

Fact sheet

Principal hazard – ground or strata failure (underground)

October 2024



The Resources Regulator has developed a broad-brush risk assessment and a program of bowties to review principal hazards and control plan topics.

The bowtie program identified the material unwanted events (MUE) and critical controls to prevent serious injury or death of mine workers.

The bowtie for the principal hazard of ground or strata failure (underground) identified one MUE and the critical controls for assessment programs. This fact sheet provides information related to the assessment program focussing on the MUE – uncontrolled movement of ground (underground).

Principal hazard – ground or strata failure (underground)

MUE – uncontrolled movement of ground (underground)

MUE critical controls

The Regulator’s assessment program will focus on the following critical controls to prevent an uncontrolled movement of ground (underground):

- The mine (layout, sequence, method and support) is designed to geotechnical, strata and hydrogeological conditions.
- Use of ground support (designed and executed to maintain stable ground).
- Engineered operator protection devices.
- Drill and blast management.
- Workers are restricted/removed from high-risk areas.



Considerations

Mine operators should consider the MUEs above as a minimum and ensure that the review of critical controls to prevent serious injury or death is included within the site principal hazard management plans and associated documentation.

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Other relevant safety alerts, safety bulletins and information resources published by the Resources Regulator:

Date published	Reference	Title
July 2024	Investigation information release	<u>IIR24-05 Dangerous incident at Clarence Colliery – roof fall</u>
June 2023	Safety bulletin	<u>Safety bulletin SB23-06 Rockfall injuries to workers increase in underground mines</u>
February 2023	Consolidated report	<u>Ground or strata failure - underground coal mines - secondary extraction</u>
July 2022	Investigation information release	<u>IIR22-03 Worker’s leg fractured during strata support work in a coal mine drift</u>
January 2022	Safety bulletin	<u>Safety bulletin SB22-02 Strata failures increase in underground coal mines across the state</u>
December 2021	Investigation information release	<u>IIR21-12 Roof ply rock falls on two workers during pillar extraction</u>
October 2021	Safety bulletin	<u>Safety bulletin SB21-07 Polyurethane resin selection</u>
December 2020	Consolidated report	<u>Managing ground or strata failure risks in underground coal mines</u>
February 2020	Safety alert	<u>Safety alert SA20-01 Roof fall buries a continuous miner – miners take evasive action to prevent injury</u>
November 2019	Safety bulletin	<u>Safety bulletin SB19-15 Rapid face bolters incidents</u>
July 2018	Investigation information release	<u>IIR18-05 Serious injury</u>
February 2015	Code of practice	<u>Strata control in underground coal mines</u>
August 1992	MDG 1005 Part 1	<u>Manual on pillar extraction in NSW underground coal mines</u>

References	
Program type	PH-0403
Principal hazard	0403 Ground or strata failure (underground)
MUE number	MUE03

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