

FACT SHEET

Assessment program - Ground or strata failure – slope stability Small mines

January 2022



The principal mining hazard of ground or strata failure can occur through various mechanisms at surface mining operations. This can therefore potentially place workers at risk if not controlled effectively. The management of slope stability is a key mechanism within this process and should be assessed both individually and cumulatively with other hazards.

The Resources Regulator is commencing a program of planned inspections and targeted assessments at small mines focussing on the critical controls associated with slope stability. The assessments will be focussed on the following criteria:



Mine design

- Ground stability risks are assessed and controlled within the mine design and mine operating parameters.

Water management

- Controls for risks to ground or strata from water damage are implemented.



Dump to design

- Factors which affect dump stability are identified, dumps are correctly constructed, and dumps are inspected and monitored for compliance.



Excavate to design

- Walls are excavated to design and cleared of loose material.

Drilling and blasting practices

- Execution of drill and blast practices are completed to designed specifications.



Separate people from the ground or strata hazard

- Indicators of potential failure are identified and people are subsequently protected from areas of risk.



Operator protection

- Plant design provides a barrier for falling objects and also prevents workers from being crushed in a rollover event.

Considerations

Mine operators should consider the above criteria as a minimum, ensuring such information is included within their principal hazard management plans and associated documentation. Following investigations into strata failure incidents within the mining industry, it was evident that non-compliance to these key control measures contributed to incident outcomes, which caused both severe and fatal injuries to workers. When identifying and implementing control measures, mines are also reminded to follow the hierarchy of controls to ensure health and safety risks are minimised so far as is reasonably practicable.

Other relevant safety alerts and bulletins published by the NSW Resources Regulator:

DATE PUBLISHED	REFERENCE	TITLE
February 2020	SB20-01	Failure of highwalls
August 2019	SB19-09	Lack of bunding on accessible edges
December 2018	SA18-13	Dangerous incident involving excavator on edge of highwall
July 2018	SA18-09	Drill rig breaches highwall windrow
July 2018	SB18-11	Windrow management and demarcation
March 2017	SB17-03	Rocks breach catch bund
January 2017	SB17-01	Industry reports more truck rollover incidents
November 2014	IIR14-06	Track mounted excavator tip over

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