SIGNIFICANT INCIDENT REPORT NO: 110

VEHICLE OVER STOPE EDGE

INCIDENT

A Toyota personnel carrier was reversed into an ore drive in an underground mine, where it went over the bench edge of an open stope. Fortunately, the vehicle became stuck on the edge and this enabled the driver to exit the vehicle. The driver attempted to secure the vehicle with chain but it slipped entirely over the edge and fell 15 m into the stope drawpoint on the level below.

The driver was badly shaken by this incident and was fortunate not to have sustained serious or fatal injuries.

CAUSES

• The entrance to the ore drive leading to the stope was not cordoned off with a physical barrier;
• The mine relied on the placement of a chain and sign to warn of the presence of a vertical opening into a stope. In this case, the chain and sign was not in place;
• Risks associated with stope vertical openings had not been fully assessed;
• The driver was unaware of the position of the bench edge in the drive. It had been advanced approximately 14 m during his R & R break.
• Poor visibility to the rear of the vehicle.

COMMENTS AND PREVENTATIVE ACTION

To avoid a recurrence of this type of incident, the following actions need to be considered:

• Assess current work practices and procedures and ensure that safe systems of work that include appropriate precautions are in place which will minimise any risk of injury to any persons working at, or accessing, vertical opening locations.

Refer to MSIR 1995 regulation 10.35, and to the MOSHAB guideline “Vertical Opening Safety Practice;”
• Place a physical barrier across any access drive to a vertical opening. The barrier must be of sufficient size and robustness and of a construction adequate to prevent inadvertent access to the vertical opening by both personnel and mobile equipment. The barrier may be fixed or portable, depending on future access requirements, e.g. for a charge-up machine in an open stope;

• Use suitably located signage to warn of the danger of a vertical opening;

• Following their return to the mine after a R & R break, ensure that employees are fully briefed on any relevant production activities that occurred during their absence;

• Drivers of vehicles must ensure that they do not reverse “blind”. If clear visibility behind the vehicle is not available, a driver must get out and check the planned reversing path.

As a general comment, it is noted that more and more check and inspection work is being carried out from a vehicle cab. Driving right up to a workplace does not enable a supervisor, for example, to examine the condition of access headings and travelling ways. Regular inspection of working areas and travel ways on foot is to be encouraged.

M J Knee
STATE MINING ENGINEER