



Significant Incident Report No. 241

Subject: Underground worker crushed between integrated tool carrier (IT) work basket and roof of excavation (backs)

Date: 07 June 2016

Summary of incident

Note: The Department of Mines and Petroleum's investigation is ongoing. The information contained in this significant incident report is based on materials received, knowledge and understanding at the time of writing.

In March 2016, two servicemen were working in an integrated tool carrier (IT) work basket removing pipe services from the sidewall and backs of an extra-high excavation. At the time of the incident, the work basket had been raised close to the backs but extra lift was needed and the basket was tilted upwards. A worker who was leaning over the front of the basket received serious head injuries when crushed between the top rail of the basket and the backs.



IT work basket in position beneath the backs

Direct causes

The worker was leaning over the front of the basket when the basket was tilted upwards.

Contributory causes

- Lack of effective communication between personnel.
- The injured person was new to the task and was undergoing training.
- Tilting of the work basket was not included in the training documentation.
- The operator directing the work basket was not aware of the position of the offsider when the direction was given to tilt the work basket.

- The operating procedure did not identify the potential for a crush hazard while conducting work from the basket.

Actions required

Mine operators are reminded of the importance of developing safe systems of work that identify hazards and ensure effective risk controls are implemented for working in IT or elevated work platform (EWP) work baskets. The following actions are recommended to prevent similar incidents.

Hazard identification and risk management

- When undertaking work at height using IT or EWP work baskets, identify and address the potential for workers to be crushed between the basket and adjacent structures. Work should be done without leaning over the edge of the work basket.
- Confirm that the equipment is fit-for-purpose — tilting the work basket for extra reach height introduces additional hazards from sloping floor surfaces.
- Consider installing height-limiting sensors or physical barriers to prevent crush nip points for personnel working in work baskets.
- Consider installing audible movement warning buzzers to work baskets.

Communication

- Implement and promote positive communication protocols between all personnel involved in the work to maintain situational awareness. This may include verbal and visible means of communications.
- Develop and implement standard signals for the control of IT and EWP work baskets.

Training

- Provide employees with adequate instruction, training, assessment and supervision to conduct work safely from IT and EWP work baskets.
- Include guidance on the signals for controlling work baskets in training packages.

Further information

- Department of Mines and Petroleum, www.dmp.wa.gov.au/ResourcesSafety

Significant Incident Report No. 217 *Underground worker crushed between charge-up basket and roof – fatal accident*

Significant Incident Report No. 151 *Crushed in a pinch point of fixed elevating work platform (EWP) – fatal accident*

Mines Safety Bulletin No. 116 *Use of mobile elevated work platforms (MEWPs) within or adjacent to structures with restricted access*

Mines Safety Bulletin No. 114 *Compliance requirements for multi-purpose mobile plant
Working at height in underground mines – guideline*

This Significant Incident Report was approved for release by the State Mining Engineer on 07 June 2016