Queensland Mineral Mines and Quarries

Serious accidents and high potential incidents

Compilation of reports for December 2017

Gravity

Fall of ground (3)
- A 20 kg rockfall occurred in the access way to a shaft plat area.
- A -0.8 seismic event triggered a 110 t rockfall in a turnout at an underground mine.
- Seismic events of 1.6 and 1.4 occurred at an underground mine. Areas surrounding the events were barricaded until the mine was confident that the energy had dissipated.

Inundation/engulfment (1)
- An unplanned release of water from a surface mullock bin flowed outside of the barricaded exclusion zone.

Fall of equipment/material (3)
- A crane rope broke while slewing a tramp magnet into place over a picking conveyor.
- A chain basket of a 5 t Demag crane fell 3.8m to the platform below.
- In preparing a Hitachi EX1900 for demobilisation, a fitter attached in lifting devices to incorrect lifting points to the cabin of the excavator. When the last of the retaining bolts was removed, the cabin fell 2 m with the fitter still in the cabin. The fitter was transported to hospital for treatment of a dislocated shoulder.

Pressure

Other (1)
- Two workers were removing an inspection hatch on a ball mill circuit when the slurry exited under pressure knocking a worker to the ground. The workers had started work on the wrong line, which was not isolated.

Thermal

Fire (7)
- Fire occurred on a Komatsu dozer while it was tramming out of a pit. The fire was extinguished with the on-board fire suppression.
- A fire occurred while a polypipe in a process plant was being electro-welded. The fire was extinguished with a hand held extinguisher and a water hose.
- An engine oil leak on a Cat 769C water truck caused a fire in the engine bay of the truck. The operator activated the on-board fire suppression system to extinguish the fire.
- Arcing wires at the battery of a forklift caused a small fire. The fire was extinguished by cutting the battery leads.
- A Cat 725 water truck was tramming down a decline when the front brakes caught fire. A service crew travelling behind the truck observed the fire and assisted in extinguishing it.
- A loader operator was installing a mullock bund on a stope edge when he observed smoke. It was believed to be have been wheel slip causing a PVC collar pipe or plastic gas bags in old drill holes to smoulder. The area was barricaded, ventilation monitored and watered down. Mine rescue was deployed as a precaution.
- A fire in a Cat D11T dozer engine bay was caused by a battery lead rubbing against hydraulic hose.
Explosives

**Misfire (1)**
- During the installation of additional ground support, a jumbo operator has drilled holes in close proximity to a pre-charged production ring.

**Flyrock (2)**
- During a development blast, flyrock has damaged a cable. The electrical protection operated and removed power from the cable.
- During a blast at a quarry, fly-rock breached the exclusion zone, landing some 20 m beyond the exclusion zone.

Electrical

**Electric shock (2)**
- While pulling a 3 phase extension lead from under an oil filter stand a fitter received an electric shock when he contacted an exposed a conductor. The extension lead had been damaged resulting in the exposed conductor.
- During maintenance of a SAG mill, a worker received an electric shock when their hand contacted an electric cable. The cable had been moved to allow the work to occur but had not been isolated correctly.

**Arc flash/blast (2)**
- A worker pressed the start button on a fan starter and an electrical explosion occurred inside the panel. The enclosure door buckled during the explosion allowing the gases from the explosion to singe hairs on the workers arm.
- During commissioning testing of an underground 11 kV ring main unit a cable has failed. Two electricians were approaching the ring main unit at the time.

Vehicle

**Rollover (3)**
- A Volvo LC 110 front-end loader tipped onto its side while the operator was reversing down a slope. At the time, the operator was attempting to relocate a trailing cable from a storage area.
- A semi with a side tipper trailer was transporting large rocks from quarry. As the truck was negotiating a corner, the trailer tipped onto its side.
- While building up the height of the tailings dam wall, the contract operator reversed his articulated truck over a windrow causing the truck body to slide 1.5 m down the dam wall.

Mechanical

**Crushed between a load and structure (2)**
- An exploration driller received lacerations and crush injuries to their hand when a released clamp dropped rods which crushed his hand between a water swivel and a clamp block. The driller was transported to hospital for treatment.
- While lifting a drill rod into position, the rod fell 5 cm crushing two of the drillers fingers.

**Laceration with sharp object (1)**
- A worker was using a 125 mm grinder with an aluminium cutting blade to gouge out cracks on aluminium trailer when blade disintegrated. A piece of the blade struck the worker in the forehead causing a minor laceration.

**Struck by projectile (2)**
- A 750 kg rated come-along was used to restrain an acid unloading arm for transport when a chain link at the hook failed. The link struck a worker who was working nearby on the calf.
- A fitter was bleeding a compressed air line to remove the load prior to the compressor being restarted when a 50 mm steel pipe has blown upwards under pressure and struck him on the side of the head causing a 50 mm laceration on his forehead.
Chemical

Acid (1)
- During the investigation for a loss of containment from a vessel in a reaction circuit, the operator received a splash of hot acidic slurry to their eye.

Exposure to chemicals (1)
- A contractor cut their hand on the leach tank and did not report it or treat the injury at the time. The wound became infected resulting in the person to be admitted to hospital for treatment of the infected injury.

Chart 1 - December 2017 (31 incidents)

Mineral mines and quarries; Serious accidents and high potential incidents
Department of Natural Resources and Mines and Energy, December 2017
Chart 2 - 12 Month rolling average to end December 2017 by Hazard Category (316 events)

Chart 3 - January to December 2017 Breakdown of Gravity hazard category (90 events)
Chart 4 - January to December 2017 Breakdown of Vehicle hazard category (79 events)

- Collision with another vehicle: 43%
- Rollover: 18%
- Collision with a built or natural structure: 18%
- Collision with a person: 6%
- Other: 14%

Chart 5 - December 2017 Compliance matters issued by Hazard Category (31 issued)
Past Mineral Mines and Quarry summary reports can be sourced at