



**DEPARTMENT OF MINERALS AND ENERGY  
WESTERN AUSTRALIA**

**SIGNIFICANT INCIDENT REPORT NO. 63**

**REMOTELY OPERATED UNDERGROUND LHD – NEAR MISS**

**INCIDENT**

The operator of a remotely controlled LHD was fortunate to escape injury when he reversed the loaded machine from an open stope and the service brakes failed to apply.

An attempt was made to steer the machine away but as it approached to within 3 metres of the operator he had little time to consider any other option than to retreat from the area. The loader collided with a drum mounted transmitter and the sidewall of the drive where the operator had been standing.

**CAUSE**

An investigation revealed that the radio transmitter/receiver components were functioning correctly, and that the brake failure was caused by an air operated shuttle valve which stuck in the brake-off position. Contamination found within the compressed air supply system indicated that the provision and maintenance of necessary air intake filters were less than adequate.

**COMMENTS AND PREVENTATIVE ACTION**

While the mining industry recognises the usefulness of remote control, it must also recognise the inherent hazard introduced by relocating the machine operator away from the conventional driving position. Unless the application of remote control is complemented by systems of work which place operators and other persons in safe working positions at all times, their safety may be compromised.

The circumstances of this incident emphatically demonstrate that any one of many defects or conditions can arise which may cause mobile machinery to respond in a potentially life threatening manner.

More specifically, employers operating remotely controlled machines which rely on pneumatic systems, need to consult with the equipment's manufacturer and ensure that systems for air supply filtration and routine maintenance procedures are both satisfactory.

Operating procedures and operator training and experience also need consideration. In this particular incident, had the operator hit the transmitter emergency stop button, the machine's duplicate emergency braking system would have arrested motion and shut down the engine.

Statutory provisions relating to remotely controlled equipment are detailed in regulation 10.45 of the Mines Safety Inspection Regulations 1995 and these provisions should be used as the minimum base for a safe system of work.

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STATE MINING ENGINEER

15 March 1996

**SAFETY AWARENESS SAVES LIVES**