

DATE: DECEMBER 2018

Potential fall of excavator over highwall

This safety alert provides safety advice for the NSW mining industry.

Issue

The hazards of operating mobile plant in proximity to edges of highwalls at open cut coal mines was highlighted when an 85 tonne excavator slipped over the edge of a highwall. The incident occurred on 22 September 2018. The operator exited the cabin without injury.

Circumstances

The excavator was being used to pull a 100 metre length of poly pipe along a highwall edge. A services crew leading hand devised the work method to join two sections of poly pipe along the highwall edge.

The activity was an alteration to a planned task and mine supervisors had not authorised the altered work method. The excavator reversed into an area where there was no highwall edge bunding. The excavator slumped over the edge when the edge collapsed. The operator got out of the cabin.

The services crew leading hand then disconnected the poly pipe from the excavator, got into the cabin, and rotated the excavator to secure the bucket into the ground. Rotating the excavator significantly increased the potential risk of the machine falling over the highwall.

Photograph 1: View of the excavator sitting on the edge of the highwall. (Photograph supplied by the mine)



Photograph 2: View from the bench of the excavator rotated over the edge of the highwall. (Photograph by Resources Regulator)



Investigation

The NSW Resources Regulator conducted an investigation into the incident and identified the following factors:

- the risk management arrangements did not identify the hazard and effective risk controls to prevent the incident from occurring
- supervisory and team leader communication arrangements failed to adequately respond to and approve altered work tasks
- there appeared to be a normalisation of the risk of working near highwall edges.

Recommendations

Mine operators should review their safety management systems, particularly focusing on the following:

- documented tasks that are reviewed by supervisors should ensure that principal hazard risks are identified and adequately controlled (such as working near a highwall edge)
- adequate communication arrangements should be made with workers in service and maintenance crews so that when tasks are altered, and unplanned events occur, adequate notification for approval is made to a supervisor
- workers in service and maintenance crews should be considered in the supervisory arrangements for the relevant statutory supervisor
- review highwall edge bunding to design specifications in work areas to prevent mining equipment going over highwall edges and have adequate demarcation in areas where appropriate bunding is not installed
- review that the equipment used for handling poly pipe is fit-for-purpose.

Relevant publications

[SA18-09 Drill rig suspended 50 m above ground after breaking highwall windrow](#)

[SA09-13 Light vehicle drives off bench in open cut mine](#)

[SB18-11 Windrow management and demarcation](#)

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.

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| Mine safety reference | SA18-13 |
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