

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for July 2011

Fall of Person (1)

- A maintenance worker was using a temporary platform to access a thickener turntable in a process plant. When he jumped back down onto the platform it failed and he fell about 6m to the thickener floor. He sustained soft tissue injuries and abrasions.

Fall of Equipment/Material (12)

- A Cat D11 dozer was cleaning up on a bench when it dropped about 2m into a hole associated with old underground workings.
- During loading operations a Hitachi EX3600 excavator sank into the bench causing the excavator bucket to strike the tray of the Cat 789 dump truck.
- While an elevated work platform was being raised during dragline maintenance it contacted a light fitting on the dragline house. The fitting fell to the ground close to other workers.
- The sheave wheel on an 8m high drill tower on a truck mounted exploration drill rig fell onto the drilling platform.
- While tramming a Sandvik Solo production drill rig the mounting bolts of the rotation turntable sheared resulting in the mast and carousel falling back against the cabin.
- A feed beam cradle pin failed on a Sandvik drill jumbo boom while positioning the booms resulting in the feed beam falling to the ground.

Fall of Ground (8)

- Approximately 300t of rock fell from the back onto the booms of a drill jumbo which was barring down to install ground support.
- A rockfall occurred in a supported intersection after a continuous miner made three separate plunges off the intersection without installation of additional ground support.
- An excavator operator noticed material dribbling from a dragline spoil low wall. The truck circuit was stopped. Shortly after, the low wall slumped about 10m across the pit floor over a distance of about 250m.
- About 1500t of material fell unexpectedly from a bench face close to where an excavator was working.

Mechanical (5)

- A dozer belly pan scissor hoist would not retract after the pan had been detached from under a Cat

- D10 dozer. The fitter re-attached the pan and then tried to lower the hoist sufficiently to get it from under the dozer so he could repair the fault. While adjusting a plug on one of the hoist's hydraulic cylinders the plug came loose and the hoist retracted rapidly trapping the fitter's right arm in the scissors. He sustained a severe crush injury.
- While fault finding on a jumbo drill rig a fitter disconnected a blocked pressurised hydraulic hose. The blockage released and high pressure oil struck his right hand lacerating his thumb and ring finger. The cuts were treated in hospital and checked for possible oil injection.
- A worker started a conveyor and then used a shovel in a gap where a guard was missing to dislodge a piece of skirting rubber. The shovel became entangled in the conveyor, broke and hit the worker on the hand.

Vehicle – Collision (24)

- A mini bus entered a stockpile area to pick up operators for a crib break without getting clearance from the loader operator.
- Before establishing positive communications with a Cat D11 dozer operator on a dump tip head a Cat 785 dump truck operator started to reverse into position with the intention of dumping short. The dozer reversed at the same time and collided with the truck.
- As a Cat 773D service truck approached a Liebherr 996 shovel to refuel it the shovel slewed and the counterweight contacted the fuel tank on the truck.
- While a Komatsu PC450 excavator was loading a Hitachi AH400 dump truck the excavator continued to slew and the bucket struck the roof of the truck's cabin.
- The operators of a dump truck and water truck both contacted a dump dozer operator for permission to enter the dump. The water truck operator mistakenly thought the positive response he heard was for him. Unaware of the water truck's proximity the dozer operator reversed and collided with the water truck.

Vehicle – Loss of Control (29)

- A dump truck stopped 5m past a stop sign at a T-intersection at the bottom of a ramp. Another truck with right of way coming from the left managed to stop and avoided a collision.
- A major structural failure of the steering mechanism on a Komatsu water truck resulted in the truck swerving suddenly and colliding with the safety berm.

() The number in brackets next to each category heading is the total number of accidents and incidents reported for that category.

- While turning into position on a dump the right hand steer wheel stub axle on a Terex MT 3700 dump truck collapsed resulting in the wheel detaching.
- An explosives mobile manufacturing truck rolled onto its side on a rain wet ramp.
- A Cat 789 dump truck slid for 100m on a wet section of road while overtaking a grader and ended up spinning through 180 degrees.
- A Komatsu 930E dump truck lost traction and skidded for 80m down a recently watered ramp.
- A loaded Cat 785 water truck spun through 180 degree and skidded for 26m backwards down an over-watered ramp after the operator had left the spray controls on when he thought he had turned them off.
- A light vehicle rolled onto its side after the driver lost control of the vehicle while driving along a haul road.
- The driver of a Nissan Patrol Wagon carrying four passengers lost control of the vehicle and rolled it on its side.
- A dump truck operator fell asleep while driving his loaded truck and collided with a light pole.
- The operator of a Cat 793 dump truck fell asleep while driving along the haul road and veered into the safety berm.
- While descending a ramp the operator of a Ford Louisville 8000 service truck tried to slow the truck using the service brakes. The front brakes locked up but the rear brakes didn't work. The driver managed to stop the truck using the front brakes.
- A light vehicle that had been left parked on a slope rolled forward and over the edge of a bench falling 17m to the bench below.
- A parked Canter fuel truck rolled back 30m in an underground drive before striking a fan starter.

Explosion (24)

- Methane ignited at the top of a cased borehole while a worker was using an electric rattle gun to tighten bolts on a flange between risers connected to a submersible pump. The pump was being lowered from the surface into water above the coal seam.
- A small quantity of methane ignited at the lowered main gate drum of a longwall shearer.
- Methane ignited at the collar of a rockbolt hole while tensioning the nut on the bolt.
- A coal mine was evacuated after a TARP 4 gas reading was recorded in the longwall tailgate.
- A localised NERZ gas monitoring system, previously placed in by-pass mode following a boundary change, was not re-activated until the day after an activity commenced in the area that required use of the system.
- After a shuttle car had completed loading behind a continuous miner the operator turned to drive outbye to unload and collided with the rib crushing the miner cable causing an arc flash and the power to trip.
- While turning a corner a Joy shuttle car out-rigger made contact with the rib damaging the power

cable sheath and exposing the conductor. The power tripped.

- While being reset for a second time a main trunk conveyor 1000V cable tripped again with a loud bang and arc flash. The cable appeared to have been squashed by a vehicle against the roof.
- An operator was cleaning a blocked slag launder in a smelter blast furnace when the slag reacted with the water creating a steam explosion. He received abrasions to his head and neck and minor slag burns to his back.

Fire (43)

- A fire started in the engine compartment of a drill rig after a hydraulic hose ruptured spraying oil on to the turbo and other hot surfaces. The operator activated the fire suppression system which put the fire out.
- A small fire started in the engine bay of a Cat 16M grader after a piston went through the engine block. The operator activated the fire suppression system to extinguish the fire.
- The operator of a Hitachi AH500D articulated dump truck noticed a fire in the engine bay and pulled to the side of the road. He was able to exit the truck before the fire spread to the cab. A water truck was used to put the fire out.
- A fire in the electrical harness of a Volvo A35C articulated truck was extinguished with a hand held extinguisher after the operator had stopped and isolated the battery and starter motor circuits.
- A fire occurred in the electrical cabinet of a Liebherr T282 dump truck.
- A grass fire occurred as an exploration drilling support truck was driving along a track. The fire which appears to have been started by fragments ejected from the truck's exhaust was put out with hand held extinguishers.
- A spark from oxy-acetylene cutting during a dragline rebuild ignited oil in an oil pan. The fire was put out using a hand-held extinguisher.
- A small fire occurred on a Cat 845 wheel dozer after oil leaked from the turbo housing onto the manifold mount and ignited.
- A fire started on the exhaust manifold of an underground Toro T11 loader after fuel leaked onto the manifold. The operator actuated the fire suppression system and also used a hand held extinguisher to put the fire out.
- An IT forklift caught fire in an underground metalliferous mine. The fire suppression was ineffective and the forklift was burnt out. Mine personnel were evacuated to safe areas.
- A boilermaker in a surface workshop noticed a flame coming from the regulator on the acetylene bottle he was using. He turned the tap off but could not extinguish the flame. The local QFRS were called. They put the fire out and cooled the bottle.
- While welding in a process plant hot slag fell to a lower level and started a small fire.

Electrical (10)

- An electrician, while removing redundant cables, partially cut through a live steel wired armoured 240V cable causing the earth leakage device to trip.
- A Cat 10 dozer reversed over a rope shovel's 11kV trailing cable tripping the power.
- A split in the outer sheath of a 415V extension lead resulted in an internal short circuit and an arc flash. The circuit breaker tripped.
- A cleaner received an electric shock from a light switch.
- A worker received an electric shock while pulling the cable from the cable reel on a shuttle car after it had shut down on an overspool fault.

- A boilermaker received an electric shock from the handpiece of a Caddie welder while changing electrodes.
- An arc flash occurred in a distribution board when an electrician connected new equipment to the board without isolating.

Other (5)

- A delivery operator was washing down a concrete agitator with diluted hydrochloric acid when some of the acid splashed onto his face.
- A level 4 fume cloud was generated during a blast and breached the exclusion zone.

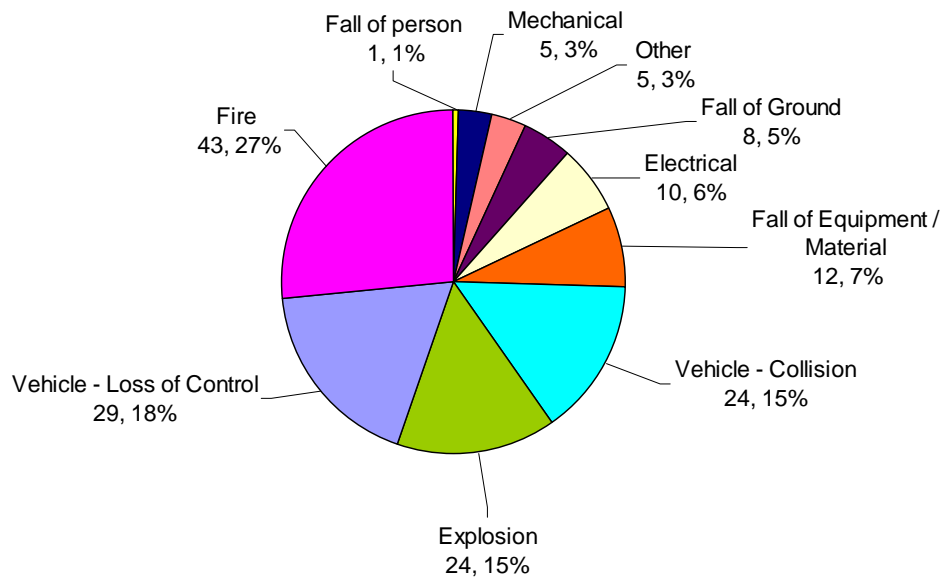


Figure 1: July 2011 Incidents (total 161) by Category

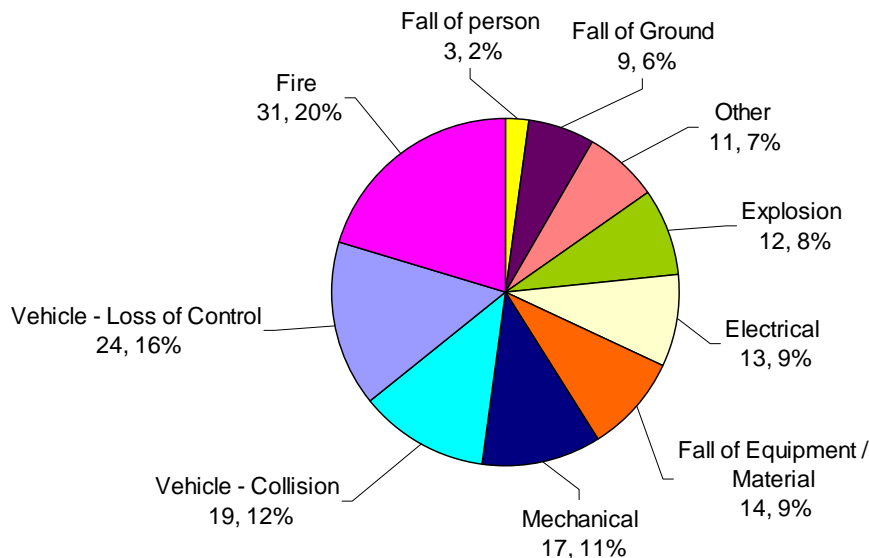


Figure 2: Twelve Month Rolling Average (154 incidents/month) by Category