

Fact sheet

Control plan – explosives control plan – unintended detonation of explosives

May 2025

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 explosives control plan identified one MUE and the critical controls for assessment programs. This fact sheet provides information about the assessment program focussing on the MUE – unintended detonation of explosives.

Control plan – explosives control plan

MUE – unintended detonation of explosives

MUE critical controls



The Regulator's assessment program will focus on the following critical controls to prevent serious injury or death caused by unintended detonation of explosives:

- Blast design (including blast-product sequencing) considers conditions and design.
- Initiation equipment fit for application.
- Restricted access (including bench activities, storage and during transport).
- Explosives transport/handling (including a mobile processing unit) equipment designed for products and conditions.
- Traffic management around loaded shots, magazines, reload facilities, shared haul roads.
- Heat sources separated from explosives and precursors.
- Lightning protection/earthing on manufacturing plant and magazines.
- Equipment has operator protection (excavation for unintended initiation of misfires).
- On-site emergency response.

Fact sheet – control plan – explosives control plan – unintended detonation of explosives

Considerations

Mine operators should consider the MUE above as a minimum and ensure the review of critical controls to prevent serious injury or death is included within the site explosives control plan and associated documentation.

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

Date published	Reference	Title
April 2025	Regulator's web page	www.resources.nsw.gov.au/resources-regulator/safety/licences-and-registrations/blasting-explosives-user-licence
March 2025	Safety bulletin	Safety bulletin SB25-01 Complaints about blasting notices increase
September 2024	Investigation information release	Investigation information release IIR24-08 Unplanned explosion during mining operations
August 2024	Consolidated report	Compliance priority report - Blasting (explosives safety) - small mines
November 2023	Consolidated report	Consolidated report - Explosives control plan stage 1 - metalliferous mines and quarries, surface and underground
November 2023	Safety alert	Safety alert SA23-04 Unintended initiation of unidentified (misfired) explosives during excavation
October 2023	Consolidated report	Consolidated report - Explosives control plan stage 1 - coal mines surface and underground
September 2022	Safety bulletin	Safety bulletin SB22-12 Fires occurring on mobile manufacturing unit trucks
May 2022	Investigation report	Causal investigation report - Unplanned initiation of explosives at Peak Gold Mine
May 2021	Investigation information release	Investigation information release IIR21-06 Person at risk from flyrock at quarry
April 2021	Safety bulletin	Safety bulletin SB21-02 Flyrock from blasting activities

© State of New South Wales through the Department of Primary Industries and Regional Development 2025. You may copy, distribute, display, download and otherwise freely deal with this publication for any purpose, provided that you attribute the Department of Primary Industries and Regional Development as the owner. However, you must obtain permission if you wish to charge others for access to the publication (other than at cost); include the publication in advertising or a product for sale; modify the publication; or republish the publication on a website. You may freely link to the publication on a departmental website.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (April 2025) and may not be accurate, current or complete. The State of New South Wales (including the Department of Primary Industries and Regional Development), the author and the publisher take no responsibility, and will accept no liability, for the accuracy, currency, reliability or correctness of any information included in the document (including material provided by third parties). Readers should make their own inquiries and rely on their own advice when making decisions related to material contained in this publication.