

# Mine Safety High Visibility Campaign 2024

Small mines sector – site presentation

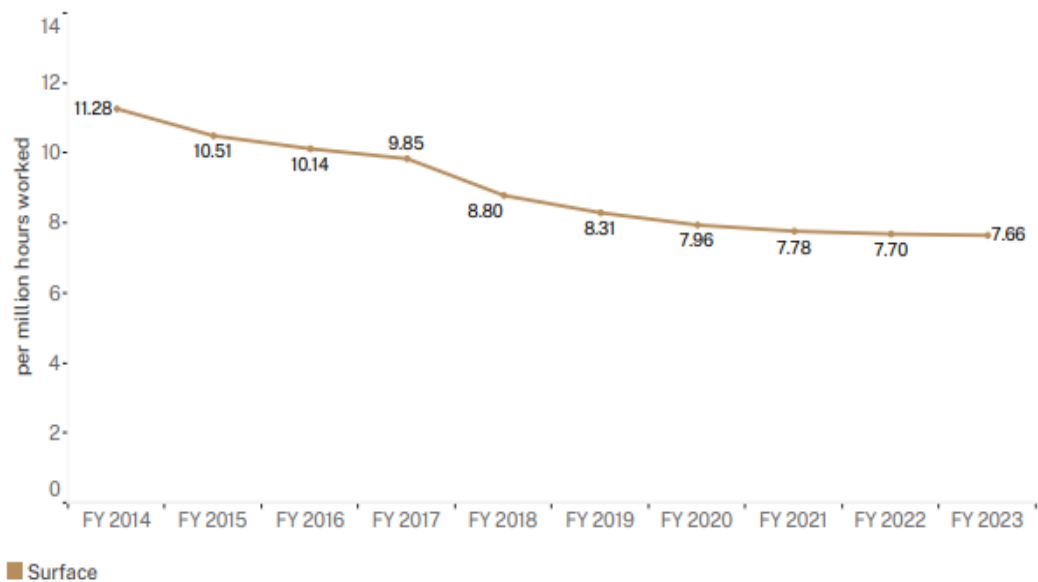
Small Mines – High Visibility Campaign from 24 June 2024 to 5 July 2024



# Extractives sector – LTIFR 5 years rolling average

## Lost time injury frequency rates

Figure 58. Extractives sector rolling 5-year average LTIFR 2013-14 to 2022-23



**LTIFR** or the **Lost Time Injury Frequency Rate** is a safety measure which refers to the number of lost time injuries occurring per 1 million hours worked.

LTIFR will typically be calculated for your specific workplace annually. Your company is required to submit an annual safety report to the Resources Regulator which is utilised to measure safety not only at your workplace but within our industry.

The graph indicates how the extractives sector is performing over time.

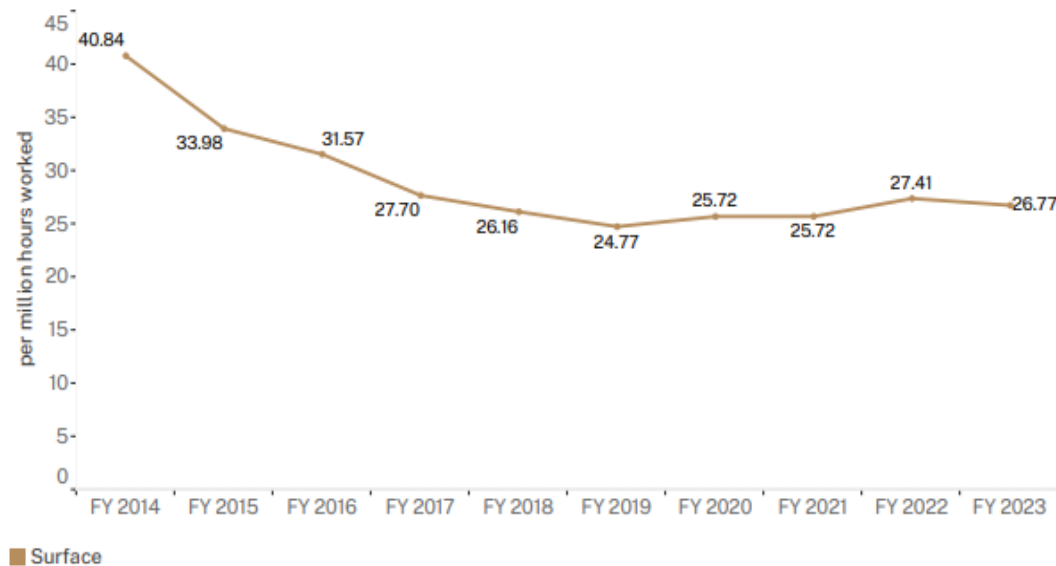
LTIFR average has reduced from 11.28 to 7.66 over 10 years

Improvement is flat in the last 3 years

# Extractives sector – TRIFR 5 years rolling average

## Total recordable injury frequency rates

Figure 60. Extractives sector rolling 5-year average TRIFR 2013–14 to 2022–23



**TRIFR** or the **Total Recordable Injury Frequency Rate** is the number of injuries (excluding fatalities) requiring medical treatment per million hours worked within an organisation.

The graph indicates how the extractives sector is performing over time.

TRIFR average has reduced from 40.84 to 26.77 over 10 years

No improvement in last 6 years

# Extractives sector – Incidents reported 2014 to 2023

Table 5. Extractives sector proportion of mines that notified an incident 2013–14 to 2022–23

Measure	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Number of notified incidents	104	127	146	135	123	153	167	167	125	164
Number of active mines	2,419	2,476	2,583	2,524	2,553	2,501	2,534	2,489	2,481	2,430
Number of mines that notified an incident	63	68	78	69	73	79	76	91	82	76
% of mines that notified an incident	3%	3%	3%	3%	3%	3%	3%	4%	3%	3%

## Notified incidents 2014 to 2023

The number of extractives mines notifying incidents to the Regulator has increased by 21% in the last ten years.

On average only 3% of active extractives mines notified the Regulator of an incident each year.

Very low incident reporting of actual incidents occurring at the site.

## Quarry sector – Recent reported incidents 2023-2024

The Quarry sector has reported significant incidents which resulted in life altering injuries to mine workers including crushing, burns and amputations during 2023-2024.

Poor incident outcomes in the Quarry sector

# Quarry sector – Entanglement – amputated arm – August 2023



Resources Regulator  
Department of Regional NSW



## Investigation information release

Date: September 2023

### Serious injury of a worker performing maintenance work on a mobile screen

**Incident date:** 28 August 2023

**Event:** Serious injury of a worker while assisting with belt tracking of a mobile screen

**Location:** Mt Magometon Quarry

#### Overview

A worker assisting with tracking the belt on a mobile screen was seriously injured when his arm became entangled in the screen's rotating tail drum.

#### The mine

Mt Magometon Quarry is a hard rock quarry about 25 kilometres east of Coonamble in the central west of NSW. The quarry is operated by Coonamble Shire Council. Several workers, including the injured worker, are employed by a contracting company, which provides mobile crushing services to the quarry.

#### The incident

Two of the contractors' workers were tasked with conducting maintenance tasks on various mobile screens at the site. In the early afternoon, the workers advised their supervisor (managing director of the contractor) that they were going to track the belt on a mobile screen identified as screen 7. Their supervisor left the site to travel into Coonamble to pick up some items. The quarry operator's nominated quarry manager was not on site on the day of the incident. The 2 workers began tracking the belt on screen 7.

While undertaking the task, one of workers was in proximity of the right-hand side of the screen toward the rear of the item of plant. The screen was energised with its conveyor operating. The worker's arm became entangled in the rotating tail drum of the screen, pulling the worker into the drum up to his shoulder.

An emergency response was activated. The injured worker was trapped for several hours until emergency services and a medical team released him. The worker's arm was amputated as a result of the incident. The worker was transported to the entrance of the quarry and then airlifted to hospital.



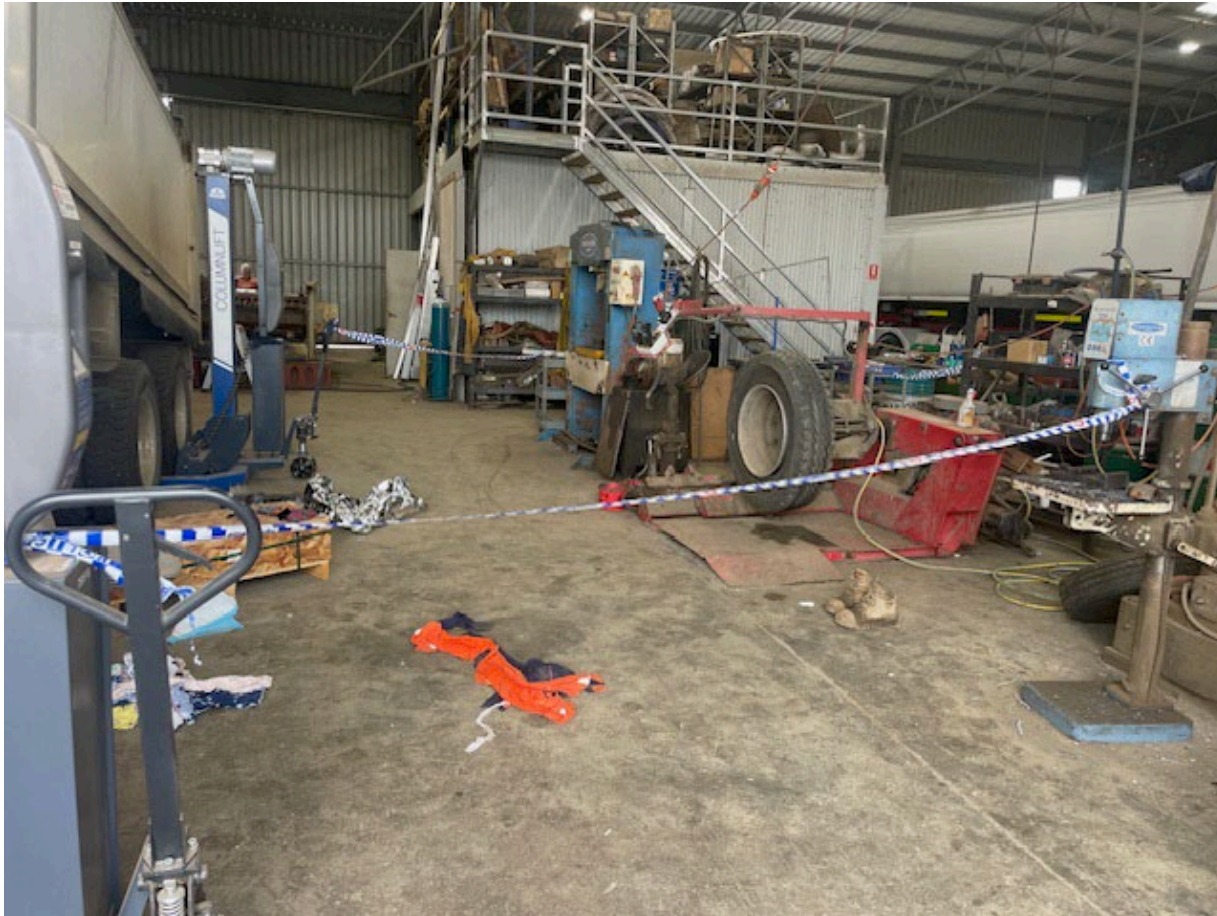
## Quarry sector – Loader fire – September 2023



- Loader continued to be operated after a fault was identified and not actioned
- No injuries



## Quarry sector – Tyre explosion in a workshop - February 2024



- Pressure release from tyre
- No guarding around tyre
- Worker hospitalised



## Quarry sector – Lifting jib fell off a fork-lift – March 2024



- Lifting jib fell off a fork-lift
- Worker hospitalised



## Quarry sector – Fall from height from a rock crusher – March 2024



- Worker fell from a rock crusher
- Worker hospitalised
- Use the correct access ways to platforms on crushers
- Falls from a low height can result in significant injuries

# Quarry sector – Explosion of cleaning fluid – May 2024

## Two workers injured at Western Riverina Quarry

Incident date: 13 May 2024

Event: Two workers were injured during cone crusher maintenance work.

Location: Western Riverina Quarry, Rankins Springs

### Overview

Two workers sustained burn injuries when cleaning fluid they were using ignited after a cordless battery-powered handheld blower was operated.

### The incident

Two workers were changing the lubricating oil on a Nordberg HP300 cone crusher at approximately 11:50 am on 13 May 2024. The hydraulic/lubrication unit was located at the rear of the purpose-built shipping container, known at the site as the Crusher Lubrication Container. The container had limited ventilation.

- Hazardous chemicals
- Enclosed workspace
- Battery powered leaf blower
- Two workers burned

Figure 1 Inside the Crusher Lubrication Container

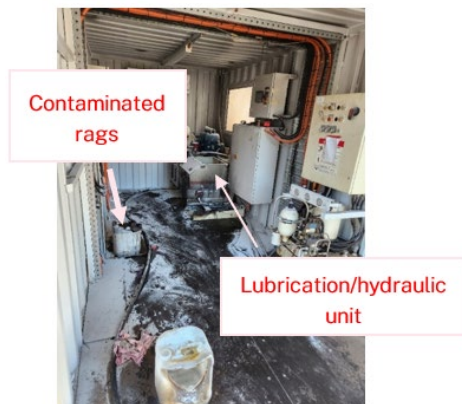


Figure 3 Brake cleaner handpump

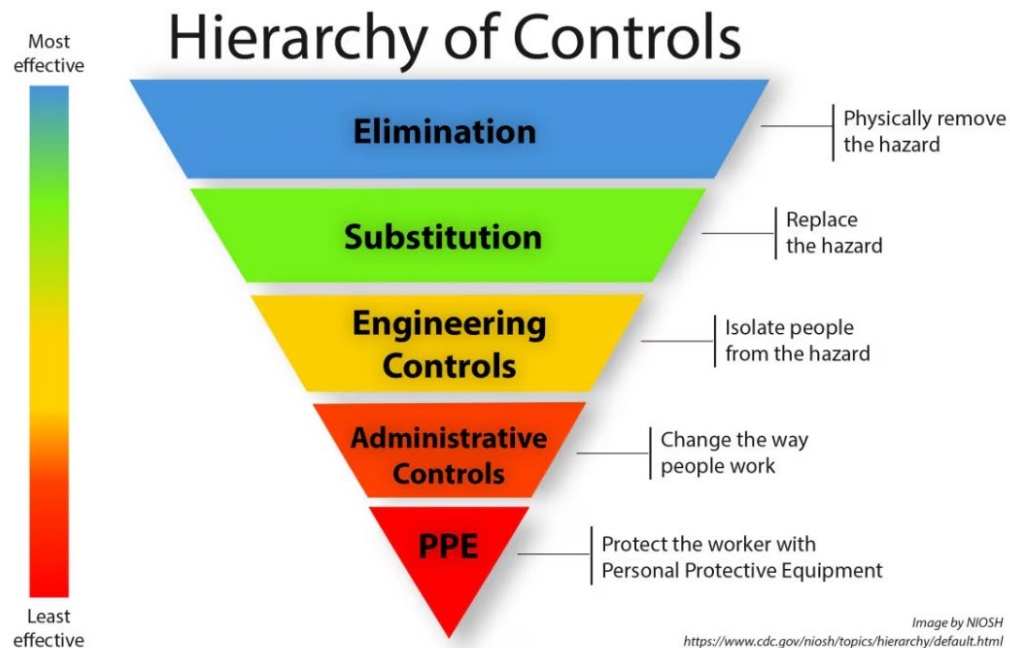


Figure 4 Milwaukee battery-operated handheld blower





# Quarry sector – How does the sector improve



## Hierarchy of control

We need to remove or reduce the human factor  
–use more hard controls in the workplace

## Not able to remove the workers

Humans will make errors

## Investigations that blame the workers

Consider systems of work, equipment design and use, training and competency of workers, change management and correct task information

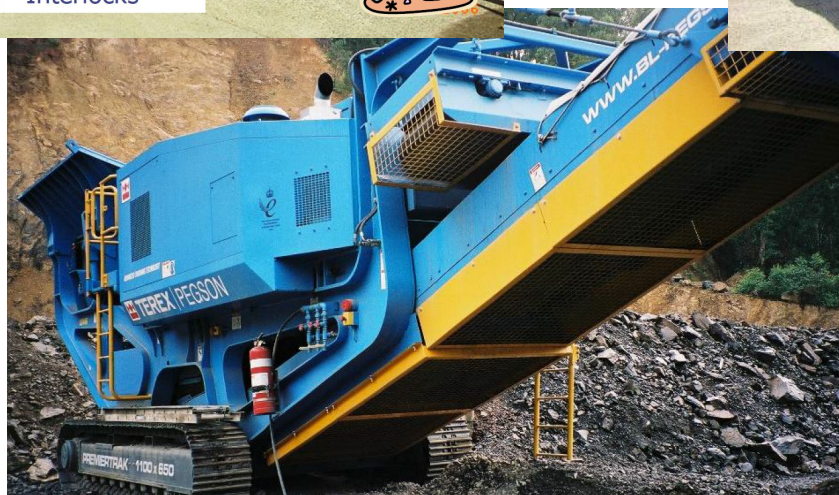
## Quarry sector – Engineered controls in place



- External grease lines on rollers
- External belt tensioning bolts
- Guards at nip points
- Isolation points nearby
- Warning signs



## Quarry sector – Good examples of conveyor guarding systems



- Compound guards and interlocks
- Underside conveyor guards
- Guarding accessible areas of conveyors
- Emergency stop pull wires



## Quarry sector – Poor examples of conveyor guarding



- Unguarded nip points
- Guarding not to Australian Standards
- Trip hazards on walkways



## Quarry sector – Poor examples of conveyor guarding



- Unguarded tail rollers
- Guarding not to Australian Standards
- Ineffective emergency stops

## Quarry sector – Regulator focus to assist industry

- Risk assessments and documentation of controls
- Conveyor guarding and safety devices (e-stops and lanyards)
- Information and training for workers (including contractors)
- Effective control of dust emissions



Thank you