Resources Regulator
Department of Regional NSW

Quarterly safety report

October to December 2023

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NSW GOVERNMENT

About this report

This quarterly health and safety performance report has been prepared by the NSW Resources Regulator for mine and petroleum site operators in NSW. It contains industry and sector specific information, in addition to information regarding hazards. Wherever possible, trends and patterns have been identified.

The report references sector information about the number of 'active' mines. Active mines have the status: open, intermittent, under care and maintenance, open tourist mines, planned and small-scale titles that are current or pending.

The report also contains information on matters of concern to the Regulator including controls and actions that may be implemented to prevent or reduce the likelihood of future safety incidents.

Operators should use the sector specific information, emerging issues and good practice examples presented in this report to assist them in improving safety management systems and undertaking risk assessments at their sites. This report refers to the date the incident was notified rather than the date the incident took place.

Document control

Published by NSW Resources Regulator
Title: Quarterly safety report – October to December 2023
First published: March 2024
Authorised by: Executive Director, NSW Resources Regulator
CM9 reference: RDOC24/3023

Amendment schedule

Date	Version	Amendment
March 2024	1	First published

Contents

Executive summary

This report is prepared to assist mine and petroleum site operators meet their obligations under relevant work health and safety legislation, including the *Work Health and Safety (Mines and Petroleum Sites) Act 2013*. It is also a way in which the NSW Resources Regulator monitors progress in implementing our risk-based compliance and enforcement strategy.

As a high-hazard regulator, we focus on compliance with legislative requirements associated with principal and other high-risk hazards, including mechanical and electrical energy and explosives. This report highlights dangerous and high potential incidents, in addition to incidents where a serious injury occurred. 'Roads or other vehicle operating areas' and 'fire or explosion' are principal mining hazard classifications that feature regularly in incident notifications to the Regulator.

As well as providing an overview of incidents across the mining industry, this report looks at the safety performance and regulatory activities of 6 sectors: coal, large (non-coal) mines and quarries, small mines and quarries (including gemstones), opal mines, petroleum and geothermal sites, and exploration sites.

This report also provides information on significant mining events in Australia and globally, and summarises safety incident notifications, compliance activities and outcomes for Quarter 2 (October to December) of financial year (FY) 2024. For selected measures, data is analysed over a 15-month period from September 2022 to December 2023.

In this quarter, there were a total of 573 incident notifications received – a 5% increase from the same period in FY 2022 and a 9% decrease from the previous quarter.

Incident notifications for the large mines sector increased by 43% from the previous quarter. Notable increases occurred in incident notifications for ventilation control plans (8 to 23) and ground or strata failure (16 to 30), with a substantial decrease in incident notifications for roads or other vehicle operating areas (18%).

Proactive assessments decreased by 27% overall this quarter (including a 25% decrease in proactive site assessments), while desktop assessments increased by 28%.

Quarterly snapshot

0 Work-related deaths

22 Serious injuries or illnesses

97 Dangerous incidents

119 Potentially dangerous incidents

206 Other high potential incidents

576
Incident notifications received*

35 Medical treatment injuries or illnesses

94 Lost time/restricted duty injuries or illnesses

2 Explosives Reg incidents

0 Events at a mine rescue station

* By requirement to report as notified by mines. The actual number of incidents, injuries and illnesses recorded may differ from original incident notifications following assessment of the notified event.

Incident notifications received by sector and operation type

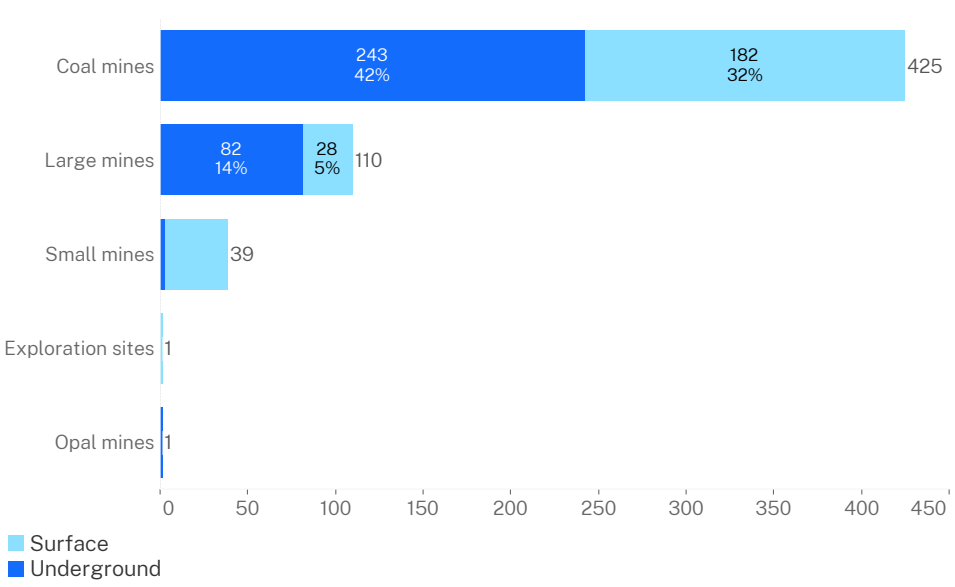
Coal mines
425
up from 424

Large mines
110
up from 77

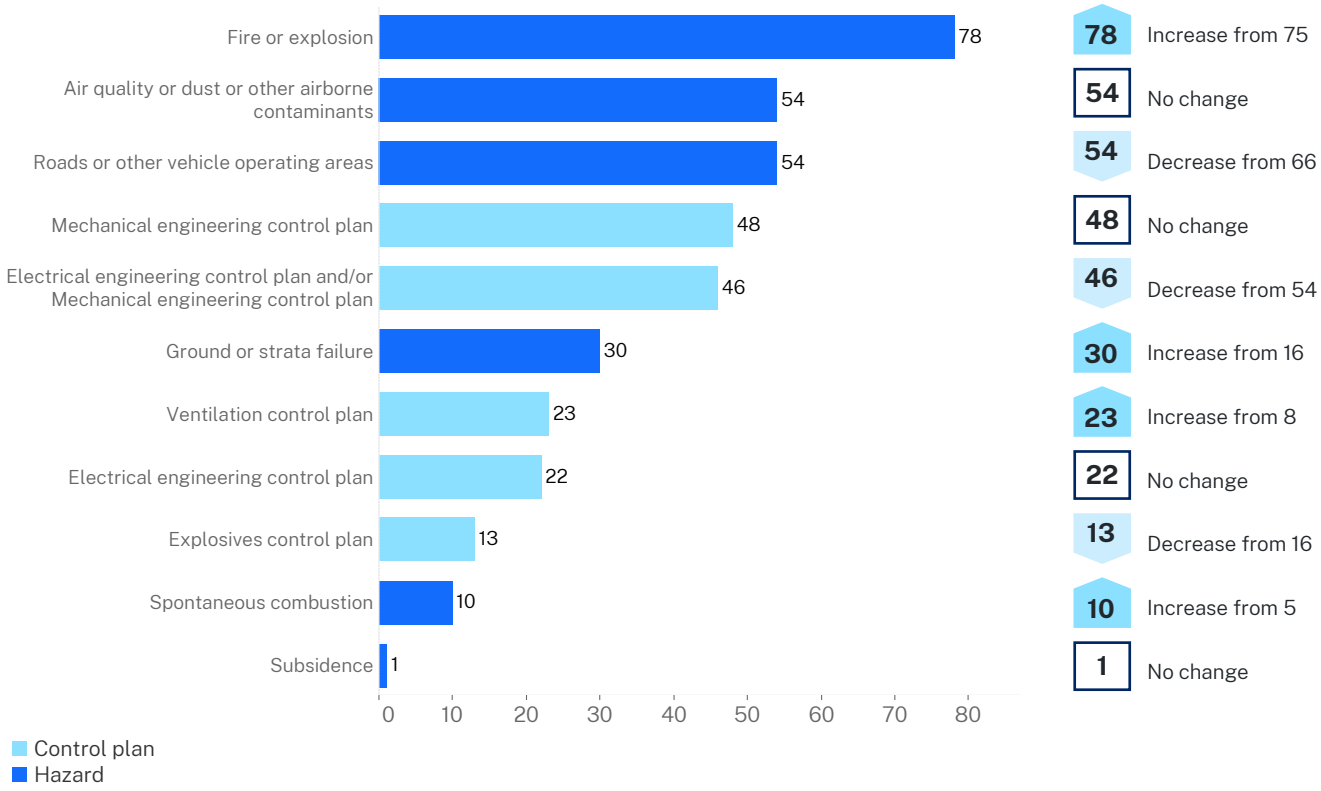
Small mines
39
up from 29

Opal mines
1
(no change)

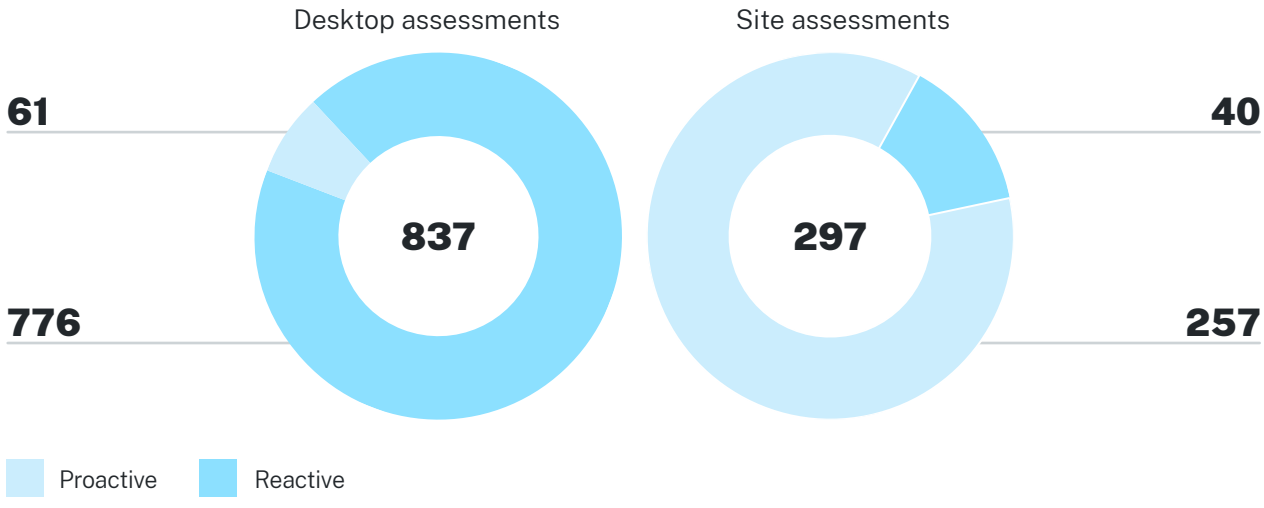
Exploration sites
1
up from 0



Incident notifications classified by principal mining hazard or principal control plan

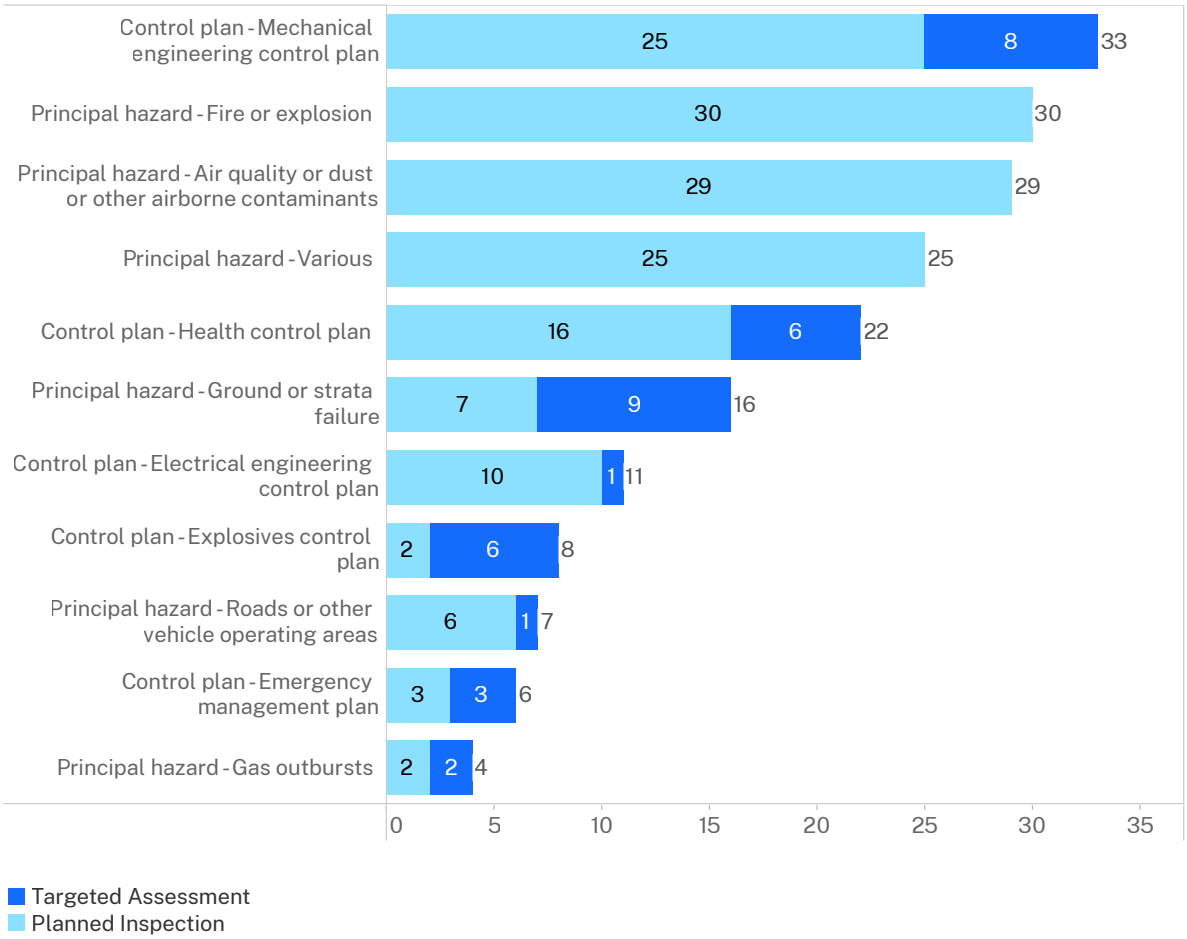


1,134 Assessments commenced



Coal mines	Large mines	Small mines	Petroleum & geothermal sites	Opal mines	Exploration sites	Non-mines
397 up from 383	110 down from 117	100 down from 134	9 down from 41	2 down from 7	3 up from 0	513 up from 392

Programmed site assessments conducted by principal mining hazard and principal control plan



389 Notices issued

3
WHSA s198
non-disturbance notices

31
WHSA s195
prohibition notices

202
WHSA s191
improvement notices

118
WHS(MPS)A s23
notices of concern

National and international significant events

The Regulator is committed to sharing safety information about significant mining-related events and fatalities to increase industry awareness.

The following list includes safety alerts (including fatalities) and bulletins that occurred between 1 October and 31 December 2023.

The incidents selected were based on their relevance to equipment and processes commonly used across the NSW mining industry.

Fatal injuries

Australia

There were no work-related fatalities on mine or quarry sites reported in Australia this quarter.

International

China

- On 16 October 2023, a worker was crushed to death by a mining vehicle at Hunan Gold Corporation's Yangshanzhuang gold mine last week, prompting local authorities to temporarily halt production at the site pending an investigation. Refer to Mining Journal article dated 23 October 2023.
- On 16 November 2023, a fire erupted in the office of the four-storey Yongju Coal Industry Joint Building in the country's top coal-producing hub of Shanxi (northern China) killing 26 people and injuring at least 38. President Xi Jinping, on a trip to the United States, urged the authorities to ensure more safety measures are put in place to avoid such incidents, the state-run Xinhua news agency said. Refer to Reuters article dated 16 November 2023.
- On 28 November 2023, 11 people died in an accident at the Shuangyang coal mine of Heilongjiang Longmei Shuangyashan Mining Co in China's north-eastern Heilongjiang province, state media outlet CCTV said. The accident is initially believed to have been caused by a rock burst, the report said. The cause of the accident is under further investigation, CCTV added. Rock bursts happen when pent up energy stored in rock causes it to violently fracture. Refer to Reuters article dated 28 November 2023.

India

On 13 October 2023, at least 3 people were killed and 10 others were feared trapped after a coal mine collapsed during illegal extraction in West Bengal's Paschim Bardhaman district, officials said. Police suspect that the incident took place when coal was being illegally extracted from Narayankuri colliery of the Eastern Coalfields Limited in Egra gram panchayat in Raniganj police station area, around 18 km from Asansol. 'Around 25-30 people illegally entered the mine on Wednesday afternoon. The mine caved in an hour later. While some managed to come out of it, others got trapped inside,' the officer told PTI. Refer to Deccan Herald article dated 13 October 2023.

Kazakhstan

On 28 October 2023, a tragic accident at ArcelorMittal's Kostenko coal mine in Kazakhstan resulted in 46 employees losing their lives, with no employees remaining unaccounted for. Media reports noted that a methane explosion and ensuing fire was the cause of the fatalities. This death toll makes it the deadliest accident in Kazakhstan's history. The tragedy led the president of Kazakhstan to declare a national day of mourning on 29 October, and more importantly, to announce the departure of the group led by Indian businessman Lakshmi Mittal. Refer to ArcelorMittal's statement dated 30 October 2023.

South Africa

- On 6 October 2023, Harmony Gold Mining Company Limited announced that an employee had tragically lost their life at its Tshepong North mine, following a gravity-related fall of ground incident, early morning that morning, near Odendaalsrus, in the Free State province. Refer to Harmony Gold statement dated 6 October 2023.
- On 27 November 2023, 86 employees were involved in a winder rope accident at Impala Rustenburg's 11 Shaft operation. The rope was connected to the personnel conveyance, which hoists employees up and down the shaft. The conveyance comprises 3 levels, each with a capacity to carry 35 personnel. Tragically, 13 workers lost their lives in the incident. Refer to Implats announcement webpage, last updated 14 December 2023.

United States of America

- On 12 September 2023, a haul truck operator died after his haul truck backed through the berm at a dump point and became submerged in a pond. Refer to MSHA fatality alert dated 11 October 2023.
- On 17 September 2023, a contractor driller helper died while driving a service truck to transport a rod handler on the bed. The service truck left the road, overturned, and the driver was ejected. The passenger, who was wearing his seat belt, was injured, treated and released from the hospital. Refer to MSHA fatality alert dated 25 October 2023.
- On 2 October 2023, a miner died after he was pinned between a shuttle car and a coal rib. Refer to MSHA fatality alert dated 26 October 2023.
- On 13 November 2023, a rotating drill steel of a roof bolting machine entangled a miner, causing fatal injuries. Refer to MSHA fatality alert dated 30 November 2023.
- On 17 November 2023, a miner died when the leg of a rock saw stand that he was assisting to unload, shifted and struck him. Refer to MSHA fatality alert dated 12 December 2023.

Zambia

- On 23 November 2023, a team member from contracting partner, Reliant Drilling, died at First Quantum Minerals Ltd's Kansanshi operation following a fall of ground at the underground dewatering decline. Refer to First Quantum Minerals statement dated 27 November 2023.
- On 24 November 2023, a contractor team member from Omega Risk Solutions was tragically killed in a light vehicle accident when the car he was driving rolled at First Quantum Minerals Ltd's Sentinel mine. A passenger in the vehicle was also injured and is in a stable condition. The site emergency response teams attended immediately. Refer to First Quantum Minerals statement dated 27 November 2023.

Alerts, bulletins, fact sheets and incident information releases

New South Wales

Safety alerts and bulletins

- **Conveyor tail pulley fire**

  Underground mine workers investigating a burning smell discovered a fire on a longwall conveyor tail pulley. Workers tried unsuccessfully to extinguish 300 mm high flames with water hoses and fire extinguishers while the conveyor was running. The fire reignited when the cool water was removed. The conveyor was stopped, and the fire was extinguished. The conveyor was isolated, water applied to the tail pulley shaft area, and a fire watch was posted pending investigation. Refer to SA23-03 Conveyor tail pulley fire dated 6 October 2023.

- **Unintended initiation of unidentified (misfired) explosives during excavation**

  While excavating blasted waste material at an open cut coal mine during night shift, an excavator unintentionally initiated an unidentified explosive. Multiple pieces of flyrock hit the windscreen and body of the excavator, damaging the windscreen. The operator's cabin was not breached. Flyrock was scattered up to 63 m from the dig face, damaging a side mirror of a truck being loaded and hitting a dozer that was cleaning the floor at the time of the incident. The operator was not injured but this incident had the potential to cause serious injuries to the excavator operator and highlights that large amounts of energy are released when explosives are initiated. Refer to SA23-04 Unintended initiation of unidentified (misfired) explosives during excavation dated 23 November 2023.

- **Worker trapped under lowered canopy**

  A fitter's body became trapped between the canopy and the dashboard of a broken-down Jug-A-0 load haul dump on 18 November 2023. The machine was fitted with an adjustable height canopy, and although not significantly injured, the fitter was unable to get free. Refer to SA23-05 Worker trapped under lowered canopy dated 11 December 2023.

- **Heating of aceltylene cylinder raises risk of underground explosion**

  While conducting hot work, an orange glow was seen to be coming from the bottom of an acetylene cylinder. After initial cooling of the cylinder, mine workers loaded it on the back of a light vehicle and transported it to the surface without adequate considerations to the hazards. Refer to SA23-06 Potential heating of acetylene cylinder raises potential for underground explosion dated 21 December 2023.

- **Haul truck engine module narrowly misses workers**

  Two workers were in the engine bay of a Komatsu 930E haul truck adjusting lever hoists (cumalongs) and lifting chains while installing an engine module on 15 November 2023. As the overhead gantry crane operator was taking the weight of the module on the crane, the module slid back on the supporting tracks about 1.5 m. Both workers took evasive action to avoid being hit or crushed by the moving module, but were uninjured. Refer to SA-07 Haul truck engine module narrowly misses workers dated 22 December 2023.

Fact sheets

- **Sexual harassment**

  Sexual harassment includes any unwelcome or inappropriate behaviour of a sexual nature where the person that is being harassed is offended, humiliated and/or intimidated. This harassment can be a single event or a repeated event.

  Sexual assault can be either a single event or repeated occurrence. Sexual assault includes any sexual behaviour or act that is threatening, violent, forced, coercive or exploitative, to which the person has not given consent or was not able to give consent. An example of this can be actual or attempted rape or sexual assault.

  Mine operators and workers are reminded that sexual assault is an extreme form of unacceptable workplace behaviour. Sexual assault is a serious criminal matter and all matters must be reported to the police immediately.

  Under the WHS legislation any incident that results in a notifiable injury or illness must be reported to the NSW Resources Regulator. This includes when an injury or illness is the result of sexual harassment or assault. Refer to Fact sheet – Sexual harassment dated 24 October 2023.

- **Dealing with psychosocial hazards in the workplace**

  Amendments to the Work Health and Safety Regulation 2017 have been implemented to include psychosocial risks. This is in addition to the Code of practice, Managing psychosocial hazards at work that was published in 2021. Psychosocial hazards extend beyond bullying and harassment and are defined as any aspect of work or situation that may cause a response resulting in psychological or physical harm.

  Your workplace should have consulted, considered, and implemented controls related to psychosocial hazards. If you are unsure what these controls are, ask your supervisors. Otherwise head to the Code of practice – managing psychosocial hazards at work. Refer to Fact sheet – Dealing with psychosocial hazards in the workplace dated 11 December 2023.

Reports

- **Consolidated report – Fire or explosion mechanical – Stage 2 Coal mines below surface**

  The Regulator has developed a bow tie hazard management framework and standardised assessment checklist for each program plan. Under each program plan, the effectiveness of the safety management system at each mine site is assessed against a standard set of control supports and critical controls.

  Fire and explosion mechanical hazards at coal mines below surface was one of the hazards identified in the mechanical engineering control plan (MECP) bow tie. These types of hazards can occur within various mining environments and have the potential to cause serious and/or fatal injuries to workers if not controlled effectively. An inspection program was developed to assess how mines are prepared to manage that risk.

  Refer to Consolidated report – Fire or explosion mechanical – Stage 2 Coal mines below surface dated 20 October 2023.

- **Consolidated report – Mechanical engineering control plan – Structural collapse – Coal mines above surface**

  The Regulator has developed a bow tie hazard management framework and standardised assessment checklist for each program plan. Under each program plan, the effectiveness of the safety management system at each mine site is assessed against a standard set of control supports and critical controls. Structural collapse at coal mines (open cut and underground mines) above surface locations was one of the hazards identified in the MECP bow tie. These types of hazards can occur within various mining environments and have the potential to cause serious and/or fatal injuries to workers if not controlled effectively. An inspection program was developed to assess how mines are prepared to manage that risk. Refer to Consolidated report – Mechanical engineering control plan – Structural collapse – Coal mines above surface dated 20 October 2023.

- **Consolidated report – Explosives control plan – Stage 1 Coal mines surface and underground**

  The Regulator has developed a bow tie hazard management framework and standardised assessment checklist for each program plan. Under each program plan, the effectiveness of the safety management system at each mine site is assessed against a standard set of control supports and critical controls.

  The explosives control plan at coal mines above surface and underground manages the hazards to people exposed to harm by explosives detonation. These types of hazards can occur within surface, underground mining environments, and have the potential to cause serious and/or fatal injuries to workers if not controlled effectively. An inspection program was developed to assess how mines are prepared to manage that risk. Refer to Consolidated report – Explosives control plan – Stage 1 Coal mines surface and underground dated 20 October 2023.

- **Compliance priority report – small mines pressure vessels**

  A crucial part of the NSW Resources Regulator's Incident prevention strategy involves compliance priority programs for mines and petroleum sites. This involves proactively assessing a topic that is an emerging risk across the industry, predominantly determined from incident data or other evolving industry trends. Although these topics may also be contained within the Regulator's planned inspection programs, the aim of compliance priority programs is to gather further information and knowledge about how the industry is managing and controlling an issue that may not be related to a specific principal hazard.

  This particular program was initiated in response to how operators of small mine sites were responding to the management and identification of all pressure vessels on site and the design and item registration of the pressure vessels.

  Refer to Compliance priority report – small mines pressure vessels dated 31 October 2023.

- **Compliance priority report – small mines legislation**

  A crucial part of the NSW Resources Regulator's Incident prevention strategy involves compliance priority programs for mines and petroleum sites. This involves proactively assessing a topic that is an emerging risk across the industry, predominantly determined from incident data or other evolving industry trends. Although these topics may also be contained within the Regulator's planned inspection programs, the aim of compliance priority programs is to gather further information and knowledge about how the industry is managing and controlling an issue that may not be related to a specific principal hazard.

  This particular program was initiated in response to how operators of small mine sites were responding to the updated Work Health and Safety (Mines and Petroleum Sites) Regulation 2022.

  The updated Regulation replaced the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014, which was repealed on 1 September 2022.

  Refer to Compliance priority report – small mines legislation dated 31 October 2023.

Queensland

- **Rollover of large excavator while ascending ramp**

  On 11 September 2023, an operator in a large excavator in North West Queensland was ascending a ramp to a bench in preparations to load trucks. One of the tracks departed from the ramp and the machine became unstable. While attempting to correct the position of the machine on the ramp the excavator rolled onto its side. The operator was able to extricate himself from the machine and was transported to hospital for assessment and treatment. Refer to RSHQ Mineral Mines & Quarries Inspectorate Alert No. 436 dated 20 October 2023.

- **Excavator and water truck collision**

  On 24 October 2023, while conducting civil works at a coal mine near Toowoomba, a 30-tonne excavator loading topsoil onto an articulated dump truck, slewed to the right and collided with a medium vehicle water truck cabin. The water truck was watering on the offside of the excavator and had not used positive two-way radio communications with the excavator operator. As a result, the excavator operator, unaware of the hazard, has collided with the nearby water truck, causing moderate damage to the cabin. Collisions with another vehicle are one of the top 3 high potential incidents reported by the coal mining industry. Refer to RSHQ Coal Inspectorate Alert No. 438 dated 2 November 2023.

- **Worker's foot crushed in scissor lift accident**

  On 1 November 2023, 2 coal mine workers (CMWs) at a site in the South Burnett region were de-rigging a mobile crane after completing a dragline maintenance task. During the relocation of the scissor lift, the machine has hit the ankle and foot of one of the CMWs breaking multiple bones. The worker was treated at site before being taken to hospital. Refer to RSHQ Coal Inspectorate Alert No.439 – CWMs foot crushed in scissor lift accident dated 13 November 2023.

Victoria

- **Worker injured by unplanned initiation at mine site**

  A Jumbo drill operator was injured when the drill struck live explosives. This resulted in an unplanned initiation and detonation. The drill was boring a development face in an underground metalliferous mine. As the drill was boring the left-hand wall 'Knee' hole, the operator heard a loud explosion and sheltered behind the console. Blast gasses and rock fragments were ejected towards the operator who then depowered the rig and exited the area. The operator received several minor facial lacerations which required medical treatment.
  Refer to WorkSafe Victoria safety alert dated 31 October 2023.

- **Worker's arm entangled at quarry site**

  An employee was injured while performing maintenance activities on a large operating rotary dryer. The employee was close to the main drive gear of the rotary dryer when their right arm became entangled. The employee's arm was partially amputated. The main drive gear was approximately 230 mm wide.
  Refer to WorkSafe Victoria safety alert dated 15 November 2023.

Notifiable incidents relating to hazards

The Work Health and Safety (Mine and Petroleum Sites) Regulation 2022 (the Regulation) identifies principal mining hazards and principal control plans for special consideration.

Principal mining hazards have a reasonable potential to result in multiple deaths in a single incident or a series of recurring incidents.

Principal control plans cover risks to health and safety from hazards, work processes and plant that may result in incidents that are high potential, frequently occurring or of a certain complexity.

Summary of incident notifications received

The table below shows the number of incident notifications received for the past 5 quarters as classified against a principal mining hazard or principal control plan.

Overall, there were 576 incident notifications received in the quarter. Of these, 40% (228) related to principal mining hazards, 26% (152) related to principal control plans, with the remainder (34%) related to other incident types.

Table 1. Incident notifications classified by principal mining hazard and principal control plan – October 2022 to December 2023

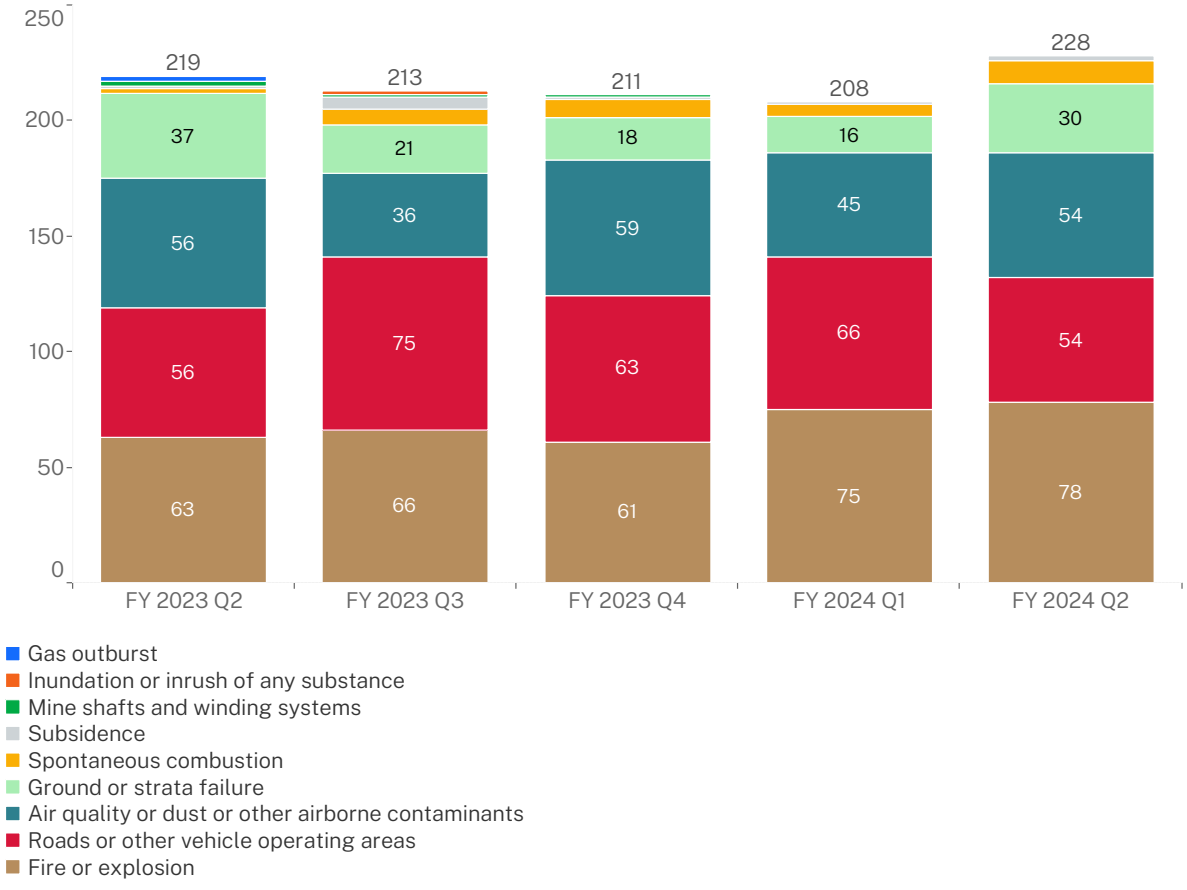
Hazard or Control plan	Hazard/Control plan	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	Grand total
Hazard	Air quality, dust or other airborne contaminants	56	36	59	45	54	250
	Fire or explosion	63	66	61	75	78	343
	Gas outburst	2					2
	Ground or strata failure	37	21	18	16	30	122
	Inundation or inrush of any substance		2				2
	Mine shafts and winding systems	2	1	1			4
	Roads or other vehicle operating areas	56	75	63	66	54	314
	Spontaneous combustion	2	7	8	5	10	32
	Subsidence	1	5	1	1	2	10
	Total	**219**	**213**	**211**	**208**	**228**	**1,079**
Control plan	Electrical engineering control plan	19	31	28	22	22	122
	Electrical engineering control plan and/or mechanical engineering control plan	39	60	45	54	46	244
	Explosives control plan	21	19	21	16	13	90
	Mechanical engineering control plan	39	42	49	48	48	226
	Ventilation control plan	11	9	7	8	23	58
	Total	**129**	**161**	**150**	**148**	**152**	**740**
Other	No related principal mining hazard or principal control plan	199	183	208	175	196	961
Grand total		**547**	**557**	**569**	**531**	**576**	**2,780**

Principal mining hazards

Note: while only one hazard/control plan per incident appears in the report, it is possible for more than one hazard or control plan to be applicable to the incident.

The chart below presents a further breakdown of numbers of incident notifications received by quarter related to principal mining hazards as defined in section 4 of the Regulation.

Figure 1. Incident notifications received by principal mining hazards – October 2022 to December 2023



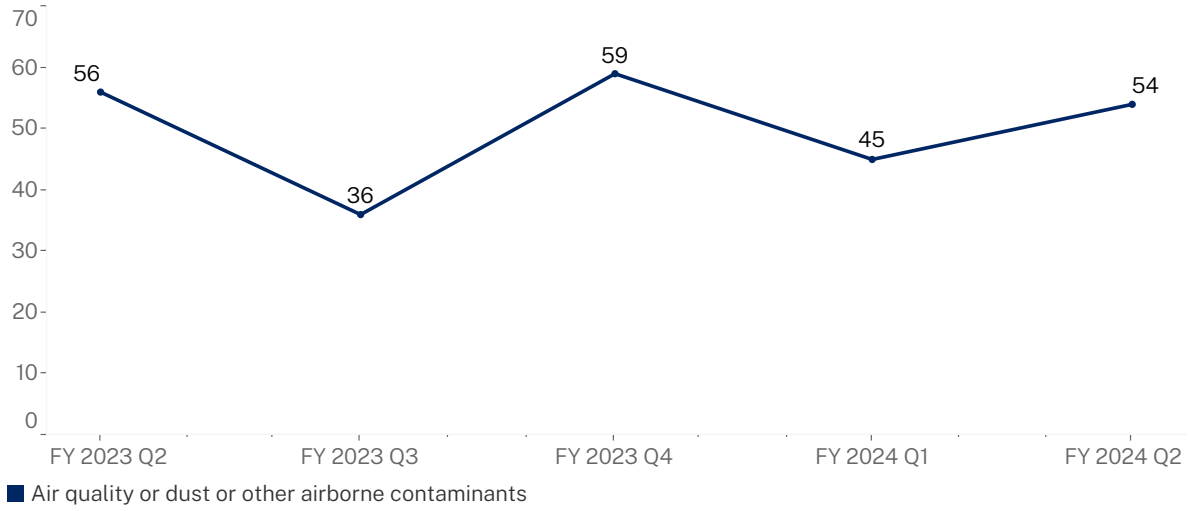
Air quality, dust or other airborne contaminants

Increase from 45 to 54

Airborne contaminants comprise a large and varied range of substances and forms. Coal and silica particles, along with methane and carbon monoxide, are regularly present in mining as dusts, fumes and vapours. These contaminants have exposure standards and can affect workers rapidly (CO or CO_2) or over several years (coal/silica dust).

There has been a 20% increase in airborne contaminant related incidents notified from FY 2024 Q1, aligning with numbers seen in Q2 and Q4 of FY 2023.

Figure 2. Incident notifications received related to the principal mining hazard air quality, dust or other airborne contaminants – October 2022 to December 2023



Dangerous incident | IncNot0045867 – High methane reading after air hose removed from venturi

Summary: During a routine inspection, a deputy measured a general body gas reading of 2.6% methane at an install road behind a holing stopping. The stopping was built to segregate the 2 districts, before holing with the continuous miner on the face road. A venturi was set up in the stub to maintain ventilation, however, the air hose had been removed.

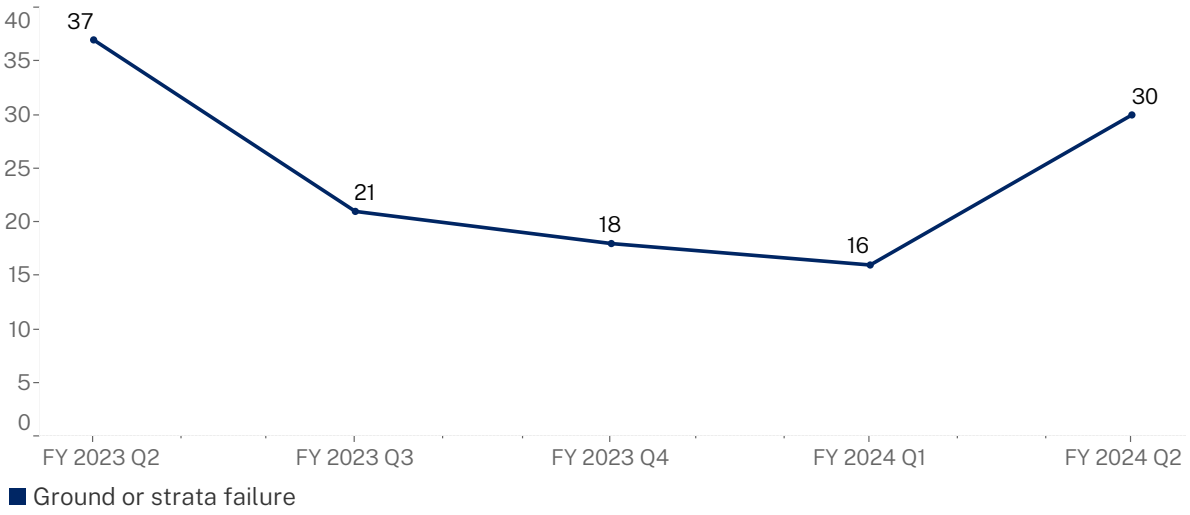
Comments to industry: Workers must not interfere with ventilation devices such as venturis, fans, regulators and stoppings without a thorough understanding of the impacts of the ventilation system. Compressed air lines supplying ventilation devices should be marked with an information tag to inform workers to prevent use of the hoses for other tasks.

Ground or strata failure

Increase from 16 to 30

Ground or strata failure is an ever-present hazard in both surface and underground mining, with a significant risk posed to workers from unplanned movement of ground.

Figure 3. Incident notifications received related to the principal mining hazard ground or strata failure – October 2022 to December 2023



Dangerous incident | IncNot0045653 – Tops falls onto multibolter walkway

Summary: While securing mesh with a multibolter the temporary roof support (TRS) was pushed to the roof and then released to preposition the last sheet of mesh. When the TRS was lowered, it caused a parting layer of tops to fall onto the walkway of the multibolter.

Comments to industry: Underground mines should review the adequacy of their strata monitoring arrangements and associated trigger action response plans (TARPs), to ensure that workers are not exposed to unacceptable risks associated with strata failure.

Refer to NSW code of practice – Strata control in underground coal mines.

Dangerous incident | IncNot0045655 – Dump truck became stuck on dump edge

Summary: A rear dump truck reversed into a tip area to tip its load. The truck backed up to and through a dump windrow with both sets of dual tyres, causing the truck to become stuck on the dump edge with its belly on the ground and duals over the edge.

Picture 1.
Dump truck following the incident.

Comments to industry: Windrow design, construction and maintenance is a critical factor in dump safety. Mines operators should:

- design and construct windrows adequately to be a control for the hazard at the operation, paying specific attention to set-back distances, heights and material used
- regularly inspect and maintain windrows through open cut examiner inspections and operator inspections.

Refer to Safety Bulletin SB18-11 Windrow management and demarcation.

Dangerous incident | IncNot0045905 – Wedge failure caused material fall and hit grader

Summary: A wedge failure occurred from about 114 m up a high wall with some material falling onto the main ramp. Most of the material was caught by the berms and broken up during the failure. About 2 tonnes of rock landed on the main pit ramp with some hitting a grader. The grader operator was not injured. At the time of the event, the pit was closed to normal operations due to rainfall in the preceding 24 hours and was in the initial stages of being reopened to resume mining operations.

Picture 2.
The scene following the incident.

Comments to industry: Mine operators should review the frequency of assessments of highwall stability and confirm appropriate triggers are included to increase assessments after rainfall. Mine operators should also ensure water egress is minimised to highwall crests to reduce the potential of a failure occurring.

Refer to Safety Bulletin SB20-01 Failure of highwalls, low walls and dumps.

Dangerous incident | IncNot0045950 – Worker hit with rock

Summary: While preparing for a shot underground, a piece of rock about 300 x 200 x 100 mm fell off the face and hit a worker on the right shoulder and back, knocking him over.

Picture 3.
Rock that fell during the incident.

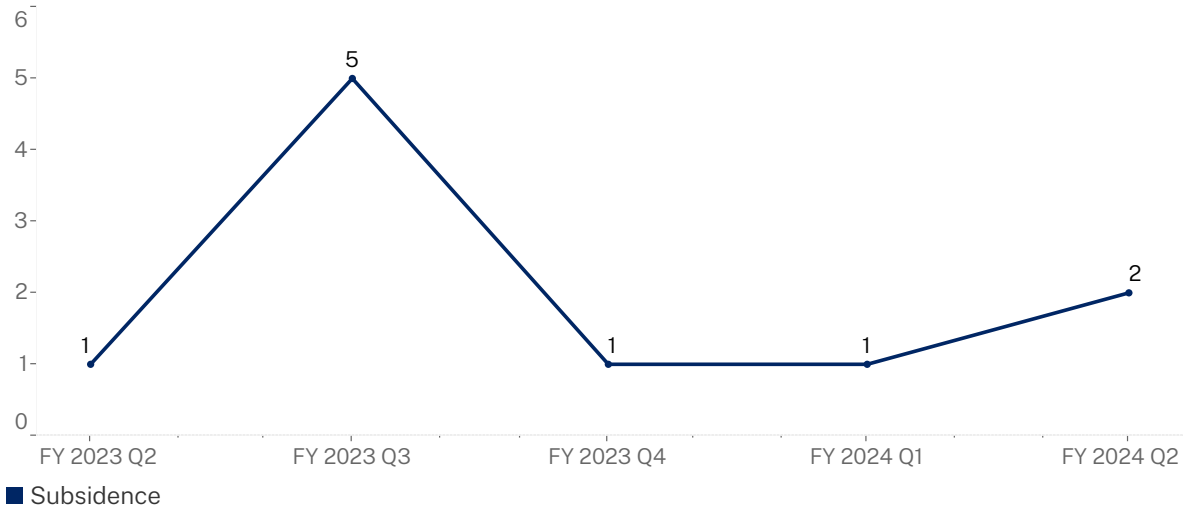
Comments to industry: Mine operators are reminded that when developing the control measures to manage the risks of ground or strata failure, consideration must be given to the geotechnical characteristics of the rocks and issues that can affect stability. Mine operators are reminded that appropriate systems must be in place to ensure that exclusion zone requirements are assessed and are adequate.

Subsidence

Increase from 1 to 2

Surface subsidence hazards may exist where there has been underground mining. The potential to cause significant damage (from deformation or sinkholes) to infrastructure (roads, dwellings etc.) and injure persons nearby, makes this a principal mining hazard in NSW.

Figure 4. Incident notifications received related to the principal mining hazard subsidence – October 2022 to December 2023

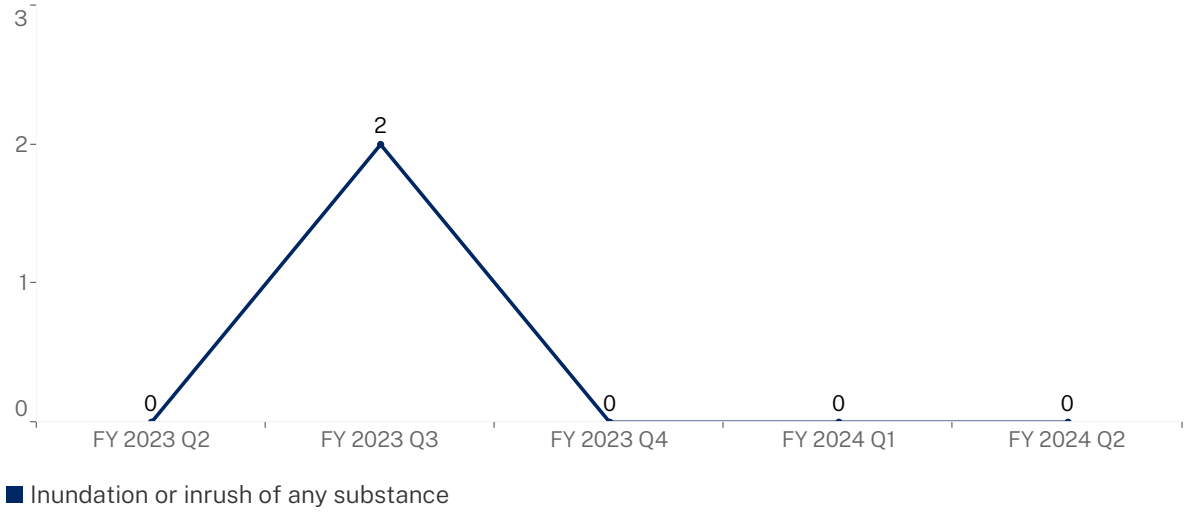


Inundation or inrush of any substance

No change (0)

Inundation and inrush is a low frequency, high consequence hazard, particularly in underground mining. Incidents often involve inrushes of water or inundation by denser materials (sand or rock). The potential to cause multiple fatalities in a single event like at Gretley Colliery in 1996 make this a principal mining hazard in NSW.

Figure 5. Incident notifications received related to the principal mining hazard inundation or inrush – October 2022 to December 2023

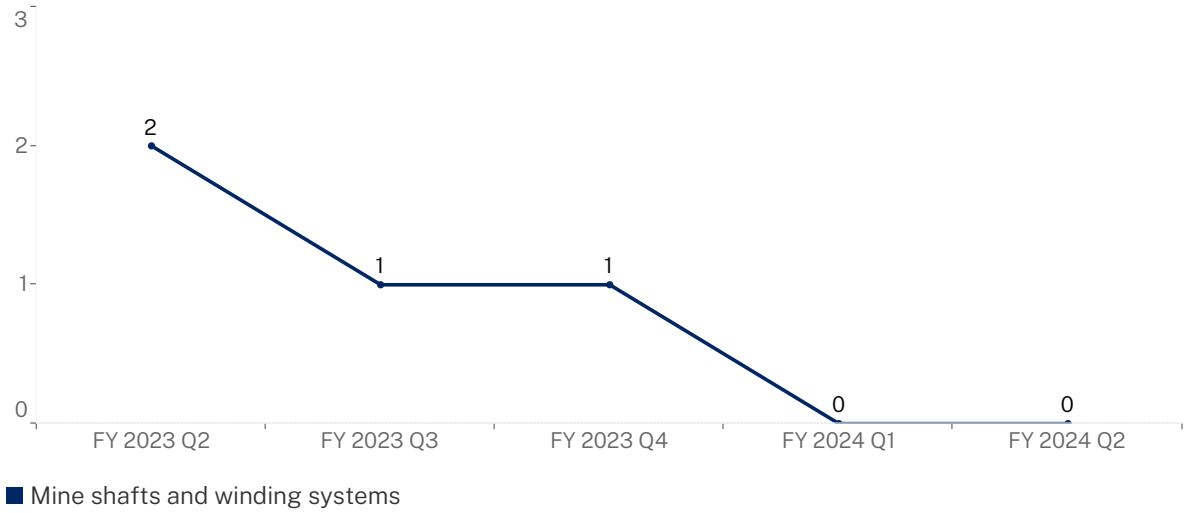


Mine shafts and winding systems

No change (0)

Mine shaft integrity and the operation of winding systems require specific focus. The safe movement of material and workers up and down mine shafts can be hazardous and has the potential to impact on the safety of multiple workers at a mine.

Figure 6. Incident notifications received related to the principal mining hazard mine shafts and winding systems – October 2022 to December 2023

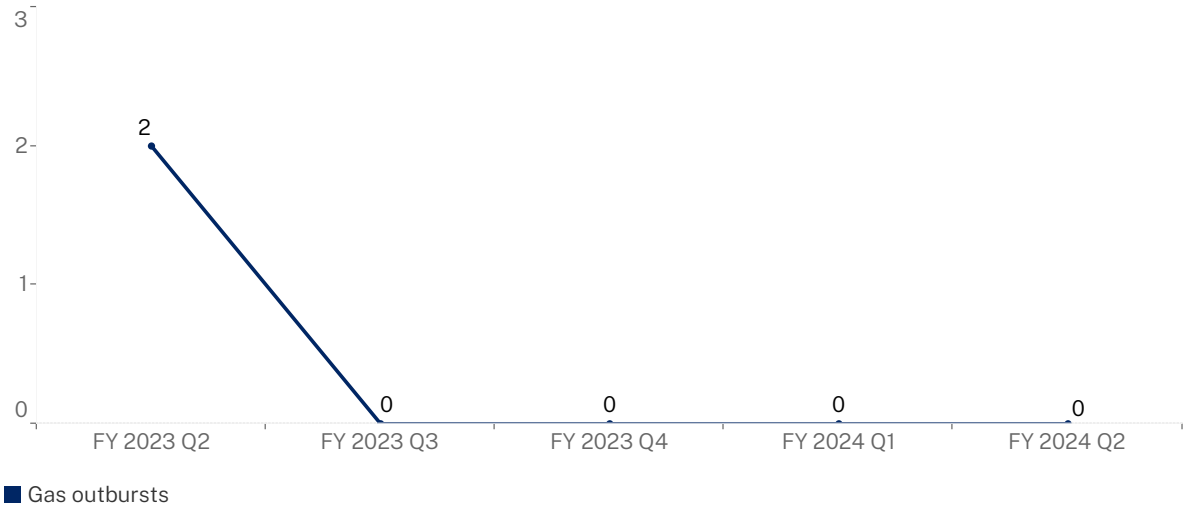


Gas outbursts

No change (0)

The implementation of appropriate risk controls ensure gas outbursts are not a high frequency hazard event, however their often sudden and violent nature has the potential to cause fatalities to workers. This hazard also includes the liberation of gases that can asphyxiate, lead to explosions or cause a fire. These circumstances make this a principal mining hazard in NSW.

Figure 7. Incident notifications received related to the principal mining hazard gas outburst – October 2022 to December 2023

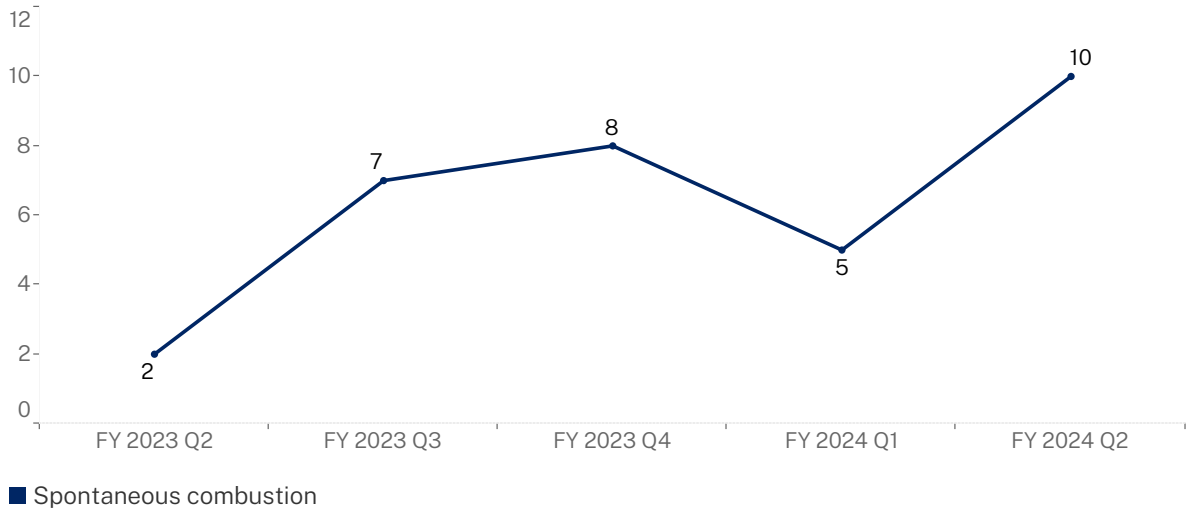


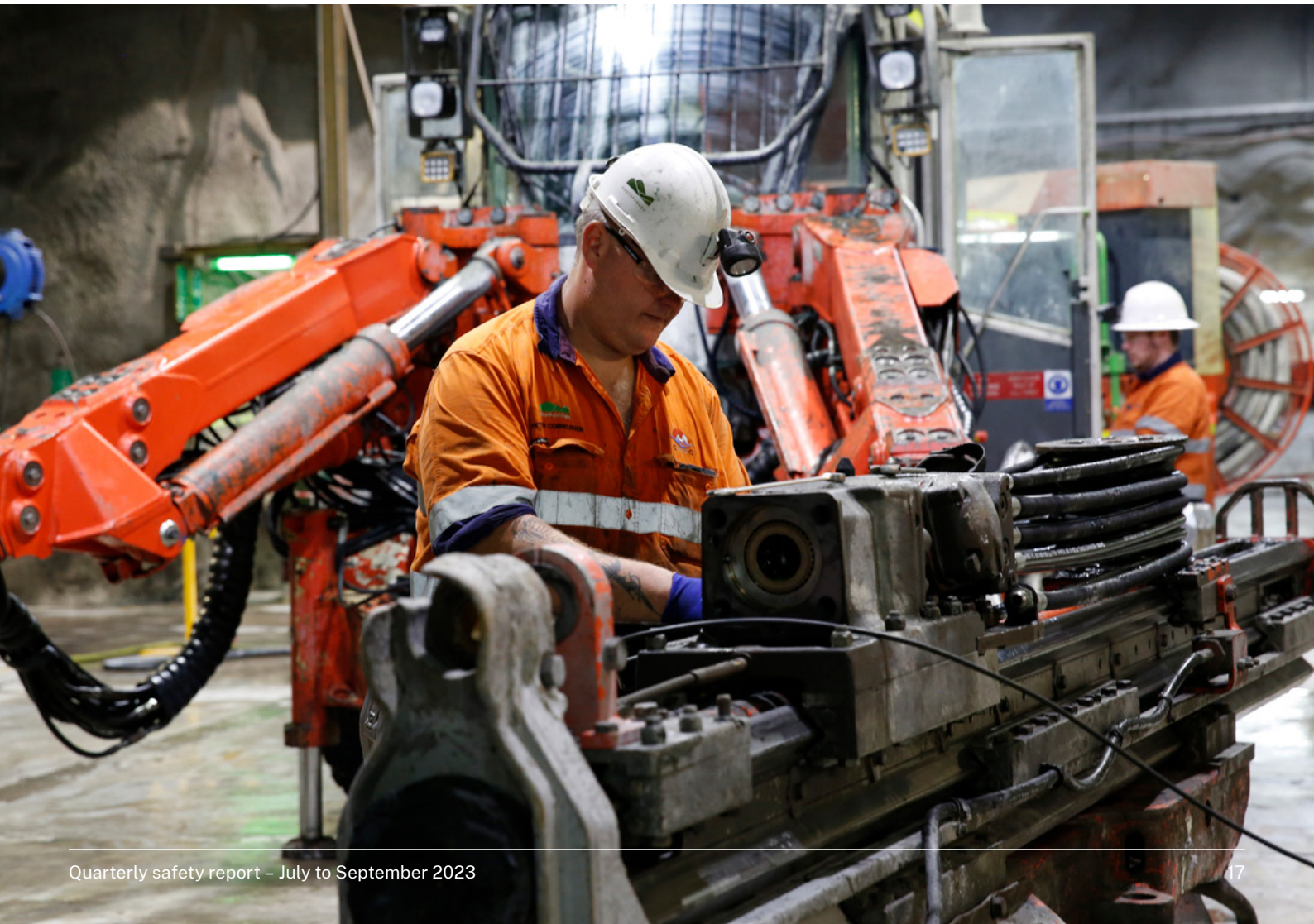
Spontaneous combustion

Increase from 5 to 10

While spontaneous combustion (of coal) is a hazard exclusive to the coal sector, in the underground parts of the mine the consequences have the potential to cause multiple fatalities. Figure 7 below includes spontaneous combustion incidents underground and on the surface of coal mines.

Figure 8. Incident notifications received related to the principal mining hazard spontaneous combustion – October 2022 to December 2023



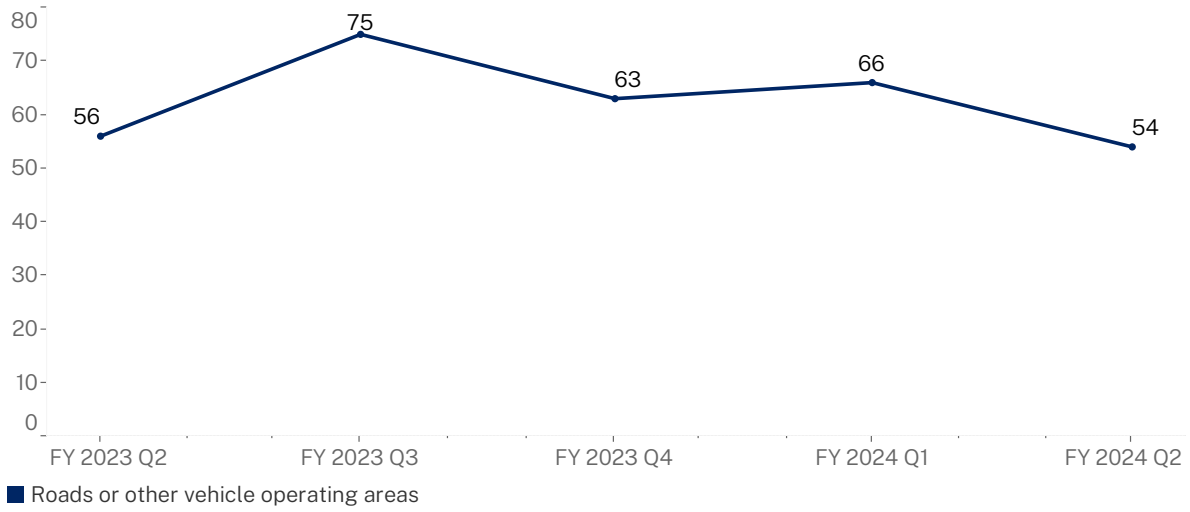


Roads or other vehicle operating areas

Decrease from 66 to 54

Vehicle movements in and around mine sites require specific design considerations and controls to ensure that collisions and other vehicular accidents do not occur, and place workers lives at risk. The high volume of vehicular interactions on mine sites and the size of the mobile plant utilised classifies this as a principal mining hazard in NSW.

Figure 9. Incident notifications received related to principal mining hazard roads or other vehicle operating areas – October 2022 to December 2023



Dangerous incident | IncNot0045600 – Haul truck rolled while unloading reject material

Summary: The rear trailer of an A-double combination rolled while being unloaded. The truck was being used to haul reject material.

Picture 4.
Haul truck following the incident.

Comments to industry: When hauling material, an appropriate style of trailer should be selected considering the characteristics of the material being hauled. Trucks should only be unloaded on suitable ground considering the grade and surface condition, not on wet, soft ground.

Dangerous incident | IncNot0045563 – Dump truck tub rolled after hitting windrow

Summary: A worker was driving an articulated dump truck when they reached for a drink bottle. The truck hit a windrow, rode over the windrow and the tub rolled.

Picture 5.
Dump truck following the incident.

Comments to industry: When operating mobile plant, workers must remain focused on controlling the item of plant and their surroundings. Mobile plant should be safely stopped before carrying out tasks that remove the focus from safely operating plant.

Dangerous incident | IncNot0045656 – Truck tyre fell of integrated tool carrier and hit popping rig

Summary: A truck tyre was being transported underground on the forks of an integrated tool carrier. While driving down the decline, the tyre came off the forks and rolled down the decline striking the rear of a popping rig that was tramming down the decline. The tyre continued rolling before stopping 500 m from where it dislodged from the forks.

Picture 6.
Truck tyre where it stopped.

Recommendations to industry: Workers should ensure that loads are adequately secured to prevent unplanned movement. Using slings, support cradles or suitable jigs appropriately rated for the load, should be considered. Documented procedures providing step-by-step instructions for the task should be provided to workers. Supervisors should ensure that the approved procedures are followed.

Dangerous incident | IncNot0045758 – Excavator counterweight hit haul truck tray

Summary: A haul truck was loaded by an excavator and kicked out. The truck driver did not hear the horn. Before the truck drove away the excavator started to reposition. In the process, the excavator counterweight hit the dovetail of the tray. No workers were injured.

Picture 7.
Haul truck and excavator following the incident.

Comments to industry: Excavator operators must remain situationally aware and ensure that loaded trucks have left the swing radius of the excavator before manoeuvring for the next load. Visual confirmation of truck departure should be established instead of relying on soft controls such as lights and horns and assuming the truck has moved away.

Dangerous incident | IncNot0045793 – Excavator bucket hit dozer

Summary: A dozer was hit by an excavator bucket while the excavator was slewing for a bucket of coal. The dozer was too close to the swing radius of the excavator and when activating the steer clutch went the wrong way.

Picture 8.
Dozer following the incident.

Comments to industry: Dozer drivers should maintain a sufficient buffer between their machine and the swing radius of an operating excavator. Clear and specific procedures must be in place for when dozers are cleaning up within the swing radius. Dozers should not try to work close to the edge of the swing radius and should at all times remain aware of the demarcation area.

Dangerous incident | IncNot0045796 – Worker injured after being thrown into roof of transporter

Summary: While driving into an area to be sealed, a personnel transporter hit a canch resulting in a worker being thrown into the roof of the transporter. The worker suffered 2 fractured vertebrae.

Comments to industry: Equipment operators must maintain situational awareness and drive to the conditions, including maintaining an appropriate speed, particularly when driving over uneven ground. This incident underpins the importance of wearing seatbelts as a mitigating control. When roadway hazards exist, mine operators must demarcate, plan and repair the road to reduce the risk to workers.

Dangerous incident | IncNot0045803 – Red glow on bottom of acetylene cylinder during hot work

Summary: While oxy-cutting a support beam, the spotter, standing 8 m away from the hot work, noticed there was a red glow from the bottom of the acetylene cylinder. The hot work was stopped immediately and the cylinder was watered down for 45 minutes. The valve was then closed, and the cylinder was removed from other cylinders in close vicinity. The cylinder was set aside for one hour and monitored. The operators then loaded the cylinder to the back of a vehicle to transport it to the surface.

Comments to industry: Mine operators should ensure the suitability of structural integrity and inspection programs for cylinder corrosion. Mine operators should advise workers that under no circumstances should they interfere with suspected leaking acetylene cylinders. In such situations they should evacuate the area and escalate the incident immediately.

Dangerous incident | IncNot0045907 – Collision between empty haul trucks

Summary: Two empty haul trucks turned in front of each other with the collision causing the headboard of one to damage the cabin of the other. One operator suffered hand fractures and a head laceration that required 52 stitches.

Picture 9.
Cabin of haul truck following the incident.

Comments to industry: This incident is under investigation and further information may be published later. Following a recent awareness campaign on vehicle interactions the Regulator published a video that can be used for training purposes and toolbox talks. Mine operators are encouraged to use this resource. Watch the video on YouTube.

Dangerous incident | IncNot0045903 – Dump truck mounted windrow following wide turn

Summary: The operator of a dump truck turned at the tip head to get into a position to reverse. The operator turned too wide and drove position 1 tyre up onto the windrow at the side of the ramp regrade, exposing the operator and truck to a 3.5 m drop off. The operator continued to drive along the windrow, with position 3 and 4 tyres also mounting the windrow. The operator drove forwards off the windrow back onto the ramp. The operator said they were unable to stop the truck using the brakes, so decided to steer the truck about 90 m across the ramp, on a 9% grade, into the windrow on the edge of the road to stop the truck. The operator was not injured. Initial investigation suggested there was no issue with the braking system.

Picture 10.
Scene of the incident.

Comments to industry: Mine operators should ensure that all haul truck operators are familiar with emergency braking procedures and that operators are competent in the application of emergency brakes. Truck operators must remain situationally aware when manoeuvring a truck near windrows and dump drop-offs and should use the service brake in emergency situations.

Dangerous incident | IncNot0046032 – Loaded articulated dump bogged

Summary: A loaded articulated dump truck became bogged while tipping overburden along a dam wall. The driver failed to hear positive communication from the dozer operator and continued to reverse with the left hand side of the truck sinking. The truck was not able to be removed under its own tractive effort.

Picture 11.
Dump truck following the incident.

Comments to industry: Mine operators should ensure that dam wall design, construction methodologies, and procedures are established that consider the strength, size distribution and consistency of the materials to be used when constructing dam walls. This should include geotechnical consideration of the potential for slumping and subsidence areas to form, particularly following significant rainfall events.

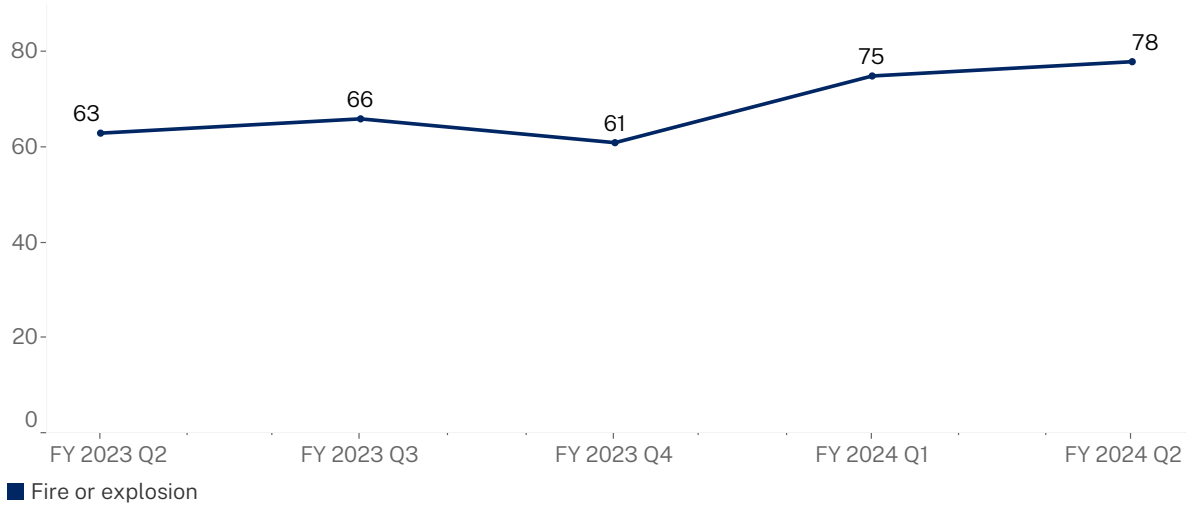
Fire or explosion

Increase from 75 to 78

This principal mining hazard includes risk associated with all sources of flammable, combustible and explosive substances and materials in the working environment. A common source of these incidents are fires on mobile plant. This principal mining hazard is distinct from the hazards covered in the explosives control plan.

This quarter fire or explosion notified incidents increased slightly, continuing an upwards trend over the past 5 quarters.

Figure 10. Incident notifications received related to principal mining hazard fire or explosion – October 2022 to December 2023



Dangerous incident | IncNot45666 – Unintended initiation of explosives on excavator

Summary: An excavator caused an unintended initiation of explosives while filling an excavator bucket with overburden. Flyrock from the explosion hit the windscreen of the excavator resulting in laminated glass inside the operator's cabin. No rock penetrated the glass. An adjacent haul truck sustained damage to the side mirror and some debris on the walkway. A nearby dozer also had flyrock material impact the machine. The haul truck and dozer were about 5–10 m from the bucket when the incident occurred. There were no injuries suffered by any of the operators.

Picture 12.
Excavator following the incident.

Comments to industry: Sites must maintain effective explosives management systems. These systems should include safe work procedures and signed off checklists that minimise the potential for misfires and/or unaccounted explosives devices. There must be a process in place to ensure any misfires are identified, logged and communicated to workers.

Dangerous incident | IncNot0045796 – Rib slump in cut through

Summary: A load haul dump was cleaning out a cut through to access a seal for repairs. Two workers were inspecting the cut through when they noticed a change in rib conditions. The workers moved to the opposite side of the roadway. Soon after, the rib slumped.

Picture 13.
Scene of the incident.

Comments to industry: Workers must remain aware of strata conditions. When cleaning up, workers need to be aware of the risk of destabilising the rib support.

Dangerous incident | IncNot0046099 – Frictional ignition on long wall

Summary: A frictional ignition event occurred during production on a long wall when workers were heading back to the main gate cutting the roof. There were frictional ignition checks and 16 picks were changed. The event lasted about 60 seconds and was extinguished with 2 frictional ignition hoses.

Picture 14.
Scene of the incident.

Comments to industry: Appropriate procedures and TARPs must be in place for when the risk changes including changes in geology and the seam section being cut. Implementing and monitoring the ventilation standards required to manage methane levels must be to a standard to minimise the risk. Ensure ventilation is installed and maintained to maximise ventilation quantities at the working face.

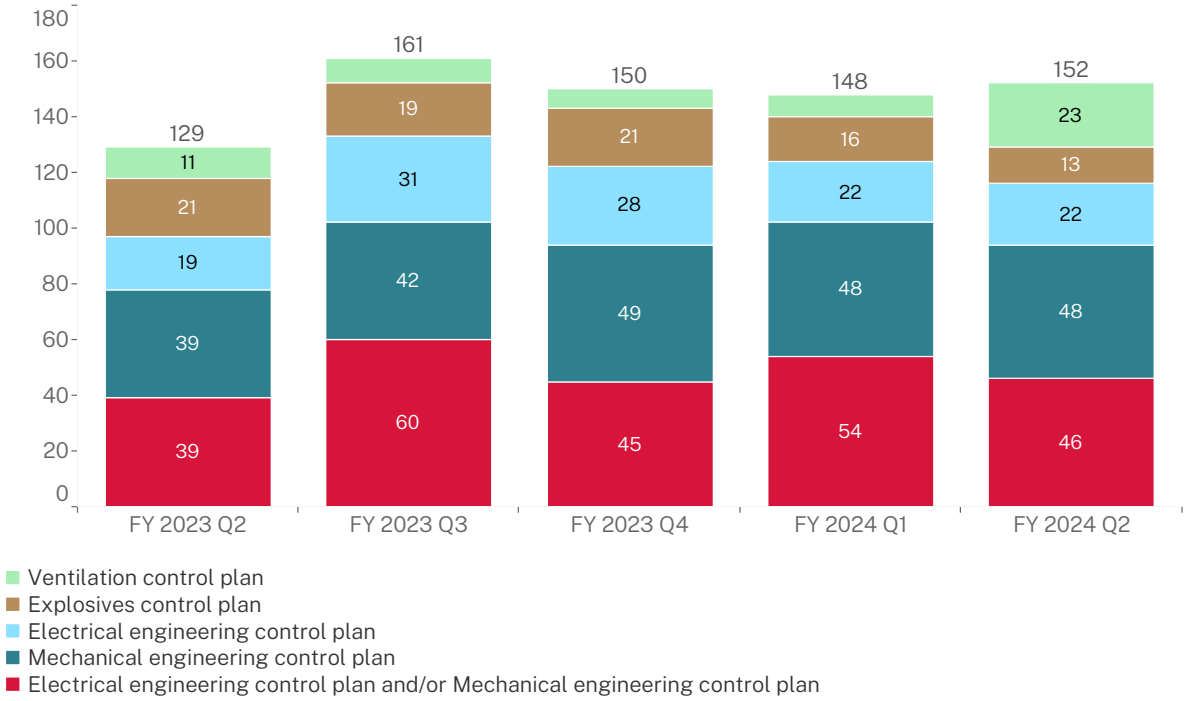
Principal control plans

The Work Health and Safety (Mines and Petroleum Sites) Regulation 2022 specifies principal control plans for managing certain risks associated with hazards at mine and petroleum sites.

There are 5 principal control plans specified in the Regulation.

The figure below presents a further breakdown of numbers of incident notifications received related to principal control plans as defined in section 19 and Schedule 2 of the Regulation. Note: no incidents were notified in relation to health control plans or well integrity control plans.

Figure 11. Incident notifications received by principal control plans – October 2022 to December 2023

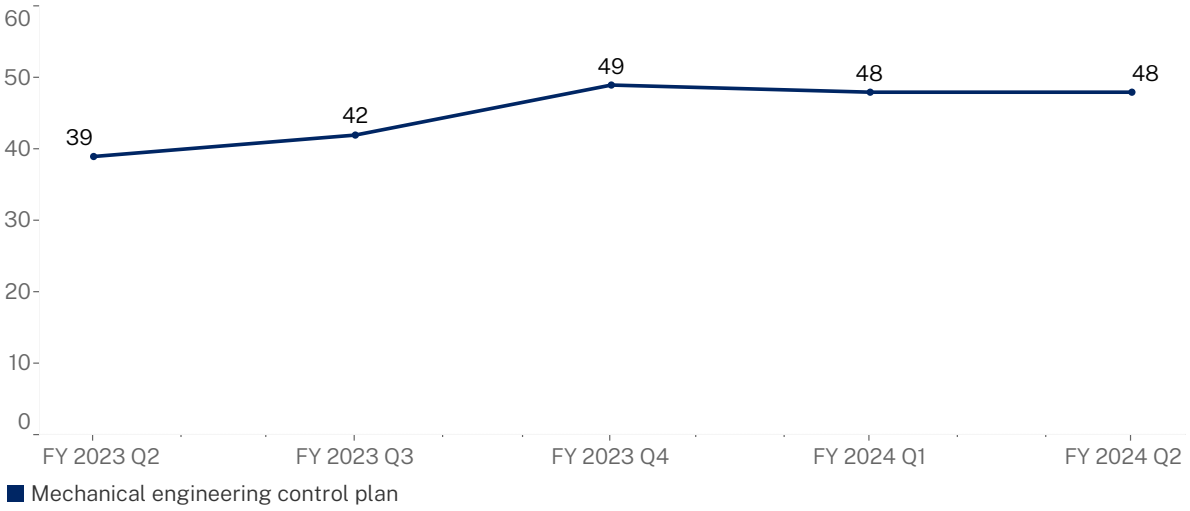


Mechanical engineering control plans

No change (48)

The mechanical engineering control plan covers ‘lifecycle’ risks associated with mechanical hazards (vehicles, plant and mechanical systems and structures) that workers may be exposed to. This includes risks associated with pressurised fluids.

Figure 12. Incident notifications received related to mechanical engineering control plans – October 2022 to December 2023



Dangerous incident | IncNot0045537 – Unplanned movement of screen

Summary: While in the process of lifting a screen with a motor attached, the dogman climbed onto the screen to adjust the lifting chains and radioed the crane operator to take the weight. The screen lifted on one side and, with only one corner touching the ground, tipped on an angle of 45 degrees. It proceeded to rotate 180 degrees. The crane operator lowered the screen and the dogman climbed to the ground.

Picture 15.
Scene of the incident.

Comments to industry: Mine operators should review how workers and supervisors are trained to recognise the potential hazards associated with all energy sources, including those during lifting activities. Workers must be trained and competent in the use of equipment that is under their control. When lifting objects with slings or chains, controls must be put in place to manage the risk of unplanned movement.

Dangerous incident | IncNot0045641 – Worker injured from compressed air pipe

Summary: While in the process of recovering a compressed air pipe range, the range was isolated and de-energised before work commenced. However, a 13 m section of pipe that had a closed gate valve was still energised. When the worker started to remove the quick release clamp his left forearm was hit with compressed air.

Comments to industry: Effective isolation and energy dissipation practices are critical risk controls when working with high pressure air systems. Where stored pressure can remain in a circuit (such as check valves and gate valves), appropriate methods must be available to safely dissipate pressure. Mines' risk assessments on pressure systems must identify and provide effective controls for areas of trapped pressure.

Refer to Investigation information release (IIR22-01) Two mine workers injured during pipe installation work.

Dangerous incident | IncNot45822 – Unexpected movement of engine module

Summary: Two workers were in the engine bay of a haul truck adjusting chains while installing an engine module. The module moved unexpectedly. The workers had to jump clear to avoid being hit or crushed. Both workers were uninjured. The incident was not immediately reported to the supervisor.

Pictures 16 and 17.
Scene of the incident.

Comments to industry: During lifting activities, it is vital to have clear and concise communication between work parties and workers in control of the crane. Manufacturers should review risk assessments and procedures to ensure that the hazard of unplanned movement during lifting engine modules into or out of haul trucks is considered, controls are in place, and that this is clearly communicated to workers. When an incident occurs, workers must clearly and accurately convey the events related to an incident or near miss to their supervisor.

Dangerous incident | IncNot0046019 – Haul truck tyre rim ejected from tyre

Summary: The rim of a haul truck tyre ejected from the tyre while the tyre was on the ground being inflated. The tyre was being inflated after having the rim O-ring seals replaced. The rim weighing about 2.5 tonnes was ejected about 300 mm above the tyre. The technician was about 5 m from the tyre when the rim ejected. The technician was having some difficulty trying to get the tyre to seal, possibly due to a leaking O-ring. The pressure was reported to be just above 10 psi at the time.

Picture 18.
Tyre and rim involved in the incident.

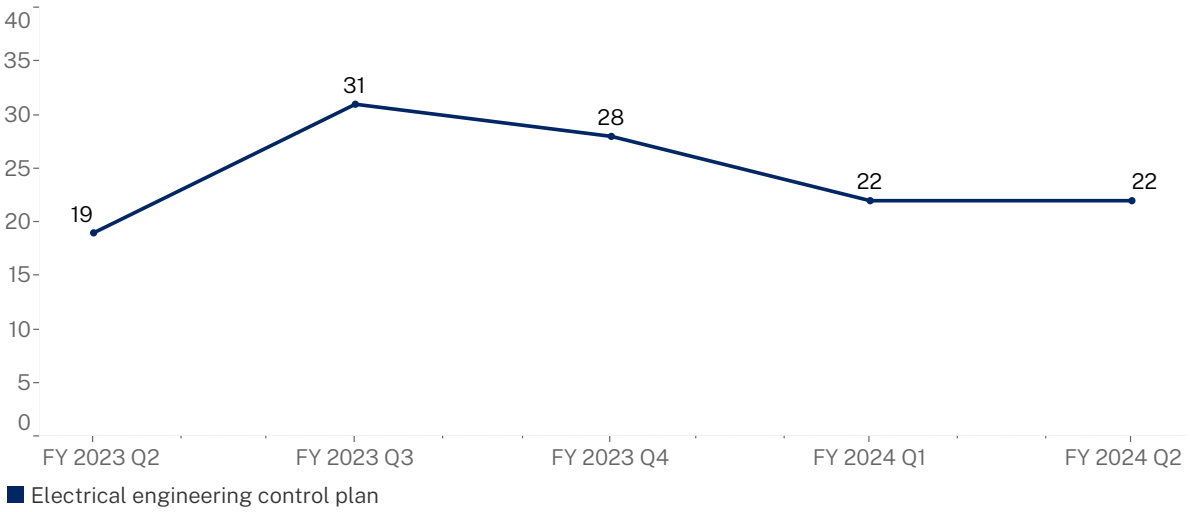
Comments to industry: The dangers associated with tyre handling are well understood and mine operators should ensure that their procedures have identified the risk of uncontrolled ejection of a rim from a tyre, and that appropriate controls are in place to manage the risk.

Electrical engineering control plans

No change (22)

The electrical engineering control plan covers ‘lifecycle’ risks associated with electrical hazards (supply, vehicles, plant or infrastructure) that workers may be exposed to.

Figure 13. Incident notifications received related to electrical engineering control plans – October 2022 to December 2023



Dangerous incident | IncNot46027 – Electric shock to worker using electric rotor broach

Summary: A worker suffered an electric shock while installing a new skirting system to a conveyor using an electric rotor broach to drill holes. A gland on the portable drill was pulled out and allowed ingress of moisture to internal electrical components.

Picture 19.
Equipment involved in the incident.

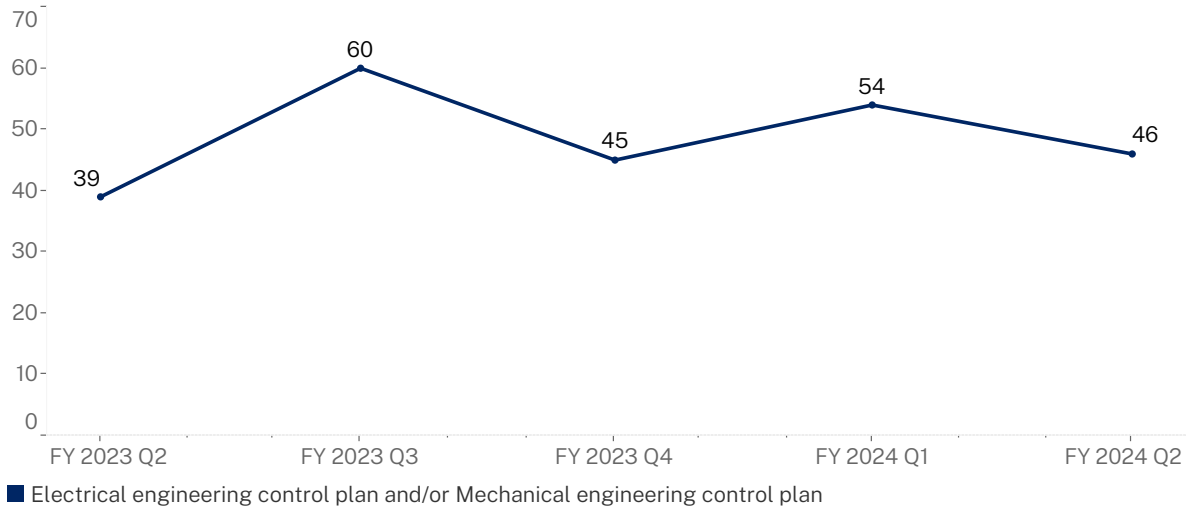
Comments to industry: Mine operators should seek every opportunity to apply the hierarchy of controls when managing electrical equipment in harsh environments. Using extra low voltage electrical equipment and field devices considerably reduces the risks associated with electric shock. Where this control cannot be applied, the maintenance of the ingress protection (IP) rating for the electrical equipment should be paramount.

Electrical and/or Mechanical engineering control plans

Decrease from 54 to 46

Notified incidents may relate to either electrical and mechanical engineering control plans or both.

Figure 14. Incident notifications received related to electrical and/or mechanical engineering control plans – October 2022 to December 2023



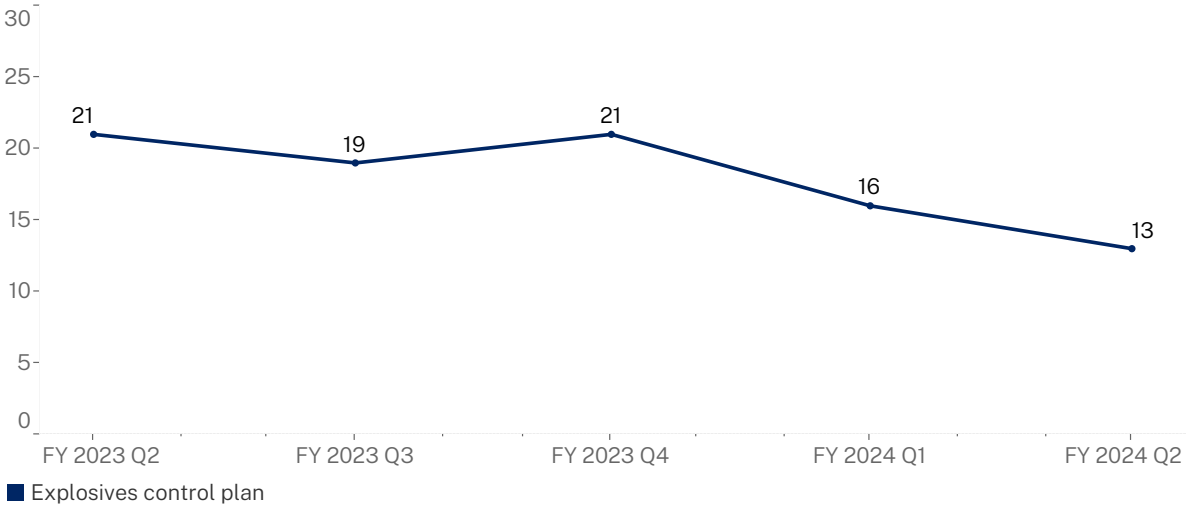
Explosives control plans

Decrease from 16 to 13

The explosives control plan covers risks associated with the use and management of explosives hazards workers may be exposed to. This includes incidents involving 'flyrock' and misfire events.

This quarter notified incidents about explosives control plans continued a downward trend observed over the past 5 quarters.

Figure 15. Incident notifications received related to explosives control plans – July 2022 to September 2023



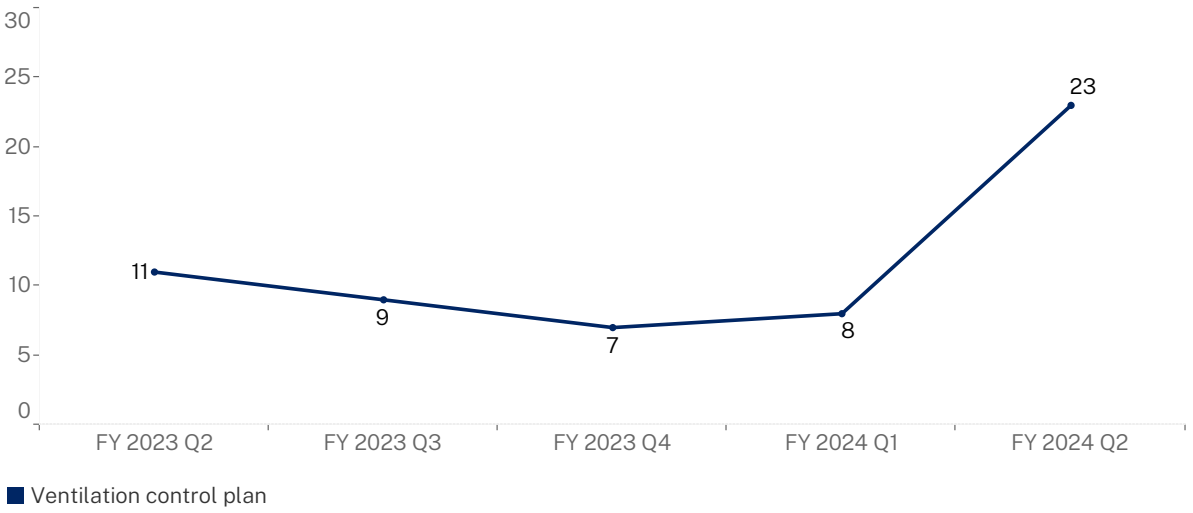
Ventilation control plans

Increase from 8 to 23

A ventilation control plan covers risks associated with ventilation in underground mines. This includes incidents involving failed atmospheric conditions and where trigger action response plans may have been activated.

This quarter notified incidents about ventilation control plans almost tripled. This increase can be explained in part by weather-related site power failure events at several metalliferous mines during the quarter.

Figure 16. Incident notification received related to ventilation control plans – July 2022 to September 2023



Sector profiles

NSW Resources Regulator
Sector reporting

Coal mines

Open cut, underground and coal preparation plants

Large mines

Metalliferous and quarries
Quarries that produce >900,000 tonnes pa and large open cut or underground metalliferous mines

Small mines

Metalliferous, quarries and other gemstones
Quarries and other mine types (e.g. sand, clay, lime) that produce >900,000 tonnes pa, open cut or underground metalliferous mines and gemstone mines

Petroleum and Geothermal

Onshore petroleum and geothermal productions and exploration sites

Opal mines

Opal mines at Lightning Ridge and White Cliffs

Exploration

Exploration sites (excluding petroleum)

Non-mine

Includes many manufacturers (including OEMs), suppliers, designers, importers, licence holders and registration holders

Coal sector

Incident notifications

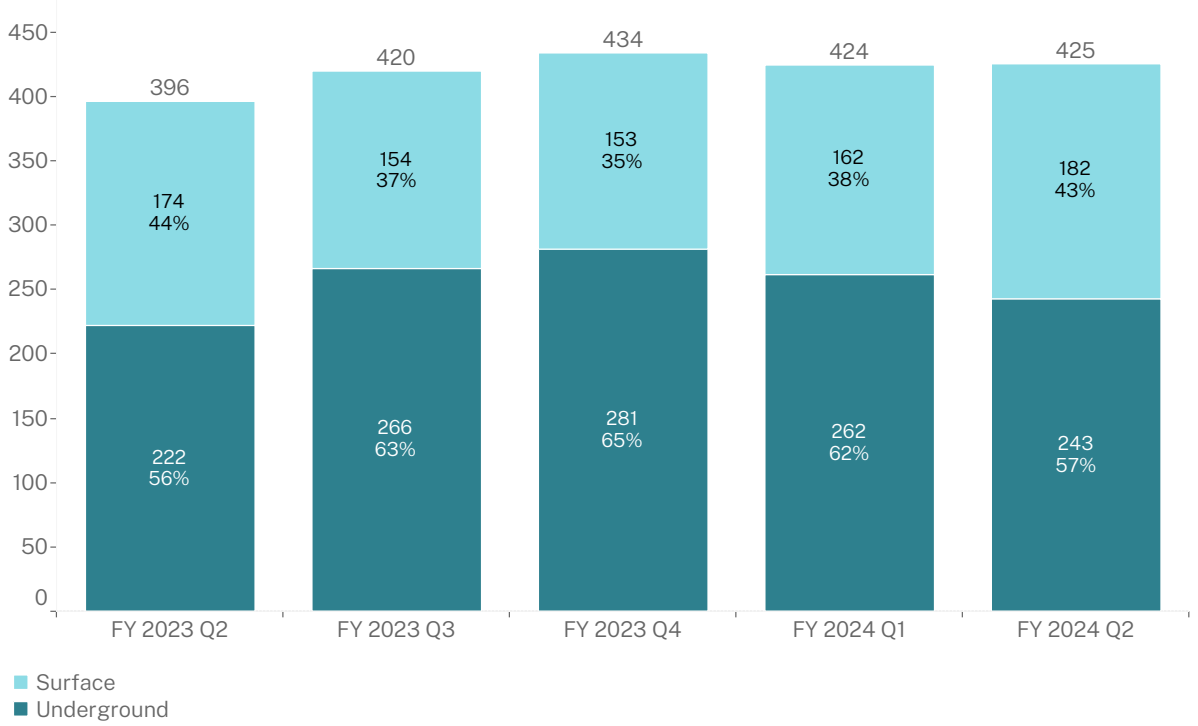
Under work health and safety legislation, mine operators must notify the Regulator about the occurrence of certain types of safety incidents. Incident notification data (by active mine) provides insights into sector-specific reporting trends.

Table 2. Coal sector incident notification rates – October 2022 to December 2023

Measure	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2
Incidents	396	420	434	424	425
Active mines	102	101	101	103	103
Incident rate per active mine	3.88	4.16	4.30	4.12	4.13
Mines that notified incidents	57	51	49	51	52
% of mines notifying an incident	56%	50%	49%	50%	50%
Incident rate per notifying mine	6.95	8.24	8.86	8.31	8.17

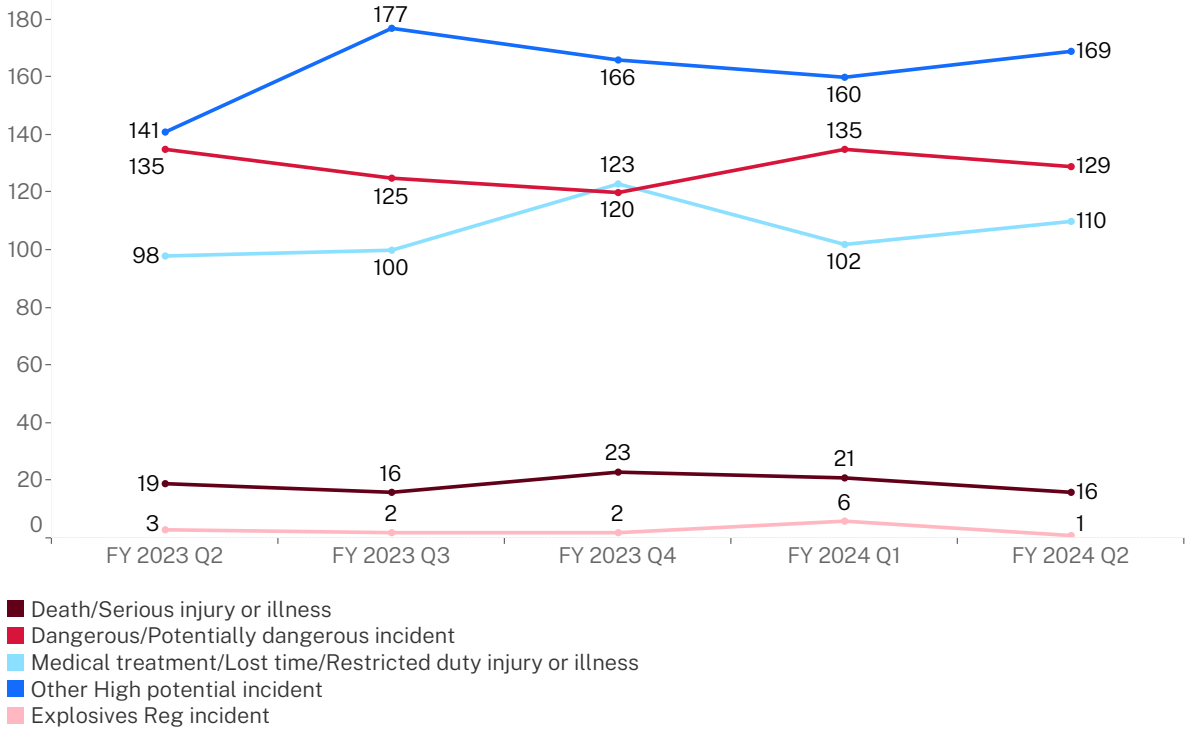
The following graph shows the proportion of safety incident notifications received from surface and underground coal operations. This quarter there was a 12% increase in the number of incidents notified by surface coal operations, and a 7% decrease in underground coal operations.

Figure 17. Coal sector incident notifications received by operation type – October 2022 to December 2023



The graph below presents a breakdown of safety incidents notified to the Regulator by the coal sector by the requirement to report. This quarter saw an increase of notifications of medical treatment/lost time/restricted duty injuries or illnesses (8%). Notable decreases were observed in serious injuries and illnesses (24%) and Explosives Regulation incidents (6 to one).

Figure 18. Coal sector incident notifications received by requirement to report – October 2022 to December 2023

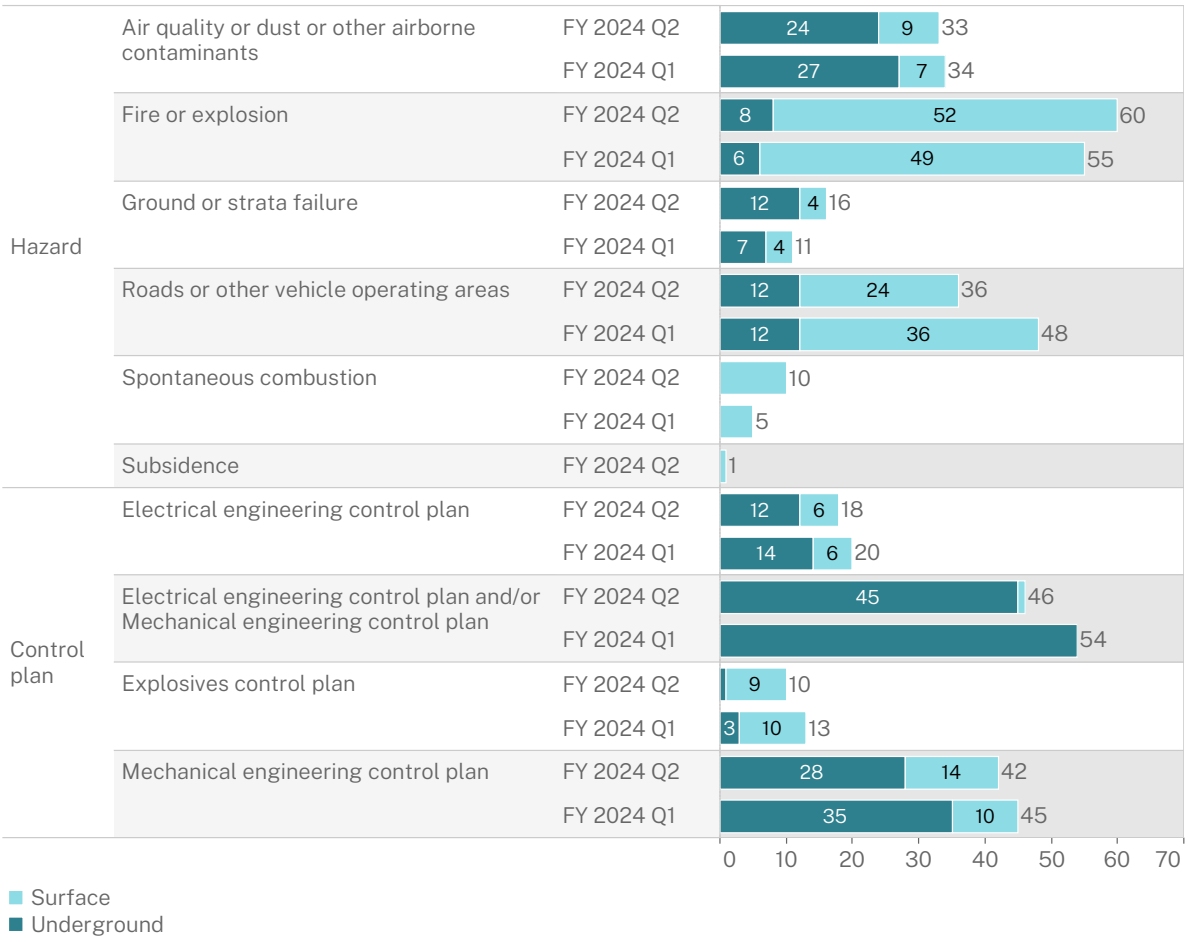


Incident notifications received by principal mining hazard or principal control plan

The figure below shows the number of incident notifications received from the coal sector during the past 2 quarters, as classified against related principal mining hazards and principal control plans. The findings highlight hazards where mine operators need to ensure their risk management controls remain fully effective — this includes ensuring the effectiveness of electrical/mechanical engineering control plans in underground operations and controls for managing fire or explosion hazards in surface operations.

In this quarter, increases were observed in notified incidents relating to fire or explosion (9%) and spontaneous combustion (5 to 10). Notable decreases were seen in roads or other vehicle operating areas in surface operations (25%), and electrical engineering control plan and/or mechanical engineering control plan in underground operations (15%).

Figure 19. Coal mine incident notifications received by principal mining hazard or principal control plan, and by operation type – July to December 2023



Large mines sector

Incident notifications received

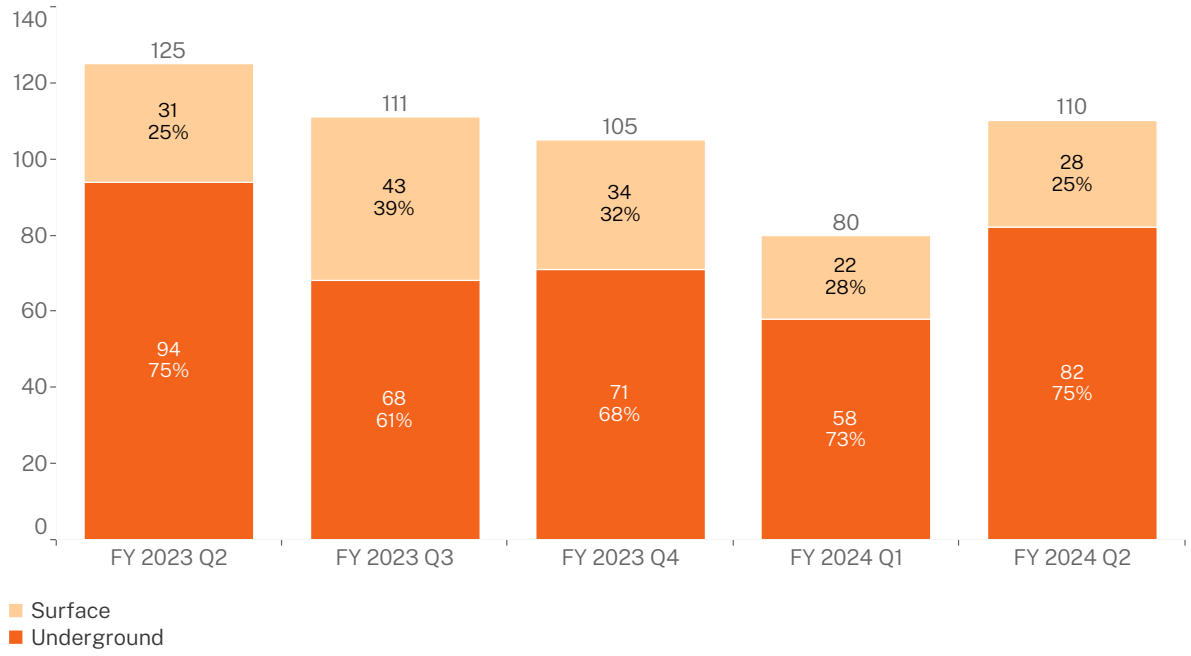
Under work health and safety legislation, mine operators must notify the Regulator about the occurrence of certain types of safety incidents. Incident notification data (by active mine) provides insights into sector specific reporting trends.

Table 3. Large mines and quarries incident notifications received rates – October 2022 to December 2023

Measure	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2
Incidents	125	111	105	80	110
Active mines	57	57	57	57	69
Incident rate per active mine	2.19	1.95	1.84	1.40	1.59
Mines that notified incidents	30	36	30	25	28
% of mines notifying an incident	53%	63%	53%	44%	41%
Incident rate per notifying mine	4.17	3.08	3.50	3.20	3.93

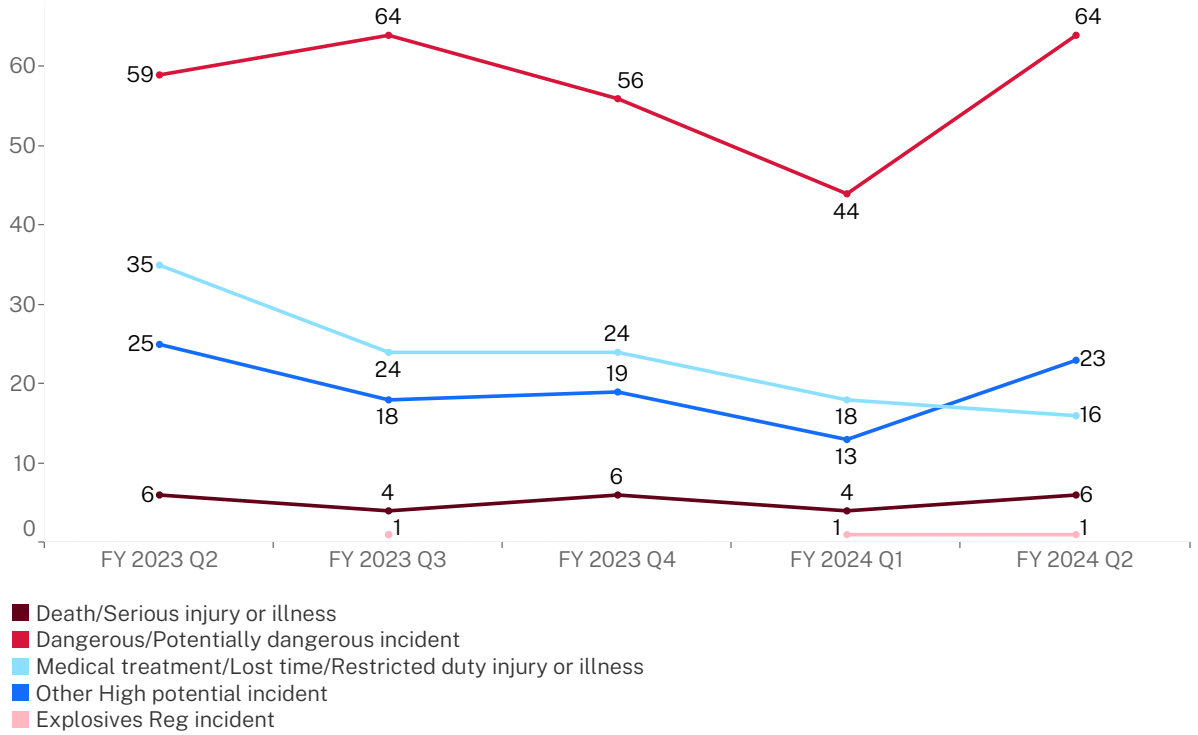
The following graph shows the proportion of safety incident notifications received from large mines and quarries by operation type. In this quarter, notified incidents increased by 38% – representing notable increases in large underground mines (41%) and surface mines (27%).

Figure 20. Large mines and quarries incident notifications received by operation type – October 2022 to December 2023



The following graph presents a breakdown of safety incidents notified to the Regulator by the large mines and quarries sector based on the requirement to report under the safety legislation. This quarter a 46% increase in dangerous / potentially dangerous incidents was observed, returning to the highest number observed in the previous 4 quarters. A notable increase was also seen in other high potential incidents (28%).

Figure 21. Large mines and quarries incident notifications received by requirement to report – October 2022 to December 2023

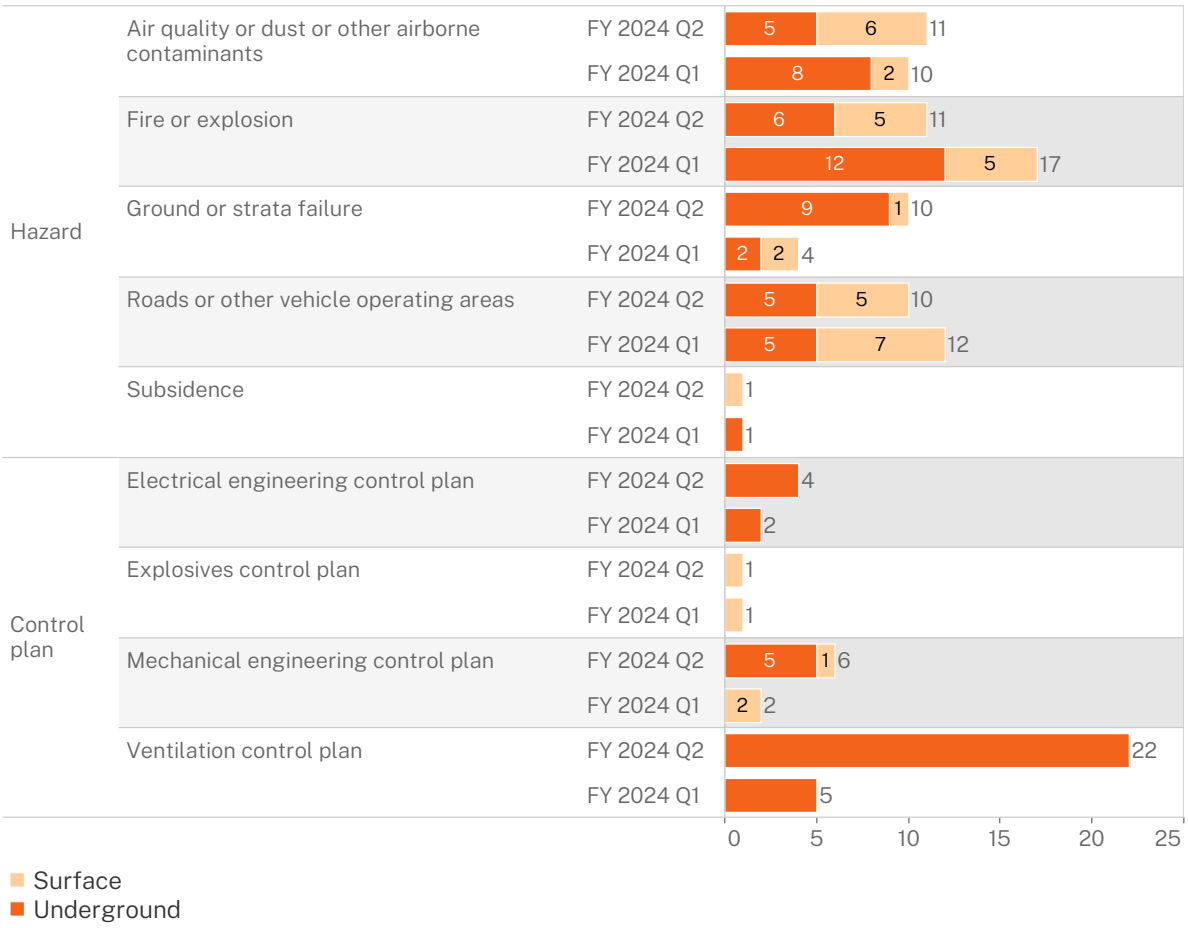


Incident notifications received by principal mining hazard or principal control plan

The figure below shows the number of incident notifications received from the large mines and quarries sector during the past 2 quarters as classified against related principal mining hazards and principal control plans. The findings highlight hazards where mine operators need to ensure their risk management controls remain fully effective. This includes controls for managing hazards associated with fire or explosion and roads or other vehicle operating areas.

In this quarter, a notable decrease was observed in notified incidents relating to fire or explosion (17 to 11). Notable increases were seen in ground or strata failure (4 to 10), ventilation control plan (5 to 22) and mechanical engineering control plan (2 to 6) incidents notified.

Figure 22. Large mines and quarries incident notifications received by principal mining hazard or principal control plan, and operation type – July to December 2023



Small mines sector

Incident notifications received

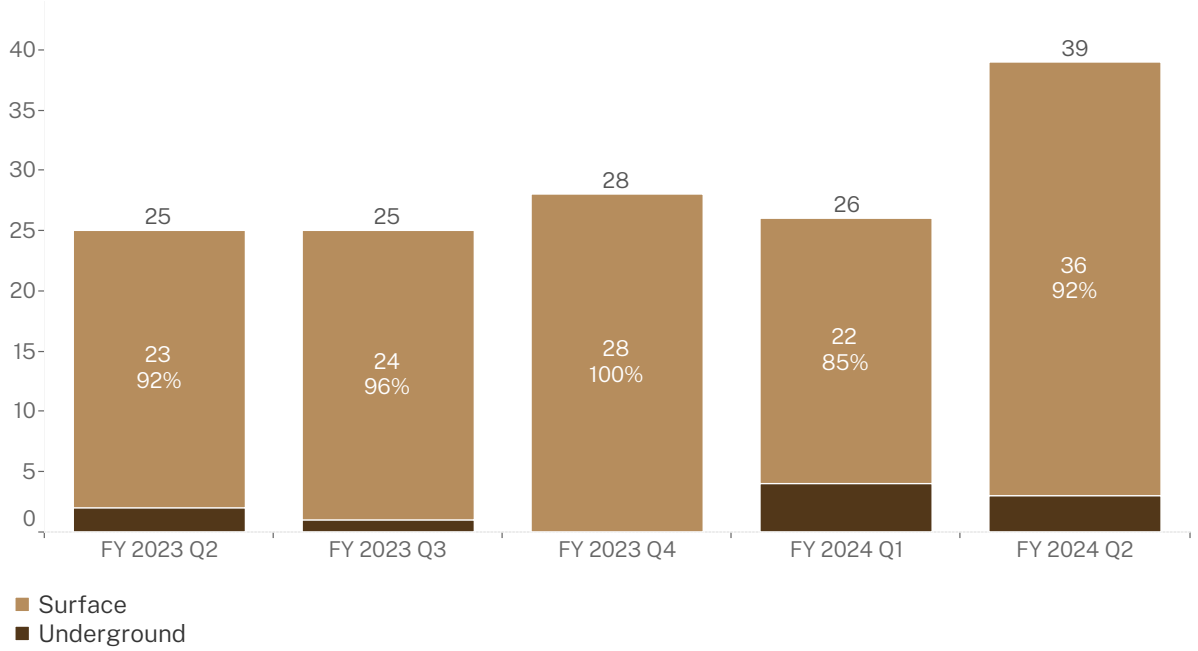
Under work health and safety legislation, mine operators must notify the Regulator about the occurrence of certain types of safety incidents. Incident notification data (by active mine) provides insights into sector specific reporting trends.

Table 4. Small mines and quarries incident notifications received rates – October 2022 to December 2023

Measure	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2
Incidents	25	25	28	26	39
Active mines	2,534	2,527	2,536	2,552	2,399
Incident rate per active mine	0.01	0.01	0.01	0.01	0.02
Mines that notified incidents	22	20	19	23	31
% of mines notifying an incident	0.87%	0.79%	0.75%	0.90%	1.29%
Incident rate per notifying mine	1.14	1.25	1.47	1.13	1.26

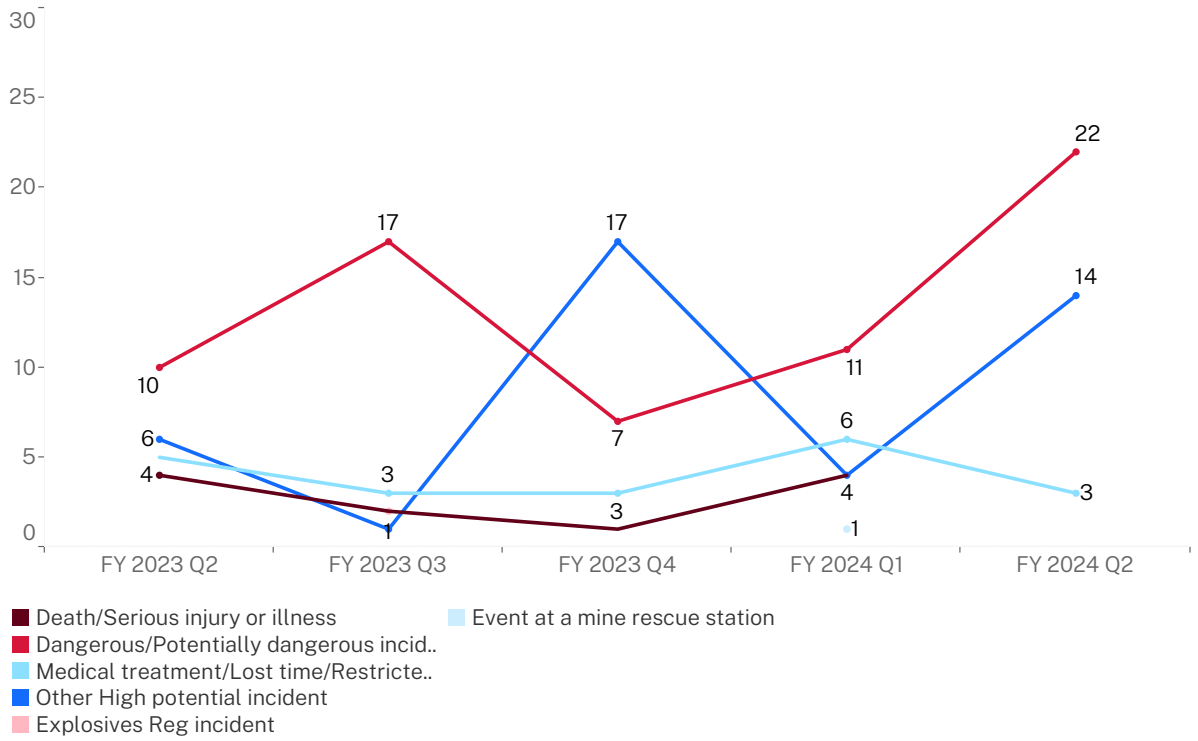
The graph below shows the proportion of safety incident notifications received from small mines and quarries.

Figure 23. Small mines and quarries incident notifications received by operation type – October 2022 to December 2023



The graph below presents a breakdown of safety incidents notified to the Regulator by the small mines and quarries sector by the requirement to report. This quarter saw increases in dangerous/potentially dangerous incidents (11 to 22) and other high potential incidents (4 to 14). Decreases were seen in death/serious injury or illness (4 to zero) and medical treatment/lost time/restricted duty injury or illness (6 to 3).

Figure 24. Small mines and quarries incident notifications received by requirement to report – October 2022 to December 2023

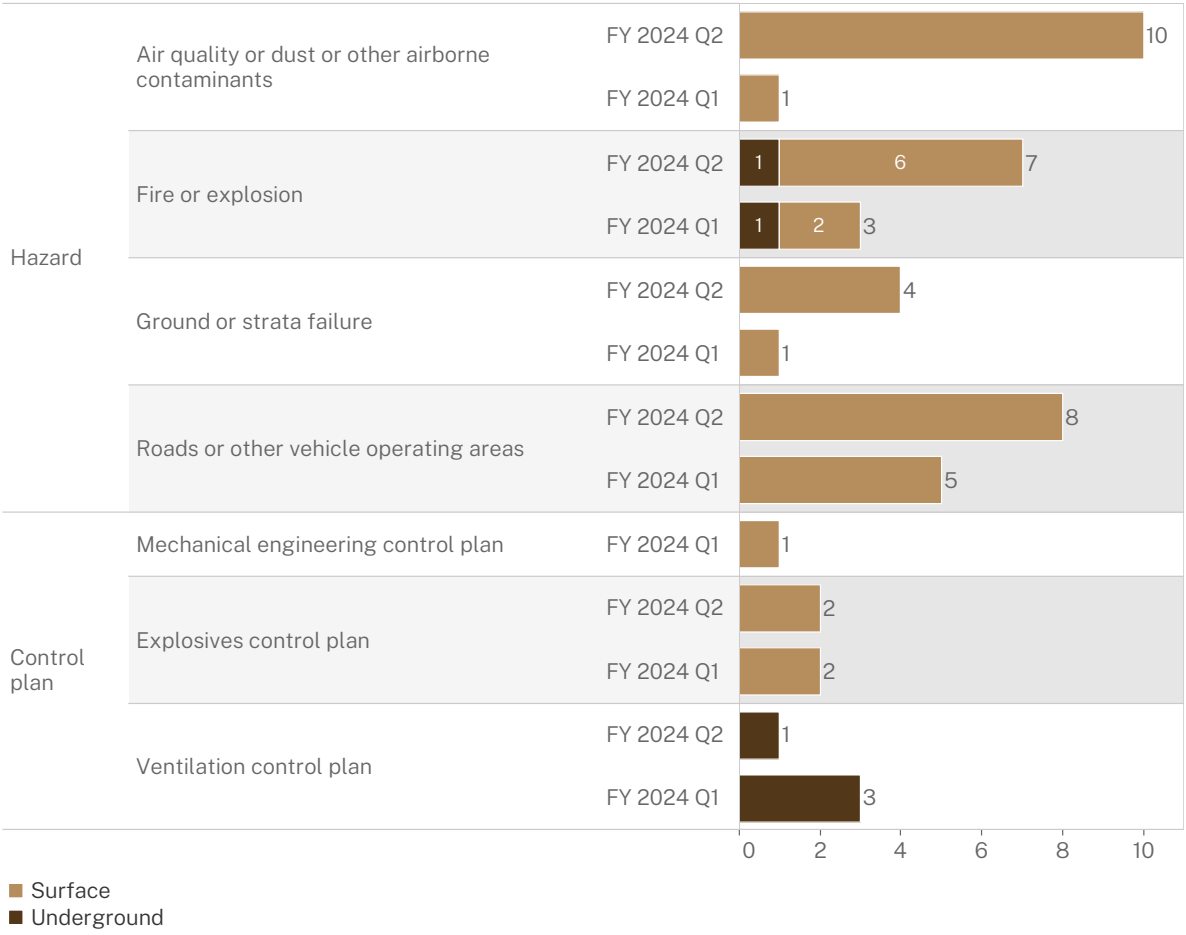


Incident notifications received by principal mining hazard or principal control plan

The figure below shows the number of incident notifications received from the small mines and quarries sector during the past 2 quarters as classified against related principal mining hazards and principal control plans. The findings highlight hazards where small mine and quarry operators need to ensure their risk management controls remain fully effective — this includes controls for managing hazards associated with airborne contaminants /dust and roads or other vehicle operating areas.

Increases were observed in incidents notified relating to all present principal mining hazards – air quality or dust or other airborne contaminants (one to 10), fire or explosion (3 to 7), ground or strata failure (one to 4), and roads or other vehicle operating areas (5 to 8).

Figure 25. Small mines and quarries incident notifications received by principal mining hazard or principal control plan, and operation type – July to December 2023



Other mines sector profiles

Incident notifications received

Under work health and safety legislation, mine operators must notify the Regulator about the occurrence of certain types of safety incidents.

This section relates to petroleum and geothermal sites, opal mines and exploration sites. The tables below show the number and types of incident notification received by requirement to report and by principal mining hazard.

Table 5. Petroleum and geothermal sites, opal mines and exploration sites incident notifications received – October 2022 to December 2023

Sector	Measure	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2
Petroleum & geothermal sites*	Incidents	0	0	0	0	0
Opal mines	Incidents	1	0	1	1	1
Exploration sites**	Incidents	0	1	1	0	1

* includes exploration
** excludes petroleum and geothermal

Table 6. Opal mines and exploration sites incident notifications received by requirement to report – October 2022 to December 2023

Sector	Requirement to report measure	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2
Opal mines	Death/Serious injury or illness	0	0	1	0	1
	Dangerous/Potentially dangerous incident	0	0	0	1	0
	Other High potential incident	1	0	0	0	0
Exploration sites	Dangerous/Potentially dangerous incident	0	0	0	0	1
	Medical treatment/Lost time/ Restricted duty injury or illness	0	1	1	0	0

Table 7. Opal mines and exploration sites incident notifications received by principal mining hazard and other hazards – October 2022 to December 2023

Sector	Incident notification PH/PCP classification	FY 2023 Q2	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2
Opal mines	Ground or strata failure	1	0	0	0	0
	Roads or other vehicle operating areas	0	0	0	1	0
	No related principal hazard or principal control plan	0	0	0	0	1
	Not classified	0	0	1	0	1
Exploration sites	No related principal mining hazard or principal control plan	0	1	1	0	1

Compliance and enforcement

The Regulator uses a range of tools to promote and secure compliance in mines and petroleum sites in relation to work health and safety legislation. These include desktop assessments, site inspections, investigations and enforcement actions, such as issuing notices and commencing prosecutions.

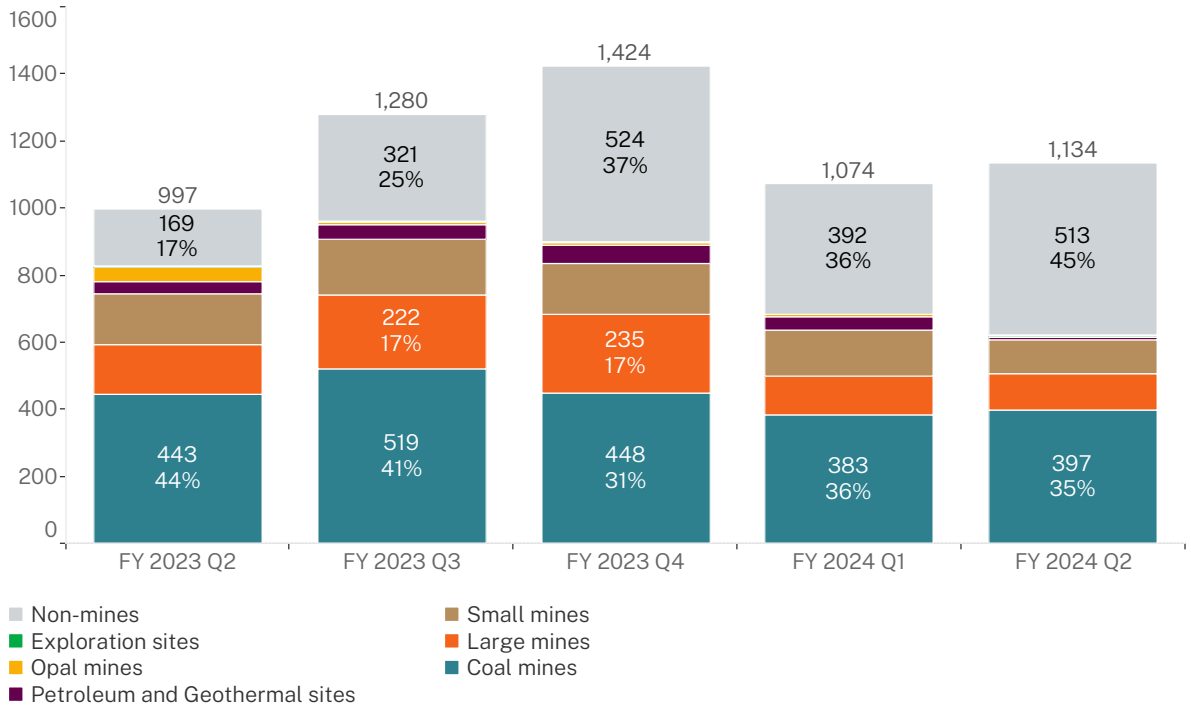
Detailed information regarding compliance activities, priorities, outcomes and reports are published on our website and in our business activity reports.

Safety assessments by sector

This quarter saw a 6% increase in the number of assessments, representing a 31% increase in non-mine assessments and decreases in small mine and petroleum and geothermal site assessments.

Non-mines assessments predominantly relate to licensing and practising certificate applications and renewals.

Figure 26. Safety assessments by sector – October 2022 to December 2023

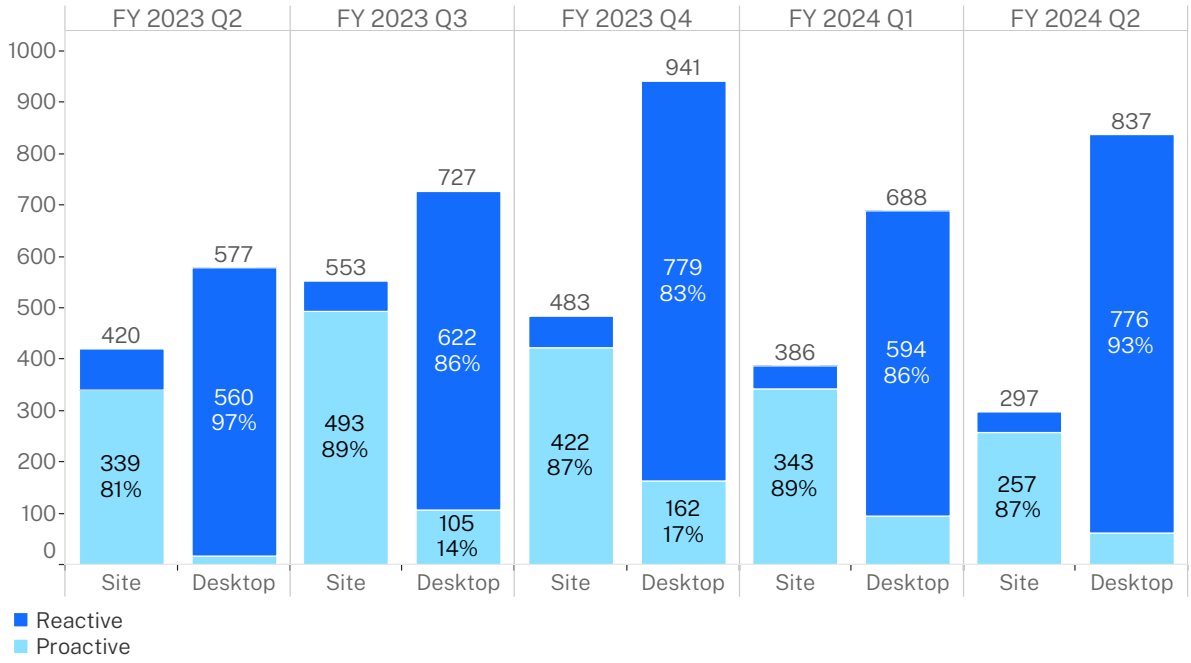


Safety assessments by category and nature

Site-based (visiting mine sites) and desktop activities are both important regulatory tools. While the focus of our on-site compliance activity is on preventing incidents through planned risk-based proactive assessments, our desktop activities are mainly reactive.

Site-based proactive assessments focus on establishing whether critical controls have been effectively implemented. Meanwhile desktop assessment activities include reviews of control measures following an incident, review of personal dust monitoring reports submitted by coal mine operators, assessment of high-risk activity notifications, applications for exemptions from work health and safety laws, subsidence management plans and preparation for site work.

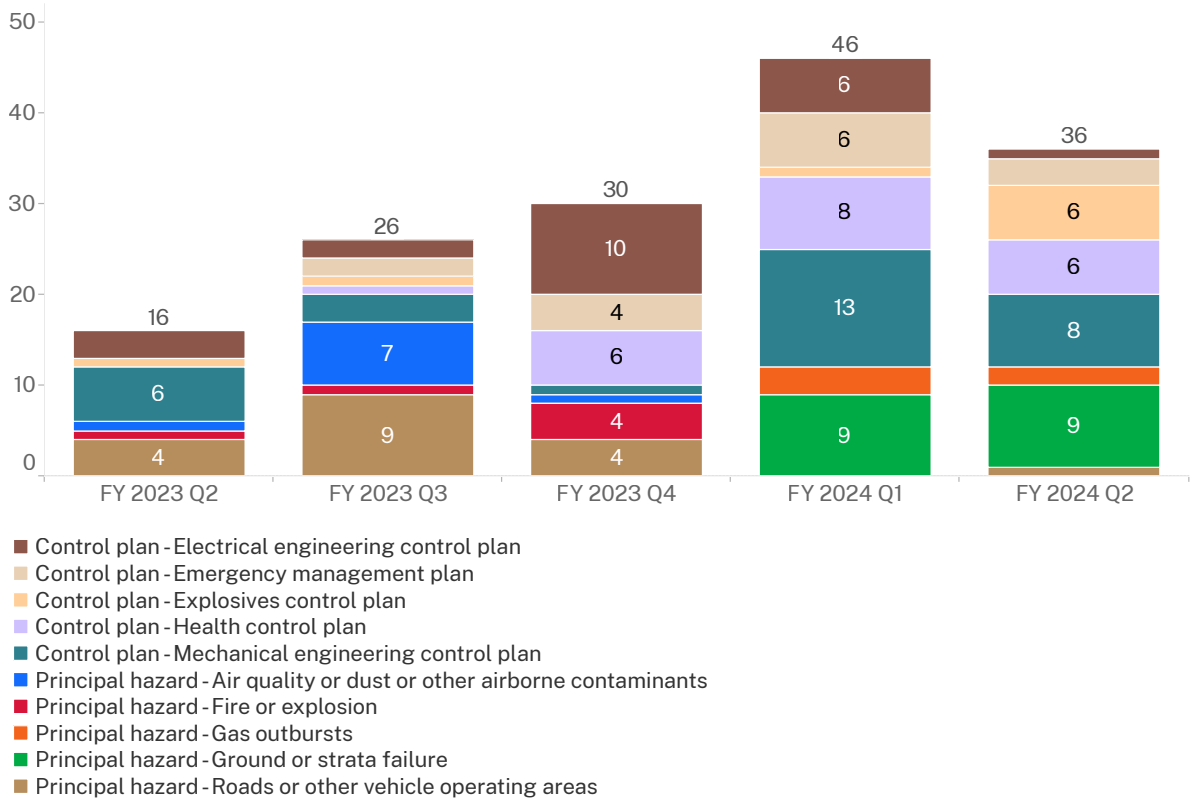
Figure 27. Safety assessments by category and nature – October 2022 to December 2023



Programmed site assessments

Our targeted assessment program establishes a risk-based and proactive approach for assessing the extent to which critical controls for managing principal mining hazards, principal control plans and other programs have been identified, implemented and are being monitored.

Figure 28. Targeted assessments by principal mining hazards, control plans and other programs – October 2022 to December 2023

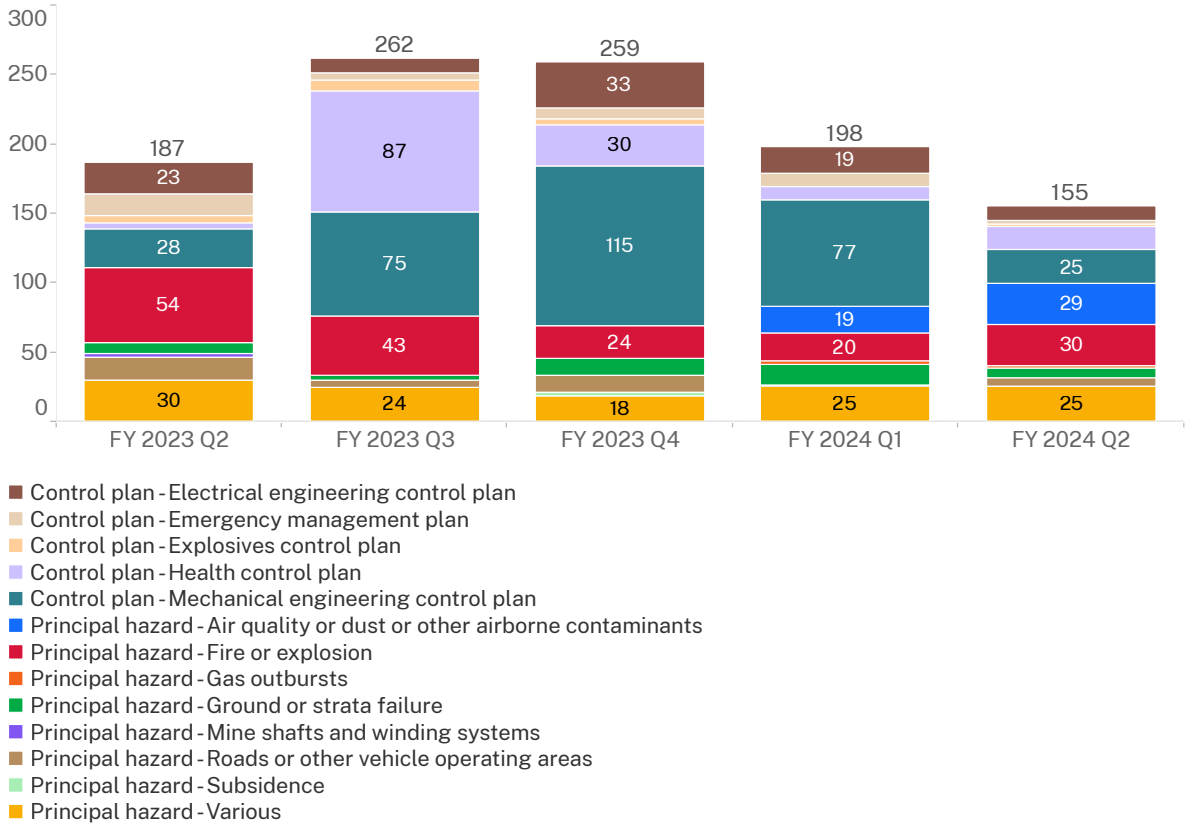


Planned inspections

Planned inspections assist in identifying compliance weaknesses which could lead to an incident or injury. These assessments focus on the physical implementation of critical controls in the operating areas of a mine.

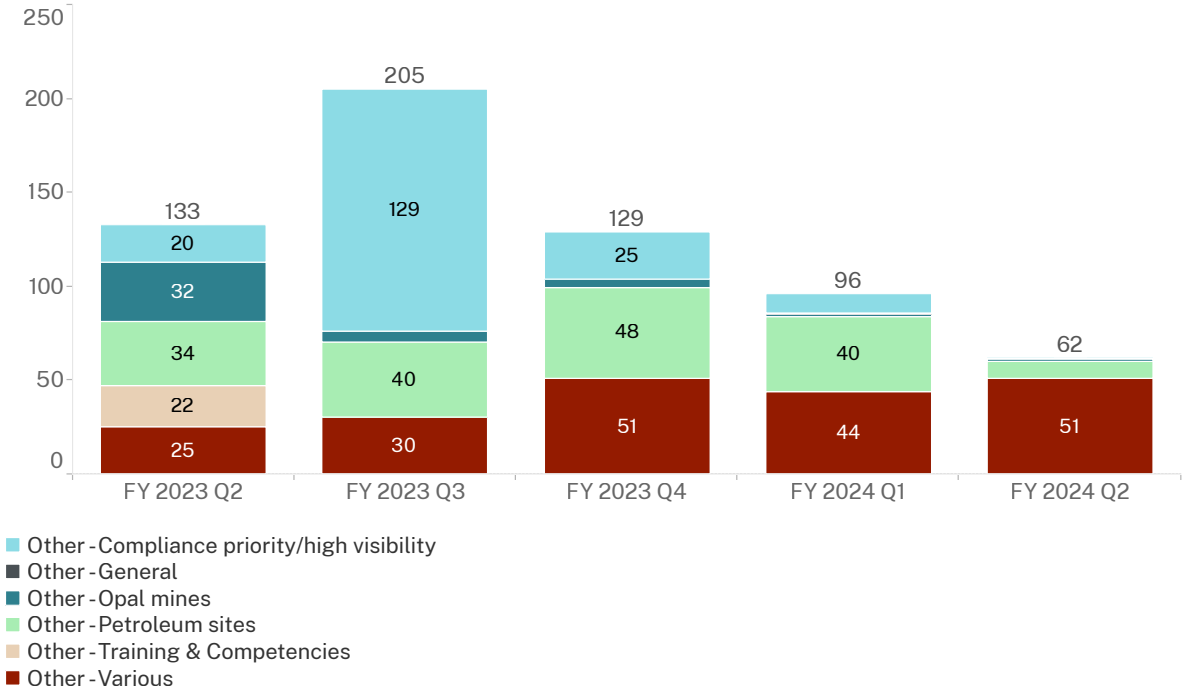
Planned site inspections were commenced on the principal mining hazards and control plans shown in the graph below.

Figure 29. Planned inspections by principal hazards and control plans – October 2022 to December 2023



The graph below shows planned site inspections commenced for ‘other’ hazards. ‘Other’ hazards are those hazards that are not related to principal mining hazards or principal control plans.

Figure 30. Planned inspections by ‘other’ programs – October 2022 to December 2023

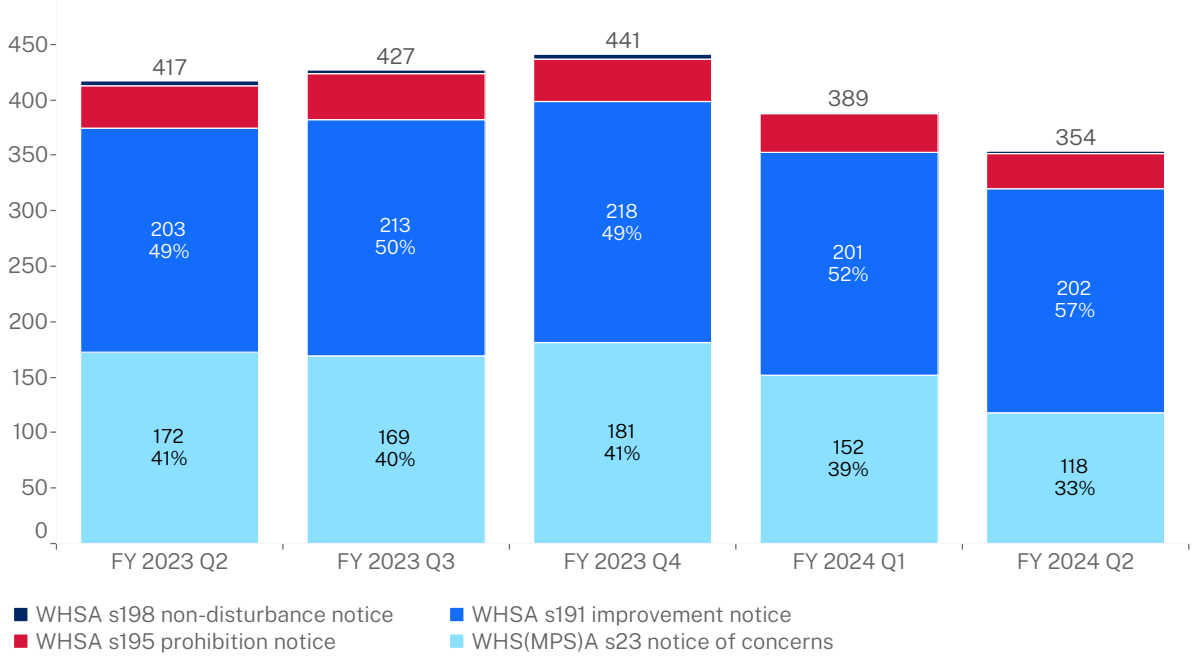


Safety notices issued

We issue risk-based safety notices including prohibition and improvement notices, notices of concern (written notice of matters) and non-disturbance notices.

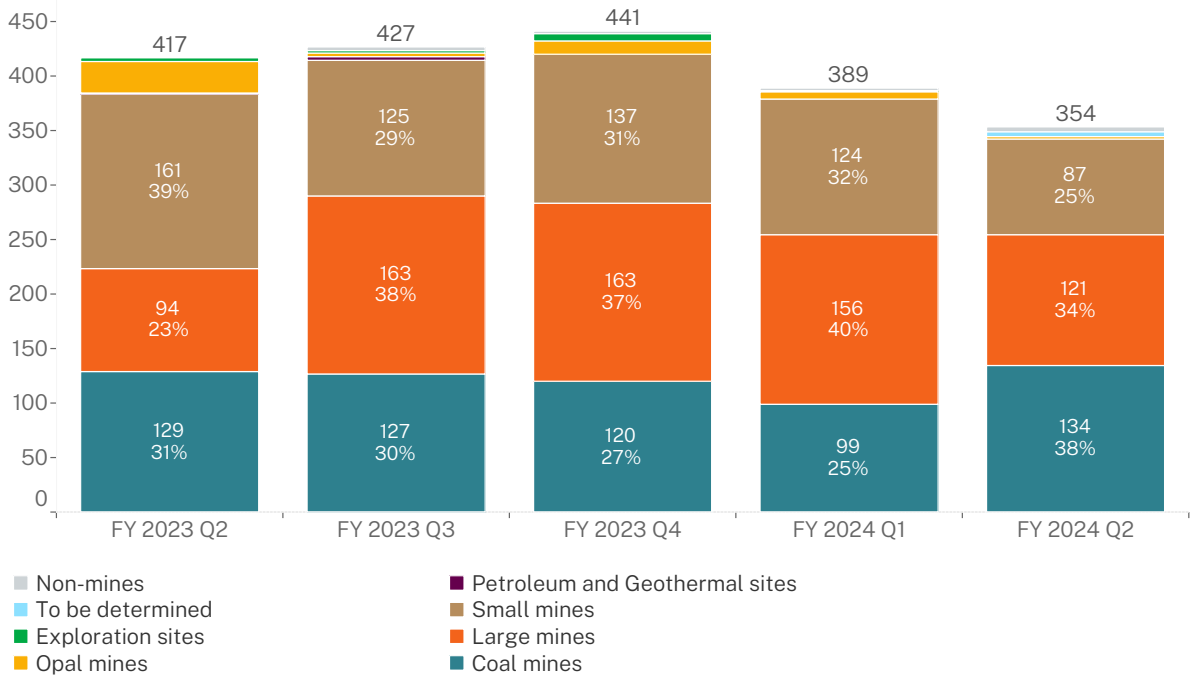
The graph below shows the number and type of safety notices issued during each of the 5 quarters from September 2022. This quarter saw a decrease in the number of notices issued recording the lowest figure over the last 5 quarters.

Figure 31. Safety notices issued by notice type – October 2022 to December 2023



The proportion of safety notices issued to the coal mines, small mines and opal mines have decreased this quarter, with an increase observed in the large mines sector.

Figure 32. Safety notices issued by sector – October 2022 to December 2023



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