



SAFETY ALERT

INJURY FROM HIGH PRESSURE FLUID INJECTION

INCIDENT

A production employee received an injury to his right hand from a small high-pressure jet coming from a leaking hose.

CIRCUMSTANCES

The employee was securing the roof when he saw oil leaking from the bottom of the drill rig. On investigating, he separated the hoses from the plastic shroud to get a better view. Unable to identify the offending hose, the operator then felt around the bottom of the hoses while operating the rotational valve on the drill rig valve block. Through his rubber gloves, he felt a sharp pin prick in the first joint of the middle finger of this right hand. First aid was administered in the mine and the employee then sent to the Sydney Hospital Hand Unit for treatment

INVESTIGATION

The leaking hose at the bottom of the drill rig was difficult to visually identify with the plastic protection coil on.

Operating alone, the employee could only identify the hose by feeling around the hoses coming from the valve block and operating the rotational valve for the rig to get oil to flow.

The small jet of high-pressure oil was sufficient to penetrate the rubber glove and enter the joint.

First aid was administered and the deputy followed the mine protocol and sent him to hospital for treatment.

RECOMMENDATIONS

Mines operating equipment with high pressure hydraulics should:

- Ensure all employees working with or around equipment with high-pressure hydraulic systems are fully aware of the dangers of fluid injection entering the body and the damage it can cause.
- Develop an emergency response procedure for dealing with high-pressure fluid injection. Refer to MDG 1016 – First Aid In NSW Coal Mines, February 1999.

- Ensure the treating hospital doctor is aware that the injury relates to high pressure fluid injection, clearly identifies the injected material, its chemical constituents and supply materials safety data sheets
- Develop a procedure whereby identification of leaking hoses can be carried out under a safer pressure regime or introduce a fault finding solution that protects the body from fluid injection and communicate this to all employees.



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