# Quarterly safety report

April to June 2024

resourcesregulator.nsw.gov.au



# **About this report**

This quarterly health and safety performance report has been prepared by the 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**

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# **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 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 'fires or explosion' are principal mining hazard classifications that feature regularly in incident notifications to the Regulator.

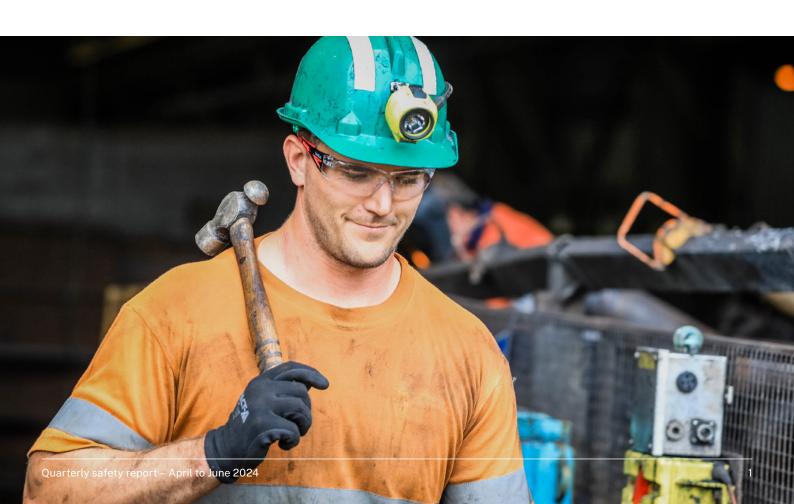
As well as providing an overview of incidents across the mining industry, this report looks at the safety performance and regulatory activities of 6 sectors: coal, large (non-coal) mines and quarries, small mines and quarries (including gemstones), opal mines, petroleum and geothermal sites, and exploration 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 4 (April to June) of financial year (FY) 2024. For selected measures, data is analysed over a 15-month period from April 2023 to June 2024.

In this quarter, there were a total of 517 incident notifications received – a 9% decrease from the same period in FY 2023 and 3% decrease from the previous quarter.

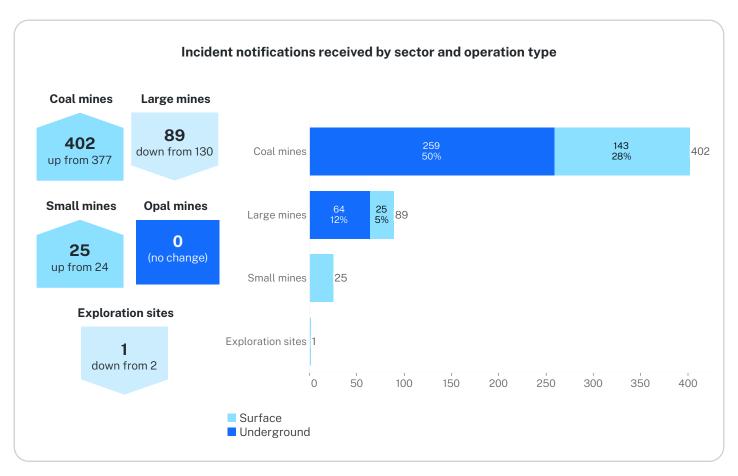
Incident notifications for large underground mines decreased by 39% from the previous quarter. Conversely, an 11% increase occurred in incident notifications for underground coal mines. Notable decreases were also observed in incident notifications related to fire or explosion (25%) and ventilation control plans (69%).

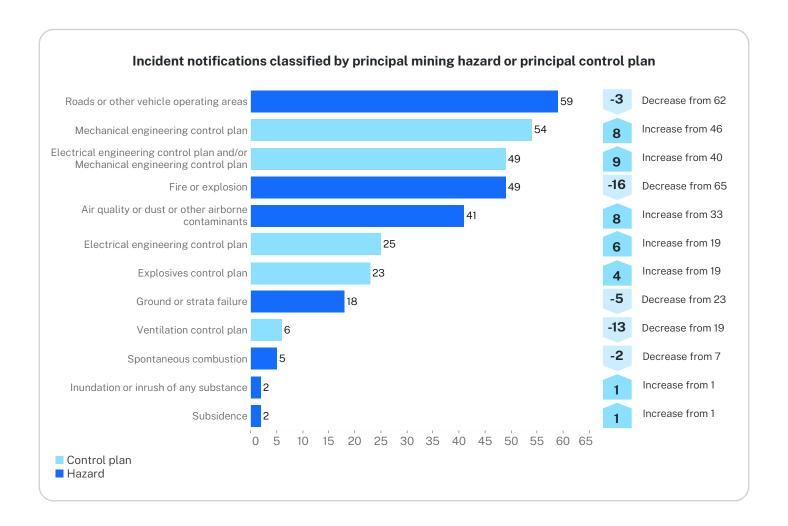
Desktop assessments decreased by 25% this quarter, an overall decrease of 43% from the same period in FY 2023. Proactive site assessments increased by 7%.

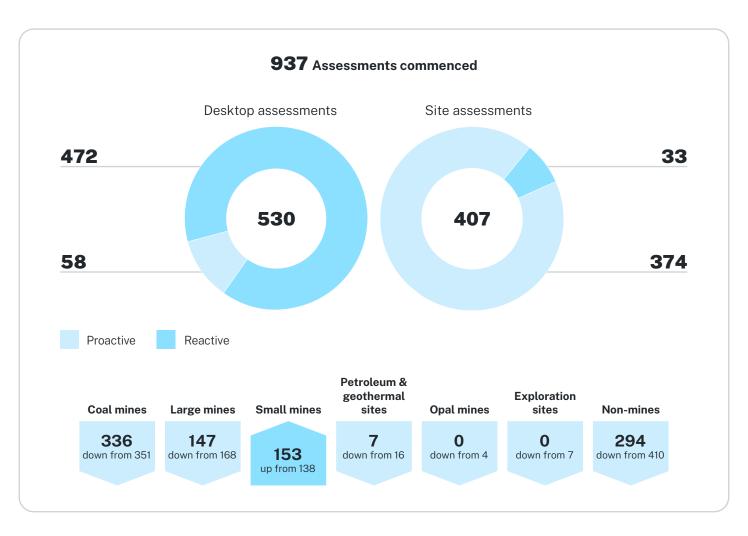


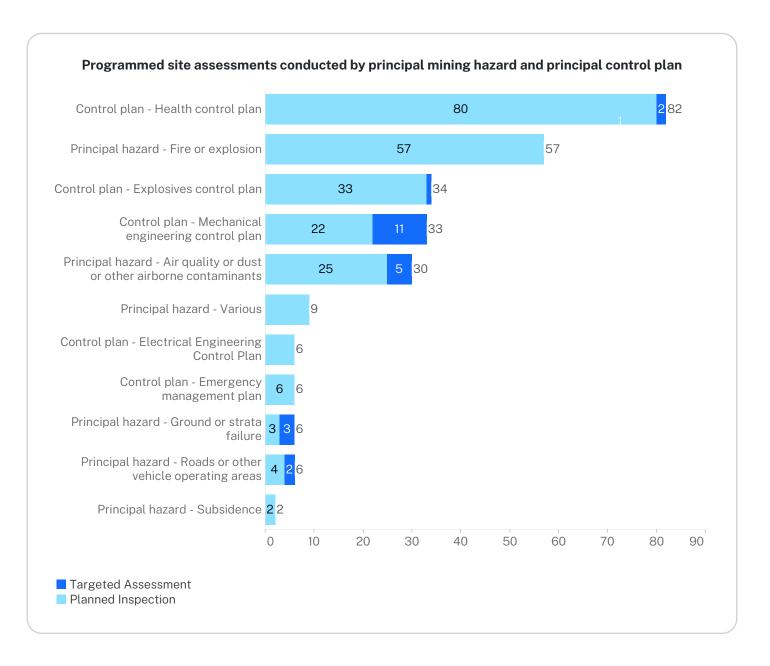
# Quarterly snapshot













# 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 April and 30 June 2024.

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

# Fatal injuries

# Australia

# Western Australia

On 23 April 2024, a contractor worker died on site at the St Ives gold mine near Kambalda after suffering a crush injury. Refer to Gold Fields media release dated 25 April 2024.



# International

# India

Two contract workers repairing a lift at Chinakuri coal mine of Eastern Coalfields Limited died instantly after falling into a 613m-deep mine at Kulti near Asansol on 2 April. The deceased were Anil Yadav, 28, and Akash Bauri, 30, both residents of Jharkhand. Three more workers suffered minor injuries after some parts of the defunct lift fell on them. A worker said: "Three of us were positioned at a higher level from the lift's top. Anil and Akash were working while standing on the defunct lift top. As the cables of the lift being repaired snapped, both Anil and Akash went into the mine along with the lift. Both died on the spot." Kulti BJP MLA Ajay Poddar said the workers were not trained properly to carry out the risky job. Refer to Eastern Coalfields Limited X (formerly Twitter) feed dated 6 April 2024.

On 14 May 2024, the chief vigilance officer of Hindustan Copper Limited (HCL), Upendra Kumar Pandey, lost his life following a lift collapse at a mine in Neem Ka Thana, Rajasthan. Fourteen others were rescued from the incident site and admitted a hospital in Jaipur after a long rescue operation. The accident happened when the HCL vigilance team of 15 personnel from Kolkata were returning back from an inspection and the cable suddenly snapped, leaving them trapped at a depth of 1,875 feet. Refer to Hindustan Copper Limited statement dated 15 May 2024.

# **South Africa**

On 21 May 2024, an employee at Harmony Gold's Phakisa mine tragically lost his life following a blasting incident. All blasting operations were temporarily suspended. The relevant authorities were informed and the Department of Mineral Resources and Energy, labour representatives and mine management will investigate the cause of the incident. Refer to Harmony Gold company statement dated 22 May 2024.

# **United States of America**

On 15 April 2024, a miner died when the tail section of a collapsible belt conveyor fell and pinned him between the tail section and middle section. The miner was working as part of a crew to tear down the conveyor in preparation to be moved. Refer to MSHA fatality alert dated 15 April 2024.

On 8 May 2024, a miner was electrocuted and died while unloading a roll of belt from a trailer. The miner was performing rigging duties when the crane boom contacted an overhead high-voltage powerline. Refer to MSHA fatality alert dated 8 May 2024.

On 9 May 2024, a miner died when he was pinned between the personnel lift that he was operating and the roof of a structure. The miner was tramming the personnel lift from the basket to conduct a roller repair on an elevated belt conveyor. Refer to MSHA fatality alert dated 9 May 2024.

On 16 May 2024, a miner died when the excavator he was operating travelled over a 200-foot highwall. Refer to MSHA fatality alert dated 16 May 2024.

On 31 May 2024, Coronado Global Resources halted production at the Buchanan underground complex in Virginia, after a 27-year-old miner lost his life when a loose rock fell about 2 m from the mine roof. The Virginia Energy Department, currently investigating the incident, reported that the victim was working as the evening shift roof bolter. Refer to Coronado company statement dated 3 June 2024.

# Alerts, bulletins, fact sheets and incident information releases

# **New South Wales**

# Safety alerts and bulletins

# · LHD crowd cylinder failures - potential worker injuries

In the past 9 months, there have been 5 significant incidents involving the hydraulic crowd cylinders on load haul dump (LHD) machines in underground coal mines. Four of these incidents have occurred in the past 4 months. The crowd cylinder forms the top mount supporting the attachment plate. LHDs in the underground coal industry are widely used as utility vehicles, coupling to a variety of implements including some where people are elevated (such as work baskets and drill rigs). Overloading or failure of the crowd cylinder can cause the implement to drop and rotate about the lower load arm pivot joint. Any people in the machine, or in close proximity on the ground, are placed at immediate risk of serious injury or worse. Refer to <a href="Safety Bulletin SB24-02">Safety Bulletin SB24-02</a> LHD crowd cylinder failures dated 24 April 2024.

# **Fact sheets**

# Workplace privacy and medical information

The Resources Regulator received notification that a mine operator has been sharing private medical information to their site's work health and safety committee as well as at shift prestart. The information being shared included the injured worker's name and specific medical and treatment information. Circumstances Worker's injury and treatment information can be sensitive in nature. The NSW *Work Health and Safety Act 2011* and the *Privacy Act 1988* (Cth) regulate how individuals' personal information is handled. Mine operators should be aware of their legislative obligations regarding sharing information about their workers, and subsequent treatment for injuries and illnesses. In addition, mine operators need to be aware when sharing information that there are 3 elements that may lead to an offence under s79(4) of the WHS Act 2011. This includes:

- that information shared was personal or medical (one or the other)
- that information must concern a worker (defined in s7(1) WHS Act) in the business or undertaking, and
- the person conducting a business of undertaking (PCBU) of that business or undertaking allowed access to information to the health and safety committee. This requirement does not apply if:
  - the worker agrees to give the committee such access, or
  - the PCBU deidentifies the information before allowing access so that it did not and could not readily identify the worker.

Refer to Fact sheet - Workplace privacy and medical information dated 10 April 2024.

# Facial hair and respiratory protective equipment

Attention must be paid to the presence of facial hair when wearing any type of tightfitting respiratory protection as an adequate seal may be difficult to achieve for people with facial hair. Excessive stubble, moustaches or beards may prevent a satisfactory seal between the respirator and skin. This may result in inadequate protection being provided. The Standards Australia SF-010 Respiratory Protection Committee has published a ruling to AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment which provides clarification around the requirements for tight-fitting respirators and facial hair. The ruling states:

- facial hair can interfere with the face seal/sealing surface area for a tight-fitting full facepiece or half facepiece facemasks for respirators including positive pressure, air-supplied (continuous flow or positive pressure demand) or PAPR (continuous flow or positive pressure demand) respirators.
- there are no exceptions regarding facial hair and any tight-fitting respirator (negative or positive pressure) in regard to compliance with AS/NZS 1715 when the wearer has facial hair within the sealing area of the facemask.
- positive pressure facepieces are to be fit tested in negative pressure to isolate the fit performance of the facepiece and the wearer.

In summary, when a worker is required to use tight-fitting respiratory protective equipment as a risk control measure, the worker must ensure that any facial hair between the skin and the facepiece sealing surface is removed, to achieve a suitable fit in accordance with AS/NZS 1715. Refer to <u>Fact sheet – Facial hair and</u> respiratory protective equipment dated 2 April 2024.

# **Reports**

# Investigation Information Release – Driller's assistant seriously injured at CSA mine

Two workers, operating a Boart Longyear drill rig, were conducting diamond drilling at the 8470 EXP level of the mine about 1.35 am on 11 April 2024. Drilling operations were conducted by a driller and a driller's assistant, with each worker having specific tasks. Drilling operations were conducted to obtain core samples from the ground using an outer tube, an inner tube and an overshot.

One of the tasks conducted by a driller's assistant included the operation of an overshot. An overshot was connected to a drill rig's winder via a steel cable. It is manually lowered into an outer tube after which a locking pin (ezy-lock) connects it to the inner tube that contains a core sample. The overshot is then retracted by operation of the drill rig's winder, extracting the inner tube with the core sample. When not in use the overshot was normally positioned on the jump up stand.

On this occasion during the drilling process, there was a miscommunication between workers regarding a task. This resulted in the driller's assistant leaving and returning to the jump up stand several times. About this time, the diamond driller was operating the drill rig control panel to retract the head to align the outer-tube level with the drill rig mast. The purpose of this was to position the outer tube so the driller's assistant could insert the overshot. While operating the control panel, the driller saw the driller's assistant in the vicinity of the jump up stand. A short time later, the driller saw the assistant fall backwards off the stand onto the ground, a height of about half a metre. The driller ran to help and found the worker unconscious with serious head injuries.

Refer to <u>Investigation information release IIR24-03 Driller's assistant seriously injured at CSA mine</u> dated 9 May 2024.

# · Investigation information release – Two workers injured at Western Riverina Quarry

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.

The workers were cleaning the oil reservoir with rags and brake cleaning fluid to remove sludge that had developed in the reservoir. While cleaning the oil reservoir, one worker used a Milwaukee 18-volt cordless handheld blower to clean dust and debris from the top of the hydraulic/lubrication unit. This task was stopped for a short time. Soon afterwards, the handheld blower was used for a second time and a small explosion occurred, which was followed by a fire inside the container.

The 2 injured workers exited the container, located nearby fire extinguishers and extinguished the fire. Nearby workers attended the scene and provided first aid to the injured workers. The injured workers were transported to the local hospital for treatment. One worker received burns to his face, chest and arms and was transferred to Royal North Shore Hospital (North Sydney). The second worker received less serious superficial injuries and was released from hospital later that day.

Refer to <u>Investigation information release IIR24-04 Two workers injured at Western Riverina Quarry</u> dated 13 June 2024.

# Consolidated report Fire or explosion – explosion suppression – coal mines below surface (January to December 2023)

A crucial part of the Resources Regulator's incident prevention strategy for mines and petroleum sites involves:

- targeted assessments and planned inspection programs focusing on assessing an operation's control of critical risks by evaluating the effectiveness of control measures in the mine's safety management system
- priority programs proactively assessing a topic that is an emerging risk throughout the industry, which is
  determined primarily from incident data as well as 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 a
  specific issue.

An inspection assessment program was developed to assess how well underground coal mines are prepared to manage risks.

In total there were 97 assessments conducted at 24 underground coal mines. The majority of underground coal mines were assessed multiple times and a small number of coal mines were assessed 6 times during the 2023 calendar year.

In summary, there were 679 individual assessment findings and of those 45 assessment findings related to the management of explosion suppression systems that required enforcement action to be taken at the underground coal mine. The assessment program was conducted between January and December 2023.

In summary, there were 45 compliance notices issued in total, comprising of:

- 16 x section 191 improvement notices issued to 10 underground coal mines
- 29 x section 23 cause for concern notices issued to 17 underground coal mines.

Refer to <u>Consolidated report Fire or explosion – explosion suppression – coal mines below surface</u> (January to December 2023) dated 12 June 2024.

# · Consolidated report – Health control plan – coal mines (September 2022 to April 2024)

Health impairment can occur in various coal mining environments and has the potential to cause serious and/ or fatal injuries to workers if not controlled effectively. This report will consolidate assessment findings and provide analysis and recommendations for operators of coal mine sites. An inspection assessment program was developed to assess how coal mine sites are prepared to manage risks.

In total there were 51 coal mine sites assessed including:

- 23 open cut coal mines
- 10 coal processing sites
- 18 underground coal mines.

In summary, there were 1,377 individual assessment findings and of those 8 assessment findings related to the management of the health control plan required enforcement action to be taken at a coal mine site. The assessment program was conducted between September 2022 and April 2024.

In summary, there were 8 compliance notices issued in total comprising of:

- 4 x section 191 improvement notices issued to one underground mine, one open cut coal mine and one coal processing site
- 4 x section 23 cause for concern notices issued to one underground coal mine and 3 open cut coal mines.

Refer to <u>Consolidated report – Health control plan – coal mines (September 2022 to April 2024)</u> dated 23 May 2024

# Consolidated report – Licensed recognised service facility (RSF) assessment (December 2021 to May 2023)

The principal mining hazard of fire or explosion has many elements that exist within the mining environment and can potentially cause serious and/or fatal injuries to workers if not controlled effectively. Diesel engine systems operating in underground coal mines carry a risk of fire or explosion if explosion protection properties are not maintained during operation. Overhauling and repairing explosion protected diesel engine systems (ExDES) that may affect explosion protection properties must be carried out under, and in accordance with, a licence.

A total of 18 assessments were conducted by the Regulator at ExDES (RSF) licensed workshops between December 2021 and May 2023.

There were 17 compliance notices in total issued to 15 of the 18 RSF workshops in relation to the assessment, and these form the basis of the assessment findings. All 17 notices issued were WHSA s191 improvement notices. Two of the 15 RSF workshops assessed were served with 2 WHSA s191 improvement notices.

Refer to Consolidated report – Licensed recognised service facility (RSF) assessment (December 2021 to May 2023) dated 14 May 2024.

# · Consolidated report – Outburst, coal burst and rock burst – underground coal mines (July to November 2023)

Exposure to an uncontrolled release of energy generated by outbursts, coal bursts and rock bursts can be a significant risk in some underground coal mines. This type of event occurring in an underground coal mine environments has the potential to cause serious and/or fatal injuries to workers if not controlled effectively. This report will provide analysis and recommendations for underground coal mine assessments of critical controls due to threat and consequence by outburst, coal burst and rock burst. An inspection assessment program was developed to assess how an underground coal mine is prepared to manage that risk.

In total, 5 underground coal mine were assessed.

In summary, there were 150 individual assessment findings and of those, 3 assessment findings required enforcement action to be taken. The assessment program was conducted between July 2023 and November 2023.

In summary, there were 8 compliance notices issued in total comprising of:

- 6 x WHS(MPS)A s23 notices of concern
- 2 x WHSA s191 improvement notices.

Refer to Consolidated report – Outburst, coal burst and rock burst – underground coal mines (July to November 2023) dated 24 April 2024.

# Consolidated report – High risk activities (HRAs) field assessment – mining engineering (November 2021 to January 2024)

High risk activities at mine sites have the significant potential for adverse safety outcomes if not planned and carried out in a systematic and integrated manner. Careful consideration must be given to the risks associated with the activity and the methods available to manage those risks. This consolidated report provides a summary of findings from field assessments for 11 mining engineering related HRAs from the 31 categories of HRAs requiring notification to the Regulator.

This program conducted 55 site field assessments at 38 mine sites assessing 11 HRA types. The field assessment program was conducted between November 2021 and January 2024 at coal mine and metallurgical mine sites including both underground and surface operations.

There were 61 compliance notices in total issued to 28 of the 38 sites during the field assessment program. Not all of the compliance notices issued during the program were directly related to the HRA topic being assessed at the mine. Some compliance notices were issued for other issues identified at the time of the field assessment.

The types of compliance notices issued during the HRA field assessment program consisted of:

- 31 x WHS(MPS)A s23 notices of concern
- 28 x WHSA s191 improvement notices
- 2 x WHSA s195 prohibition notices.

Refer to Consolidated report – High risk activities (HRA) field assessment – mining engineering (November 2021 to January 2024) dated 8 April 2024.

• Consolidated report – Electrical engineering control plan - exposure to an uncontrolled release of electrical energy – stage 2 (March to December 2023)

Exposure to an uncontrolled release of electrical energy (Stage 2) at coal mines (above surface coal sites and underground coal mines) and the threats critical controls and control supports identified in the electrical engineering control plan bow tie. Electrical hazards can occur within various mining environments and have the potential to cause serious and/or fatal injuries to workers if not controlled effectively. This report will provide separate analysis and recommendations for above surface coal site assessments and underground coal mine assessments due to differing electrical legislation requirements. An inspection assessment program was developed to assess how mines and surface sites are prepared to manage that risk.

In total there were 54 underground coal mine and above surface coal sites assessed including:

- 18 open cut coal mines
- 12 coal processing sites
- 7 above surface sites at underground coal mines
- 17 underground coal mines In summary, there were 864 individual assessment findings and of those 105 assessment findings required enforcement action to be taken (combined above surface sites and underground mines).

The assessment program was conducted between March and December 2023.

In summary, there were 108 compliance notices issued in total comprising of:

- 75 compliance notices issued to 30 above surface coal sites
- 33 compliance notices issued to 15 underground coal mines.

In summary, the types of compliance notices issued consisted of:

- 40 (above surface) and 21 (underground) WHS(MPS)A s23 notices of concern
- 32 (above surface) and 12 (underground) WHSA s191 improvement notices
- 3 (above surface) and zero (underground) WHSA s195 prohibition notices.

Refer to <u>Consolidated report – Electrical engineering control plan - exposure to an uncontrolled release of electrical energy – stage 2 (March to December 2023)</u> dated 8 April 2024.

# Queensland

· Worker loses consciousness following the inhalation of nitrogen supplied through an air-line helmet respirator

On 26 April 2024, a contractor boilermaker (CMW), was setting up for a hot work task and attached their air-line welding helmet respirator to the nitrogen line. The CMW then put on their air-line welding helmet and fell to the ground. Other CMWs in proximity saw the worker fall and went to their aid. Key issues identified included: nitrogen lines at this site location were previously charged with compressed air; the fittings on the nitrogen lines are the same as the air-line helmet fittings; and reliance on administrative controls was ineffective. Refer to RSHQ safety bulletin dated 14 May 2024.

# Operator injured after fall from dump truck ladder

After climbing part way down a dump truck's access ladder, an operator has fallen to the ground resulting in a broken arm. Investigation findings showed: firstly, a fire extinguisher had been installed adjacent to the handrail of the dump truck's access ladder; secondly, the position of the fire extinguisher prevented the handrail from being held while ascending or descending the lower part of the ladder; and thirdly, the operator was unable to maintain 3 points of contact when descending the ladder and fell to the ground. Refer to RSHQ safety alert dated 30 May 2024.

· Loader falls into stope void over vertical edge

On Wednesday 18 May 2024 an incident occurred at an underground metalliferous mine when a loader and its operator fell into a stope void from a tipping point. The operator was rescued from the stope unharmed. The operator was trying to place a fabricated steel stop log near to the stope open edge in preparation for backfilling operations. Inspectors are investigating this incident to identify its nature and cause, however, it is understood the loader operator drove beyond a safe operating area into an open stope, lost control and became stuck. Refer to RSHQ safety alert dated 3 June 2024.

# Victoria

· Puncture injury from hardened steel hammer

An employee was working as an underground drill operator. He was injured when he used a hardened steel hammer to strike a hardened steel drill shank. The employee was trying to separate jammed drill consumables by striking the shank. He was hurt when the hammer shattered on impact. Steel fragments hit one of the employee's legs, penetrating 4 cm. He required surgery to remove the fragments. Refer to WorkSafe Victoria safety alert dated 1 May 2024.

# Global

# **New Zealand**

Maintenance worker seriously injured in conveyor incident

In New Zealand, a worker was seriously injured when caught in a conveyor that he and another worker were conducting maintenance on. While the incident is still under investigation, it appears that the conveyor was running while the maintenance was being conducted and guards were not covering nip points. The worker was transported by helicopter to hospital in a critical condition. Refer to NZ Minex safety alert dated 19 April 2024.

# 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.

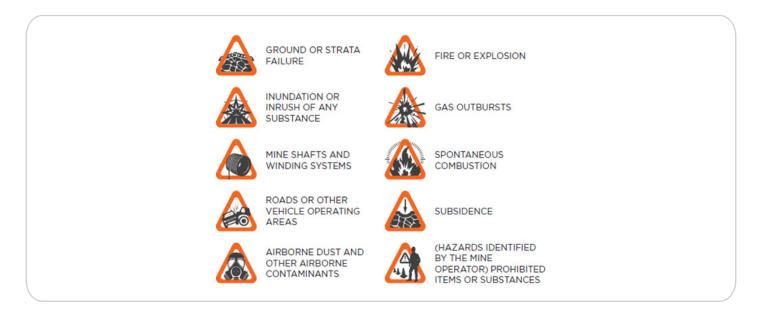
Overall, there were 517 incident notifications received in the quarter. Of these, 34% (176) related to principal mining hazards, 30% (157) related to principal control plans, with the remainder (36%) related to other incident types.

Table 1. Incident notifications received by principal mining hazard and principal control plan – January 2023 to March 2024

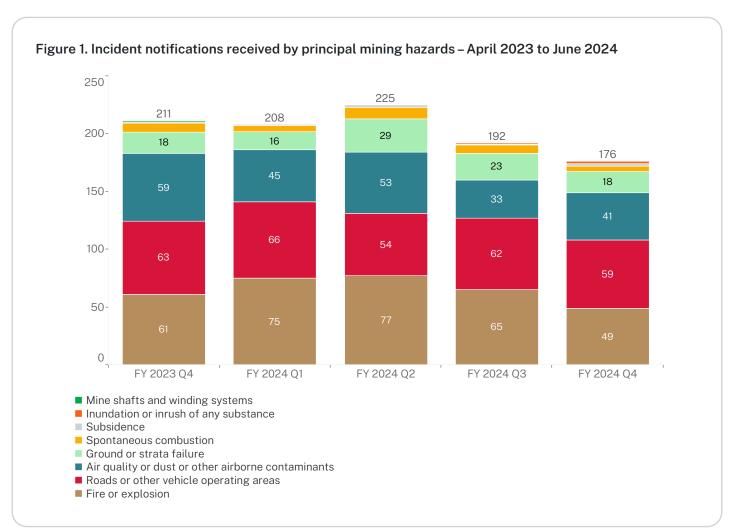
Hazard or Control plan	Hazard/Control plan	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	Grand total
Hazard	Air quality, dust or other airborne contaminants	59	45	53	33	41	231
	Fire or explosion	61	75	77	65	49	327
	Gas outburst	0	0	0	0	0	0
	Ground or strata failure	18	16	29	23	18	104
	Inundation or inrush of any substance	0	0	0	1	2	3
	Mine shafts and winding systems	1	0	0	0	0	1
	Roads or other vehicle operating areas	63	66	54	62	59	304
	Spontaneous combustion	8	5	10	7	5	35
	Subsidence	1	1	2	1	2	7
	Total	211	208	225	192	176	1,012
Control plan	Electrical engineering control plan	28	22	22	19	25	116
	Electrical engineering control plan and/or mechanical engineering control plan	45	54	46	40	49	234
	Explosives control plan	21	16	13	19	23	92
	Mechanical engineering control plan	49	48	48	46	54	245
	Ventilation control plan	7	8	23	19	6	63
	Total	150	148	152	143	157	750
Other	No related principal mining hazard or principal control plan	208	175	195	198	184	960
Grand total		569	531	572	533	517	2,722

# 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.



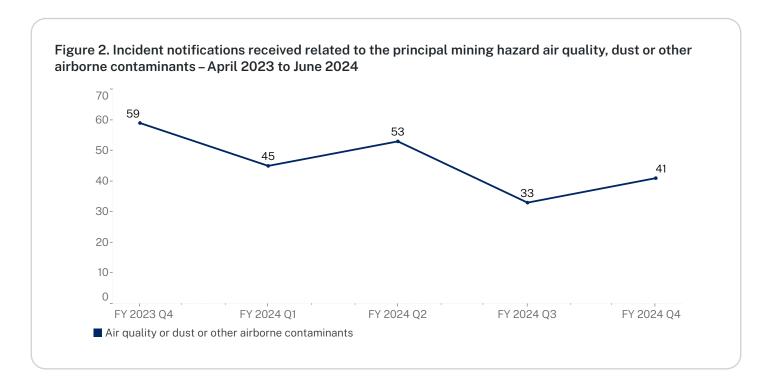


# Air quality, dust or other airborne contaminants

# Increase from 33 to 41

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<sub>2</sub>) or over several years (coal/silica dust).

There has been a 24% increase in airborne contaminant related incidents notified from FY 2024 Q4. Despite this, the figure is still the second lowest seen in the past 5 quarters.



# Dangerous incident | IncNot0047139 - Respirable dust exceedance and lack of PPE

**Summary:** A dozer and grader operator recorded a respirable dust result of 4.9 mg/m³, which exceeds the relevant shift adjusted occupational exposure standard of 1.37 mg/m³. The worker did not specify any 'unusual' exposure conditions. The worker reported that respiratory protection was not worn during the exposure period.

Comments to industry: Mine operators are reminded to ensure the highest level of controls, education and training of workers are in place to prevent exposure of workers to the hazards of respirable dust. The order in which controls are implemented must follow the hierarchy of controls. Personal protective equipment is a last line of defence against exposure. Further information can be found on the airborne contaminants and dust page on our website.

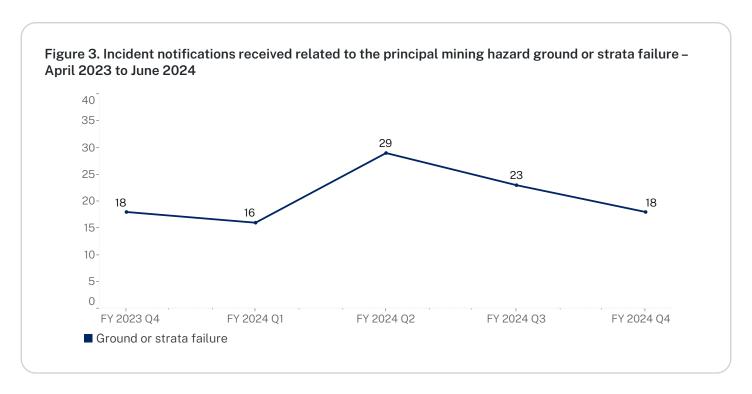


# Ground or strata failure

## Decrease from 23 to 18

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.

A 22% decrease was observed in ground or strata failure incidents notified from the previous quarter. This continues a downward trend from a 5 quarter high in Q2 FY 2024.



# Dangerous incident | IncNot0046675 - Rib failure between installed support

**Summary:** Following completion of rib support, a wedge of rib failed from between installed support. The wedge toppled onto the platform of a continuous miner in the vicinity of the rib bolting control box. The rib support was installed in accordance with the approved support plan. Noticeable jointing was evident on inspection after the incident.



Picture 1. Coal sitting on roof support.

**Comments to industry:** Underground mine operators 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.

# Dangerous incident | IncNot0046873 - Rib slumped, damaging mesh which injured worker

**Summary:** A breakaway was being cut in an intersection with a continuous miner. The miner commenced cutting the breakaway and in doing so, a rib mesh sheet was caught on the miner apron. The mesh was damaged in between the rib bolts. The miner was flited outbye to continue cutting the turn and a vent tube was required to be recovered. As the vent tube was being recovered, the rib slumped between the 2 sets of rib bolts and damaged the mesh, hitting a worker on the left foot and lacerating his toes.



Picture 2. Damaged mesh after rib failure.

**Comments to industry:** Mine operators should have a procedure in place to assess the risk of slumping, following damage to rib mesh, particularly when the mesh has been torn and exposes the rib. Workers must remain aware of strata conditions.

# Dangerous incident | IncNot0046906 - Coal slab fell onto armoured face conveyor

**Summary:** While in the bolting cycle at a longwall shield, a slab of coal fell from the face and toppled into the work area and onto the armoured face conveyor (AFC). The coal slab landed about one metre from the hand bolter. An operator was 2 metres from the coal slab's final position, standing under an adjacent shield. The dimensions of the coal slab were 1 m  $\times$  0.7 m  $\times$  0.4 m. The top of the spalled coal released from a height of about 2 metres.

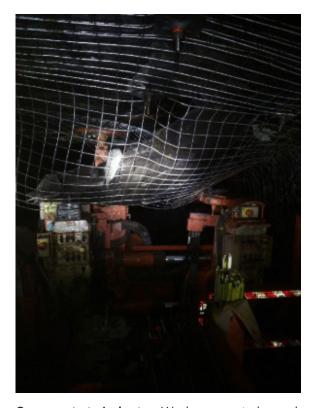


Picture 3. Spalled coal slab.

**Comments to industry:** Mine operators must ensure that workers are provided with adequate information, training and instruction in relation to hazards associated with ground and strata failure.

# Dangerous incident | IncNot0046921 - Significant roof fall in underground coal mine

**Summary:** A multi-bolter was being used to install rib mesh on the face following a plunge cut. Two workers held a sheet of mesh for the temporary roof support to take to the roof. The workers stood back and shortly thereafter a piece of stone (1.8 m  $\times$  1.2 m  $\times$  150 mm) fell from the roof, slid on the mesh and landed on the timber jacks. There was one worker in the vicinity.



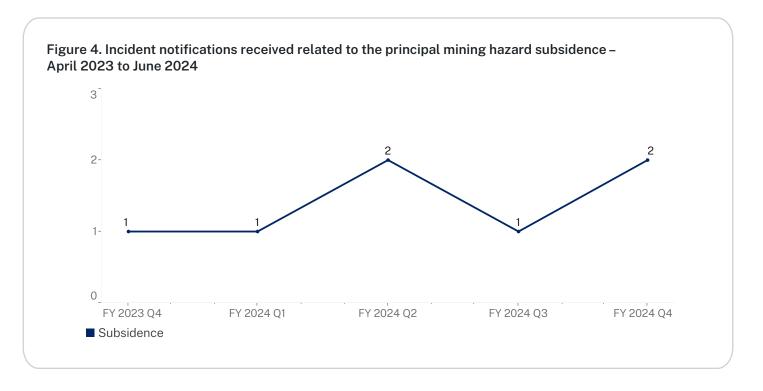
Picture 4. Material on mesh and timber jacks.

**Comments to industry:** Workers must always be alert to the hazard of unsupported roof strata and must remain vigilant of their position relative to the risk of unsupported strata failure, which may occur without warning. Underground mine operators should review the adequacy of their strata monitoring arrangements and associated TARPs to ensure that workers are not exposed to unacceptable risks associated with strata failure.

# 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.

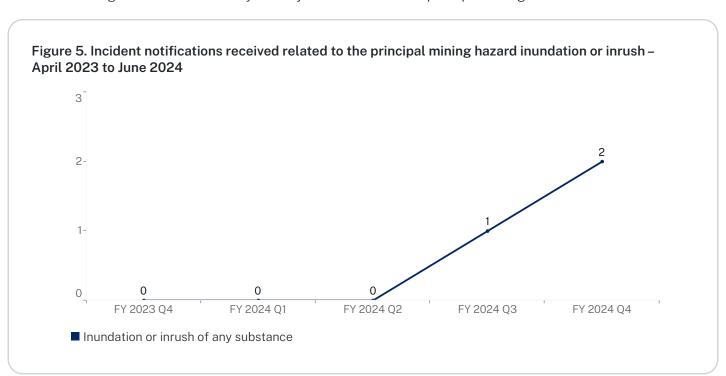




# Inundation or inrush of any substance

# Increase from 1 to 2

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.



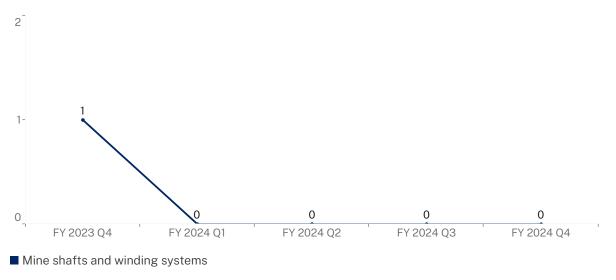


# Mine shafts and winding systems

# 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 – April 2023 to June 2024

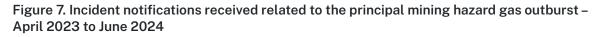


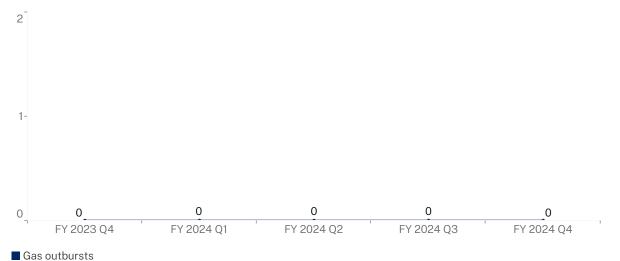


# Gas outbursts

# 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.





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# Spontaneous combustion

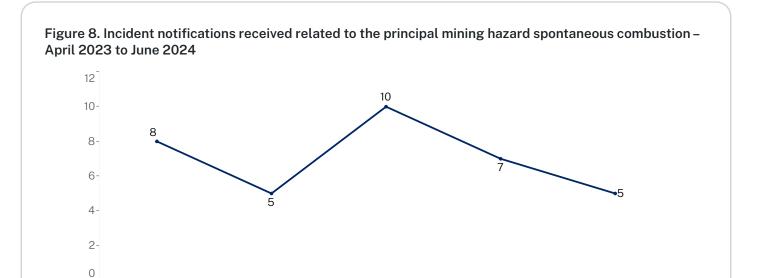
# Decrease from 7 to 5

FY 2023 Q4

■ Spontaneous combustion

FY 2024 Q1

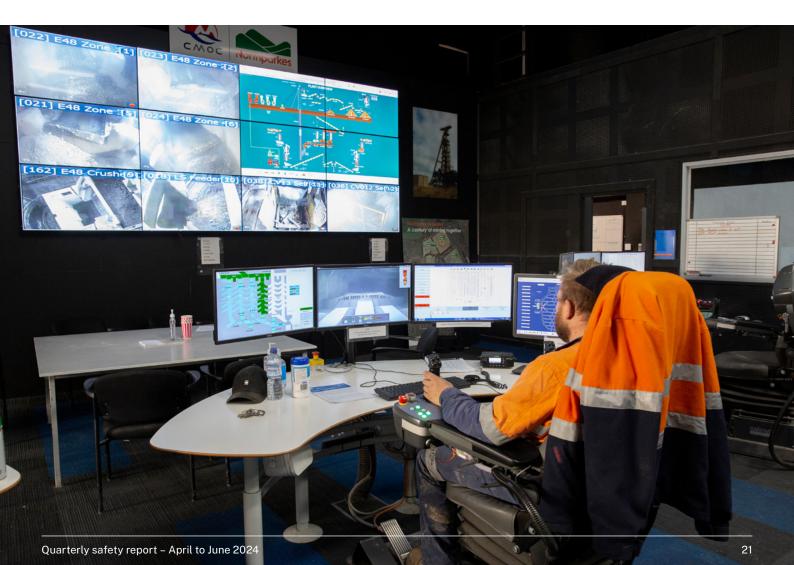
While spontaneous combustion (of coal) is a hazard exclusive to the coal sector, in the underground parts of the mine the consequences have the potential to cause multiple fatalities. Figure 7 below includes spontaneous combustion incidents underground and on the surface of coal mines.



FY 2024 Q2

FY 2024 Q3

FY 2024 Q4

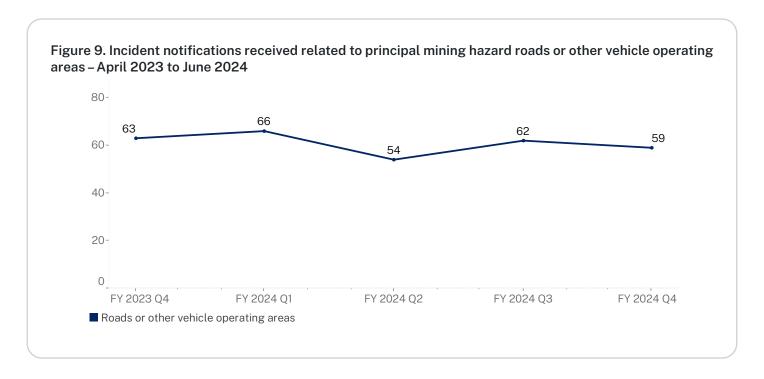




# Roads or other vehicle operating areas

# Decrease from 62 to 59

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.



# Dangerous incident | IncNot0046643 - LHDs collide at underground intersection

**Summary:** Two load haul dumps (LHDs) collided at an underground intersection. Both LHDs had slowed before entering the intersection and both sounded their horns. One LHD had a roll of conveyor belt on its forks and was travelling outbye when it collided with the other LHD, which had a flinger stone duster on its forks. The forks on the first LHD collided with the duster.



Picture 5: Vehicle collision aftermath.

Comments to industry: Mine operators must develop and implement systems and procedures around vehicle interaction. Underground site road rules must explicitly require machines entering the main travel road in outbye areas to stop before entering. Soft controls such as signs and mirrors should be periodically audited to ensure they are effective. Roadways and intersections should be designed, constructed, and maintained to safely manage interactions between mobile plant.

# Dangerous incident | IncNot0046705 - Dump truck breached windrow

**Summary:** While reversing to the tip face to dump a load, the operator failed to stop on time and the position 5 and 6 tyres breached the windrow. The operator remained in the cab while the truck was pulled forward off the windrow.



Picture 6.
Dump truck straddles windrow.

**Comments to industry:** Windrow design, construction and maintenance is a critical factor in dump safety. Mine 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 | IncNot0046713 - Collision between front-end loader and semi-tipper

**Summary:** A front-end loader and road-going semi-tipper were loading crushed stone. The semi-tipper parked behind the loader without communicating. When the loader reversed, the operator failed to notice the semi-tipper behind him and the counterweight made contact with the truck body, damaging the guards.

**Comments to industry:** To achieve positive communication, a clear direct message must be given. Additionally, the person receiving the message must actively reply with a clear understanding of the message. Supervisors should be continually monitoring pos coms compliance during every radio call on their shift.

# Dangerous incident | IncNot0046739 - Haul truck drives on wrong side of the road

**Summary:** A haul truck was going around a grader on the side of a roadway, but instead of returning to the correct side of the road, the haul truck continued to the other side of the centre bund onto the wrong side of the road before passing close to 2 light vehicles travelling in the opposite direction.

**Comments to industry:** 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. You can watch the video on <u>YouTube</u>

# Dangerous incident | IncNot0046869 - Haul truck steering failure

**Summary:** A haul truck collided head-on with the wall of a decline when the steering function failed because of fluid loss from a damaged hydraulic hose. The operator was uninjured.



Picture 7. Haul truck at wall.

Comments to industry: Safety critical systems such as braking and steering systems should be inspected, maintained and tested in accordance with the manufacturer's recommendations. Mine operators must develop and adhere to strict inspection and maintenance standards and practices to prevent loss of fluid due to loose fittings or damaged hoses. Operators should review their maintenance procedures to ensure commissioning checks are carried out by competent people before plant is returned to service as fit-for-purpose.

# Dangerous incident | IncNot0046914 - Embankment gave way under excavator

**Summary:** A 90 tonne excavator was tracking parallel to a bench. While in transit, the embankment under the left track of the excavator gave way. The operator observed material moving in the rear vision mirror, exited the vehicle and reported the incident to the area supervisor.



Picture 8: Excavator tilted on failed embankment.

**Comments to industry:** Situational awareness is a key control when operating mobile equipment. Adequate supervision, training, risk assessments and job planning are to be completed before undertaking tasks.

# Dangerous incident | IncNot0047000 - Dozer slides off bench

**Summary:** A dozer was reclaiming for a train on the thermal product feeders. The operator came close to the edge of an adjacent stockpile boundary which was cut to the floor, leaving a vertical bench to the stockpile where the dozer was working. The vertical bench was about as high as a dozer-blade. The dozer slid off the bench onto its side. The workers failed to complete a job hazard analysis (JHA) for working on abnormal stockpile conditions as identified in the site's procedure.



Picture 9: Dozer on its side.

**Comments to industry:** Site procedures are developed to help protect workers from injury or illness. Where a procedure exists for a particular task, workers should follow the procedure. Any deviation from a procedure should first be discussed with a supervisor and appropriate risk control measures put in place. Refer to Safety bulletin SB19-01 Rise in dozer incidents putting operators at risk.

# Dangerous incident | IncNot0047057 - Excavator rolls over after reversing into trench

**Summary:** An excavator operator began work at 6:15 am, clearing clay from a bench he had formed the previous evening. The intent was to begin loading a waiting truck once they had removed the clay from the area. The operator did not conduct a pre-shift inspection of the area and the area did not have supplementary lighting. While tramming backwards, the operator lost situational awareness of the trench and backed into it, rolling on its cab side. The quarry's emergency plan was activated, and emergency services successfully freed the operator from the cab. The operator suffered minor injuries.



Picture 10: Excavator on its side.

Comments to industry: Mine operators have a duty to manage risks to health and safety associated with the movement of mobile plant at their mine. The operator must have regard to all relevant matters including the design, layout, construction and maintenance of all roads and other areas at the mine site used by mobile plant. Mine operators must ensure adequate lighting is provided to active work areas to ensure that workers do not lose situational awareness to hazards within their working area. Workers should identify hazards within their workplace before starting work and should implement controls where possible to eliminate or minimise the risk. Where a worker identifies a hazard, the worker should follow the mine's safety management system to control the risk and notify the supervisor where appropriate.

# Dangerous incident | IncNot0047076 - Near miss between haul truck and light vehicle

**Summary:** When approaching a T-intersection, a haul truck crossed onto the right-hand lane to pass a grader. At the same time, a light vehicle approached the intersection up a ramp to turn left. The haul truck proceeded through the intersection on the wrong side of the road as the vehicle attempted to turn left. Before turning left, the vehicle driver looked to the right for oncoming traffic. The driver began the left hand turn but had to quickly apply the brakes to avoid a collision with the oncoming haul truck.



Picture 11: Vehicles at intersection.

**Comments to industry:** Mine operators must ensure all roadway intersections are designed, constructed, and maintained to safely manage interactions between mobile plant and light vehicles. Intersections should be positioned at 90 degrees to haul roads to allow clear visibility for vehicles when travelling through them.

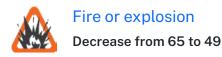
# Dangerous incident | IncNot0047092 - ITC reverses into light vehicle

**Summary:** Two integrated tool carriers (ITCs) followed by a light vehicle, were tramming down a decline and pulled into a level access to give way to a truck travelling uphill. When the truck cleared the access, the second ITC began reversing out of the access and the rear counterweight collided with the driver's door on the occupied light vehicle. The vehicle operator parked in a hazardous location behind the ITC and failed to make positive communications with ITC operator. The ITC operator did not use the reversing camera and failed to sound the horn before reversing.



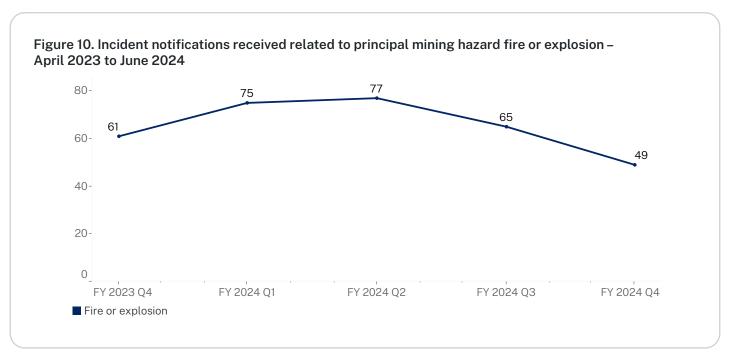
Picture 12: Light vehicle damage after incident.

Comments to industry: Procedures for underground traffic management and light vehicle personnel carriers must be complied with. The Regulator recently carried out a targeted awareness campaign focused on the risk of collisions involving mining equipment. A Campaign video is available for training and toolbox talks. Plant operators are reminded that they must establish positive communications before entering the work area of other mobile plant. Workers must check the area behind their machines before reversing. Workers should use all aids such as mirrors, cameras and awareness systems that are fitted.



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 decreased by 25% to the lowest level seen over the last 5 quarters.



# Dangerous incident | IncNot0046811 - Flames from face drill hole

**Summary:** A Jumbo operator was drilling a face top down and required a clean-up by a loader to drill out the lifter holes. The loader operator cleaned up the area and scratched the bottom of the face to remove any loose rock left before departing the job. When the operator scraped the face, they heard a noise and looked back and noticed flame coming from a drill hole at the face.



Picture 13. Flame in drill hole.

Comments to industry: Mine operators must implement controls to ensure that the risk of gas ignition from a spark while scraping a face does not occur. Where there is a high likelihood of gas being present in an underground metal mine, the mine should stipulate in a procedure that gas readings must be taken at specified intervals and before scraping the face.

# Dangerous incident | IncNot0046876 - Degreaser drips on hot manifold causing fire

**Summary:** An excavator operator noticed excess oil on top of the stairs and the engine compartment of the excavator. Fitters attended to degrease the oil spill, which occurred from a failed hose. The fitters put degreaser on the roof of the engine compartment to clean up the excess oil. When they went into the engine room, they saw degreaser dripping through the roof. The degreaser fell onto a hot exhaust manifold and started a fire. The fitters exited the engine room, passed the fire and activated the fire suppression system.



Picture 14. Engine compartment after fire.

Comments to industry: Where products such as cleaners and degreasers are used near hot engine components, the ignition point should be assessed and compared with surface temperatures to manage the risk of fires. When selecting products, higher ignition point products should be used. AS 5062:2022 Fire prevention and protection for mobile and transportable equipment was published in November 2022. Mine operators should review this document and update their systems and site procedures.

# Dangerous incident | IncNot0047015 - Water cart fire due to corroded electrical connector

**Summary:** A worker was refilling a water cart at the refill point on the main decline when they saw the glow of a flame. The worker removed the wheel chock and drove forward under the flowing water to extinguish the flame. Preliminary investigation shows that water ingress corroded an electrical connector. The connector combusted due to excessive heat generated due to the poor connection.



Picture 15. Electrical connector after fire.

**Comments to industry:** Mine operators should ensure that risk control measures to prevent the occurrence of fires on mobile plant are implemented and remain effective. Inspection regimes and housekeeping standards should be routinely examined to ensure minimum standards are met or exceeded. Mine operators should ensure stringent monitoring and quality control of maintenance and repair activities.

# Dangerous incident | IncNot0047056 - Hot embers under mobile boot end

**Summary:** A shuttle car driver noticed smoke when unloading coal onto a belt in a development panel. On investigation, the worker discovered hot embers under a mobile boot end. Water was applied to the area to remove heat. A preliminary investigation identified the design of the mobile boot end allowed for a 200 mm gap from a steel panel to the floor at the loading point and during roadway cleaning on the previous shift fines were pushed under the boot end. The preliminary investigation recommended the following preventative actions:

- Incident learning to be communicated to panel deputies and fitters.
- Shift notes to be updated and communicated to deputies to include boot end to be lifted and cleaned following roadway cleaning.



Picture 16. Mobile boot end.

Comments to industry: Mine operators must ensure that housekeeping activities in and around plant or structures in underground mines does not create additional risks of fire and explosion. It is suggested that mine operators review their fire and explosion risk assessments and update any hazard management plans or subordinate documents where appropriate.

# Dangerous incident | IncNot0047118 - ITC reverses into light vehicle

**Summary:** An operator noticed sparks coming from the grid box of an oncoming truck and notified the driver who immediately called an emergency and hit the E-stop in the truck, then safely positioned positions one tyre against the windrow to make the truck fundamentally stable. The operator safely exited the truck via normal egress. A workshop maintenance worker opened the grid box cabinet and found there was no flame. A water cart sprayed the grid box for about 5 minutes to cool it down. A preliminary investigation shows the grids were aligned in incorrect positions



Picture 17: Misaligned grids.

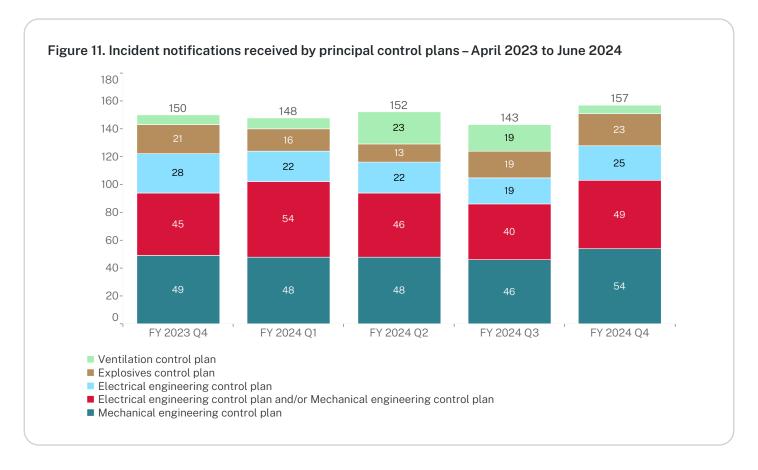
Comments to industry: Mine operators should ensure stringent monitoring and quality control of maintenance and repair activities and also ensure risk control measures to prevent the occurrence of fires are implemented and remain effective. Inspection regimes and housekeeping standards should be routinely examined to ensure minimum standards are met or exceeded. AS 5062 Fire protection for mobile and transportable equipment provides guidance for mines. For more resources, refer to our webpage Fires on mobile plant safety.

# 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.





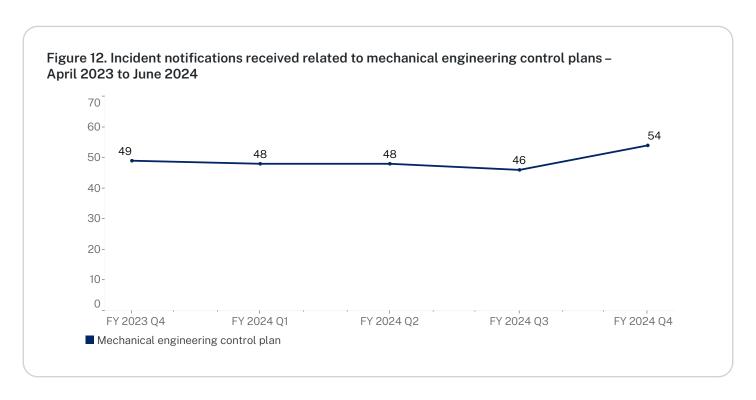


# Mechanical engineering control plans

# Increase from 46 to 54

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.

Notified incidents related to mechanical engineering control plans increased by 17% this quarter, to the highest figure seen in the last 5 quarters.

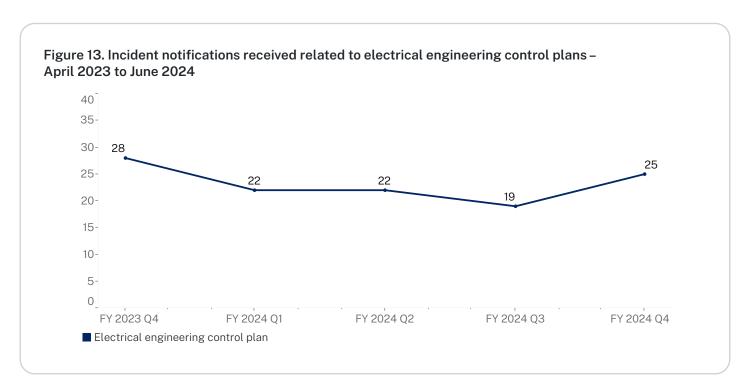




# Electrical engineering control plans

# Increase from 19 to 25

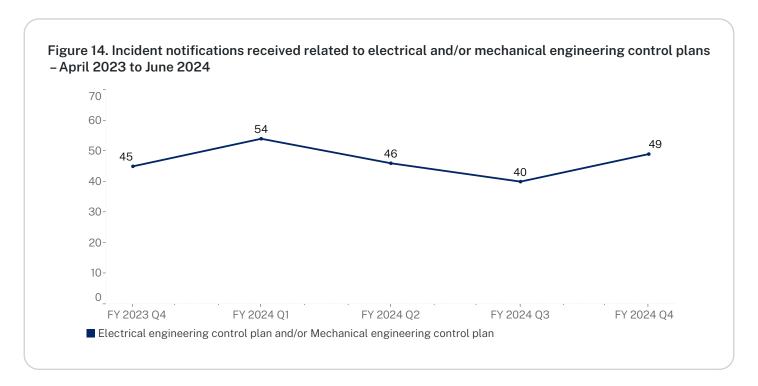
The electrical engineering control plan covers 'lifecycle' risks associated with electrical hazards (supply, vehicles, plant or infrastructure) that workers may be exposed to.



# Electrical and/or Mechanical engineering control plans

# Increase from 40 to 49

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



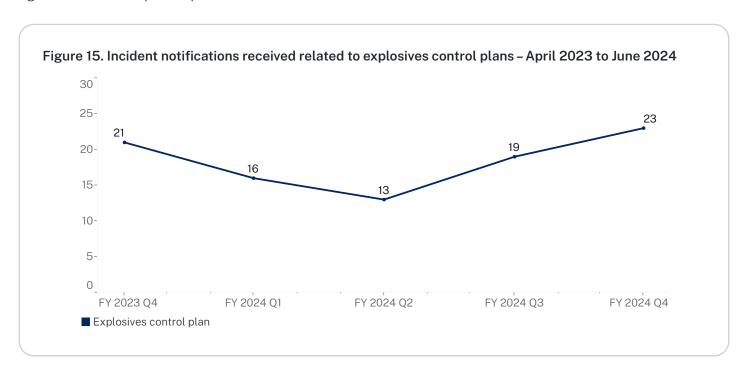


# **Explosives control plans**

# Increase from 19 to 23

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.

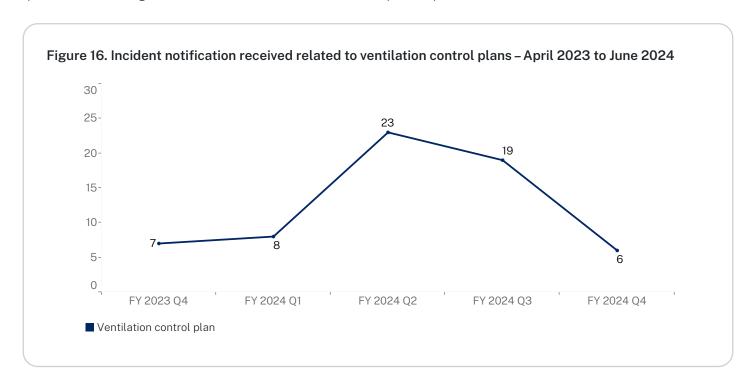
This quarter notified incidents about explosives control plans continued an upward trend to record the highest figure seen over the past 5 quarters.



# Ventilation control plans Decrease from 19 to 6

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 decreased by over two-thirds from 19 in the previous quarter to 6. This figure is the lowest number seen over the past 5 quarters.





# Sector profiles



#### **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

NSW Resources Regulator Sector reporting



#### **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

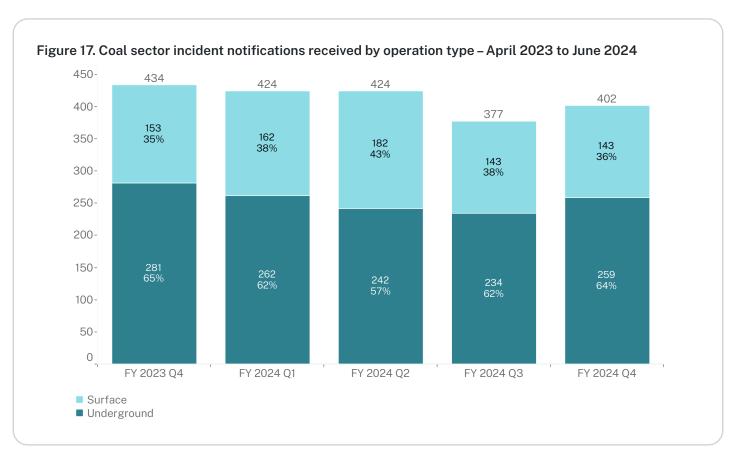
#### Incident notifications

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.

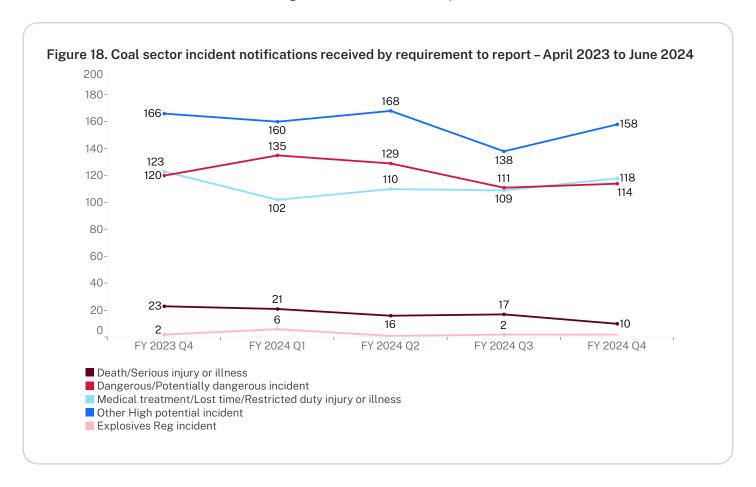
Table 2. Coal sector incident notification rates - April 2023 to June 2024

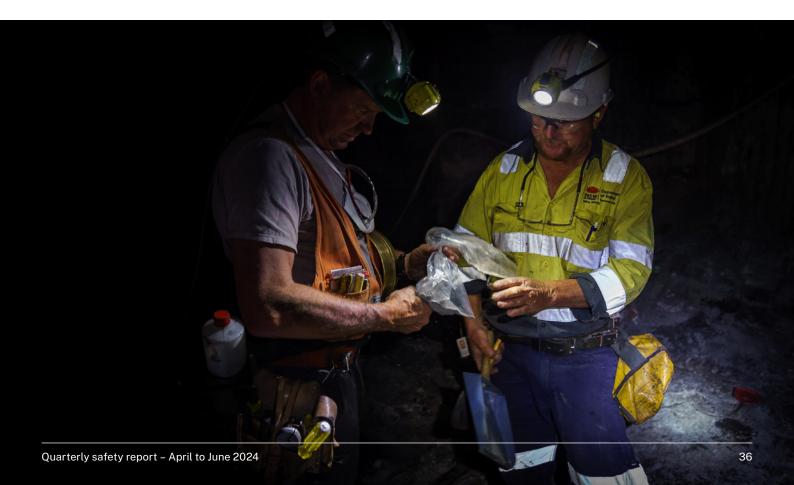
Measure	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4
Incidents	434	424	424	377	402
Active mines	101	103	103	103	102
Incident rate per active mine	4.30	4.12	4.12	3.66	3.94
Mines that notified incidents	49	51	52	50	48
% of mines notifying an incident	49%	50%	50%	49%	47%
Incident rate per notifying mine	8.86	8.31	8.15	7.54	8.38

The following graph shows the proportion of safety incident notifications received from surface and underground coal operations. This quarter, there was no change in surface mine incidents (143) but an increase of 25 incidents in the underground sector resulted in an overall upturn of 6%.



The graph below presents a breakdown of safety incidents notified to the Regulator by the coal sector by the requirement to report under safety legislation. This quarter saw an increase of notifications of other high potential incidents (14%), dangerous/potentially dangerous incidents (3%) and medical treatment/lost time/restricted duty injuries or illnesses (8%). Compared to the previous quarter, a decrease of 41% was observed in death/serious injury or illness incidents. This is also the lowest figure seen over the last 5 quarters.

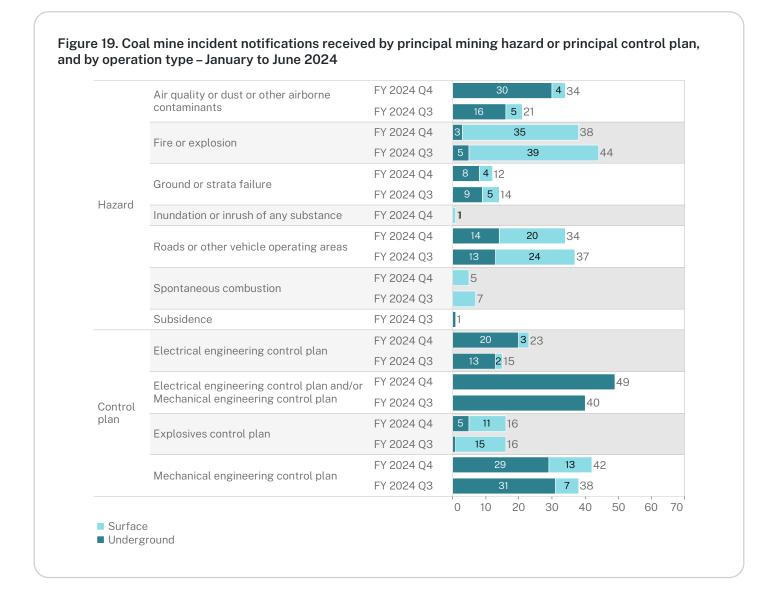




#### Incident notifications received by principal mining hazard or principal control plan

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 quarter, notable increases were observed in notifications by underground coal mines regarding incidents related to air quality, dust or other airborne contaminants (88%), electrical engineering control plans (54%) and electrical engineering control plans and/or mechanical engineering control plans (23%).



# Large mines sector

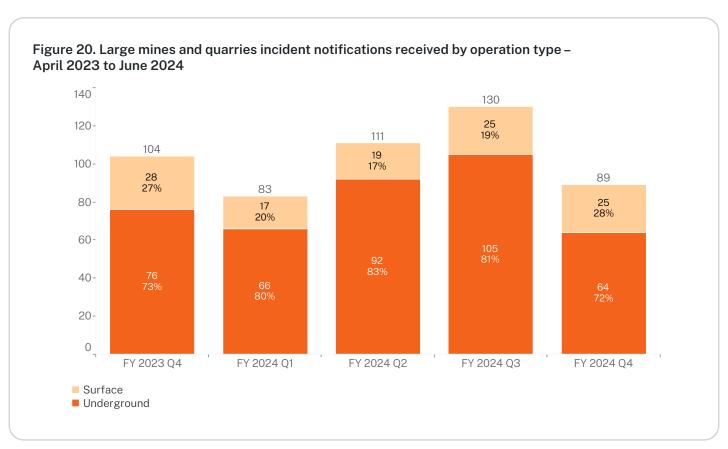
#### Incident notifications received

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.

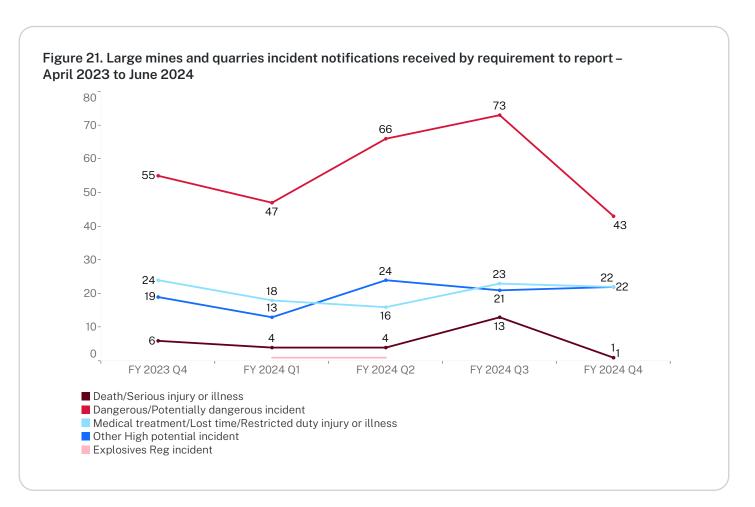
Table 3. Large mines and quarries incident notifications received rates – January 2023 to March 2024

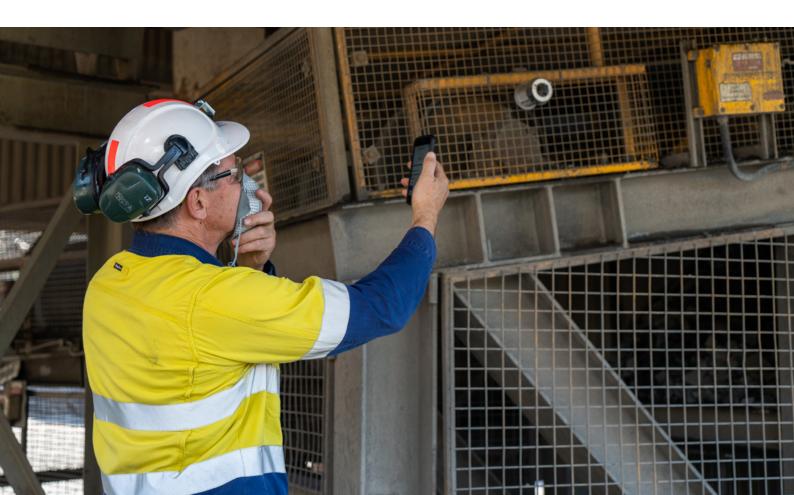
Measure	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4
Incidents	105	84	113	130	89
Active mines	57	57	69	70	67
Incident rate per active mine	1.84	1.47	1.64	1.86	1.33
Mines that notified incidents	30	26	29	27	27
% of mines notifying an incident	53%	46%	42%	39%	40%
Incident rate per notifying mine	3.50	3.23	3.90	4.81	3.30

The following graph shows the proportion of safety incident notifications received from large mines and quarries by operation type. In this quarter, notified incidents by large underground mines decreased by 39% compared to the previous quarter.



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 safety legislation. This quarter an 41% decrease in dangerous/potentially dangerous incidents was observed, recording the lowest figure seen over the past 5 quarters. A notable decrease was also seen in death/serious injury or illness which recorded just one incident compared to 13 in the previous quarter.

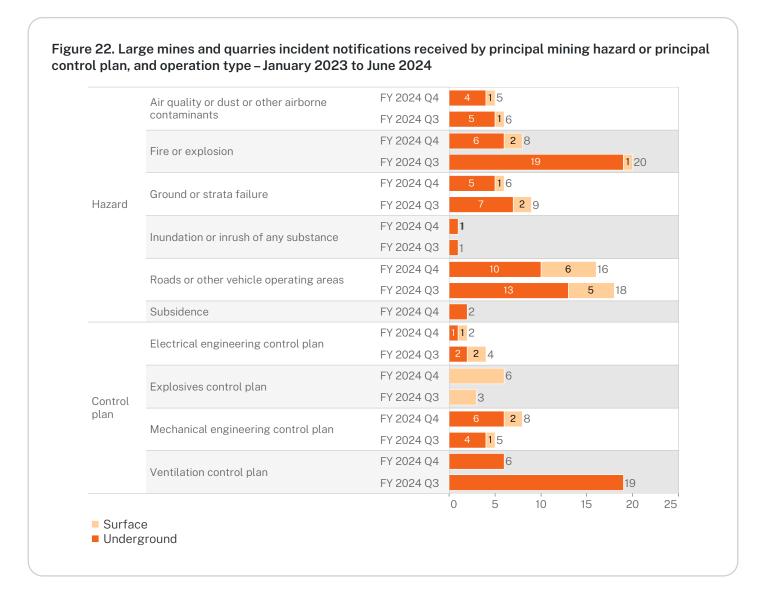




#### Incident notifications received by principal mining hazard or principal control plan

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.

In this quarter, notable decreases were observed in notified incidents relating to fire or explosion (20 to 8) and ventilation control plans (19 to 6). Increases were seen in incidents notified regarding explosive control plans (which doubled from 3 to 6) and mechanical engineering control plans (5 to 8).



# Small mines sector

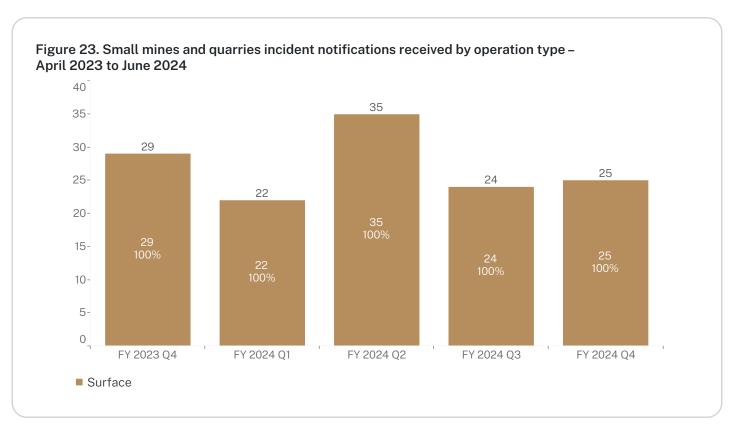
#### Incident notifications received

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.

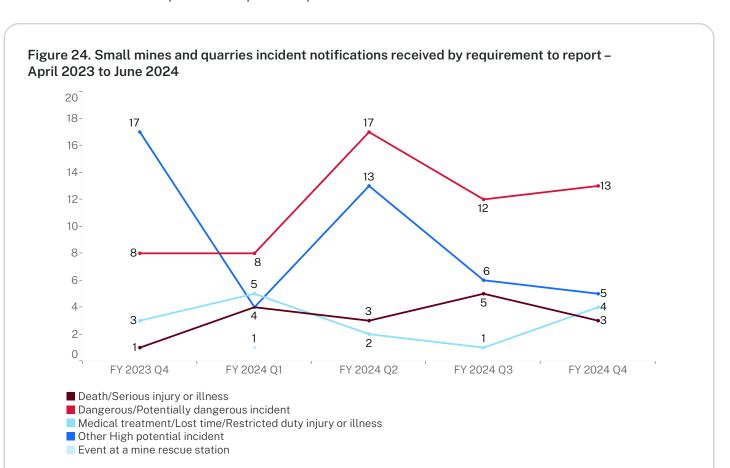
Table 4. Small mines and quarries incident notifications received rates – January 2023 to March 2024

Measure	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4
Incidents	28	21	33	24	25
Active mines	2,536	2,552	2,399	2,314	2,310
Incident rate per active mine	0.01	0.01	0.01	0.01	0.01
Mines that notified incidents	19	23	29	22	21
% of mines notifying an incident	0.75%	0.90%	1.21%	0.95%	0.91%
Incident rate per notifying mine	1.47	0.91	1.14	1.09	1.19

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



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 under safety legislation. This quarter saw an increase in notified medical treatment/lost time/restricted duty injuries or illnesses (from 1 to 4). Death/serious injury or illness notifications decreased from 5 to 3 compared to the previous quarter.

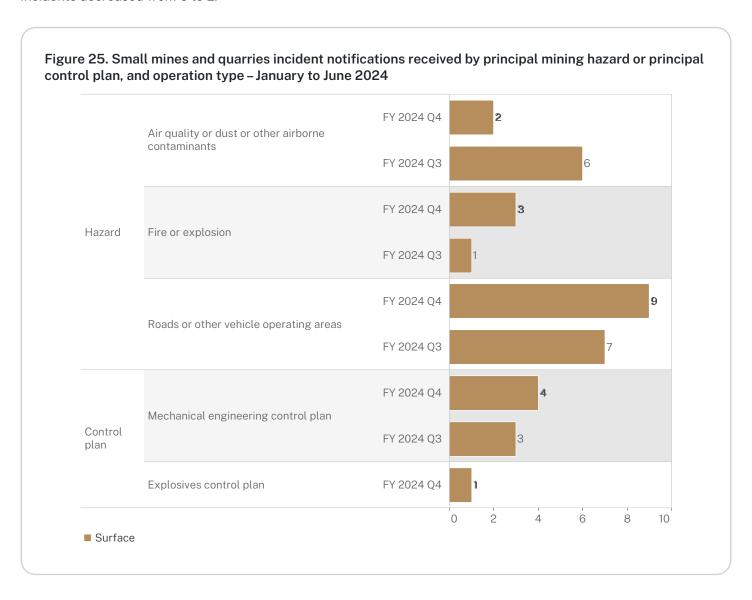




#### Incident notifications received by principal mining hazard or principal control plan

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.

Increases were observed in incidents notified relating to most present principal mining hazards compared to the previous quarter-fire or explosion (one to 3), roads or other vehicle operating areas (7 to 9), mechanical engineering control plan (3 to 4) and explosives control plan (zero to one). Air quality, dust or other airborne contaminants incidents decreased from 6 to 2.



# 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 under safety legislation and by principal mining hazard.

Table 5. Petroleum and geothermal sites, opal mines and exploration sites incident notifications received – April 2023 to June 2024

Sector	Measure	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4
Petroleum and geothermal sites*	Incidents	0	0	0	0	0
Opal mines	Incidents	1	1	1	0	0
Exploration sites**	Incidents	1	1	1	2	1

<sup>\*</sup> includes exploration

Table 6. Opal mines and exploration sites incident notifications received by requirement to report – April 2023 to June 2024

Sector	Requirement to report measure	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4
Opal mines	Death/Serious injury or illness	1	0	1	0	0
	Dangerous/Potentially dangerous incident	0	1	0	0	0
	Other High potential incident	0	0	0	0	0
Exploration sites	Dangerous/Potentially dangerous incident	0	0	1	0	0
	Medical treatment/Lost time/ Restricted duty injury or illness	1	1	0	2	1

Table 7. Opal mines and exploration sites incident notifications received by principal mining hazard and other hazards – January 2023 to March 2024

Sector	PH/PCP	FY 2023 Q3	FY 2023 Q4	FY 2024 Q1	FY 2024 Q2	FY 2024 Q4
Opal mines	Roads or other vehicle operating areas	0	0	1	0	0
	No related principal hazard or principal control plan	0	0	0	1	0
	Not classified	0	1	0	0	0
Exploration sites	Mechanical engineering control plan	1	0	0	0	0
	No related principal mining hazard or principal control plan	2	1	1	1	1

<sup>\*\*</sup> excludes petroleum and geothermal

# Compliance and enforcement

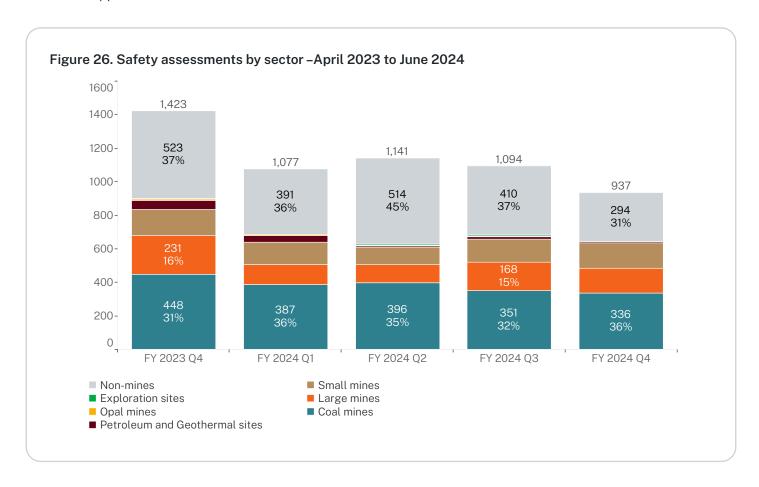
The Regulator uses a range of tools to promote and secure compliance in mines and petroleum sites in relation to work health and safety legislation. These include desktop assessments, site inspections, investigations and enforcement actions, such as issuing notices and commencing prosecutions.

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

# Safety assessments by sector

This quarter saw a 6% decrease in the number of safety assessments commenced by the Regulator.

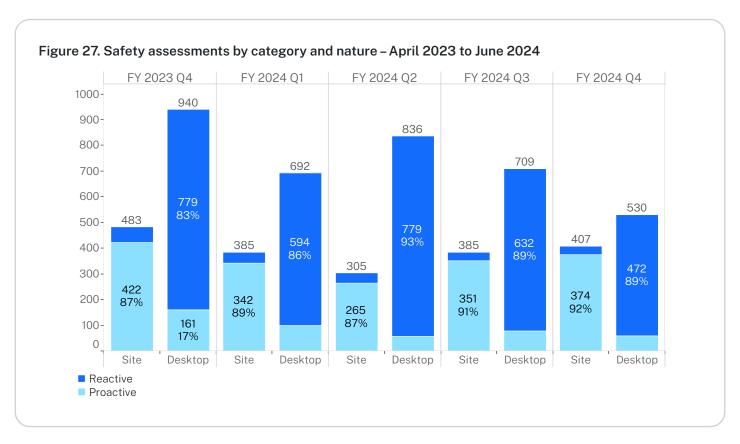
Non-mines assessments are the largest sector (38%) and predominantly relate to licensing and practising certificate applications and renewals.



# Safety assessments by category and nature

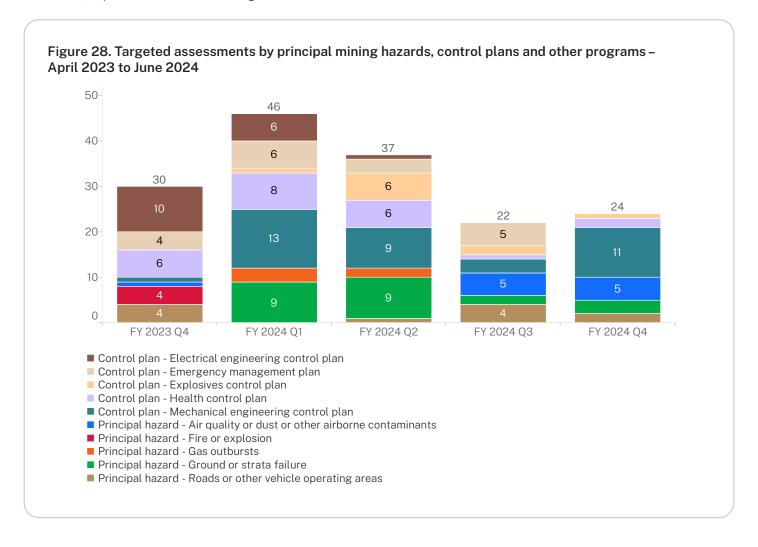
Site-based (visiting mine sites) and desktop activities are both important regulatory tools. While the focus of our onsite compliance activity is on preventing incidents through planned risk-based proactive assessments, our desktop activities are mainly reactive.

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.



# Programmed site assessments

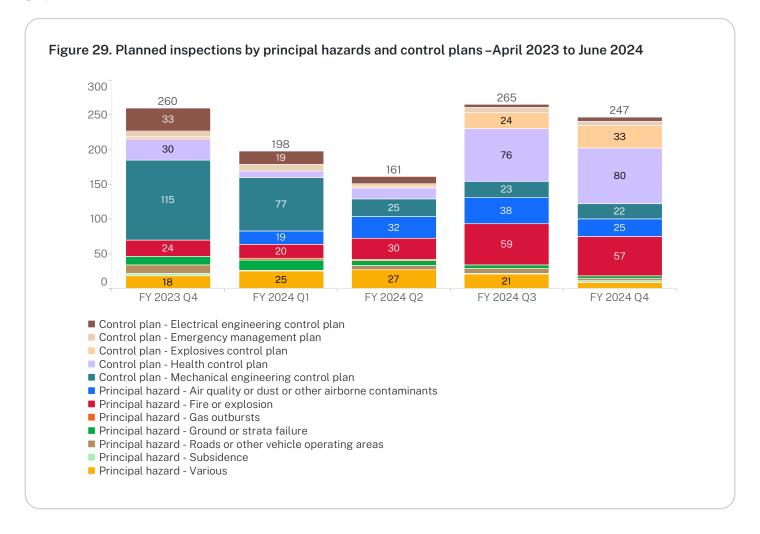
Our targeted assessment program establishes a risk-based and proactive approach for assessing the extent to which critical controls for managing principal mining hazards, principal control plans and other programs have been identified, implemented and are being monitored.



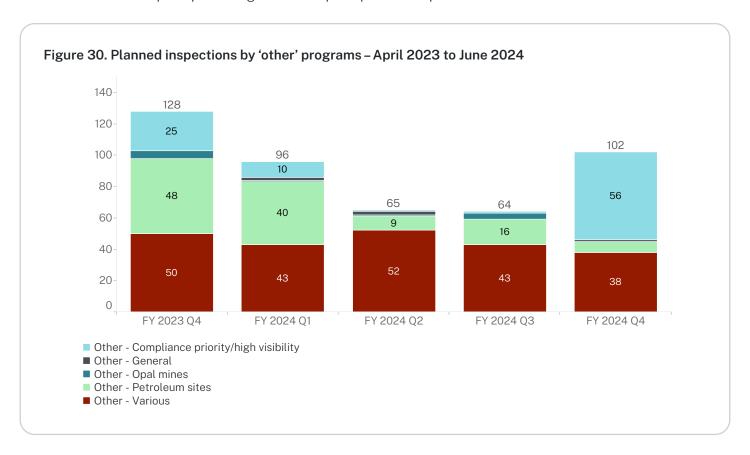
# **Planned inspections**

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.



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.

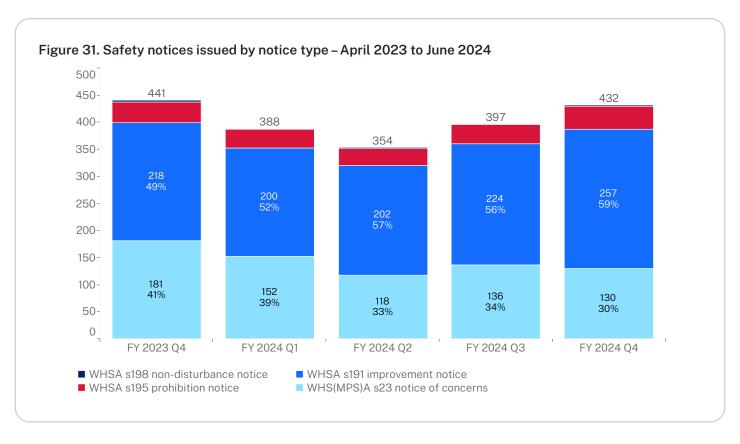




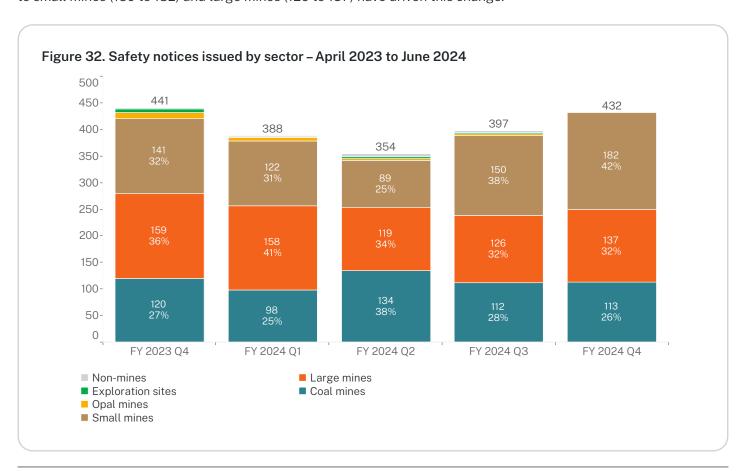
# Safety notices issued

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 April 2023.



The proportion of safety notices issued has increased by 9% overall this quarter. Notable increases in notices issued to small mines (150 to 182) and large mines (126 to 137) have driven this change.



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