

SAFETY ALERT



HOT WATER FROM PUMP BURNS QUARRY WORKER

INCIDENT

A quarry worker was seriously burnt from hot water when a hose blew off a pump supplying water to sprays on a pugmill.

CIRCUMSTANCES

The control valve for the water sprays was closed. Due to the design of the water spray circuit, the water kept circulating in a closed loop.

INVESTIGATION

The control valve for the water sprays is remote controlled and was in a closed position.

The water spray circuit has a pressure relief valve and a manually operated flow control valve that returns all water to the suction side of the pump.

With the control valve closed, the design of the circuit caused the water to keep recirculating through the pump. This generated enough heat and pressure to eventually blow the delivery hose off.



Photo above shows operator's station, water spray pump and hydraulic lines.

RECOMMENDATIONS

The design of these types of circuits must follow safe engineering practice:

1. The relief valve return line routed back to tank.
2. The manual flow control valve return line routed back to tank.
3. All pipes, hoses and connections fit for purpose with a minimum factor of safety of 4 to 1 burst pressure to maximum working pressure as per Australian Standards.

For further information contact:

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