 and MDG5001.
4. Where an assessment identifies that the radio remote control system does not comply with either of AS4240 or MDG5001, a program is to be implemented to bring the radio remote controlled system into compliance with AS4240 and MDG5001.
5. Operating procedures are to be reviewed to prevent unplanned responses and movements of machines from injuring personnel.
6. The recommendations within this safety alert are to be considered in the context of Clause 51, Coal Mines (General) Regulation 1999.

A handwritten signature in black ink, appearing to be "R Regan", written over a vertical line.

R Regan
ASSISTANT DIRECTOR SAFETY OPERATIONS