

MINE SAFETY INVESTIGATION UNIT

Elevated work platform incident resulting in injuries at open cut coal mine

21 March 2006

Injured by unplanned movement

- 21 March 2006
- Incident at overburden
 mining strip of open cut
 mine in Hunter Valley NSW
- Maintenance to mining shovel by original equipment manufacturer contractor
- Unplanned movement of elevated work platform (EWP)

EWP man-basket





The incident

- Two persons located at height in an EWP manbasket replacing hoist ropes on a mining shovel
- Operator attempting to reach up/down lever while holding shovel hoist rope
- EWP lurched forward into mining shovel bucket
- Impact crushed manbasket door trapping men





The result

- Two persons placed at risk of, at least, severe crush injuries
- EWP could not be reversed from the ground position during the rescue operation
- One person severed tip of finger and crushed bone
- Second person trapped by foot and cut by oxyacetylene from the crushed EWP handrail



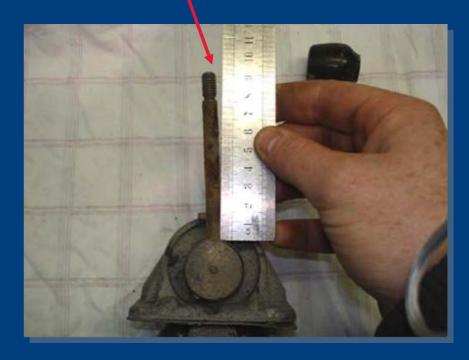




Causal factors

- EWP operated in high speed travel mode
- Obstructed access to EWP basket controls by ropes
- Defective drive control slide lock mechanism
- Control stick not able to be locked to prevent inadvertent operation
- Dead man control and unintended activation of control unit

Bent centre shaft of drive control unit





Causal factors

- Inadequate plant inspection failed to identify defective control unit
- Unplanned movement of EWP was not identified in the risk assessment of the task
- Larger boom length EWP used then specified in the work procedure
- Inadequate training of operators in the proper use of EWP
- EWP operator did not hold certificate of competency to operate EWP
- Inadequate supervision of the work tasks
- Contractor management



Best practice

- Similar standards for health and safety for contractors as the mine has in place
- Regular monitoring and review of contractor's safe work method statements and safety management plans
- Ensure risk assessments for task that involve machinery include potential for unplanned movement and release of energies
- Operators of machinery have a national certificate of competency or similar qualification.



Related published resources

- Safety Alert
 SA06-15: Unplanned movement of elevating work platform
- Technical References
 - MDG 5003 Guidelines for Contractor Occupational Health and Safety Management for New South Wales Mines
 - MDG 1010 Risk Management Handbook for the Mining Industry
 - MDG 1014 Guide to Reviewing a Risk Assessment of Mine Equipment and Operations

