

SAFETY ALERT

Falling rock strikes loader operator

INCIDENT

A large rock, weighing about 23 kg fell 17 m from a blasted quarry face, crashed through a windscreen and hit a front end loader operator at a quarry near Stradforth, NSW, in July.

The loader had a maximum raised bucket height of approximately 5 m.

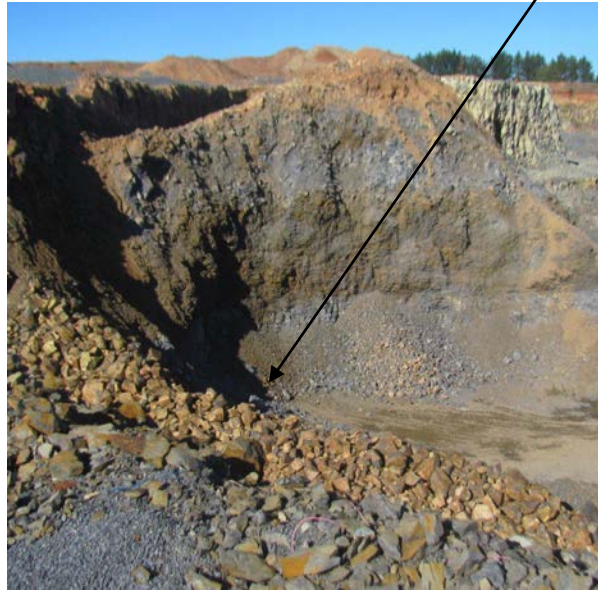
The rock struck the loader bucket arm, which was in the raised position, and bounced through the windscreen of the operator's cab.

The operator was struck in the upper chest and suffered minor lacerations.

Figure 1: Damage to the loader windscreen. Photo by Mine Safety



Figure 2: Rock inside the operator's cab. Photo by Mine Safety Figure 3: Area where loader was operating. Photo by Mine Safety



CIRCUMSTANCES

The working face where loading was taking place was approximately 18 m in height.

The mining method on site was recently changed with the planned bench height increasing from 9 m to 18 m.

The area had recently been blasted and material had held up in the face with only a small amount riling away from the face for free loading.

Before the incident a risk assessment and a safe work method statement (SWMS) was completed for the removal of material from the blasted face.

INVESTIGATION

Determinations:

1. No formal risk assessment was undertaken to identify the appropriate mining equipment to be used when the bench height was increased. The FEL was not fit for purpose in this particular situation.
2. Although a risk assessment was completed for this task, and rocks falling from the face had been identified as a hazard, it failed to identify rocks falling from the face from height.
3. A SWMS was available for this task. The SWMS failed to identify the hazard of material unexpectedly falling on the loader from height.
4. Pre-start inspections from both the supervisor and FEL operator failed to identify the hazard of hung up blasted material falling from the face at height onto the loader.

RECOMMENDATIONS

1. Mobile mining equipment should be fit for purpose and matched to the work activity undertaken.
2. Risk assessments and SWMS for loading from blasted stockpiles should assess the risk of rocks/material falling from height.
3. Supervisors and workers should be competent to identify and act on identified hazards in the workplace.
4. Supervisors and workers should inspect the workplace at regular intervals to ensure the workplace is safe and without risk. If risks are identified, appropriate actions must be taken.
5. A change management process should be conducted when changes to the workplace system or activities are planned.

FURTHER INFORMATION

Work Health and Safety Regulation 2011, Cl.214 Powered mobile plant— general control of risk

- (1) This clause applies to a person with management or control of powered mobile plant at a workplace.
- (2) The person must ensure, so far as is reasonably practicable, in accordance with Part 3.1, manage risks to health and safety associated with the following:
 - (a) The plant overturning
 - (b) Things falling on the operator of the plant
 - (c) The operator being ejected from the plant
 - (d) The plant colliding with any person or thing.

MDG 15, Guideline for mobile and transportable plant for use at mines, 3.13 OPERATOR'S CABIN AND PROTECTION

Safety Alert SA11- 03 *Stockpile collapses on loader driver*

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.

Issued by
David McLean
Chief Inspector of Mines
Appointed pursuant to Work Health & Safety (Mines) Act 2013

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