Quarterly safety report

July to September 2024

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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.

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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 1 (July to September) of financial year (FY) 2025. For selected measures, data is analysed over a 15-month period from July 2023 to September 2024.

In this quarter, there were a total of 590 incident notifications received – an 11% increase from the same period in FY 2024 and 14% increase from the previous quarter.

There were 2 fatalities during the quarter. One was work related; the other was non-work related.

Incident notifications increased for coal mines (16%) and large mines (11%) compared to the previous quarter. Conversely, the small mines sector saw a 21% decrease of notified incidents.

Assessments decreased by 6% overall this quarter, although proactive desktop assessments increased by 26%. Decreases were seen in every sector except opal mines and exploration sites.

Safety notices increased markedly this quarter from 432 to 779 (180%). This was predominantly led by an increase in s191 improvement notices issued (from 257 to 528).



Quarterly snapshot



* 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.











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 July and 30 September 2024.

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

Fatal injuries

Australia

New South Wales

On 17 September 2024, a worker was killed after falling down a mine shaft at a rehabilitation mine site. Refer to <u>Investigation Information Release</u> dated 14 October 2024.

On 23 September 2024, a worker at an underground metals mine suffered a medical episode whilst undertaking manual handling at the surface and was pronounced dead a short time later.

Queensland

On 3 August 2024, an incident caused the death of a worker at the Byerwen mine infrastructure site, west of Mackay. Reports indicated the accident involved a pick and carry crane. Refer to <u>RSHQ article</u> dated 3 August 2024.

On 22 August 2024, a worker was killed after an incident involving 2 vehicles at the Byerwen coal mine. Refer to <u>RSHQ article</u> dated 23 August 2024.



International

Bosnia

On 14 August 2024, a subcontractor's vehicle overturned near the rescue station at Rupice. The driver, an employee of a local Bosnian subcontractor, sustained fatal injuries. Refer to <u>Adriatic Metals media release</u> dated 15 August 2024.

United States of America

On 12 July 2024, a rock truck operator was killed after being struck by the bucket of a front-end loader. While walking to their parked truck, the operator passed under the raised front-end loader bucket as it was being lowered to the ground during maintenance. Refer to <u>MSHA fatality alert</u> dated 12 July 2024.

On 25 July 2024, a miner died when they were engulfed in material against the stacker belt conveyor's feed chute. The miner was kneeling and shovelling on the stacker belt conveyor when the belt conveyor unexpectedly rolled back. Refer to <u>MSHA fatality alert</u> dated 25 July 2024.

On 5 August 2024, a miner was fatally injured when an air lifting bag they were using to rerail the conveyance that was carrying the longwall electrical power centre suddenly dislodged. Refer to <u>MSHA fatality alert</u> dated 5 August 2024.

On 9 August 2024, an electrician was seriously injured by an arc flash from a 4,160 VAC circuit while working on an electrical panel for a motor control center. On 22 August they died from their injuries. Refer to <u>MSHA fatality alert</u> dated 9 August 2024.

On 11 August 2024, a miner died while clearing spillage around a belt conveyor head roller. During this process, the belt conveyor moved forward causing the miner to fall 37 feet down a transfer chute, onto a belt conveyor, where they landed on the top of a stacker tube and fell approximately 60 feet onto a coal stockpile. Refer to <u>MSHA fatality</u> <u>alert</u> dated 11 August 2024.

On 22 August 2024, a contractor was installing a material feeder when they fell approximately 21 feet through an opening in the walkway platform. The contractor died from their injuries on 6 September 2024. Refer to <u>MSHA</u> <u>fatality alert</u> dated 22 August 2024.

On 20 September 2024, a miner died after they fell approximately 6 feet from a front-end loader while attempting to replace a bulb on the right front headlight. Refer to <u>MSHA fatality alert</u> dated 20 September 2024.



New South Wales

Safety alerts and bulletins

Safety Alert: Collision in underground mine

Two integrated tool carriers (ITCs) were tramming down a mine decline about 8.10am on 16 June 2024 and pulled into a level access to give way to a haul truck that was travelling up the decline. A light vehicle was following the ITCs and pulled into the level access area about one metre behind the second ITC. There was no positive communication between the light vehicle or either of the ITCs. After hearing the truck operator call on the radio that it had passed that level, the second ITC operator looked over their right shoulder and reversed out of the level back onto the decline. Due to the proximity of the light vehicle, the ITC operator was not aware of it. The ITC hit the rear counterweight and the driver's door of the light vehicle, shattering the driver's side window before the ITC operator became aware of the situation, stopped and moved forward. Refer to SA24-02 Vehicle interaction in an underground coal mine dated 1 July 2024.

Safety Alert: Fire occurs on longwall face in underground coal mine

A fire occurred in front of the face side of the tailgate cutter drum of an operational shearer in a NSW underground coal mine on 26 August 2024. Two operators were remotely operating a longwall from an operating centre on the surface of a mine. The shearer had cut out the tailgate snake and was hauling towards the maingate leading up to the incident. The shearer failed to clear the tailgate snake area completely when haulage stopped after the anticollision haulage function tripped. At the same time, the Armoured Face Conveyor (AFC) panline advanced on the bank push, which forced the tailgate drum into the face. The drum continued to rotate, which generated frictional heat. The cutting horizon consisted of a metre of sandstone/siltstone from the floor with a metre of coal above that. After several minutes, flames erupted in the area immediately in front of the tailgate drum. This was captured on the system's continuous video display and the surface operator stopped the drum rotation. The flames were extinguished by the shearer drum sprays before the worker on the face, who was about 40 metres away, had time to intervene. Having been alerted to the fire by the surface operating centre, the worker on the face proceeded to the shearer and made the area safe by dousing it with water. The mine has determined there were deficiencies in the programming of the automation process that allowed the AFC panline to advance while the shearer was not clear of the advancing panline. Refer to <u>SA24-03 Fire occurs on longwall face in underground coal mine</u> dated 13 September 2024.

Safety Bulletin: Overtaking or passing equipment in mining areas

The Resources Regulator in NSW has identified a significant increase in incidents involving equipment when overtaking or passing on the incorrect side of the road in mining areas. All of the incidents resulted in near misses, placing workers involved at serious risk. unreported. Both the Regulator and the mine operators investigated all of the reported incidents and near misses, which has identified similar contributing factors. Most of the incidents could have been avoided if site procedures were followed, or if a thorough job hazard analysis (JHA) was completed and the identified controls were applied. The incidents could also have been prevented if the vehicle operators had maintained situational awareness and recognised the changing circumstances of their work environment, operated equipment defensively and made clear and direct communications with each other before taking the next step. Refer to <u>SB24-03 Overtaking or passing</u> equipment in mining areas dated 1 July 2024.

Safety Bulletin: Large number of hand and finger injuries reported

The Resources Regulator has received 50 reports of injuries relating to hand, and fingers in the past 2 years. Of these, 12 have resulted in serious injuries to workers. These injuries represent a significant injury to the individual and may result in surgery, lengthy rehabilitation periods and potentially lifelong impairment. Refer to <u>SB24-04</u> Large number of hand and finger injuries reported dated 11 July 2024.

Safety Bulletin: Wheel assemblies detaching from mobile plant

In the past 4 months, there have been 4 significant incidents involving failed wheel assemblies where the assembly has detached from the mobile plant. In one incident, a wheel came to rest beside an articulated dump truck. In another incident, the wheel and axle assembly detached from a front-end loader and rolled about 110 metres into a crushing plant and stockpile area. The other 2 incidents occurred in the main declines of underground metalliferous mines, where the wheel assemblies were caught between the vehicle and wall. In all of these incidents, the earthmoving equipment wheel assembly did roll or had the potential to roll into areas where people regularly work. Refer to <u>SB24-05 Wheel assemblies detaching from mobile plant</u> dated 5 August 2024.

Safety Bulletin: Incidents involving pressurised systems increase

There have been 15 incidents over 18 months that have either injured workers or had the potential to cause serious injury or death, where workers were interacting with pressurised systems including air, water, hydraulics, and tailings. Six of those incidents occurred in the past 6 months. Despite the industry-wide focus on isolation and dissipation of energy, in almost all of the incidents that were reported to the Resources Regulator, workers failed to successfully release the stored energies from the systems on which they were working. All mine operators must prepare and implement the appropriate isolation of energies procedures. The procedures should include a step that requires workers to test and confirm that the pressurised systems they are about to work on have been deenergised. For pressurised systems, the use of a double block and bleed isolation is considered good practice. Refer to <u>SB24-06 Incidents and injuries associated with working on pressurised systems</u> dated 6 September 2024.

Safety Bulletin: Mobile plant used for pulling create line of fire hazard

Recently, there have been 2 significant incidents involving the use of mobile plant in a pulling activity. Both incidents involved workers who were in the line of fire of metal objects travelling at high speed when the rope or sling they were attached to suddenly recoiled. Refer to <u>SB24-07 Mobile plant used for pulling create line of fire hazard</u> dated 12 September 2024.

Fact sheets

Fire and explosion – MUE Uncontrolled gas or dust explosion

The Resources Regulator's bowtie program identified the material unwanted events (MUE) and critical controls to prevent serious injury or death of mine workers. The bowtie for the principal hazard topic of fire and explosion identified three MUE's and the critical controls for assessment programs. The fact sheet provides information related to the assessment program focusing on the MUE — uncontrolled gas or dust explosion. Refer to Fact sheet – Principal hazard – fire and explosion – gas or dust explosion dated 17 July 2024.

· Fire and explosion – Fixed plant, structures, buildings or transportable equipment

The fact sheet provides information related to the assessment program focusing on the MUE – uncontrolled fire or explosion on fixed plant, structures, buildings or transportable equipment. Refer to <u>Fact sheet – Principal</u> hazard – fire and explosion – fixed plant, structures, buildings or transportable equipment dated 30 July 2024.

Principal hazard – Roads or other vehicle operating areas (ROVOA)

The fact sheet provides information related to the assessment program focusing on the MUE – collision of vehicle or mobile plant on mine sites. Refer to <u>Fact sheet – ROVOA – Collision of vehicles or mobile plant</u> dated 2 August 2024.

Principal hazard – Inundation or inrush

The fact sheet provides information about the assessment program focusing on the MUE – uncontrolled failure of containment of a tailings dam, waste tip or water storage located on a mine site. Refer to <u>Fact sheet – Inundation</u> or inrush dated 2 August 2024.

· Small-scale titles validation project update – mineral claims with dwellings

This document provides information on the renewal of mineral claims in Lightning Ridge, which include using a dwelling on a claim area as an ancillary mining activity under the Mining Act 1992. Mineral claims with dwellings continue to be redetermined under the validation program and through ordinary mineral claim renewals. As part of the validation program and ongoing business improvements, it has been identified that some of the wording used on past certificates has been inconsistent. All certificates and products will be brought back in line with the statutory requirements including appropriate wording regarding mineral claim classes. Although mineral claims are now referred to as Class A mineral claims, the terms and conditions remain the same. Refer to Fact sheet – Small scale titles validation project update – mineral claims with dwellings dated 5 August 2024.

Principal hazard – Inundation or inrush of material or substance that flows

The fact sheet provides information about the assessment program focusing on the MUE – inundation or inrush of any material or substance that flows at mine sites. Refer to <u>Fact sheet – Inundation or inrush – material or</u> <u>substance that flows</u> dated 7 August 2024.

Control plan – Electrical engineering – uncontrolled release of electrical energy

The fact sheet provides information related to the assessment program focusing on the MUE – uncontrolled release of electrical energy. Refer to <u>Fact sheet – Control plan – Electrical engineering – uncontrolled release of electrical energy</u> dated 7 August 2024.

· Control plan – Mechanical engineering – uncontrolled structural collapse or failure

The fact sheet provides information related to the assessment program focussing on the MUE – uncontrolled structural collapse or failure. Refer to <u>Fact sheet – Control plan – Mechanical engineering – uncontrolled structural collapse or failure</u> dated 8 August 2024.

Control plan – Ventilation – acute exposure to irrespirable atmospheres

The fact sheet provides information related to the assessment program focussing on the MUE – acute exposure to irrespirable atmospheres. Refer to <u>Fact sheet – Control plan – Ventilation control plan – acute exposure to</u> <u>irrespirable atmospheres</u> dated 8 August 2024.

• Principal hazard – Air quality or dust or other airborne contaminants – exposure to dust and airborne contaminants in excess of OEL

The fact sheet provides information related to the assessment program focussing on the MUE – exposure to dust and airborne contaminants in excess of occupational exposure limits (OEL). Refer to <u>Fact sheet – Principal hazard</u> – air quality or dust or other airborne contaminants – exposure to dust and airborne contaminants in excess of OEL dated 19 August 2024.

Investigating psychosocial hazards

This fact sheet explains what the Regulator can and cannot do when a psychosocial hazard is reported to it. In this fact sheet a reference to 'complaint' includes a reportable incident concerning a psychosocial hazard. The primary role of our investigators is to determine the cause and circumstances of risks to health and safety arising from psychosocial hazards at a workplace and compliance with work, health and safety laws. This often requires us to look beyond the risks themselves and examine the controls in place to eliminate or manage those risks including the systems of work and work practices. Refer to Fact sheet – Investigation of psychosocial hazards dated 29 August 2024.

Principal hazard – Gas outburst, rock burst and coal burst

This fact sheet provides information related to the assessment program focussing on the MUE – uncontrolled coal outburst. rock burst or coal burst. Refer to <u>Fact sheet – Principal hazard – gas outburst, rock burst and coal burst</u> dated 23 September 2024.

Workplace bullying

This fact sheet assists mine operators and workers to understand their duties and responsibilities in relation to workplace bullying. Workplace bullying is repeated, and unreasonable behaviour directed towards a worker or a group of workers that creates a risk to health and safety. It can occur in any workplace and can be harmful to you if you experience or witness it. Refer to <u>Fact sheet – Workplace bullying</u> dated 30 September 2024.

• Principal hazard – Ground or strata failure (underground)

The fact sheet provides information related to the assessment program focussing on the MUE – uncontrolled movement of ground (underground). Refer to <u>Fact sheet – Principal hazard – ground or strata failure</u> (underground) dated 30 September 2024.

Reports

Investigation Information Release – Dangerous incident at Clarence Colliery – roof fall

In panel 832 of the mine, the intersection involved with the roof fall had been developed. Within this panel, there was a known up-throw fault that had been intersected multiple times over several weeks before the incident. On those occasions, the fault was intersected mid pillar, with its trajectory trending towards proposed intersections.

About 11 am on 9 July 2024, a roof and skin failure occurred in the 'Z' heading outbye of the intersection at 13 cutthrough. The roof in this area was supported about 6 metres from the centreline of 13 cut-through in accordance with the Red TARP requirements, which left the remainder of the Z heading roadway unsupported. There were no workers present at the time. As a safety measure the area, including the intersection, was barricaded off to prevent access. About 3pm, there was a roof collapse throughout the entire intersection at 'Z' heading 13 cutthrough. Both bolted and non-bolted sections of the roof fell. Given the area had already been barricaded off, no workers were present when this occurred.

Refer to <u>IIR24-05 – Dangerous incident at Clarence Colliery – roof fall</u> dated 9 July 2024.

Investigation Information Release – Serious injury arising from vehicle/pedestrian interaction in an underground metalliferous mine

Two service crew workers arrived in a light vehicle at 4750 West Collection Access, off the North Decline at Ridgeway Gold Mine shortly before 7.31am on 10 July 2024. The service crew's task was to assess the water level in a sump near the end of the decline and lift a pump to allow a loader access to bog mud out of the sump area. The driver parked in the 4750 West Collection Access road as the other worker proceeded on foot down a slope in the decline towards a sump with the intention of lowering a barricade chain to allow the loader to access the sump. Neither the driver nor the worker used positive communications to inform the loader operator that a pedestrian was in the decline. Meanwhile, the loader operator drove the loader down the decline towards the sump with the intention of parking the machine nearby before commencing bogging. The loader proceeded around a bend in the decline and down the slope where it hit the pedestrian from behind with the bottom lip of the loader's bucket coming into contact with his lower leg.

Refer to <u>IIR24-06 – Serious injury arising from vehicle/pedestrian interaction in an underground metalliferous</u> mine dated 10 July 2024.

Consolidated report - Mine safety high visibility campaign 2024

The Resources Regulator conducted an annual high visibility campaign targeting specific safety issues and safety-related trends occurring and emerging in the NSW mining industry. The Regulator's high visibility campaign for 2024 assigned 44 mine safety inspectors to attend 136 mine sites in NSW during two-weeks, between Monday 24 June 2024 and Friday 5 July 2024. The safety focus of the high visibility campaign at coal mines, metalliferous and extractives mines (surface and underground mines) reviewed the implementation of controls at the mine to prevent reoccurrence of similar types of incidents that had been reported to the Regulator within the previous 12 months. Inspectors visited small mines sector sites, gave safety presentations to mine management and workers and conducted site inspections. This report will consolidate inspection findings and provide analysis and recommendations resulting from 194 compliance notices issued to 106 mine sites during the campaign.

Refer to Consolidated report - Mine safety high visibility campaign 2024 dated 19 July 2024.

Investigation Information Release – Dangerous incident involving an explosion in a reclaim tunnel after use of an electrofusion welder

Two workers attended the Concentrator No 2 scats reclaim tunnel to extend the existing HDPE piping that connected to the underpans of a conveyor feeder and ran towards the back of the tunnel. Part of the task involved fitting a HDPE coupling to an existing length of HDPE pipe and another prefabricated length of HDPE pipe. The end of the existing length of HDPE pipe had been damaged by mobile plant. To prepare the pipe surfaces before the electrofusion welding process started, the ends of the 2 pieces of pipe were cleaned using an abrasive sanding pad affixed to a handheld grinder and the ends were wiped with paper towel product (WypallX80). Once the coupling and 2 pipe pieces were fitted together, the workers set up the electrofusion welding unit by connecting the electrodes to the coupling. After the welding process was complete, the workers disconnected the welder from the coupling. At this point, the workers left the area to obtain sealant to apply to any gaps around the fittings. They were away from the tunnel for about 15 to 20 minutes. Upon their return to the tunnel, they saw thick smoke coming from the top of the tunnel. The workers immediately retreated from the area and made an emergency call via the site radio. While the emergency response was being mobilised, an explosion was seen and heard coming from the end of the tunnel.

Refer to IIR24-07 – Dangerous incident involving an explosion in a reclaim tunnel after use of an electrofusion welder dated 22 July 2024.

Investigation report – Serious hand injury to a worker operating a mobile screen

A worker sustained a serious hand injury on 19 September 2022 at Thuddungra Mine when a spade he was holding became entangled in the moving conveyor rollers of a mobile screen which was being cleaned while operating with a guard removed. Further, the worker was exposed to a risk of more serious injury or death as a result of being entangled in or crushed by moving parts of the mobile screen.

Refer to Investigation report - Serious hand injury to a worker operating a mobile screen dated 24 July 2024.

Consolidated report – Health control plan – stage 2 – coal mine sites

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 health control plan stage 2 report consolidates assessment findings and provide analysis and recommendations for operators of coal mine sites. In total for this consolidated report there were 34 coal mine sites assessed. In summary, there were 1,224 individual assessment findings and of those, 23 assessment findings related to the management of the health control plan requiring enforcement action to be taken at a coal mine site. The assessment program was conducted between July 2023 and May 2024. There were 27 compliance notices issued in total during the program. Of these, 15 compliance notices were issued at 12 coal mine sites related to the health control plan.

Refer to Consolidated report-Health control plan-stage 2-coal mine sites dated 16 August 2024.

Investigation Information Release – Unplanned explosion during mining operations

A worker was operating a Caterpillar D11T dozer in the Roxburgh Pit at the Mt Arthur South mine about 7.30 am on Tuesday 20 August 2024. The dozer was operating on a bench directly in front of and below a Liebherr R-996 excavator. The excavator was loading a 793D haul truck. The bench being excavated had been fired, in accordance with a planned shot on 20 May 2024. While the dozer operator was pushing blast waste material on the lower bench, an unplanned initiation of explosives occurred. The explosion caused multiple pieces of fly rock and parts from the dozer blade to be projected about 100 m from the incident site. The location of the explosion left a crater measuring 1.8 m deep, and about 3.5 m in width.

Refer to IIR24-08 - Unplanned explosion during mining operations dated 20 August 2024.

Consolidated report – Coal mines – uncontrolled gas or dust explosion review

An incident occurred at Grosvenor Mine in Queensland on 29 June 2024. There was an ignition of gas observed in the tail gate of longwall 105 panel and mine workers were evacuated from the mine. Post evacuation of workers, the gas ignition developed into a large uncontrolled fire, with dense smoke emitted from the return ventilation shaft. The mine required to be sealed to control the fire event. The Resources Regulator was notified of the incident by the Queensland Coal Inspectorate (Resources Safety and Health, Queensland). In response, the Resources Regulator carried out an inspection program with the purpose to assess the status of risk control management and incident mitigation relevant to this type of event in NSW underground coal mines. The assessments specifically targeted 8 underground coal mines with longwall mining operations and methane present as a seam gas. In the absence of detailed information regarding the Grosvenor Mine gas ignition and contributory factors leading to the major fire event requiring the mine to be sealed, the Regulator's assessment reviewed the following criteria: ignition sources, ventilation and gas management controls and post-incident responses for mine monitoring and sealing.

Refer to <u>Consolidated report - Coal mines - uncontrolled gas or dust explosion review</u> dated 6 September 2024.

Investigation report – Loader fire at Cadia Mine results in serious injury to a worker

A worker was operating a LH621 Sandvik loader in the underground workings of the mine on 25 October 2021, when a fire was observed near the front left (position one) tyre. The worker activated the fire suppression system, exited the cabin and observed flames around the rear of the loader. The worker suffered serious burns while running past the loader's engine bay to escape the fire.

Refer to Investigation report – Loader fire at Cadia Mine results in serious injury to a worker dated 12 September 2024.

· Consolidated report – Small mines – air quality or dust or other airborne contaminants

Exposures to poor air quality or dust or other airborne contaminants can lead to severe health impairment for workers. In total for this consolidated report there were 36 small mine sites and 6 large quarries assessed. In summary, there were 336 individual assessment findings and of those 125 assessment findings required enforcement action to be taken at the site. The assessment program was conducted between September 2023 and May 2024. There were 64 compliance notices issued in total during the program of these 45 compliance notices were issued at 41 mine sites related to air quality or dust or other airborne contaminants.

The assessment program was conducted between March and September 2023. Refer to <u>Consolidated report –</u> <u>Small mines – air quality or dust or other airborne contaminants</u> dated 30 September 2024.

Queensland

· Vehicle fault causing smoke at underground coal mines

There have been two similar incidents in recent months at Queensland underground coal mines where smoke has started to come from a dry scrubber load haul dump (LHD). Refer to <u>RSHQ Coal Inspectorate Alert No.450 V1</u> <u>Vehicle fault causing fire at underground coal mines</u> dated 30 July 2024.

Uncontrolled fall of plant

RSHQ has noticed a pattern at Queensland coal mines where plant has fallen from support stands in an uncontrolled manner. Three reported high potential incidents are described below and in each incident no coal mine workers (CMWs) were injured. However, there was potential for serious injury or a fatality.

Incident 1: On 16 January 2024, a CAT D11T dozer was being set up on stands in the workshop using the machine hydraulic implements and jacking. While machine jacking using the blade, the dolly positioned under the right-hand rear-pivot shaft housing has dislodged causing the machine to roll backwards and off the rear stands, dropping approximately 500mm. Two CMWs who were in the process of installing support stands were in the line of fire when the dozer moved. No injuries were sustained and both CMWs walked free of the area immediately following the uncontrolled event.

Incident 2: On 19 Dec 2023, a tyre handler pushed a Hitachi EH5000 RDT off its supporting stand whilst performing a vertical mount tyre fitment on position 2. The RDT fell approximately 600mm. Two CMWs engaged in the task, one operating the tyre handler and the second on the ground approximately 6m away, out of the firing line. The incident investigation identified issues with the jacking processes used amongst other issues.

Incident 3: On the 6 June 2023 CMWs were using a crane to fit a handrail on a dozer in the workshop. The dozer was sitting on four stands as both track frames and one final drive had been removed from the machine. The crane operator has used the remote control upside down, inadvertently raising the crane, which has lifted the dozer off the stands on one side causing it to slide off the stands onto the workshop floor.

Refer to <u>RSHQ Coal Inspectorate Safety Bulletin No. 222 V 1 Uncontrolled fall of plant</u> dated 27 August 2024.

South Australia

Surge in machine guarding notices prompts urgent warning

A surge in notices for safety breaches associated with machine guarding has seen SafeWork SA issue an urgent warning to businesses. In the first four weeks of the 2024/25 financial year SafeWork SA has issued 29 notices for this type of offence compared to 120 during the entire previous financial year. Of the 29 notices issued this financial year, 13 are for incidents where interlocking guarding has been overridden. Machine guarding is essential to protect workers from hazards such as moving parts, flying debris, and ejected materials. Refer to SafeWork SA Safety Alert–Surge in machine guarding notices prompts urgent warning dated 2 August 2024.

Victoria

• Worker injured by rock bolt puncture at mine site

An employee was working as a trainee underground drill operator. While manoeuvring around the off side of the drill, the employee stepped into a recently completed drill hole collar. The drill hole collar had been grouted but was covered by water which hid a previously installed rock bolt. The rock bolt punctured the employee's gumboot and penetrated the employee's ankle resulting in a laceration. The employee required medical assessment from an orthopaedic surgeon and received stitches for the laceration. Refer to <u>Worksafe Victoria</u> <u>Safety Alert - Worker injured by rock bolt puncture at mine site</u> dated 6 September 2024.

Notifiable incidents relating to hazards

The <u>Work Health and Safety (Mine and Petroleum Sites) Regulation 2022</u> (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 590 incident notifications which is the highest total over the past 5 quarters. Of these, 33% (192) related to principal mining hazards, 28% (168) related to principal control plans, with the remainder (39%) related to other incident types.

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

Hazard or Control plan	Hazard/Control plan	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	FY 2025 Q1	Grand total
Hazard	Fire or explosion	75	77	65	55	61	333
	Roads or other vehicle operating areas	66	54	62	62	58	302
	Air quality or dust or other airborne contaminants	45	53	33	41	47	219
	Ground or strata failure	16	29	23	20	16	104
	Spontaneous combustion	5	10	7	5	5	32
	Subsidence	1	2	1	2	2	8
	Mine shafts and winding systems	0	0	0	0	3	3
	Inundation or inrush of a substance	0	0	1	1	0	2
	Subsidence	1	1	2	1	2	7
	Total	208	225	192	186	61 58 47 16 5 2 3 0 2 3 0 2 192 95 43 25 43 25 1 4 4 168 230	1,003
Control plan	Mechanical engineering control plan	102	94	87	65 55 61 33 62 62 58 30 33 41 47 21 23 20 16 10 7 5 5 3 1 2 2 3 0 0 3 3 1 2 2 3 0 0 3 3 1 1 0 3 1 1 0 3 1 1 0 3 1 1 0 3 19 186 192 1,00 87 95 95 47 19 25 43 13 19 24 25 9 19 6 1 5 3 6 4 1 147 156 168 77 194 175 230 96	473	
	Electrical engineering control plan	22	22	19	25	43	131
	Explosives control plan	16	13	19	24	25	97
	Ventilation control plan	8	23	19	6	1	57
	Health control plan	0	0	3	6	4	13
	Total	148	152	147	156	168	771
Other	No related principal mining hazard or principal control plan	175	195	194	175	230	969
Grand total		531	572	533	517	590	2,743

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 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 41 to 47

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 CO2) or over several years (coal/silica dust).

There has been a 42% increase in airborne contaminant related incidents notified from Q3 FY 2024. This quarter's figure is the second-highest recorded in the past 5 quarters.



Ground or strata failure

Decrease from 20 to 16

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.

There has been a 45% decrease in ground or strata related incidents notified since Q2 FY 2024.



Dangerous incident | IncNot0047223 – Fall of ground through intersection

Summary: A fall of ground occurred affecting an entire intersection at a heading where mining had been occurring inbye of the area during night shift. The crew had withdrawn equipment for planned maintenance on day shift before the fall occurred. The area design was a run out on the left-hand side of the bord and pillar panel with herringbone and floor stripping. There was an unbolted section and a bolted section through the run out. At 11am, it was observed there was a roof and skin failure in the open lift (unbolted area). At 3pm, it was reported that the fall of ground had progressed through the entire intersection (bolted and unbolted).



Picture 1. Debris after roof failure

Comments to industry: Mine operators are reminded of the need for workers who are required to install and maintain tell-tale strata monitoring devices to be trained on the correct installation and defect management requirements for the lifecycle of the devices.

Dangerous incident | IncNot0047488 – Worker hit by coal after cornice failure

Summary: Two workers were standing beside a bolting rig, with their backs to the rib, at the corner of a cut-through intersection when a large piece of coal fell from the roof/rib interface and hit one of the workers on the shoulder. The worker suffered a fracture. The mechanism of the cornice failure was the formation of a block of coal that had 2 weak/free faces.



Picture 2. Area after fall of coal.

Comments to industry: Mine operators should have a procedure for supporting exposed cornices, or the installation of mechanical protection from exposed cornices. Refer to the <u>Code of practice: Inundation and inrush hazard</u> <u>management</u>.

Dangerous incident | IncNot0047596 – Large rock fell from highwall

Summary: A large rock fell from a high wall and impacted a D11 dozer that was nearby. The operator drove about 50 metres to safety and was not injured.



Picture 3. Highwall rockfall which contacted dozer.

Comments to industry: When geotechnical reports identify hazards on highwalls, mine operators should ensure that controls to manage the risks are implemented and communicated to workers. In areas where previous geotechnical failures have occurred, the frequency of inspections and reporting on hazards should be increased and the outcomes communicated to workers.



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

Decrease from 1 to 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.



Mine shafts and winding systems Increase from 0 to 3

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.





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.

There have been no notified incidents of gas outbursts in the NSW mining sector since November 2022.

Spontaneous combustion

No change (5)

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. The chart below includes spontaneous combustion incidents underground and on the surface of coal mines.





Roads or other vehicle operating areas

Decrease from 62 to 58

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 | IncNot0047225 - Dozer reversed into light vehicle

Summary: A loader reversed into one of 2 light vehicles that had stopped about 10 metres behind it. The first vehicle failed to make positive communications with the loader because of a flat radio battery. When the loader began to reverse, the first vehicle moved out of the way and the loader continued until it hit the second vehicle. The second vehicle operator assumed the first vehicle operator made positive communications but didn't hear anything. He had his flashing light on and sounded the horn to stop the loader.



Picture 4. Dozer and light vehicle interaction.

Comments to industry: When stopping light vehicles, workers must not place themselves at risk of interactions with heavy vehicles. 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 positive communications compliance during every radio call on their shift. <u>Work Health</u> and Safety Regulation 2017 clauses 35 & 36 requires higher order risk controls be implemented and administrative controls such as positive communication, only be used when no higher order controls can be implemented. Controls such as equipment segregation and proximity awareness systems should be implemented before positive communication only systems are considered.

High potential incident | IncNot0047289 - Dozer lost traction on wet ramp

Summary: An empty CAT789 truck was descending a ramp. Rain had started to fall about 30 minutes earlier. As the operator rounded a left-hand bend towards the bottom of the ramp the truck lost traction at slow speed, resulting in the truck sliding about 50 m down the ramp, crossing the centre line, and ending up rotating 90 degrees.



Picture 5. Truck rotated on wet ramp.

Comments to industry: Situational awareness is a key control when operating mobile equipment. Adequate supervision, training, job planning and risk assessments should be considered and completed before undertaking tasks. Procedures to assess the adverse effects caused by changes in weather and road conditions should be communicated to workers and implemented to prevent incidents. Following a recent awareness campaign on vehicle interactions the Regulator published a <u>YouTube video</u> that can be used for training purposes and toolbox talks. Mine operators are encouraged to use this resource.

Dangerous incident | IncNot0047387 – Haul truck hits windrow after loss of traction

Summary: A haul truck hit a windrow after losing traction while driving down a ramp. The road had been recently watered. The operator believed the offside tyres were in the dry line but when they applied the retarder brake the truck began to slip.





Comments to industry: Workers must operate vehicles at a speed that is appropriate to the prevailing conditions. Engineering controls that minimise the risk of loss of control should be considered, including the use of speed limiting devices, speed monitoring and alarms. This incident highlights the importance of having appropriately designed and maintained windrows, bunds and edge protection.

Dangerous incident | IncNot0047636 - Near miss between haul truck and light vehicle

Summary: A loaded haul truck narrowly avoided a collision with a parked-up light vehicle with one person aboard. The driver stopped to observe an excavator through a drainage gap in the windrow a short distance beyond a blind corner on the main haul road. The haul truck operator noticed the collision avoidance system (CAS) identify the vehicle on the in-cab screen and assumed it was on a lower bench. The haul truck continued around the corner and saw the light vehicle parked up. The operator took evasive action as there were no oncoming vehicles and crossed onto the wrong side of the haul road to prevent a potential collision with the parked light vehicle. The haul truck was brought to a stop with the retarder because the haul road had been watered.



Picture 7. Scene of vehicle near miss.

Comments to industry: The risk of a fatality from interactions between light and heavy vehicles is well known. Light vehicle drivers should be continually reminded of their obligations when driving on haul roads. Mine operators must ensure all roadways, intersections and park-up areas are designed, constructed, and maintained to safely manage interactions between mobile plant and light vehicles.

Fire or explosion

Increase from 55 to 61

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 from 55 to 61 and recorded the second-lowest figure over the past 5 quarters.



Dangerous incident | IncNot0047536 – Sparks and flames in tail gate drum

Summary: Sparks and flames occurred in the vicinity a tail gate drum of a shearer on a longwall. The sprays from the shearer extinguished the flames.

Comments to industry: The cause of ignition was the friction generated by the tail gate drum being forcibly advanced into the working face. The longwall was being operated remotely and in automation at the time where the conveyor (AFC) bank push continued despite the shearer being not clear of the tail gate. This was due to an anti-collision trip interrupting the shearer haulage. Mine operators should review their remote automation operating procedures to confirm that the software controlling their longwall operation does not allow a similar event to occur.

Principal control plans

The <u>Work Health and Safety (Mines and Petroleum Sites) Regulation 2022</u> 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 previous classification 'Electrical and/or mechanical engineering control plan' has been discontinued with the data mapped to 'Mechanical engineering control plan'. Any change in the number of mechanical engineering control plan incident notifications across each of the quarters is due to the mapping described above.

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.







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.





Electrical engineering control plans

Increase from 25 to 43

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

Notified incidents related to electrical engineering control plans increased by 72% this quarter, continuing an upward trend since Q3 FY 2024.



Explosives control plans

Increase from 24 to 25

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.





Ventilation control plans

Decrease from 6 to 1

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 to a single incident, from a high of 23 in Q2 FY 2024.



Health control plans

Decrease from 6 to 4

A health control plan (HCP) sets out how the operator will manage the risks to health associated with their mining or petroleum operations. The HCP forms part of the safety management system (SMS). An HCP identifies the hazards which present a risk to health of workers and measures to control them.

This quarter saw a 33% decrease in notified incidents regarding health control plans compared to the previous quarter.





Sector profiles



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 - July 2023 to September 2024

Measure	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	FY 2025 Q1
Incidents	424	424	377	402	467
Active mines	103	103	103	102	99
Incident rate per active mine	4.12	4.12	3.66	3.94	4.72
Mines that notified incidents	51	52	50	48	54
% of mines notifying an incident	50%	50%	49%	47%	55%
Incident rate per notifying mine	8.31	8.15	7.54	8.38	8.65

The following graph shows the proportion of safety incident notifications received from surface and underground coal operations. This quarter there were increases in both surface and underground sectors resulting in an overall rise of 17% and the highest number of incidents over the 5-quarter period.



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. Compared to the previous quarter, death/serious injury or illness incidents in the coal sector increased by 180% (from 10 to 28), whilst notable increases were also seen for medical treatment/lost time/restricted duty injuries or illnesses (29%) and dangerous/potentially dangerous incidents (15%). This quarter saw a slight decrease of notifications of other high potential incidents (3%). Explosives Regulation incidents remain low.



Figure 17. Coal sector incident notifications received by requirement to report – July 2023 to



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.

Figure 18. Coal mine incident notifications received by principal mining hazard or principal control plan, and by operation type – April to September 2024

	Air quality or dust or other airborne	FY 2025 Q1	31 5 36
	contaminants	FY 2024 Q4	30 4 34
	Fire or evplosion	FY 2025 Q1	3 34 37
	Fire of explosion	FY 2024 Q4	3 35 38
	Cround or strate foilure	FY 2025 Q1	6 <mark>2</mark> 8
	Ground of strata faiture	FY 2024 Q4	8 4 12
Hazard	Inundation or inrush of any substance	FY 2024 Q4	1
	Mine shafts and winding systems	FY 2025 Q1	1
	Poods or other vehicle operating grass	FY 2025 Q1	6 24 30
	Roads of other vehicle operating areas	FY 2024 Q4	14 20 <mark>34</mark>
	Spontanoous combustion	FY 2025 Q1	4
	Spontaneous compustion	FY 2024 Q4	5
	Subsidence	FY 2025 Q1	1
	Electrical engineering control plan	FY 2025 Q1	26 27
		FY 2024 Q4	20 <mark>3</mark> 23
	Electrical engineering control plan and/or	FY 2025 Q1	36
Control	Mechanical engineering control plan	FY 2024 Q4	49
plan	Explosives control plan	FY 2025 Q1	5 17 22
		FY 2024 Q4	5 <u>11</u> 16
	Machanical anginagring control plan	FY 2025 Q1	34 13 47
	meenameat engineering controt plan	EV 2024 04	20 12 42

Surface
Underground

Quarterly safety report – July to September 2024

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 – July 2023 to September 2024

Measure	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	FY 2025 Q1
Incidents	83	111	132	90	102
Active mines	57	69	70	67	67
Incident rate per active mine	1.46	1.61	1.89	1.34	1.52
Mines that notified incidents	25	27	28	28	30
% of mines notifying an incident	44%	39%	40%	42%	45%
Incident rate per notifying mine	3.32	4.11	4.71	3.21	3.40

* Active mines exclude exclusive enviro mines from Q1 FY 2023 onwards

The following graph shows the proportion of safety incident notifications received from large mines and quarries by operation type. Against the previous quarter, notified incidents increased overall by 13% to record the third highest figure seen over the past 5 quarters. This was primarily due to an increase of notified incidents in underground mines (from 64 to 74).



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 a 25% increase in dangerous/potentially dangerous incidents was observed, recording the third highest figure seen over the past 5 quarters. A notable increase was seen in serious injuries and illnesses, from 1 to 11 incidents compared to the previous quarter. Other high potential incidents decreased by 36%, whilst medical treatment/lost time/restricted duty injury or illness incidents were unchanged at 22.





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, increases were observed in notified incidents relating to fire or explosion (8 to 15) and air quality, dust or other airborne contaminants (5 to 9). Decreases were seen in explosives control plans (from 6 to 2) and ground or strata failure (from 6 to 3).

			0	5	10	15		20	25
	Ventilation control plan	FY 2024 Q4		6					
	Mechanical engineering control plan	FY 2024 Q4	6	2 8	3				
1		FY 2025 Q1		10	1 11				
Control plan	Explosives control plan	FY 2024 Q4		6					
	E selection e setectulor	FY 2025 Q1	112						
	Electrical engineering control plan	FY 2024 Q4	112						
		FY 2025 Q1	11						
		FY 2024 Q4	2						
	Subaidanaa	FY 2025 Q1	112						
	Roads of other vehicle operating areas	FY 2024 Q4		10		7	17		
	Doods or other vahials operating areas	FY 2025 Q1		11		4 15	5		
	Inundation or inrush of any substance	FY 2024 Q4	1						
Hazard		FY 2024 Q4	5	16					
	Cround or strate failure	FY 2025 Q1	2 1 3						
		FY 2024 Q4	6	2 8	3				
	Fire er evelesien	FY 2025 Q1		11		4 15	5		
	contaminants	FY 2024 Q4	4 1	5					
	Air quality or dust or other airborne	FY 2025 Q1	5	4	9				

Figure 21. Large mines and quarries incident notifications received by principal mining hazard or principal control plan, and operation type – April 2024 to September 2024

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 - July 2023 to September 2024

Measure	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	FY 2025 Q1
Incidents	22	35	22	24	19
Active mines	2,552	2,399	2,314	2,310	2,288
Incident rate per active mine	0.01	0.01	0.01	0.01	0.01
Mines that notified incidents	22	31	21	20	17
% of mines notifying an incident	0.86%	1.29%	0.91%	0.87%	0.74%
Incident rate per notifying mine	1.00	1.13	1.05	1.20	1.12

The graph below shows the proportion of safety incident notifications received from small mines and quarries by operation type. In this quarter, notified incidents decreased overall by 21%.



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 a 42% decrease in dangerous/ potentially dangerous incidents from 12 to 7. Reporting figures for all other categories remained unchanged from 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.

Decreases were observed in incidents notified relating to roads or other vehicle operating areas (which halved from 8 to 4) and fire or explosion (3 to 0). Mechanical engineering control plan incidents decreased from 4 to 0.

Hazard	Air quality or dust or other airborne	FY 2025 Q1				3					
	contaminants	FY 2024 Q4			2						
	Fire or explosion	FY 2024 Q4				3					
	Ground or strata failure	FY 2025 Q1			2						
	Roads or other vehicle operating areas	FY 2025 Q1					4				
	Roads of other venicle operating areas	FY 2024 Q4									8
	Mechanical engineering control plan	FY 2024 Q4					4				
Control plan	Evaluatives control alon	FY 2025 Q1		1							
	Explosives control plan	FY 2024 Q4		1							
Curface			0	1	2	3	4	5	6	7	8

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 – July 2023 to September 2024

Sector	Measure	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	FY 2025 Q1
Petroleum and geothermal sites*	Incidents	0	0	0	0	0
Opal mines	Incidents	1	1	0	0	1
Exploration sites**	Incidents	1	1	2	1	1

* includes exploration

** excludes petroleum and geothermal

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

Sector	Requirement to report measure	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	FY 2025 Q1
Opal mines	Death/Serious injury or illness	0	1	0	0	1
	Dangerous/Potentially dangerous incident	1	0	0	0	0
	Other High potential incident	0	0	0	0	0
Exploration sites	Death/Serious injury or illness	0	0	1	0	0
	Dangerous/Potentially dangerous incident	0	1	0	0	1
	Medical treatment/Lost time/ Restricted duty injury or illness	1	0	1	1	0

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

Sector	Principal hazard or control plan	FY 2024 Q1	FY 2024 Q2	FY 2024 Q3	FY 2024 Q4	FY 2025 Q1
Sector Opal mines Exploration sites	Roads or other vehicle operating areas	1	0	0	0	0
	No related principal mining hazard or principal control plan	0	1	0	0	1
	Total	1	1	0	0	1
Exploration sites	Health control plan	0	0	1	0	0
	No related principal mining hazard or principal control plan	1	1	1	1	1
	Total	1	1	2	1	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 <u>website</u> and in our <u>business activity reports</u>.

Safety assessments by sector

This quarter saw a 6% decrease in the number of safety assessments commenced by the Regulator. 37% of assessments were conducted in coal mines, followed by 31% in non-mines, 16% in large mines and 15% in small mines.



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

September 2024

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 28. Planned inspections by principal mining hazard and principal control plan – July 2023 to



- Air quality or dust or other airborne contaminants
- Health control plan
- Fire or explosion
- Various principal hazards
- Mechanical engineering control plan

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 July 2023. During the quarter, the number of safety notices issued increased by 80%. This change was predominantly led by s191 improvement notices which more than doubled from 257 in the previous quarter to 528.



Significant increases in notices issued to small mines (180 to 402), coal mines (113 to 187) and large mines (139 to 174) led to this change. The annual <u>high visibility campaign</u> in June/July 2024 contributed to these increases.



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