Fatal incident when excavator engulfed after pit wall failure

Mines safety alert no. 364

What happened?

On Wednesday 26 June 2019 at approximately 12.20pm, a 55 year old coal mine worker was fatally injured while he was operating an excavator at an open cut coal mine in Queensland's Bowen Basin. The coal mine worker was operating an excavator when an adjacent pit wall approximately 40 metres high suddenly failed. This resulted in fallen material engulfing the excavator and partially crushing the excavator's cabin.

Queensland Police Service attended at the mine and handed over control of the scene to the Queensland Mines Inspectorate.

Equipment: Excavator (350 tonne)

Hazard: Gravity / Fall of ground

Cause: The cause of the incident is currently under investigation.

Comments:
While this incident involved an excavator conducting overburden removal, mines should consider the recommendations below for all activities conducted in open cut excavations.

Recommendations:

The Mine Site Senior Executive should:

- Ensure sufficient geotechnical data for safe pit design and modelling is collected, analysed, interpreted and communicated.
- Ensure the geotechnical risk management strategy includes rockfall modelling to determine appropriate exclusion zones, capable of containing any potential rockfall material within the exclusion zone.
- Ensure that a visual demarcation is placed along all exclusion zones. Examples being: earth bund, witches hats or fencing.
- Ensure a person with geotechnical competencies conducts scheduled geotechnical risk assessments of all pit walls in relation to stability.
- Review their current controls to ensure risk to persons from geotechnical hazards is within acceptable limits and as low as reasonable achievable.
- Review their current geotechnical monitoring program and associated Trigger Action Response Plans (TARPs) to ensure that they are adequate and effective.
- Ensure adequate training programs are in place to enable all personnel to receive appropriate and regular training in geotechnical hazard awareness, and have a clear understanding of the appropriate TARPs.

Authorised by the Chief Inspector of Coal Mines | Luca Rocchi
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