



**DEPARTMENT OF MINERALS AND ENERGY
WESTERN AUSTRALIA**

SIGNIFICANT INCIDENT REPORT NO. 70

THERMAL LANCING OF CRUSHER CONCAVES - SERIOUS ACCIDENT

INCIDENT

A tradesman suffered serious head, neck and facial burns during the thermal lancing of concave segments of a gyratory crusher. The injured person was fully equipped with the appropriate personal protective equipment which included a heat resistant suit and an air supplied heat resistant helmet. Flames occurred within the confines of the heat resistant helmet resulting in the injuries.

CAUSES

The air supplied heat resistant helmet was inadvertently connected to a cylinder containing compressed "medical oxygen" instead of compressed air. The oxygen rich atmosphere in the helmet resulted in immediate rapid burning once an ignition source due to either sparks or radiated heat was introduced.

COMMENTS AND PREVENTATIVE ACTION

It must be recognised that any atmosphere rich in oxygen will readily promote potentially violent conflagration once an ignition source is introduced. Compressed oxygen can also result in spontaneous combustion if it is directed at surfaces containing grease or oil.

In this particular accident medical oxygen cylinders which are painted black with a white shoulder, were used instead of compressed air cylinders, which are pewter coloured with black and white shoulders.

Great care must be exercised by all personnel involved in the supply and installation of compressed gas cylinders to ensure that the correct compressed gas is used for each particular task.

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2 April 1997

SAFETY AWARENESS SAVES LIVES