

Fact sheet

Principal hazard – inundation or inrush – of any material or substance that flows

August 2024



The Resources Regulator has developed a broad-brush risk assessment and a program of bowties to review principal hazard 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 inundation or inrush identified 2 MUEs and the critical controls for assessment programs. This fact sheet provides information related to the assessment program focussing on the MUE – inundation or inrush of any material or substance that flows at mine sites.

Principal hazard – inundation or inrush

MUE – inundation or inrush of any material or substance that flows

MUE critical controls

The Regulator’s assessment program will focus on the following critical controls to prevent an uncontrolled inundation of any material or substance that flows at mine sites.

- The mine is designed to geotechnical and hydrogeological conditions.
- Reduce magnitude of the source of any material or substance.
- Drill and blast management with regards to inundation and inrush sources.
- Water management system.
- Containment system design and construction.
- Workers are restricted or removed from high-risk areas.
- Flow management (exploratory drilling and stand pipes).
- Backfill management (hydraulic and paste).



Considerations

Mine operators should consider the MUE 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 and bulletins and guidance published by the Regulator:

Date published	Reference	Title
September 2021	Inspection report	<u>Inundation or inrush of any substance – underground coal mines</u>
June 2021	NSW code of practice	<u>Inundation and inrush hazard management</u>
May 2014	Investigation report	<u>Serious inrush incident at Cadia East Mine on 21 February 2010</u>
August 2011	MDG 3008 Regulator guideline	<u>Guideline for managing the risk of inrush with hydraulic fill systems</u>
January 2011	Safety alert	<u>Safety alert SA11-01 Water inrush from raisebore hole</u>

References	
Program type	PH-0501
Principal hazard	Inundation and inrush
MUE number	MUE01

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