

SAFETY ALERT

Deputy crushed by load haul dump machine attachment

INCIDENT

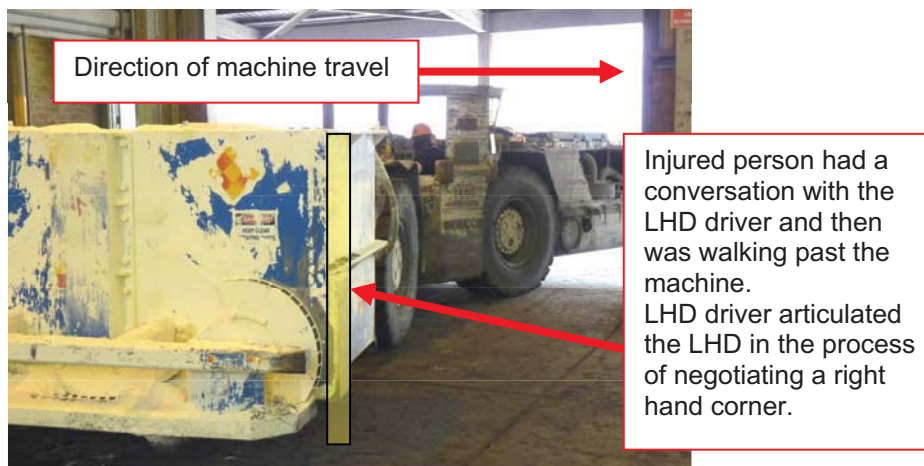
A deputy sustained a crush injury when the bumper bar of a stone duster pod attached to a load haul dump machine (LHD) crushed him against the side of the roadway. This resulted in a compound fracture of the left femur.

CIRCUMSTANCES

The LHD operator had completed stone dusting at the face and was about to clear the roadway with the bulk stone duster pod attached to the QDS of the LHD. The deputy stopped the LHD, approached the LHD operator on the machine, and issued instructions to the LHD operator to wait for a shuttle car to clear the area of intended travel.

The shuttle car cleared the travel route and the LHD operator commenced to turn right to clear the roadway. The LHD operator was facing in the direction of machine travel and was not aware that the deputy had not cleared the No Standing Zone of the machine.

The deputy was still in proximity to the moving machine in a position of danger. The deputy was struck by the bumper bar of the stone dust pod as the LHD articulated to negotiate the right hand corner.



INVESTIGATION

An investigation into the cause of the incident has identified the following issues of concern;

- Lack of positive communication between the operator and deputy during the activity.
- Non-compliance with No Standing Zones around mobile machines.
- Although mine rules provided guidance to mine workers for activities in and around moving equipment, the rules were not specific on how a machine operator was to ensure a person was clear of the No Standing Zone prior to machine movement.
- The mines auditing of the Occupational Health and Safety Management System (OHSMS) had failed to identify the flaw in the system of work associated with No Standing Zones.

RECOMMENDATIONS

All mines should;

- Audit and review the compliance with No Standing Zones around mobile machinery.
- Ensure Transport Management Plans and mine rules are implemented.
- Ensure mine rules and schemes related to No Standing Zones are positively enforced.
- Ensure, in particular, that machine operators and supervisors enforce compliance with No Standing Zones around mobile equipment.
- Ensure a system of positive communication between machine operators and pedestrians is in place to ensure people are not located in No Standing Zones before mobile machinery moves.
- Review and identify the application of proximity detection devices to minimise the risk to the lowest level reasonably practicable with reference to *Occupational Health and Safety Regulation 2001*, clause 5 Hierarchy of Control – engineering controls.
- Remind people of their obligations under the *Occupational Health and Safety Act 2000* and the *Coal Mine Health and Safety Act 2002*.

REFERENCES

NSW Trade & Investment has previously published safety alerts and information concerning human interaction with mobile plant. These documents should be referenced when undertaking risk assessment and review of mines OHSMS.

- MDG 5004 CJ Pitzer Report - A study of risky positioning behaviour of operators of remote controlled mining equipment
- Safety Alert SA04-16 - Serious spinal injury
- Safety Alert SA07-01 - Miner fatally injured in remote controlled loader incident

- Safety Bulletin SB 08-01 - Operator behaviour around remote control equipment
- Safety Bulletin SB08-08 - Mine workers injured in machinery crush zones
- Safety Alert SB08-11 - Worker crushed by sliding backhoe
- Safety Bulletin SB09-04 - Human interaction with backhoes and excavators
- Safety Alert SA09 -05 - Mine worker crushed against rib by remote controlled continuous miner
- NSW Trade & Investment Proximity Detection Workshop presentations www.dpi.nsw.gov.au/minerals/safety/publications/seminar-presentations/2011-proximity-detection-workshop
- Investigation unit published resources www.dpi.nsw.gov.au/minerals/safety/major-investigations/investigation-reports

Other reference material is available at;

NSW Industrial Relations Commission published case decisions
http://www.lawlink.nsw.gov.au/lawlink/caselaw/ll_caselaw.nsf/pages/cl_irc

NSW Case Law - NSWIRComm 71
www.caselaw.nsw.gov.au/action/pjudg?igmtid=152053

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



Rob Regan
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MINE SAFETY OPERATIONS
NSW TRADE & INVESTMENT

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