

On High Alert

A vehicle alert system, developed by ASI and trialled at Pasminco Broken Hill, was Highly Commended by judges at the 2001 NSW Mining Industry Occupational Health and Safety Conference. The system went on to win the Industry Award, as voted by members of the presentation audience, for its innovative approach to solving safety problems.

At Pasminco underground mines, the importance of good traffic management is recognised and several control mechanisms exist. However, a spate of serious vehicle incidents occurred over a short period during 1999/2000.

High risks are present during loading and trucking operations in the main decline or access ways of the mine:

- at main intersections
- when tramming material across main haulage drives
- on curving inclines
- when there are light and heavy vehicles in a confined area



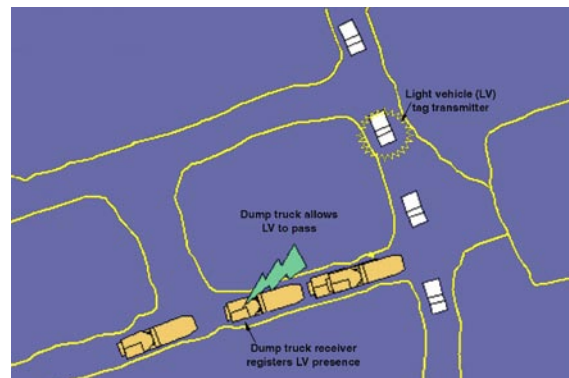
Using 'off the shelf' hardware, engineers from Pasminco's Broken Hill Mine and ASI built a system that provides a visual and audible warning to the operators of heavy vehicles when a smaller vehicle is in the vicinity. A three-month trial took place on all light vehicles and three heavy vehicles.

The system consisted of a transmitter unit or active tags for smaller light vehicles, receiver or tag reader unit for larger trucks or LHD vehicles, and an RF receiver or tag reader unit at an underground level and one fuel bay.

If a light vehicle is within a defined distance, the transmitter sends an encoded message containing its vehicle number to a receiver. The receiver gives a warning alarm and an identifiable vehicle number appears on the LCD display. The operator of the large vehicle acknowledges the alarm.

Simulating the earlier scenarios, the operators were confident that if the system had been in place these incidents would not have happened. Furthermore, there were no incidents with the three heavy vehicles involved in the trial. Future development could include an engine management system capable of reporting vehicle location and movement to the surface control room in real time.

Thanks to Mark Hine Mine Manager



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