DEPARTMENT OF MINERALS AND ENERGY
WESTERN AUSTRALIA

SIGNIFICANT INCIDENT REPORT NO. 35

SAFE WELDING PRACTICE

INCIDENT

Inspection of the boiler-making area on a minesite revealed a damaged plug attached to the cord of a portable electrical appliance. The earthing connection at the plug had been extensively burned by the passage of welding current, causing the appliance to become unsafe.

CAUSE

The damage was caused by adopting an unsafe welding practice. The 'work lead' from a welding transformer had been connected to the metallic structure of the building, and not directly to the 'work' (or work bench) as is required. The appliance had been placed on the welding bench and had provided a secondary path for welding current to return to the transformer via the electrical earthing conductor in the appliance cord.

COMMENTS AND PREVENTATIVE ACTION

Welding practice should be strictly in accordance with AS 1674.2. Failure to connect the 'work lead' directly to the 'work' increases considerably the risk of electric shock, and can seriously damage critical items such as wiring, bearings, hoisting ropes, and service mains.

Persons responsible are requested to check and ensure that welding installations and practice comply with requirements detailed in the standard.

J M Torlach
STATE MINING ENGINEER

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SAFETY AWARENESS SAVES LIVES