



# SAFETY ALERT

## UNSAFE FLAMEPROOF ENCLOSURE OVERHAULED AUXILIARY FAN

### INCIDENT:

An overhauled auxiliary fan was installed in a hazardous zone in a coal mine while the motor terminal enclosure was not properly flameproof.

### CIRCUMSTANCES:

The main enclosure of an auxiliary fan was overhauled at a repair facility which was accredited to AS 3800 and supplied to a coal mine. The repair facility had subcontracted the motor overhaul to an accredited motor repair workshop.

After the fan was delivered and installed underground at the mine, it was found that an unused threaded entry in the motor terminal enclosure had a plastic bung rather than a flameproof blanking element.

The plastic bung was found by an electrician who was doing diagnostic checks while getting the fan running.



18/1/2005

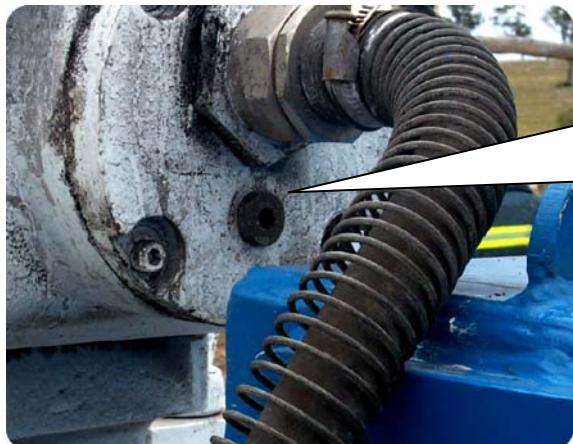
Flameproof Auxiliary Fan

## INVESTIGATION:

The parts were assembled and test run at the motor overhaul workshop because of the availability of adequate electrical supply for test running. The work and testing was under the control of the accredited repair facility.

A final inspection of the equipment prior to dispatch did not occur.

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



Picture showing plastic bung.

*Note: the flameproof blanking element was not fitted when the fan was supplied. The opening was blinded by a plastic cup intended to protect the thread during spray painting.*

## RECOMMENDATION:

If electrical equipment in a hazardous zone is not correctly assembled it has significant potential to trigger a gas explosion endangering the lives of persons in the mine.

Employers at mines have a duty to ensure that plant provided for use in the mine is safe and without risk. Suppliers of plant also have a duty to ensure that plant supplied by them is safe when properly used.

Mine managers should ensure that standards of electrical engineering practice prepared under Clause 9 Coal Mines (General) Regulation 1999 give effect to those duties.

In particular, standards for overhaul should specify measures to ensure complying product is supplied, and standards for commissioning should include measures for ensuring that plant is safe prior to energising in the hazardous zone.

A handwritten signature in black ink, appearing to read "R Regan".

R Regan  
DIRECTOR MINE SAFETY OPERATION

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