

## **LOSS OF CONTROL OF WATERCART – FATAL ACCIDENT**

### **INCIDENT**

A watercart operator was fatally injured in September 1997 while carrying out spot watering of the main pit ramp. The watercart was an on-highway type truck. The vehicle went out of control on the main pit ramp, gained speed while travelling down the ramp and failed to negotiate a bend in the ramp halfway down into the pit. The immediate cause of the loss of control is not known. The watercart tipped onto its side and collided with the pit wall. The driver's cabin sustained the full force of the collision. The vehicle was not fitted with a rollover protective structure (ROPS) and wear was found in some brake components.

Other instances have also been recorded of vehicles running away on the pit ramp including a vehicle entering the pit floor area and running over a charged pattern in the pit.

### **CONTRIBUTING FACTORS**

The vehicle was found to have been in neutral, preventing the operator utilising the engine and exhaust brake to slow the vehicle down.

There were no devices installed along the pit ramp or at the bend to safely stop a vehicle which was out of control with minimum damage to the vehicle.

### **RECOMMENDATIONS**

1. The manager should specify the gear to be used by the operator of each vehicle operating on a pit ramp and should ensure that this gear is selected prior to entering the ramp.
2. All on-highway vehicles used for watering purposes in the quarry operation should be fitted with ROPS.
3. The manager should ensure that all brake parts are examined on a regular basis to ensure that the braking system of each vehicle is maintained to a high standard of efficiency. A suitable discard criterion must be applied to ensure replacement of any brake parts which become worn.
4. Open pit operations should install suitable barriers or retarding devices (eg. Windrows, "ARMCO" or "hopper stoppers") to regulate the progress of vehicles while out of control. These devices should be made from a suitable material which will absorb the energy from the impact and minimise the damage to the vehicle.
5. All operators who drive on pit ramps should be adequately trained in safe work procedures, including the stoppage of a vehicle which is out of control. This training should be structured to include elements on correcting a skid, stopping a vehicle under high speed conditions and stopping a vehicle using the devices installed to prevent the vehicle hitting the wall or entering the pit floor area.
6. The mine manager should carry out a review of the types of vehicles used in the quarry operation, as not all on-highway vehicles may be designed for or suitable for heavy earthmoving conditions. A risk assessment on all service vehicles and explosives trucks should be carried out to examine what incidents involving such vehicles might occur. Where a significant risk is identified, suitable controls should be adopted to ensure the safety of the operators of the vehicles.

J M Torlach  
STATE MINING ENGINEER

28 October 1997