



SAFETY ALERT

UNSAFE FLAMEPROOF ENCLOSURE

INCIDENT:

A recently overhauled shuttle car was found in service in a hazardous zone with the main electrical enclosure not flameproof.

CIRCUMSTANCES:

A shuttle car was overhauled at an approved workshop and returned into service in the hazardous zone of a mine.

Six weeks later it was found that three 45mm unused cable entries in the top of the enclosure were open to the atmosphere. In this condition it would have been incapable of preventing an ignition of methane external to the enclosure.

The failure to fit the flameproof blanking elements to the enclosure was missed by inspections at the overhaul workshop and by commissioning tests and inspections at the mine.

It was ultimately found during a routine internal examination of the enclosure by a vigilant electrician.



View of one un-blanked hole from inside the enclosure

INVESTIGATION:

The particular enclosure was being supplied as an enclosure new on an overhauled shuttle car.

The mine did not carry out detailed commissioning inspections, relying solely on the quality system and accreditation in place at the overhaul workshop.

Chapter 5 of the *Occupational Health and Safety Regulation 2001* details requirements for the design, manufacture and supply of plant.

Included in the regulation is a requirement for the manufacturer of plant to provide information relating to testing, inspection, installation, commissioning, operation, maintenance, inspection, cleaning, transport, storage and dismantling of the plant.

RECOMMENDATIONS:

- When explosion protected electrical equipment is to be overhauled by an approved workshop, mine managers should ensure that adequate measures are in place to deliver complying product.
- Mine managers should ensure that suppliers of plant provide information relevant to safe use of plant as described in Chapter 5 *Occupational Health and Safety Regulation 2001*.
- Mine managers should ensure that standards of electrical engineering practice prepared under Clause 9 *Coal Mines (General) Regulation 1999* have regard for the information provided by the supplier of plant.
- Inspections, examinations and tests recommended by the manufacturer for installation and commissioning should be incorporated into the mine's standards of electrical engineering practice.



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Find Safety Alerts at: <http://www.minerals.nsw.gov.au/safety/safalert.htm>