

Safety alert

Mines

Mines Inspectorate

Safety alert no. 245 (Version 1)
23 August 2010

Serious crush injury from Jumbo development drill boom

Mine Type: Metalliferous Mine - Underground

Incident: A Jumbo development drill offsider sustained serious injuries when he was changing out the drill bit for a reamer bit on the boom of a Jumbo development drill. The boom was swung hard across the front of the jumbo so the offsider was in the operator's peripheral vision. The drill steel retracted while the offsider's hand was still on the reamer bit, pinching his right hand between the centraliser housing and the bit. This resulted in serious crush injuries to the hand.

Equipment: Jumbo Development Drill

Hazard: Crush Injuries

Cause: The boom hydraulics on the Jumbo were not isolated and a lever was moved causing the drill steel to retract while the offsider still had his hand on the drill. The incident is under investigation.

Comments:

A Jumbo operator should never be at the controls (with the hydraulics powered) while people are working in the vicinity of the booms.

The hydraulics must be isolated and should be locked out prior to anybody accessing the development drill booms. Nobody should proceed past the front jacks of a Jumbo until the hydraulics have powered down and positive communication has been received by the Jumbo operator to the offsider.

Recommendations:

1. Consider the hierarchy of controls when applying hazard controls. Use devices that isolate and lock-out the hydraulics or electrics. The devices could be mounted on the outside of the drill cabin so that the offsider can isolate and lock-out the booms prior to walking out in front of the jumbo cabin/jacks.
2. Consider that people can be prone to error through lack of knowledge, lapses in concentration, memory failure or through intentional non-compliance with procedures.
3. Ensure procedures for development mining and Jumbo offsidings clearly state that nobody is to be at the controls (with the hydraulics powered) while people are working in the vicinity of the booms.
4. The operator must ensure the machine has no power to both booms, and positively communicate with the offsider, prior to the offsider walking in front of the cabin/jacks.
5. Ensure that the assessment questions included in Jumbo mining and offsidings training packages clearly cover the hazard of working with operational booms, and the corresponding controls.
6. Training and safe work procedures must consider human error, address the hazards encountered on the job, be practicable and be actively used.

7. Employees must have a clear understanding of what management expects and be actively supervised with regular safe behaviour type observations.

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