

# Safety Bulletin

Date: June 2023

## Contraband identified in underground coal mines

This safety bulletin provides safety advice for the NSW mining industry.

### Issue

Contraband is a hazard that needs to be controlled in underground coal mines to ensure the risk to the health and safety of workers remains at an acceptable level.

Contraband has the potential to ignite flammable gasses or dust. The ignition can be from incendive sparking or arcing, battery fires or explosions. Additionally, contraband can increase the fuel loads of fires.

During May 2023, 5 contraband items were found in underground coal mines, 2 were found on continuous miners in the hazardous zone. These included:

- vapes/e-cigarettes (3 separate incidents)
- a worker wearing a court-ordered monitoring and tracking ankle bracelet
- discarded alkaline batteries from electrical test equipment.

The mines' electrical engineering control plan – portable electrical apparatus (PEA) systems must cover the use of battery-powered apparatus in both hazardous and non-hazardous zones of a mine. Battery-powered apparatus that has not gone through the PEA system is considered contraband.

### Contraband

Battery contraband examples may include:

- vapes/e-cigarettes
- mobile phones
- cameras
- car keys and garage door transponders
- laptops, tablets and data loggers
- electrical/mechanical test equipment
- watches
- torches and commercial headlamps
- hearing aids
- radio frequency cards and transponders

Figure 1 - Vape found in the hazardous zone in an underground coal mine



## Safety Bulletin SB23-05

- batteries and non-certified battery powered equipment.

There is also non-electrical contraband. Examples include:

- cigarettes, tobacco used for smoking and cigars
- devices used for smoking tobacco or drugs
- matches, lighters or any device that when struck could create an open flame, arc or spark
- aluminium items that are not coated or protected
- aluminium marker pens
- all items declared by the mine as prohibited.

## Recommendations

### Mine operators

- An effective system to manage the use of portable electrical apparatus must be implemented at all underground mines and around surface locations that have been identified as hazardous areas due to explosion risk.
- A review of the risk assessment associated with the PEA system should be conducted, ensuring that controls have been implemented and remain effective. This should include confirming:
  - hazards have been identified and risks assessed for equipment/apparatus being taken underground
  - permits are in place
  - gas clearance certificates are issued in the hazardous zone
  - and any special transport and operational requirements are followed.
- Workers must be trained in the mine's PEA system and the identification of contraband.
- Contraband signs must be in place. Signs must be clearly displayed on the surface, before entering underground and before accessing surface hazardous areas.
- A documented system to search for contraband must be in place. These searches should include both scheduled and random searches and results must be documented.

### Workers

- Workers must not take contraband underground or into hazardous areas on the surface of mines.
- Workers must follow the PEA management system when taking battery-powered items underground.

## Resources

### NSW Resources Regulator

[Electrical engineering control plan NSW code of practice](#)

**Government of Western Australia, Department of Mines, Industry Regulation and Safety**

[Mines Safety Bulletin no 181 - Hazards associated with the use of e-cigarette devices](#)

# Safety Bulletin SB23-05

**Note:** Please ensure all relevant people in your organisation receive a copy of this safety bulletin and are informed of its content and recommendations. This safety bulletin should be processed in a systematic manner through the mine’s information and communication process. It should also be placed on the mine’s common area, such as your notice board where appropriate.

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