

Fact sheet

Control plan – mechanical engineering control plan – uncontrolled release of energy including spring energy or fluid under pressure

April 2025

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

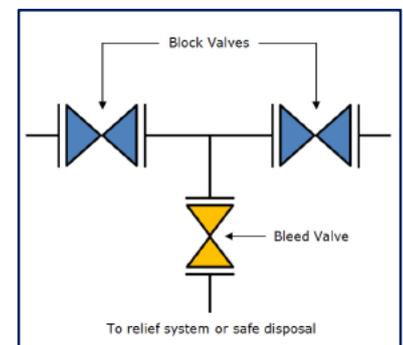
The bowtie program identified the material unwanted events (MUE) and critical controls to prevent serious injury or death of mine workers.

The bowtie for the mechanical engineering control plan (MECP) identified 6 MUEs and the critical controls for assessment programs. This fact sheet provides information about the assessment program focussing on the MUE – uncontrolled release of energy including spring energy or fluid under pressure.

Control plan – mechanical engineering control plan

MUE – uncontrolled release of energy including spring energy or fluid under pressure.

The Regulator's assessment program will focus on the following critical controls to prevent serious injury or death caused by uncontrolled release of energy including spring energy or fluid under pressure.



- Mechanical shielding/separation.
- Equipment can withstand operating pressures/forces introduced (including surge, intensification, tension, loads and relief devices).
- People removed from high-risk areas.
- Restraining device.
- Retention device.
- Provision of effective isolation, energy dissipation and verification.
- Fit for purpose lateral load shifting system.
- Fit-for-purpose tooling.

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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 mechanical engineering 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
September 2024	Safety bulletin	<u>Safety bulletin SB24-07 Mobile plant used for pulling create line-of-fire hazard</u>
September 2024	Safety bulletin	<u>Safety bulletin SB24-06 Incidents and injuries associated with working on pressure systems</u>
December 2023	Investigation report	<u>Investigation report: Mine workers injured during pipe installation work</u>
May 2023	Safety bulletin	<u>Safety bulletin SB23-04 Hose ball valves injure mine workers</u>
February 2023	NSW code of practice	<u>NSW code of practice: Mechanical engineering control plan</u>
October 2022	Safety alert	<u>Safety alert SA22-04 Dangers of lifting and pulling activities revealed</u>
June 2022	Safety bulletin	<u>Safety bulletin SB22-06 Pipe clamp failures</u>
June 2021	Investigation information release	<u>Investigation information release IIR21-09 Worker seriously injured by recoiling pipe</u>

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