

SAFETY ALERT

CONTRACTOR SUFFERS SERIOUS BURNS

INCIDENT

A contractor employee was in the process of refuelling a petrol operated generator situated in the back of a tray top ute. A fire erupted during the refuelling process which seriously burnt the contractor. The contractor received full thickness burns to 20% of his body and partial thickness burns to another 10% of his body. The contractor will require ongoing burns treatment for a considerable period of time.

CIRCUMSTANCES

Two contractor employees were welding breathers into a large diameter poly-pipe. They were using a petrol powered generator to run an electrical powered poly-welder. The generator ran out of fuel and a 20 litre steel jerry can of petrol was used to refuel the generator. A fire erupted during the refuelling process seriously burning the victim.

The victims clothing caught fire during the incident. The second employee advised the victim to roll on the ground. He then used a fire extinguisher to extinguish the fire on the victim.

Emergency response personnel were on the scene within minutes. Initial medical treatment was provided at the mine until the victim was stabilised and airlifted to a Sydney burns hospital for specialised treatment.

INVESTIGATION

Investigations are continuing. The ignition source has not yet been confirmed. However, contributing factors may include, but are not limited to, the following:

- the jerry can may have been filled while it remained in the ute tray and may not have been grounded prior to commencing the refuelling of the generator. Static electrical charges are a dangerous source of ignition - capable of igniting a flammable mixture of petrol vapours and air. A static electric discharge may have been the ignition source.
- no funnel readily available to safely direct petrol into the fuel tank.
- the generator was potentially very hot when the refuelling process commenced. This could cause petrol to auto-ignite under certain conditions and may have been the ignition source.
- the victims clothing was not flame resistant

RECOMMENDATIONS

- Avoid using petrol driven motors on a mine site. Whenever possible use diesel operated equipment.
- Only use fit for purpose fuel containers that meet the requirements of **AS/NZS 2906 Fuel Containers - Portable-Plastic and Metal** and **AS/NZS 1940 Storage and handling of flammable and combustible liquids**.
- Avoid filling petrol containers and portable petrol powered equipment while they are in a vehicle or on the back of a truck or ute to reduce the risk of a static-ignited fire - the equipment should be placed on the ground prior to refuelling - to reduce the risk of a static-ignited fire
- Never refuel a motor while it is operating. Ensure petrol operated equipment is turned off and has cooled down sufficiently prior to refuelling – to reduce the possibility of a auto-ignition: *Note that petrol may auto-ignite under certain temperature conditions – refer to MSDS sheets for petrol auto-ignition temperatures*
- Do not smoke or use matches or cigarette lighters in the vicinity of refuelling areas and flammable liquid and gas storage areas. No smoking/no naked flame signs should be placed in these areas.
- Ensure that any work being conducted where static electricity risk may exist is risk assessed and controlled. Consider **AS/NZS 1020 The control of Undesirable Static Electricity**
- It is essential that appropriate flame resistant clothing be provided to protect persons who may be exposed to fire hazards. The clothing should meet the requirements of **AS/NZS 2801 - Clothing for protection against heat and flame - general recommendations for selection, care and use of protective clothing**

NOTE: Please ensure all relevant people in your organisation receive a copy of this Safety Alert, and are informed of its content and recommendations. This Safety Alert should be processed in a systematic manner through the mine's information and communication process. It should also be placed on the mine's notice board.

Signed



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