

MDG 15 – Trucks and Loaders Open Cut Incidents

Incident Information	Agent of Fatality	Events	Recommendations
COAL OPEN-CUT INCIDENTS			
8/01/2008 United States Coal Open-Cut	Unintended operation of Equipment	Fatally injured while attempting to dump spoil. The truck travelled over the edge of the dump and rolled down the spoil slope 140 feet.	Maintain adequate berm heights, monitor work practices, ensure correct task training, conduct pre-op checks and use seat belts.
16/11/2007 United States Coal Open-Cut	Drowning	Driver was attempting to dump spoil when he reversed over a 70 foot high slope and down to the mine floor.	Ensure adequate berms and that safe work procedures are followed. Ensure work areas are illuminated at night and that Pre-op checks of equipment are performed.
2/07/2007 United States Coal Open-Cut	Other	Dozer operator was standing by his machine when foreman told him to move it for a highwall shot. He was then run over by the foreman on his way to the dozer.	Mine shall train all workers in regards to pick-up trucks and to use all available safety equipment within a truck.
28/11/2006 United States Coal Open-Cut	Unintended Operation of Equipment	Driver reported that the park brake was sticking and was then found at the base of hill crushed between the truck and a berm. Was either thrown from truck or got out and brakes released.	Strengthened policy about applying park brakes before exiting truck, ensure proper machine maintenance.
23/05/2006 United States Coal Open-Cut	Unintended Operation of Equipment	Miner driving a Mack water truck lost control descending a steep mine access road. Service brakes were not adequate, engine brake inoperable and worker not task trained.	Implement extensive driver training, implement procedures for regular maintenance of machines brakes and start pre-operational checks o trucks.
6/12/2005 United States Coal Open-Cut	Unintended Operation of Equipment	Driver lost control and slid over embankment while descending a grade into the mines lower pit.	Overhaul of maintenance staff and procedures, runaway truck safety procedures, seatbelt use policy and hazard recognition training.
8/11/2005 United States Coal Open-Cut	Unintended Operation of Equipment	Driver lost control and slid over embankment of mine haul road.	Maintain equipment in good working order, wear seatbelt and follow speed limits.
7/08/2005 Australia Queensland Coal Open-Cut	Uncontrolled Release of Energy	Person suffered fatal injuries when changing a dual tyre and rim assembly on a drive axle bogey of a road train prime mover.	Follow the standard for changing tyres, follow manufacturers' procedures and ensure safe maintenance conditions.
21/04/2005 United States Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Technician was standing in articulating section of front end loader repairing it with engine on, when it articulated and crushed him.	New written procedures to be adhered to when entering the articulating area of a loader.
1/10/2004 United States Coal Open-Cut	Fire	Abrasion of a hose caused oil to leak into the cabin of loader which ignited and the operator was unable to escape.	All equipment should be tested after purchase to ensure it is in working order, installation of fire suppression systems and initiate the shut down of faulty equipment.

4/04/2004 United States Coal Open-Cut	Other	Empty coal truck failed to negotiate a 90 degree turn and overturned killing driver without seatbelt.	Check equipment prior to operation for any defaults, check all guardrails for structural quality, ensure radios are used properly, ensure enough rest breaks for staff, and ensure road signs are marked properly.
10/02/2004 United States Coal Open-Cut	Drowning	The brakes failed on a truck and it ran down a steep grade, through a berm and into water at the bottom.	Initiate frequent checks of equipment to ensure it is operational, pre-operational and tag out lock out procedures for faulty equipment.
17/09/2003 United States Coal Open-Cut	Other	Van was run over by a rock truck due to a lack of communication between trucks	Mine should use standardized signals on site, monitor work habits to ensure compliance, conduct pre-operational inspections and make equipment highly visible.
9/09/2003 United States Coal Open-Cut	Other	Using trucks in muddy conditions to haul equipment, one of the hooks used to tow failed and swung back, striking one of the drivers in the head.	Hook was not attached to an anchored towing point, proper towing rope was not used and truck was too small to be towing equipment of that size.
26/06/2003 United States Coal Open-Cut	Other	Driver went straight past a dumping pit and then rolled down an embankment to pit floor.	Dumping practices and location reviewed and check up on staff when they are working.
23/06/2003 United States Coal Open-Cut	Other	Mechanic was operating on excavator when loader moved and he was crushed between loader holding it steady and excavator.	All raised equipment to be blocked against motion and train staff in blocking procedures.
9/04/2003 United States Coal Open-Cut	Other	Truck driver had inoperable brakes when he lost control and jumped from the cabin, only to be hit by one the tray of the truck.	Management to establish brake testing guidelines, ensure seatbelts are worn and perform pre-operational checks on equipment.
17/03/2003 United States Coal Open-Cut	Other	Truck driver had inoperable brakes when he lost control and jumped from the cabin, only to be hit by one of the tyres and killed.	Make sure workers are wearing seat belts, grade of hill was too steep for equipment being used, and truck differentials should all be locked before ascending this steep road.
28/12/2002 United States Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Victim was pinned between inside wall of truck bed and basket of hydraulic excavator while welding a steel plate into truck.	Increased safety and task training for staff present in the mine.
30/08/2002 United States Coal Open-Cut	Unintended Operation of Equipment	Driver in truck rolled down road and 700 feet over berm and down to mine floor.	Improvement of the berm in the area of the accident would have prevented the low speed crash.
10/07/2002 United States Coal Open-Cut	Other	Driver was attempting to free a locked axle, and while using a pry-bar to free this, the truck moved, crushing him.	Block motion to equipment before performing maintenance on it, initiate procedures for truck maintenance and give training on hazard recognition.

26/04/2002 United States Coal Open-Cut	Unintended Operation of Equipment	A mechanic/welder was fatally injured fuelling a bulldozer in pit of a surface coal mine. While fuelling bulldozer, victim's service truck began to roll away. Victim ran after truck and jumped on, however slipped off and was run over.	Don't leave mobile equipment unattended unless brakes are set. When mobile equipment is left unattended turn wheels into bank or block them. Emphasize proper methods of blocking wheels in task training. Perform tasks such as refuelling on level ground.
1/11/2001 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured when he was run over by a tractor. Victim returned from dumping a load and parked behind other trucks, near a tractor. Due to faulty air lines, trailer brakes weren't activated and truck rolled forward hitting tractor.	Perform pre-start safety inspections of your equipment. Follow safe operating procedures. Park brakes to be set before exiting equipment. De-energize equipment, set brake and be sure it is blocked against motion, before repair or maintenance work
3/10/2001 United States Coal Open-Cut	Unintended Operation of Equipment	A fuel truck driver was critically injured when he apparently lost control of the Mack DM600 fuel truck while descending down a 15% grade, and jumped from the vehicle. He died the following day from the injuries received in the accident.	Haul equipment be examined for safety defects before it is placed in service. Equipment operators should immediately report defects affecting safety to management. Preventive maintenance programs to be implemented for all haul equipment.
19/12/2000 United States Coal Open-Cut	Other	A truck driver was fatally injured preparing to dump his load along side another truck in process of dumping a load. Coal in other truck was frozen and wouldn't discharge when bed was raised. As trailer reached maximum height it fell, crushing the cab of truck.	Trucks dumping side by side should stay a distance of at least the height of trailer apart. Trucks dumping side by side to be positioned so that drivers can see each other. If possible, agents to be used to keep materials from freezing in bed of haul truck.
9/12/2000 United States Coal Open-Cut	Fall From Heights	A truck driver sustained fatal injuries after falling from a loaded coal truck. Victim had parked his loaded truck, climbed into the back and began throwing out some rock. The victim lost his balance and fell some 10ft to the ground.	Truck drivers should assure material is properly loaded into truck bed to eliminate need to manually distribute material in truck. When working in elevated work areas, always use a safety harness and line.
29/07/2000 United States Coal Open-Cut	Unintended Operation of Equipment	A haul truck operator was operating a coal truck when he lost control. The truck travelled through a berm on the haul road and down an embankment. The victim was ejected from cab as he wasn't wearing a seatbelt.	Perform pre-operational safety inspections of your equipment. Always wear seatbelts when operating vehicles. Haulage truck braking and steering systems must always be maintained in good repair and adjustment.

2/06/2000 United States Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A foreman was fatally injured when he was crushed beneath the rear wheels of a loaded coal truck that was backing toward raw coal bins. Victim was in process of moving a water hose which was used for dust control purposes, when coal truck backed over him.	Never cross path of a moving vehicle or turn back on a vehicle moving in your direction. Use radios to convey travel intentions. Never disable reverse alarms or assume driver has seen you through mirrors. Make contact with operator before approaching machine
24/05/2000 United States Coal Open-Cut	Fall of Roof/Sides/Highwall	A loader operator was fatally injured while operating a CAT loader. Victim was scraping up coal in pit adjacent to an operating highwall miner when a highwall collapsed. The loader was completely covered in material which crushed the operator's cabin.	An adequate on-shift examination should be conducted of all high wall conditions. The approved ground control plan should be followed at all times to ensure the safe control of all high walls.
18/05/2000 United States Coal Open-Cut	Fire	A loader operator was loading rock material above a coal seam in preparation for removal of coal. Loader bucket penetrated natural gas line. Loader became engulfed in flames resulting in serious burns to loader operator who died the next day.	No excavation work be done near gas transmission lines without knowing exactly where it is located. Examinations to be done determining location of gas lines near excavation work. Mine maps to be kept up-to-date to reflect any changes in gas lines.
8/05/2000 United States Coal Open-Cut	Unintended Operation of Equipment	A surface shovel operator was fatally injured while dumping a load from a haul truck. Victim backed truck to dump site at an angle and was ejected from truck as it rolled over edge and travelled 500ft to bottom of valley fill site.	Adequate berms to be constructed and maintained at all elevated dump sites. When backing up at dump sites all truck drivers to be instructed to maintain truck perpendicular to edge of dump site. All mobile equipment operators should wear seatbelts
14/02/2000 United States Coal Open-Cut	Other	A preparation plant operator was fatally injured when he was hit and scooped up by a loader, which then dumped its load into a hopper. The victim had previously been speaking to loader operator about maintenance and then walked into path of loader.	Reflective clothing to be worn when travelling on foot in areas where reduced lighting could affect personal safety. No person should walk or travel in areas where equipment is being operated without equipment operators being aware of their presence.
30/12/1999 United States Coal Open-Cut	Unintended Operation of Equipment	A welding contractor was fatally injured when truck he was driving left mine haul road. Victim was leaving workshop area after conducting maintenance and failed to negotiate a bend in road. Truck skidded over berm and fell 160ft to bottom of highwall.	Persons need to be properly trained concerning working conditions which surround them, including roadways. Vehicles be operated at safe speeds at all times. Vehicles be regularly inspected and maintained. Defects to be corrected prior to operating vehicle.

28/06/1999 United States Coal Open-Cut	Unintended Operation of Equipment	A coal truck driver was fatally injured when he apparently lost control of a loaded coal truck while travelling down a haul road. The victim was either thrown or jumped from the truck and received fatal injuries upon hitting the ground.	Ensure that adequate brakes are provided and maintained. Preventive maintenance to be performed more frequently when trucks operate on steep grades. Always operate trucks at speeds consistent with conditions. Use a lower gear on steep grades.
29/03/1999 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was operating a truck when it failed to negotiate a bend in the haul road. Truck travelled through berms, overturned twice and came to rest 150ft down the hill. Driver was fatally injured when he either jumped or was thrown from the truck.	Perform pre-operational safety inspections. Maintain control of vehicle at all times. Always operate trucks at speeds consistent with grades and road conditions. Always wear seatbelts when operating vehicles.
20/01/1999 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured dumping a load of rock at a spoil dump, when berm and spoil collapsed, causing truck to plunge down a steep bank to bottom of pit. Truck fell about 670ft down slope with 350ft of vertical drop.	Dumping locations be examined periodically. Employees to be trained to recognize hazardous conditions at dump sites. Adequate berms to be provided at dump locations. Trucks should back perpendicular to berm and not run up on berm when dumping.
1/09/1998 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured when he was thrown from his truck. The driver failed to negotiate a sharp curve in haul road and travelled over a berm into a ditch.	Control of vehicle to be maintained at all times. Always operate haul trucks at speeds consistent with road conditions. Always wear seatbelts when operating haul trucks. In event of a run away vehicle, best chance of survival is to stay in vehicle.
19/08/1998 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was operating truck hauling coal to preparation plant. As victim drove down a grade, loaded truck ran up onto berm and overturned. The driver was either thrown from or jumped from the truck, and was crushed beneath it.	Make truck examinations and maintenance a high priority. Ensure adequate brakes are provided and properly maintained. Maintain loads within safe hauling capacity of truck. Truck drivers should wear seat belts and remain in cab when a crash is imminent.
7/08/1998 Australia New South Wales Coal Open-Cut	Other	The incident involved a collision between a Toyota 4WD utility and a partly closed boom gate. Gate erected to swing towards oncoming traffic, gate latch not locked secure, high wind, gate sag, rain leading up to accident.	

2/07/1998 United States Coal Open-Cut	Other	A mine foreman contacted a haul truck driver telling him he would relieve him of duties while driver ate lunch. Foreman arrived and they swapped vehicles. Foreman sounded horn signal and moved at same time as pick up driving over cabin crushing truck driver	Never park in the blind spot of mobile equipment. Always ensure that persons and other equipment are in the clear before moving equipment.
15/10/1997 United States Coal Open-Cut	Uncontrolled Release of Energy	An electrician was transporting a new swing motor to a dragline on a flatbed truck. The load was secured by a chain. While descending into the pit the chain broke and the load slid forward and crushed truck cabin with electrician in it.	Only use suitable equipment for tasks.
19/09/1997 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver operating a haul truck was travelling to a preparation plant dump site. Truck began accelerating and crashed through dump site barrier falling 65ft to raw coal drop-off. Victim was fatally injured when he was ejected from truck during.	
19/08/1997 United States Coal Open-Cut	Unintended Operation of Equipment	A windrow of gravel had been placed in middle of a haul road in preparation to re-surface road. Later that day a van with 4 miners were travelling on road when it struck end of windrow and overturned. A miner thrown from vehicle suffered fatal injuries.	Any variations or changes to work place, roadway or mining area to be identified and all employees given notice of. Warning signs and reflectors to be evident when road works in place.
31/07/1997 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured while hauling refuse to an open pit dump area at night. Dump area wasn't protected by an adequate berm. Truck backed over top of dump, rolled over and continued down the slope. Truck driver was thrown from truck.	
5/05/1997 Australia Queensland Coal Open-Cut	Unintended Operation of Equipment	Fatally injured by crush injuries in the cabin of a Toyota Land Cruiser after Land Cruiser was run over by a Water truck.	
2/04/1997 United States Coal Open-Cut	Unintended Operation of Equipment	After completing work on a mine telephone line a telephone company cable splicing technician attempted to leave mine when his service truck overturned. There were no witnesses to accident but technician was thrown from truck and received fatal injuries.	
29/10/1996 United States Coal Open-Cut	Other	A mechanic was fatally injured when the haul truck he was driving crashed and overturned. Mechanic was returning from dumping a load at dump when he passed under a conveyor structure with the back up. Victim was thrown through windscreen.	Seat belts should be worn at all time when operating mobile plant.

5/05/1996 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was hauling overburden from pit to a backfill location. When truck driver backed truck to edge of backfill site, truck continued over edge, and rolled into abandoned pit below. Truck driver was thrown from truck and received fatal injuries.	
23/01/1996 United States Coal Open-Cut	Other	A welder was fatally injured repairing a metal pump float barge with 2 co-workers. One of workers had cut a section of barge as another attempted to lift it with a loader. On lifting, the section shifted crushing victim between barge and support decking.	
12/09/1995 United States Coal Open-Cut	Other	A miner was fatally injured in a collision with a haul truck. He was leaving mine at end day in pickup truck. Haul truck was entering pit when he noticed pickup loose control. Haul truck went left thinking miner would go right however hit.	Adequate signage must be displayed on roadways to inform drivers about conditions.
2/09/1995 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured. When he was descending a steep section of haulage road in a loaded truck. Truck crossed centre of roadway and struck a series of steel poles installed as a barrier on roadway. Truck overturned fatally injuring driver.	
27/07/1995 United States Coal Open-Cut	Fall of Roof/Sides/Highwall	Whilst removing tie down straps from a load of pipes on a truck the truck driver was fatally injured. On removing tie downs the top bundle of pipes' steel bands broke and after being under tension shot over driver, allowing second bundle to fall on driver	
11/05/1995 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured when he was thrown from his truck after it had been driven over a berm on a haulage road. Loaded truck went straight down a 40 degree slope, hit a tree and rolled several times before coming to a stop 620ft below road.	
12/04/1995 United States Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A dozer operator was fatally injured when he had parked his machine and walked across an access road to his personal vehicle. Large mining vehicles were also using road en-route to equipment parking area. One of mining vehicles then struck the bulldozer operator.	All personnel access areas or roadway crossings should be illuminated.

28/03/1995 United States Coal Open-Cut	Fall of Roof/Sides/Highwall	A loader operator was fatally injured when he was engulfed by sliding dirt from highwall. The operator had positioned machine 20 ft from highwall. The machine operator was standing between machine and highwall when fall occurred.	All employees should be inducted and regularly trained for safety aspects and hazard management for their work place. Procedures should be set in place for mining at highwall to prevent undercutting.
14/03/1995 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured when the truck he was driving up an ascending 10 percent grade rolled backwards and turned over. The truck was loaded with rock. The driver was attempting to exit the truck when it rolled over pinning him.	
13/03/1995 United States Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured when truck he was driving went over edge of spoil pile down a 200 ft bank. Truck was carrying wet material and on 8th run was dumping in a new location. Dozer operator had advised trucks to dump short due to a soft patch	A berm or similar means should be provided to prevent overtravel at dump area. An adequate inspection should be carried out on equipment before going into service and also during service to be sure that everything is working correctly.
31/12/1993 Australia Queensland Coal Open-Cut	Uncontrolled Release of Energy	Two men were fatally injured when an unmanned Caterpillar water truck collided with a service truck pushing it sideways into a Caterpillar End Loader. The two men were in the space between the service truck and the end loader when the incident occurred.	
2/03/1992 Australia New South Wales Coal Open-Cut	Unintended Operation of Equipment	A contract coal truck driver was fatally injured when crushed between an out of control RFW service truck and the rear of a parked coal truck. Control of the RFW truck had been lost as it descended a service ramp to a coaling area.	
29/09/1991 New Zealand Coal Open-Cut	Drowning	Drowned when the loader he was driving rolled over in a pool of mud and water trapped him in the car which submerged under the water and mud	
3/07/1990 New Zealand Coal Open-Cut	Other	Killed while assisting to unload a consignment of assorted steel plates, girders and large pipes and fittings from a concrete truck and trailer unit	
1987 Australia New South Wales Coal Open-Cut	Drowning	Driver was drowned when he reversed dump truck over a bank and into a slurry pond.	

19/11/1986 Australia Queensland Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when his rear dump truck rolled over the edge of a dumping site.	
19/11/1986 Australia New South Wales Coal Open-Cut	Other	Truck rolled backwards and capsized into a tailings dump.	
2/10/1985 Australia Queensland Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when his truck accidentally collided with a parked rear dump truck.	
1985 Australia New South Wales Coal Open-Cut	Other	While driving a vehicle and workman was run over by a 170 tonne rear dump truck. He was in contravention to the transport rules.	
7/03/1984 Australia Queensland Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when a Caterpillar 777 Rear Dump Truck plunged over a bank and fell approximately 21 metres to the floor of the open cut.	
1/05/1977 Australia Queensland Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when the 834 Caterpillar he was driving fell over an embankment which collapsed whilst coal was being levelled.	
1/11/1976 Australia Queensland Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when the water truck he was driving ran out of control down a ramp, plunged into a pit and onto the bucket of a loader.	
1976 United Kingdom Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Was killed while carrying out repairs on a cutter loader when a timber prop used to support the boom fell out and he was crushed when the boom collapsed.	
21/11/1975 Australia Queensland Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when the End Loader he was driving overturned into a pit.	
7/05/1975 Australia Queensland Coal Open-Cut	Other	Fatally injured when his Land Cruiser came into contact with a Coal Hauler causing the Coal Hauler to pass over the Land Cruiser.	
1975 Australia New South Wales Coal Open-Cut	Other	Attempted to drive his machine from a low end loader transport vehicle. It was raining and the machine slipped off the tray and overturned.	
15/02/1972 Australia Queensland Coal Open-Cut	Drowning	Fatally injured by drowning when the haul unit he was driving ran off the main haul road and over turned in roadside pond.	

1972 Australia New South Wales Coal Open-Cut	Unintended operation of Equipment	Crushed by a small front-end loader he was driving when he stopped the machine on an incline. It ran back, hit a ditch and overturned. It had been poorly maintained.	
6/12/1971 New Zealand Coal Open-Cut	Unintended operation of Equipment	Fatally injured when his machine collided with another on a haul road	
4/11/1971 Australia Queensland Coal Open-Cut	Other	Two men were fatally injured when crushed by a runaway Diesel "Autocar" vehicle.	
1971 Australia New South Wales Coal Open-Cut	Unintended operation of Equipment	Machine overturned at the bottom of a hill on a colliery access road. Excess speed was the cause.	
1968 Australia New South Wales Coal Open-Cut	Other	Run over by a reversing coal truck when assisting the driver of one truck and stepped back into the path of another.	
1964 Australia New South Wales Coal Open-Cut	Unintended operation of Equipment	A coal laden motor lorry left the roadway and plunged down a steep embankment	
1962 Australia Queensland Coal Open-Cut	Other	Fatally injured when he was accidentally run over by the rear wheels of an empty Euclid motor truck that was reversing to be loaded by a mechanical shovel.	
NON COAL OPEN-CUT MINES			
26/01/2008 United States Non-Coal Open-Cut	Other	Parked a haul truck at the intersection of the loading area and left. Another miner got in and moved the truck, striking the victim as he returned.	Train miners in hazard recognition, before moving equipment ensure direction of intended path is clear
21/01/2008 United States Non-Coal Open-Cut	Fall from Heights	Found on the ground behind the rear tyres of a bulk cement truck, after opening the hatch at the top of the truck and falling off.	SLAM before performing tasks, looks at hazards of working at heights, wear fall protection.
11/10/2007 United States Non-Coal Open-Cut	Fall from Heights	Driver was found lying at base of trucks access ladder with windscreen washer fluid at his side, consistent with a fall.	
7/09/2007 United States Non-Coal Open-Cut	Unintended Operation of Equipment	While operating truck loader, victim travelled over an embankment and landed 125 feet below.	
24/07/2007 United States Non-Coal Open-Cut	Drowning	Victim was driving a haul truck that struck a guard rail and landed in the river below.	

18/07/2007 United States Non-Coal Open-Cut	Drowning	Victim operating front end loader when sandy bank sloughed off and submerged the loader.	
25/04/2007 United States Non-Coal Open-Cut	Other	Driver was operating truck that veered of roadway and over a highwall. Victim was not wearing seatbelt and was ejected.	Always wear seatbelts and ensure that pre-op inspections are performed.
5/04/2007 United States Non-Coal Open-Cut	Other	While replacing tyres on a wheel loader the two supporting hydraulic jacks failed and he was crushed under the loader.	Ensure there are safe policies for repairing equipment and do not perform until the hazardous motion is blocked.
2/02/2007 United States Non-Coal Open-Cut	Other	Fatally injured when the left axle of a haul truck he was repairing fell on him. The truck was not blocked against motion and was left also on a slight grade to roll backwards.	
27/10/2006 Australia Queensland Non-Coal Open-Cut	Unintended operation of Equipment	Fatally injured when loader toppled on and crushed him.	
29/08/2006 United States Non-Coal Open-Cut	Unintended operation of Equipment	Contract paving supervisor was fatally injured while walking from main shop to the plant. He was struck by a loaded front end loader which had an obstructed view of roadway.	Risk assessments of safe working procedures and clear traffic control procedures. Use of safety barriers to protect employees at work.
27/07/2006 Australia Queensland Non-Coal Open-Cut	Other	Fatally injured when run over by a truck and a loader.	
15/07/2006 United States Non-Coal Open-Cut	Drowning	Truck driver was fatally injured when his truck operating in the mine extraction area backed into a water filled pit.	Properly conducted risk assessments and persons trained in hazard recognition and correct operating procedures.
12/06/2006 United States Non-Coal Open-Cut	Other	Operator was fatally injured while trying to repair a hydraulic line on a front end loader without any training or chocks to keep the boom up. It fell and crushed him against the frame.	Risk assessment for safe maintenance practices and following correct operating procedures. Also receive training to perform maintenance.
11/04/2006 United States Non-Coal Open-Cut	Other	Production worker was killed when a skid steer loader backed over him. He was tightening field fence wire with pliers securing stone to a pallet.	Place pallets away from roadside for miners to work on them. Risk assessment conduction before hazardous tasks.
14/02/2006 Australia Western Australia Non-Coal Open-Cut	Other	Driller was driving to pick up drill rods when he collided with a car which had rods overhanging their back tray which pierced the car and gave him head injuries.	
5/01/2006 United States Non-Coal Open-Cut	Other	A mechanic suffered fatal injuries when a front end loader which was not jacked up securely, rolled and fell on the mechanic, pinning him and causing blunt force trauma	Follow correct procedures to block front end loader and Look and analyse hazardous tasks

4/11/2005 United States Non-Coal Open-Cut	Unintended operation of Equipment	Labourer was being taught to operate a haul truck when he lost control backing down a grade and travelled back through a berm and fell to 21 feet below.	Provide adequate theory training and training at off-site facility before attempting to train new staff at mine.
13/09/2005 United States Non-Coal Open-Cut	Other	Truck driver was fatally injured when his truck overturned due to a portion of the dump site failing during attempted dump.	Policy to ensure equipment used for dumps is a safe distance from the edge, ensure dumping locations are visually inspected for safety regularly and a seatbelt policy checked.
27/08/2005 United States Non-Coal Open-Cut	Fall of Roof/Sides/Highwall	While moving material from top to bottom of highwall by dumping it over, material is dumped on top of another loader from above, fatally injuring driver.	Create barricades to areas where material is being dumped and train employees to Look and analyse.
13/08/2005 United States Non-Coal Open-Cut	Drowning	Haulage truck the driver was operating travelled over a berm and entered a water filled pit, in which the driver drowned.	Policy regarding safe operation according to user manual, institute a seatbelt policy.
30/07/2005 United States Non-Coal Open-Cut	Unintended operation of Equipment	Operator was fatally injured when his truck left haul road and drove onto the berm. It overturned and ejected the driver from the car, who was not wearing a seatbelt.	Institute policy about substance abuse at work and strengthen mandatory seatbelt policy.
1/07/2005 Australia Western Australia Non-Coal Open-Cut	Other	Earthmoving contractor was killed when directing a truck to start a broken down truck for a jump start, when he was crushed.	Installation of a mobile unit to jump start equipment with flat batteries.
14/06/2005 Australia New South Wales Non-Coal Open-Cut	Unintended operation of Equipment	A truck failed to negotiate a left hand turn descending the mines haul road and veered off, smashed through concrete blocks and proceeded down the embankment 20m below. The driver's body was found part way up the embankment.	Pre-operational checks to be carried out, only trained workers to use equipment, risk assessments to be performed, seat belts to be worn.
11/06/2005 Australia Western Australia Non-Coal Open-Cut	Other	Driver was fatally injured when his road train collided with another road train while transporting iron ore from satellite mines to the processing plant.	
9/06/2005 United States Non-Coal Open-Cut	Unintended operation of Equipment	Operator was fatally injured when the pan scraper he was operating overturned and pinned him under the cab.	Maintenance of berms on stockpiles, implementation of set belt policy, pre-operation inspection of all machinery.
23/05/2005 United States Non-Coal Open-Cut	Unintended operation of Equipment	Labourer fatally injured when struck by a steel plate he was loading into a flatbed truck. He was using a front end loader with a chain hook to lift and guide the plate.	Conduct a risk assessment before commencing lifts and run a tag line to control the plate movement from a safe distance.
4/04/2005 United States Non-Coal Open-Cut	Unintended operation of Equipment	Operator was fatally injured when he lost control of his skid steer loader and overturned on soft ground and was ejected from the cabin while not wearing a seatbelt.	Provide training to employees before they use equipment and ensure workers wear seat belts while operating equipment.

6/12/2004 United States Non-Coal Open-Cut	Asphyxiation	Victim was trapped in a front end loader when the highwall collapsed, engulfing the loader and trapping him.	Do not preform actions which will decrease the stability of the highwall and ensure miners safety at foot of highwall.
22/10/2004 Australia Queensland Non-Coal Open-Cut	Other	Fatally injured when she was struck by a front-end loader	
12/10/2004 United States Non-Coal Open-Cut	Unintended Operation of equipment	Truck went through a berm, down a 21 foot embankment and overturned.	Procedure to repair brake components and identify other defects on equipment.
24/07/2004 United States Non-Coal Open-Cut	Other	The lift assembly of the loader the victim was operating pinned him against the cab of the machine while lifting bucket to replace fallen pin.	Train operators in equipment repair procedures, train operators to follow operator manual procedures.
29/06/2004 United States Non-Coal Open-Cut	Unintended Operation of equipment	Truck travelled over a berm and plunged to haul road 72 feet below.	Removal of equipment which has not been functioning correctly, ensure equipment is inspected before and during shifts.
31/05/2004 United States Non-Coal Open-Cut	Pressure Vessel Explosion	Truck driver was sprayed by diesel when a hose disconnected from a quick connect fitting.	Ensure safe procedures for off loading of fuel to the tanker truck, PPE for fuel loaders, install safety shut-off valves and implement standard inspections.
10/05/2004 Canada Non-Coal Open-Cut	Other	Tree fell across the road, striking the cabin of a dump truck, fatally injuring the driver.	
16/04/2004 United States Non-Coal Open-Cut	Fall from Heights	Driver fell from the top of a bulk tank trailer. Victim was standing on truck surrounded by four rail safety cage which was attached to powered gangway. Gangway was stuck and when released suddenly, caused victim to fall.	Install signage to allow drivers to accurately align truck and gangway and proper hazard recognition training for drivers.
1/03/2004 Australia South Australia Non-Coal Open-Cut	Unintended operation of Equipment	The deceased were driving a 60 tonne Komatsu ore truck (routinely crush-and-haul process from the quarry face up to the crusher) when the vehicle veered across the quarry access road and over the edge of the quarry. The truck rolled approximately 35 metres and came to rest on the quarry wall.	
9/02/2004 Australia Queensland Non-Coal Open-Cut	Tyre Explosion	Fatally injured when trying to remove a deflated outer tyre when the inner tyre exploded, projecting the outer assembly 13m.	

20/12/2003 United States Non-Coal Open-Cut	Unintended operation of Equipment	A truck driver was fatally injured at a sand and gravel operation. Victim dumped a load of material and pulled forward about 20ft with truck bed still raised. He climbed onto truck frame and was caught between frame and bed when bed unexpectedly lowered.	Follow safe work procedures. Isolate equipment before performing work. Train all personnel in safe work procedures before beginning work and use the proper tools and equipment for the job.
30/10/2003 United States Non-Coal Open-Cut	Other	A equipment operator was fatally injured at a surface stone operation. Victim was following a front-end loader in his personal pickup truck on a single lane mine road. The front-end loader stopped and backed over the pickup, fatally injuring the driver.	Check mirrors prior to moving mobile equipment. Ensure persons are clear before moving equipment. Sound horn to warn persons you are about to move. Obtain visual and or verbal contact with equipment operators prior to approaching equipment.
29/09/2003 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A dredge operator was fatally injured at a surface sand and gravel mine. Victim exited a control booth, located adjacent to a dump hopper and walked down a ramp. At same time, a loader operator dumped a load at hopper, backed down ramp and struck victim.	Ensure foot traffic is restricted in areas where mobile equipment travels. Ensure, by signal or other means, all persons are clear before moving equipment. Gain verbal and visual contact with equipment operator before approaching equipment.
6/05/2003 Australia Western Australia Non-Coal Open-Cut	Unintended Operation of Equipment	Information is limited at present; however it appears that the operator suffered crush injuries when the cab of the truck he was driving was crushed by the rear of the tray of another truck which rolled backwards down a ramp at the bottom of the pit.	
21/04/2003 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A weigh master was fatally injured at a surface stone operation. Weigh master was in a scale house when a pickup truck was driven into the building. Reportedly, the driver of vehicle suffered a blackout at the time of accident due to a medical condition.	Ensure operators maintain control of equipment at all times. Ensure all equipment operators are fit for work. When taking medications, follow the physician's/pharmacist's instructions before operating any self-propelled mobile equipment.
16/03/2003 Australia Western Australia Non-Coal Open-Cut	Other	A caretaker found dead near a surface workshop had been dead for some time. Initial thoughts were of homicide but it appears the death was due to being struck by wheel or tyre parts during inflation some distance away from where he was found.	
13/12/2002 Australia Queensland Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Fatally injured when he became caught in the articulation point, between the cab and the front mudguard of an Elphinstone 2900 loader.	

21/10/2002 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A equipment operator was fatally injured at a sand and gravel operation. Victim was operating a loader feeding a power screen plant when he backed one of the wheels over a drop-off. Loader, which wasn't provided with a ROPS rolled over crushing victim.	Ensure that berms are provided on elevated edges of roadways where a drop-off exists. Ensure adequate pre-operational checks are conducted on all self-propelled mobile equipment and defects are promptly corrected.
21/10/2002 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured at a sand and gravel operation. Victim was hauling overburden and dumping it into an old, water filled pit. The truck was backing toward dump berm when the ground sloughed off, causing the truck to slide into the water.	Ensure dump locations are visually inspected prior to dumping first load and as ground conditions warrant. When signs of instability are present, ensure material is dumped a safe distance from the edge.
14/10/2002 United States Non-Coal Open-Cut	Fall of Roof/Sides/Highwall	A loader operator, with 3 months mining experience was fatally injured at a sand and gravel operation. The victim parked his loader near the toe of a 33 foot highwall and left the operator's cab when material sloughed off the highwall and buried him.	Train all employees in hazard recognition and ensure they follow safety requirements. Ensure loose ground and overhanging material is removed. Adopt mining methods that will maintain wall, bank or slope stability in all work areas.
12/10/2002 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	An operation co-owner was fatally injured while she was assisting in the setting up of a weighing facility. A loader operator was filling in dirt around the scales when the victim inadvertently walked into the path of the loader as it was backing.	Establish procedures that prohibit entering the work area of mobile equipment unless the operator is aware of your presence. Ensure that you make eye contact with mobile equipment operators before approaching their work areas.
13/09/2002 Australia Western Australia Non-Coal Open-Cut	Drowning	A truck driver was fatally injured when there was a collapse of a main ramp accessing the lower section of the pit. The truck fell and rolled down the rill slope some 60 meters coming to rest submerged in a sump at bottom of slope, about 15m deep.	
10/09/2002 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A equipment operator was fatally injured when his truck lost control after a rear brake line ruptured. Victim was approaching dump area when brakes failed and veered several hundred ft, hitting a tree. Victim, not wearing a seatbelt was found near tree.	Ensure inspections are carried out and defects addresses prior to operation. Regular inspections and maintenance be carried out on equipment. Ensure brakes will stop and hold equipment prior to operating equipment. Seat belts to be worn by operators.

20/08/2002 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A truck driver was fatally injured when he was hit by a haul truck. After positioning his truck to receive his load he exited his truck to talk to lead man when another truck positioned itself, hitting the victim.	Establish procedures to protect personnel from moving equipment. Ensure that equipment operators proceed cautiously when entering areas with tight clearance or personnel present. Maintain communication between equipment operators and their co-workers.
24/04/2002 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A mechanic was fatally injured conducting a performance test on parking brake. He drove loader up a 16% ramp when it stopped, rolled backwards and struck edge of a waste pile. Loader rolled and victim, who wasn't wearing a seat belt, was thrown out of cab	Inspections should be completed on brakes prior to operation. Brake holding tests only to be conducted where vehicle can be controlled. Equipment operators wear seatbelts whenever in motion. Self-propelled mobile equipment to be provided with service brakes.
29/03/2002 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A truck driver was fatally injured at a sand and gravel operation. Victim was struck by the bed of a haul truck when it lowered unexpectedly. He had been standing at the rear of cab, reaching across the frame trying to free one of hoist control cables.	Persons shouldn't work under raised components of equipment until component has been isolated. Formal procedures that address possible hazards be implemented for all maintenance tasks. Manufacturer's service guides be obtained, referenced and followed.
20/03/2002 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	Victim was driving a 50 tonne dump truck when it stalled and ran back down a steep road incline and over a back. The victim died as a result of injuries received.	
24/01/2002 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A labourer with 20 years mining experience was fatally injured at a crushed stone operation. The victim exited a building during a heavy rain and was crossing a plant roadway when he was apparently struck by the bucket edge of a front-end loader.	External light should be used when operating mobile equipment in inclement weather. Signs or signals warning of pedestrians to be installed where foot traffic exists. Operating speeds to be consistent with conditions. Operators keep attachments close to ground.
12/01/2002 United States Non-Coal Open-Cut	Unintended Operation of Equipment	An equipment operator was fatally injured at a surface pebble stone mine. Victim was standing by a truck when he was struck from behind by a run-a-way loader. Loader operator lost control of the equipment after the engine stalled while descending a grade.	Self propelled mobile equipment to be provided with brakes capable of stopping equipment. Programs to be implemented to identify and repair defects. Pre-shift inspections to be conducted prior to operation. Backup alarms to be audible.

9/01/2002 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A labourer was fatally injured at a surface dimension stone mine. The victim was descending a grade in a front-end loader and exited the machine after losing control. The loader continued down the grade and ran over the victim.	Self propelled mobile equipment to be provided with brakes capable of stopping equipment. Seat belts be provided and worn when operating mobile equipment. Programs to be implemented to identify and repair defects. Roadways to be maintained.
17/12/2001 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A maintenance mechanic was fatally injured at a surface crushed stone operation. After parking a service truck, the victim walked between the truck and a generator trailer. The truck rolled forward and pinned the victim against the trailer.	Mobile equipment should not be left unattended unless the controls are placed in the park position and the brake is set. When parked on a grade, the wheels of mobile equipment should be either chocked or turned into a bank.
4/10/2001 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A 39-year-old service truck driver, with 8-weeks mining experience was fatally injured at a sand and gravel mine when he struck an embankment after losing control of his truck while descending a grade.	Operators should ensure braking systems are operational. Manufacturers load limits not to be exceeded. Equipment to be operated in lower gears conducive to safe travel on steep grades. Seat belts be provided and worn whenever operating mobile equipment.
3/10/2001 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A 53-year-old truck driver with 31 years experience was fatally injured at a copper mine when he struck an embankment after losing control of his truck while descending a steep grade.	Operators should ensure braking systems are operational. Manufacturers load limits not to be exceeded. Signs warning equipment operators of road hazards be posted at approaches. Equipment be operated in lower gears conducive to safe travel on steep grades
5/09/2001 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	A Komatsu Dump truck (150 Tonnes) ran over a utility travelling in the opposite direction crushing the driver of the utility.	
30/08/2001 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	Driving a Terex dump truck depositing spoil over a bank. Backed up too close to the edge and the truck rolled down 19 meters. Driver thrown out in impact, not wearing a seat belt	
4/07/2001 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured at a mica quarry. Victim was driving a loaded 30T articulated haul truck down an 8% grade and exited truck after losing control. Truck continued down grade and ran over victim before coming to a stop against a berm.	Operators of self-propelled mobile equipment should maintain control of their equipment. Equipment operators should remain in cab until vehicle comes to a complete stop. Equipment operators should wear seatbelts whenever vehicle is in motion.

5/05/2001 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A mechanic was fatally injured performing maintenance on a front wheel of a loader. He was moving hydraulics to access wheel by extending boom to full. He then disconnected the hydraulic line allowing boom to fall and pin him against ground.	Maintenance should not be performed unless the power is off and the machinery components are blocked against motion. Manufacturers' service guidelines should be consulted and followed.
16/04/2001 United States Non-Coal Open-Cut	Fall From Heights	A truck driver was fatally injured at a limestone operation. The victim was standing on the rear tires of his loaded trailer installing a tarp, when he slipped and fell 41 inches to the roadway. He died of his injuries several days later.	Safe locations and procedures should be provided for persons who must tarp cargo boxes.
27/02/2001 Australia New South Wales Non-Coal Open-Cut	Unintended Operation of Equipment	Two operators decided to wash a loader, one drove and the deceased walked. Operator of machine stopped momentarily and deceased climbed aboard when machine again moved. The operator then observed deceased, who had fallen from machine and gone under wheel.	Implement safe work procedures for people approaching mobile equipment. Mobile equipment shouldn't be operated in vicinity of pedestrians.
16/02/2001 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A mechanic was fatally injured by falling panels when a truck crashed into a workshop. While working on transmission of a haul truck that had body raised, engine running, and wheels chocked, truck lunged forward and crashed through workshop door.	Mobile equipment should not be left unattended unless the parking brake is set. Manufacturer's guidelines for repair should be consulted and followed.
8/11/2000 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A 27-year-old truck driver with 11 weeks mining experience was fatally injured at a limestone mine. The haul truck stalled while ascending a ramp, rolled back, travelled through a berm and fell approximately 25 feet to the quarry floor.	Equipment to be inspected for defects affecting safety prior to operation. Service and park brakes to be able to stop equipment with a typical load. All braking systems on equipment to be maintained regularly. Seatbelts be worn by mobile equipment operators.
6/11/2000 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A truck owner/operator was struck by another truck after he had gotten out of his vehicle to assess his load of material. Another truck driver was positioning his vehicle to be loaded when he backed over Smith. Smith later died from his injuries.	
31/10/2000 United States Non-Coal Open-Cut	Other	A truck driver was fatally injured attempting to shift material in his frameless trailer by raising the bed of a truck. When trailer began to tip victim was at rear of trailer and attempted to return to cab when truck and trailer overturned crushing him.	Operators should remain in their trucks whenever cargo box is elevated to dump. Truck cargo boxes not to be elevated to dump with a locked tailgate. Personnel should stay clear of trucks when cargo boxes are elevated to the dump position.

21/07/2000 United States Non-Coal Open-Cut	Gas Ignition Explosion	A 23-year-old front-end loader operator with 19 weeks mining experience was fatally injured at a sand and gravel operation. The loader bucket struck and ruptured a buried 16-inch natural gas line, causing a gas explosion.	Work place environments to be examined for conditions that may adversely affect safety and health of employees. Job safety analysis to be done prior to commencement of work. Warning signs or barricades to be installed in areas where health or safety hazards exist.
30/06/2000 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A loader operator was fatally injured at a sand and gravel operation. Victim had parked his loader and walked to where a backhoe was positioned. When the backhoe operator engaged the swing pedal, it stuck, causing the boom to swing and strike the victim.	Management should establish procedures to restrict foot traffic in areas occupied by mobile equipment. Equipment operators shouldn't operate mobile equipment until personnel are clear. Equipment defects affecting safety be fixed prior to operation.
19/06/2000 United States Non-Coal Open-Cut	Other	A 29-year-old commercial truck driver with no mining experience was fatally injured at a sand and gravel operation. The victim had just turned off the state highway and was struck by a train as he drove his truck onto mine property.	Mobile equipment operators should always stop before entering rail crossings. Mobile equipment should always yield to rail traffic.
14/06/2000 United States Non-Coal Open-Cut	Other	A dozer operator was fatally injured at a milling operation. Victim parked his dozer near stockpile and dismounted. A 25-ton articulated haul truck was in the process of pulling away from the stockpile after dumping his load when he struck the victim.	Procedures should be developed for foot traffic in areas occupied by mobile equipment. Equipment operators should sound a warning prior to moving. Personnel should establish eye contact with operators of mobile equipment before approaching equipment.
26/05/2000 Australia Western Australia Non-Coal Open-Cut	Unintended Operation of Equipment	The deceased was operating a dump truck on a ROM ore stockpile. He reversed his vehicle to the dump point and truck fell over the edge. It is suggested that the point where the incident happened was above an area where ore had previously been loaded.	
1/05/2000 United States Non-Coal Open-Cut	Drowning	A truck driver was fatally injured at a crushed stone operation. Several hours after the end of his shift the truck was found submerged up to operator's cab in 7ft of water in a non-working area of the quarry. The victim was subsequently recovered from the water.	Management should periodically check on the status of all employees.

25/04/2000 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A plant supervisor was fatally injured attempting to source an oil leak on a loader. On closing engine cover, operator returned to cab. Without informing operator, victim obtained a torch and crawled under loader. Loader was moved running over victim.	When working near large equipment, persons should make eye contact and communicate their intentions directly to the equipment operator. Wheels should be chocked before persons position themselves underneath mobile equipment.
10/01/2000 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured greasing fittings while working from the elevated bucket of a front-end loader. The loader operator accidentally bumped the tilt control, causing the victim to be squeezed between the bucket and the machinery.	Persons should not work from mobile equipment in a raised position until it has been blocked to prevent it from rolling and the raised component secured to prevent movement. Persons should not be transported in buckets of mobile equipment.
11/11/1999 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A haul truck operator was fatally injured when he was run over by his truck. Truck was on a slight grade and victim hadn't set park brake. Truck's engine was running and transmission was in neutral. Vehicle had chock blocks but they were not used.	Mobile equipment not to be left unattended unless controls are placed in park position and the parking brake, if provided is used. When parked on a grade, the wheels or tracks of mobile equipment shall be either chocked or turned into a bank or rib.
30/10/1999 United States Non-Coal Open-Cut	Tyre Explosion	A 50-year-old mechanic, with 6 months mining experience, was fatally injured at a sand and gravel operation. The victim was mounting a wheel on the front axle of a haulage truck when the multi-piece wheel rim assembly exploded and struck him.	The manufacturers' guidelines for servicing multi-piece wheel rims should be consulted and followed. Debris and corrosion should be removed from multi-piece rim components prior to returning them to use.
14/10/1999 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A maintenance man was fatally injured at a crushed stone operation. Victim had been servicing a haul truck in the pit. He indicated to truck driver that he had completed his work. A few minutes later the truck driver drove off and apparently struck victim	Haul trucks with restricted visibility be equipped with devices limiting blind spots. Operators should sound a horn or alarm prior to moving equipment. When working near large equipment, persons should contact and communicate the equipment operator.
16/09/1999 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A water truck operator was fatally injured when he was operating a water truck down a hill at a high rate of speed and lost control. The truck continued through an open filed and crashed into a ravine. The water tank broke loose crushing cab.	Equipment operators should always travel at speeds conducive to road conditions. Equipment operators must conduct safety inspections prior to operating machinery. Equipment operators should always wear seat belts.
20/08/1999 Australia New South Wales Non-Coal Open-Cut	Other	A pre-school aged child was fatally injured on a small open cut mine when the child left his father, a haulage contractor and went to another truck being loaded nearby. The truck moved forward injuring the child, later died from injuries.	

12/08/1999 United States Non-Coal Open-Cut	Uncontrolled Release of Energy	An owner-operator was fatally injured at a sand and gravel operation. Victim and a co-worker used a chain attached to the bucket of a loader to lift a grizzly from a hopper. Chain slipped causing grizzly to fall on victim who was leaning into hopper.	Persons should not work under suspended loads. Hitches, slings and attachments used to hoist material should be suitable for the material handled.
6/08/1999 United States Non-Coal Open-Cut	Unintended Operation of Equipment	An equipment operator was fatally injured operating a loader, dumping waste over the edge of a roadway on an impoundment. The material collapsed causing loader to fall on its side and slide down embankment. The victim was not wearing a seat belt.	Risk assessments to be carried out prior to work commencing and material be dumped where ground is unstable. Berms be installed at dump locations to prevent over travel. Dump facilities be constructed of material capable of supporting subjected loads.
30/07/1999 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A haul truck operator was fatally injured at a crushed stone operation. Victim was ascending a stockpile ramp when his truck stopped. The truck drifted backward when a rear wheel hit a bank causing the truck to overturn. Victim wasn't wearing a seat belt.	Equipment operators should always wear seat belts. Brake systems on mobile equipment should be maintained in functional condition. Roadways and ramps should be designed to reduce steep grades.
25/07/1999 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A plant repairman was fatally injured while directing clean up operations in a concentrator building at a Iron mine. He was directing an employee who was operating a skid-steer clean up loader and was run over by the loader.	Mobile equipment operators must exercise the highest degree of care and attention at all times. Mobile equipment must be directed from a safe distance.
7/07/1999 United States Non-Coal Open-Cut	Uncontrolled Release of Energy	A contract employee was fatally injured working inside engine compartment of a loader. He removed a safety latch and mechanism that facilitated raising and lowering the hood. Victim fell against one of tether straps holding hood up, pulling it down on him.	All work areas should be cleared of trip and fall hazards prior to the commencement of work in the area. Maintenance should not be performed on equipment unless components are blocked and secured against hazardous motion.
27/06/1999 United States Non-Coal Open-Cut	Other	A quarry owner was fatally injured removing a wheel from a loader. Victim removed bolts from a rear wheel of loader which was on a trailer. After removing bolts he marked position of wheel on hub. Wheel, which was not secured, fell and crushed victim.	Maintenance should not be performed unless components are blocked against hazardous motion. The manufacturer's guidelines for removing wheels should be reviewed and followed
8/04/1999 United States Non-Coal Open-Cut	Uncontrolled Release of Energy	A maintenance supervisor was fatally injured repairing a defective charging valve on rear suspension cylinder on a haul truck. After failing to remove valve, he applied penetrating oil and heat from a torch to loosen valve and cylinder rod blew out.	Maintenance not to be performed until equipment components are blocked against motion. Procedures established by manufacturer to be followed when performing maintenance or repair. Heat or open flame not to be used where there is a fire or explosion hazard.

15/03/1999 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured attempting to dump a load of waste material at the dump site. The rear wheels were backed onto a mound of material which collapsed and the truck travelled over a 100-foot highwall. The victim was not wearing a seat belt.	Dumping locations be inspected and loads be dumped at least one truck length back from the edge where there is evidence the ground is unstable. Haul trucks not to back onto a berm that limits travel. Operators should always wear seat belts.
17/02/1999 United States Non-Coal Open-Cut	Tyre Explosion	A technician was fatally injured attempting to remove a wheel assembly from a dump trailer to repair the brakes. Original attempts of a forklift failed so the victim applied heat to back of wheel with an oxyacetylene torch and the tire ruptured.	Never apply a heat source to a tire rim/hub until tire has been removed from assembly. Manufacturer's guidelines for wheel removal be consulted and followed. Tire and rim safety training be provided to maintenance personnel who service tires and rims.
15/02/1999 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A 59-year-old technician with 28 years experience was fatally injured at an open pit copper mine. The victim was driving a pickup service truck when he was run over by a 320-ton haulage truck.	Haulage trucks with restricted visibility should be equipped with devices which eliminate blind areas. Mobile equipment operators should be able to communicate with haulage trucks when they share the same roadways.
13/01/1999 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A truck driver was fatally injured when he was crushed by the bottom-dump doors while cleaning out the trailers. A pneumatic valve controlling doors was defective allowing air pressure to randomly activate valve.	Defects on mobile equipment to be corrected prior to equipment being used. Maintenance not to be performed unless machinery components are blocked against movement. Mine operators should take measures to assure that contractors follow safe work practices.
1/12/1998 Australia South Australia Non-Coal Open-Cut	Unintended Operation of Equipment	Driving Front End Loader over dump when side gave way and FEL rolled over.	
9/11/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A utility man was fatally injured as he backed a loaded truck to the outer edge of a stockpile, preparatory to dumping. Material had been loaded out from base of stockpile. The pile collapsed and truck overturned. The victim was not wearing a seat belt.	Dumping locations be visually inspected to ensure ground can support equipment. Access ramps to stockpiles to be blocked once the load-out of material has begun. Equipment operators should always wear seat belts.
28/09/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A 36-year old mechanic (contractor employee) with 5 years experience was fatally injured at an open pit gold mine. The victim was driving a one-ton service truck through an intersection when he was struck by a loaded 190-ton haul truck.	Intersections on haul roads to be provided with signs that determine right-of-way and are clearly illuminated for night visibility. Traffic controls be used to warn drivers of oncoming or intersecting traffic. Whip lights to be installed on all small vehicles.

18/09/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A loader operator was fatally injured dumping material into the crusher feed hopper. After backing away from the hopper he continued in reverse and travelled over a 15 - foot highwall. The service brakes were defective.	Defects on mobile equipment should be identified and corrected prior to the equipment being used. Berms should be installed at elevated locations where there is danger of overtravel.
18/09/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	An equipment broker was fatally injured attempting to actuate hydraulic controls of a loader with a backhoe attachment. Victim was standing between backhoe arm and a parked loader. When control engaged the arm swung crushing him against the parked loader.	Defects on mobile equipment should be identified and corrected prior to the equipment being used. Mobile equipment operators should ensure that all persons are clear of any hazards prior to activating movable components.
28/08/1998 United States Non-Coal Open-Cut	Tyre Explosion	A maintenance man was fatally injured while inflating a tire on a fuel truck. Tire's two-piece steel wheel had deteriorated and exploded while being inflated. Truck hadn't been used for several years and tire had been flat for an extended period of time.	A wheel cage or stand-off inflation device to be used to protect persons inflating tires. Employees are to be trained in safe work procedures for tyre servicing and inflating. Tires not to be inflated to a higher pressure than recommended by manufacturer.
15/08/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A security guard was fatally injured at an open pit mine. The victim had gotten out of his truck, leaving the automatic transmission in reverse gear and the engine running. When he went behind the truck, it began to roll back, running him over.	Before exiting a vehicle, make certain the gear selector is in "Park". Always set the parking brake before leaving the vehicle. If the vehicle is parked on a grade, the wheels should be chocked or turned into a bank to prevent the vehicle from moving.
1/08/1998 United States Non-Coal Open-Cut	Uncontrolled Release of Energy	A mechanic was fatally injured performing maintenance on the hydraulic system of a front-end loader when a sudden release of hydraulic pressure caused the bucket support arm to fall, pinning him against the loader frame.	Maintenance should not be performed unless the power is off and machinery components are blocked against hazardous motion.
23/07/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A water truck driver was fatally injured while wetting the roadway with a tractor attached to a trailer-mounted 5000-gallon water tank. While attempting to negotiate a curve, the unit jack-knifed and the trailer struck the cab, fatally injuring operator.	Mobile equipment should be operated under control at all times and should be consistent with conditions. Haulage roads should be designed to reduce steep grades and sharp curves. Equipment operators should always wear seat belts.
17/07/1998 United States Non-Coal Open-Cut	Fall From Heights	A service contractor was fatally injured replacing a windshield on a front-end loader when he slipped and fell to the ground. He had no mining experience but had performed glass replacement services for 40 years.	Man lifts, scaffolds or substantially constructed work platforms should be used by persons working from elevated locations. A safe means of access should be provided to enable employees to climb and descend from elevated work sites.

11/06/1998 Australia Western Australia Non-Coal Open-Cut	Other	The deceased was working at the quarry using a skid-steer loader to raise a fuel drum in the bucket to re-fuel a machine. While deceased was out of the cabin, the bucket dropped pinning him between bucket and body of loader.	
28/05/1998 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A customer truck driver was injured at a sand and gravel operation. The victim had stopped his truck on the haul road and walked to the rear to check the latches, when he was struck by another truck. He died several days later from his injuries.	Commercial truck drivers should remain in their trucks while on mine property, unless a safe area for tarping and checking their loads has been designated. Rules establishing safe operating procedures should be posted.
14/05/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured dumping his load at a waste dump when he backed over edge. Truck overturned onto the driver's side pinning the victim under left front tire. He was not wearing a seat belt.	Seat belts should be worn by all equipment operators. Berms or other impeding devices are required at dumping locations where there is a danger of overtravel. Dumping locations should be visually inspected prior to work commencing.
13/03/1998 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A truck driver was fatally injured at a limestone quarry. He had dumped fly ash from one of the tandem trailers and was disconnecting the trailers preparatory to dumping the second one. The unit drifted and jack-knifed, pinning him between two trailers.	Always set the parking brake prior to leaving the cab when operating mobile equipment. When mobile equipment is parked on a grade, the wheels should be chocked or turned into the embankment.
12/03/1998 United States Non-Coal Open-Cut	Fall From Heights	A 51-year old commercial truck driver was killed at a stone quarry. The victim's truck had been loaded and he had driven onto the truck scale. He apparently climbed, or attempted to climb, onto the back of his truck and fell.	Independent truck drivers should remain in their vehicles while on mine property except as permitted by the mine operator. Personnel should be trained in safe work procedures.
13/02/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured when he lost control of his articulated haul truck. He was travelling empty down haul road when he lost control, went over a 7-ft high berm and landed on an access ramp. He was reportedly wearing a seat belt.	Haul vehicle brake systems to be checked more often when vehicles are operated on steep grades. Haul roads be designed to minimize steep grades. Seats with a built in head restraint be used in conjunction with shoulder and lap seat belts.
19/01/1998 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured driving an articulated haul truck down a haul road. He appeared to have lost control and travelled to bottom of decline, where truck hit a berm. Victim was thrown through windscreen as trailer rolled and cab stayed upright	Equipment operators should always wear seatbelts. Mobile equipment operators must exercise the highest degree of care and attention at all times. Haulage roads should be designed to reduce steep grades.

25/12/1997 United States Non-Coal Open-Cut	Drowning	A security guard drowned when his truck travelled over a berm and became partially submerged in a ditch. Victim may have suffered a medical emergency. There were no injuries which would have prevented him from climbing out of truck.	When persons are assigned to perform duties at remote locations, a system to verify their status should be implemented. When accommodating persons with unique medical needs, an emergency/communication device should be available to them
16/09/1997 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured by his own truck. Victim arrived at mine and stopped at the security building to received his site-specific training. While inside the building, he noticed his truck rolling down the grade, gave chase and was run over.	Equipment should be regularly maintained and inspected in accordance with manufacturers' specifications to ensure safety and fit for purpose.
18/08/1997 United States Non-Coal Open-Cut	Asphyxiation	A truck driver was fatally injured whilst unloading a load of material at the stockpile. He apparently forgot to unhook the tailgate chain and got out of his truck and walked to the rear. The stockpile sloughed down and buried him.	
8/08/1997 United States Non-Coal Open-Cut	Electrocution	A passenger of a truck was fatally injured when the truck was being unloaded at the mine. Driver had dumped a load of stone at a stockpile and pulled forward to clear the tailgate. The raised trailer contacted a 26,000V overhead power line.	
6/08/1997 United States Non-Coal Open-Cut	Uncontrolled Release of Energy	A contractor truck driver was fatally injured at a clay mill while unloading PVC pipe from a flatbed trailer. When he cut a rope securing the pipe on the trailer, the pipe rolled off and crushed him.	
25/07/1997 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver, with 3 months of mining experience, was fatally injured at a traprock quarry. The victim lost control of his 50-ton haul truck, went up over a berm and over a 37-foot highwall. The truck was equipped with a seatbelt but it was not worn.	Berms along roadways should be constructed to industry standard. Safety equipment including seatbelts should be worn at all time when operating mobile plant.
19/07/1997 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A loader operator was fatally injured operating a small loader to clean up around plant. He leaned out of cab to fasten a latch that had come loose, he inadvertently pushed pedal which operates lift boom. Victim was pinned between lift boom and cab.	Equipment should be regularly maintained and inspected in accordance with the manufacturers' specification to ensure safety and fit for purpose. A work needed to be done on equipment should be completed as soon as possible.

9/07/1997 United States Non-Coal Open-Cut	Other	A truck driver with 11 months of mining experience was killed at a limestone quarry. The victim's over-the-road truck was struck by a freight train where the mine haulage road and tracks intersected in the plant area.	It was recommended that the roadway be widened through the 90 degree turn north of the "number one crossing".
8/07/1997 United States Non-Coal Open-Cut	Other	A truck driver was fatally injured when his truck was struck by a freight train where the mine haulage road and the railroad tracks intersected. Railroad crossing was posted with crossing signs and stop signs, and train was reportedly blowing its whistle.	
20/06/1997 United States Non-Coal Open-Cut	Uncontrolled Release of Energy	A loader operator was fatally injured carrying out maintenance on a loader. A fender on the loader was raised to remove and install a wheel with a boom truck. Operator was attempting to align wheel, the support gave way allowing fender to strike operator.	All hand held equipment should be maintained tested and inspected regularly in accordance with manufacturers' specifications. When working in hazardous work places PPE should always be worn, i.e. Hard Hat.
6/06/1997 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured on return from dumping his load to the pit when his truck hit a rock berm along the roadway. Victim was wearing a seat belt, but suffered severe head injuries by striking cab structure when vehicle recoiled from berm.	It is possible that a harness-type restraint system may have prevented or reduced the severity of the injuries sustained in the accident
27/04/1997 United States Non-Coal Open-Cut	Fall From Heights	A truck driver was fatally injured as he parked his truck at the wash platform and climbed on top of the tank trailer to hose it off. A safety belt and line were not used and the victim fell 11 feet to the ground. He died from the sustained head injuries.	When working in elevated work places, safety equipment, safety harness and line, should be worn.
26/04/1997 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A welder was fatally injured relocating a portable welder with a loader. Travelling uphill, the hydraulic pressure dropped lowering welder to drag on ground, which stalled loader. Loader rolled backwards and victim tried to jump but was run over by loader	
21/04/1997 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A contractor was fatally injured repairing a loader bucket. He was working off a step ladder placed between the loader bucket and the loader frame. He apparently disconnected the hydraulic controls which allowed the pivot arm to fall and strike him.	

24/02/1997 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was killed when he drove his truck into a pond about 1/4 mile beyond the scale where he was to have his truck weighed. Truck came to rest on driver's side in about 3-ft of water. Victim was pinned by steering wheel and drowned.	When operating mobile equipment seatbelts should be worn at all times.
20/02/1997 United States Non-Coal Open-Cut	Unintended Operation of Equipment	An equipment operator was fatally injured while on engine deck of his truck doing a pre-shift inspection when another employee jump started truck causing it to roll forward and turn to left. Employee jumped from engine deck and was run over by truck.	
17/02/1997 United States Non-Coal Open-Cut	Other	A truck driver was fatally injured when he parked his truck on side of roadway leading to a stockpile waiting in line to be loaded with material. He got out of his truck and was run over by another truck hauling material from mine.	All truck drivers should remain in their vehicles while on mine property.
14/02/1997 United States Non-Coal Open-Cut	Fall From Heights	A loader operator was fatally injured when he drove a loader to the top of the quarry bench to blow out equipment air filters. The loader travelled past an air compressor and over the edge of the highwall, crashing on the quarry floor 30 feet below.	
3/02/1997 United States Non-Coal Open-Cut	Drowning	A truck driver was fatally injured while carrying a load of material to the mine site. The left front tire slipped off the elevated haul road and the truck slipped into a 5-foot deep pond of water. The cab tipped over and filled with water.	Roadways must be provided with berms where there is an area of elevated drop off.
2/12/1996 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A mechanic with 9 years of mining experience was killed at a limestone quarry. There were no witnesses to the accident. The employee was in the process of repairing a skid steer loader and was crushed when the bucket arm on the loader came down on him.	Before operating or performing maintenance on powered haulage equipment, the owner/operator's manual should be provided and reviewed by the operator or maintenance personnel for safety precautions.
18/11/1996 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A driller assistant was fatally injured as a passenger in a water truck. The water truck driver was backing down an access road when the truck went over an edge and rolled 140ft down a slope. Driver received head injuries and driller died from injuries.	Seatbelts must be worn when operating mobile equipment.

5/11/1996 United States Non-Coal Open-Cut	Drowning	A labourer was killed at a limestone quarry. There were no witnesses to the accident. The employee was driving a haul truck and went off the road into a water-filled section of the quarry. The truck and the employee were found under water.	Berms should be provided along roadways to limit the risk of vehicle unintended operation. All equipment should be maintained and inspected in accordance with manufacturers' specifications to ensure safety and fit for purpose.
9/10/1996 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A loader operator was fatally injured operating a loader feeding crusher with material from pit. While returning for another load, he apparently ran off road into a trench. Victim was thrown from cab of loader and found partially pinned by cab railing.	Communication systems should be provided for mine haulage equipment. The victim may have been able to alert others to the emergency and help could have been requested.
7/08/1996 United States Non-Coal Open-Cut	Fall From Heights	A contractor cement tanker driver with 20 years of mining experience was killed at a limestone pit. He climbed up the ladder to the top of the tanker to open and grease the hatch cover hinges. He fell 11 feet from the rear of the tanker to the ground.	When working in elevated work places, safety equipment, namely safety harness should be worn.
28/07/1996 United States Non-Coal Open-Cut	Tyre Explosion	A mechanical assistant was fatally injured while trying to remove a loader tyre. He and a colleague were in the process of removing a tyre by heating lug nuts to loosen them when tire exploded killing one and injuring the other.	Hazardous work places require work safe procedures to be developed and implemented. Procedures also need to be part of training programs so that employees are familiar.
8/07/1996 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A mechanic was performing maintenance on a haul truck when he was fatally injured. He finished replacing the injectors and was positioned on the front access ladder adjusting the engine when the truck lunged forward crushing him against the workshop door.	Regular routine maintenance and inspections should be carried out on all equipment in accordance with manufacturers' specifications to ensure safety and fit for purpose. When performing maintenance on machinery that is running, isolate and chock machine.
29/06/1996 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A maintenance assistance was fatally injured at a limestone quarry whilst working out of a raised loader bucket installing a motor guard on a jaw crusher. The bucket tilted and pinned victim between bucket and motor guard. He died from crushing injuries.	When using a loader bucket as an EWP load lacking devices need to be put in place.
19/06/1996 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A truck driver was killed at a sand and gravel operation while talking to a colleague outside their trucks waiting to be loaded. A haul truck on its way to pick up a load, ran over the two drivers, severely injured one and killing the other.	Establish traffic rules to control right-of-way, a safe traffic pattern, and reduce traffic congestion where mobile equipment is operating on a regular basis. Develop procedures where there areas of more than one type of equipment operating.

3/04/1996 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Killed when a front end loader rolled on him	
19/03/1996 United States Non-Coal Open-Cut	Unintended operation of Equipment	An electrician killed while trying to pass a 240-ton haul truck near a load-out area. Haul truck driver was told to go to a different load-out area just as electricians' truck was passing him. Haul truck driver turned right and ran over pick-up truck.	Establish an improvement on the existing transportation and communication controls. These controls will be added to the annual refresher training plan.
16/03/1996 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Killed when the truck he was driving overturned and he was thrown out	
15/02/1996 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A plant operator was killed at a quarry when he had ridden on a front-end loader to fuelling station. Loader operator waited a few minutes ensuring victim had dismounted, and then started backing the loader. The loader backed over the employee.	Heavy trafficable areas should require rules and procedures for safe transport of vehicles and personnel. Safe work procedures should be implemented to ensure safety of personnel working near mobile plant. Lighting should be in place where personnel walk.
6/02/1996 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A labourer was killed at a granite quarry when he was clearing snow from paved area around tertiary crusher using a Case Uniloader. He was found with his chest caught between raised lift arm of bucket and ROPS of machine.	Case, Model 1835B, Uni-loaders should be retro-fitted with a safety device to prevent movement of the bucket and lift-arms when the operator is not seated, or they should be replaced with a loader that is equipped with this device.
25/01/1996 United States Non-Coal Open-Cut	Unintended Operation of Equipment	Whilst dumping a load a truck driver backed through a berm and travelled down a 440ft bank. The truck rolled over at least once before it reached bottom. Upon impact at bottom, the driver was thrown out rear cab window. Victim was not wearing a seat belt.	Seatbelts should be provided for use in all mobile equipment. Seatbelts should be worn at all times while operating machinery
11/01/1996 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A trainee operator employee was riding on the side of a front-end loader when the loader bounced going over a rock causing the employee to fall off. He landed on the path of one of the loader's tires and was run over. He died from crushing injuries	Passengers of mobile equipment should only be permitted to ride if there is sufficient seating and safety equipment. Passengers should not ride on outside of equipment while operational. Seatbelts and safety equipment should be worn during work.
11/12/1995 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A dredge operator was fatally injured when he was crushed by the bed of a truck. The victim had raised and blocked the bed to remove driveline, but then removed blocks when finished. Bed was moving slowly and victim attempted to tie up driveline.	

9/12/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	While operating a haul truck the victim drove the truck over the berm on an elevated waste dump. Truck overturned several times coming to rest at the bottom of 120ft slope. Upon rest, truck burst into flames from ruptured hydraulic lines and storage tank.	
9/10/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured when he unhooked an empty trailer from a modified tractor. Tractor had been modified to dump from trailers absent of hydraulic systems. He was run over by a wheel of the tractor as it started to roll down a slight grade.	All employees are to be inducted and fully trained in their work place and with work place equipment prior to commencing work.
3/10/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A truck driver was fatally injured after the haul truck had just been loaded. He started driving forward away from the loading area, and drove the truck through a four foot berm and over the 50 foot highwall. He died from sustained injuries.	All equipment is to be regularly maintained and inspected to ensure safety and fit for purpose in accordance with manufacturers' specification.
19/09/1995 United States Non-Coal Open-Cut	Drowning	While driving a truck with a passenger along a dam wall, the truck came too close to wall and ended up overturning into trench. Trench quickly filled with water from water tank, passenger escaped and the driver was trapped and drowned.	Berms should be constructed and existent on all haul roads. Unless provisions are existent for passengers no one should ride with operator. Regular Maintenance and inspections should be done on equipment to ensure fit for purpose and safety.
3/08/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	While operating a front end loader the victim was fatally injured when loader fell into pit. Victim was hauling material to edge of highwall, where there was no berm, when the wall sloughed causing loader to turn upside down into pit and crush victim.	A berm, bumper block or other impeding device should be used to prevent over-travel at the ramp to an excavation. Regular maintenance should be carried out on machinery in accordance with manufacturers' specifications to ensure safety of operation.
13/06/1995 Australia Tasmania Non-Coal Open-Cut	Unintended Operation of Equipment	Motor Vehicle Accident	
12/06/1995 Australia Western Australia Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Whilst laying poly sheeting in a crystalliser pond an employee left work place in a mini bus to collect supplies. After not returning to workplace, peers found bus parked in rubbish pit. It's believed the bus rolled over deceased when he got out at pit.	

9/06/1995 United States Non-Coal Open-Cut	Fall From Heights	A mechanic was fatally injured while he was in the process of changing hinge pin on bed of a 170-ton haul truck when he fell off the rear tire he was standing on. He fell approximately eight feet to concrete floor below. He died from head injuries	Suitable platforms should be used when working in elevated areas.
22/05/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	While in process of repairing exhaust of a service truck, a mechanic was fatally injured. Truck was sitting on level grade in first gear and wheels not blocked. Starter was shorted by a heat shroud and started engine and truck ran over employee.	Prior to work commencing on machinery and equipment, isolation procedures should be carried out. Additional chocking/blocking may be necessary to restrict movement of equipment.
13/05/1995 Australia Western Australia Non-Coal Open-Cut	Other	A fitter was killed when crushed between the body and tyre of a dump truck at workshop. Inspecting the front, instead of rear suspension cylinders as instructed, the fitter released pressure resulting in machine coming down on tyre where he was positioned	
12/05/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A fatal injury occurred at a gold pit when an operator was driving a water cart. The employee was descending a pit ramp in a water truck loaded with 400- gallons of water. He apparently lost control of the truck causing the truck to roll several times.	Employee training to be conducted prior to commencing work. Maintenance and inspections be carried out on equipment regularly to ensure fit for purpose and safety. Machines to be used in accordance with manufacturers' specifications to prevent machine failure.
4/04/1995 United States Non-Coal Open-Cut	Fire	While operating a loaded haul truck to the dump site the truck caught fire. The fire engulfed the cab of the truck causing burns on 81 percent of the victim's body. The victim died the following day from complications resulting from the burns.	Regular inspections of safety equipment and systems on machines should be conducted to prevent accidents occurring.
27/03/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	While following a dump truck down into pit, the dump truck reversed over a service vehicle when another dump truck signalled to talk to down hill dump truck. A mechanic driving the service vehicle was crushed when he was unaware of dump trucks movements.	
17/03/1995 United States Non-Coal Open-Cut	Other	A truck driver was fatally injured when he was standing near the stockpile in an area of obstructed view to a second truck driver. As the second driver backed up his truck to the stockpile to be loaded, he struck the victim.	Machinery should be fitted with operational reversing signals and safety equipment. When reversing in a busy area of mine to be sure as to have observers in close vicinity.

14/03/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	While operating a water truck down a ramp, a quality assurance technician was observed to be travelling speedily. The victim was fatally injured when he rounded the first curve and rolled the truck. The victim was not wearing his seatbelt.	Seatbelts and safety equipment provided should be worn. Equipment should be regularly maintained to ensure safe operation.
24/02/1995 United States Non-Coal Open-Cut	Fall of Roof/Sides/Highwall	A truck driver was fatally injured while attempting to dump some of load when told at scale house truck was overloaded. After backing into stockpile and raising the bed, he got out of truck and went behind it when the stockpile collapsed on top of victim.	
2/02/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A front-end loader operator was fatally injured while operating a front-end loader in process of building a berm around outer edge of pit. He drove loader over edge and rolled down a 30ft slope. Victim was not wearing a seat belt.	Equipment to be maintained to a standard resulting in equipment being safe for operation. Equipment not fit for purpose be isolated and tagged out. If fitted to machinery, safety equipment should be worn. Berms to be in place where there is high traffic.
18/01/1995 United States Non-Coal Open-Cut	Unintended Operation of Equipment	A technician was fatally injured while operating a haul truck with a full load from pit to dump. He drove up onto the dump and backed the truck through berm. Truck rolled down a 50ft slope and landed upside down. Victim died from sustained injuries.	All dump areas be illuminated to prevent any accidents. Machinery should be cleaned regularly to make sure lights and additional equipment is visible and working correctly. All machinery exhibit correct and adequate components, including lighting.
10/01/1995 United States Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A leadman was killed at a clay pit when he was run over by a truck whilst it was backing up to dump. Due to wet conditions at dump site, the employee was spotting over-the-road tractor trailers dumping on stockpile. He died from crushing injuries.	
17/10/1994 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Dump truck he was driving fell over quarry face.	Prescribe a min. road width of 1.5-2.5 times the maximum width of any vehicle using road. Prescribe a min. safety berm height of 1m or half wheel diameter of largest truck using road. Provide procedures/regulations for oversized vehicles to travel on road.
29/09/1994 New Zealand Non-Coal Open-Cut	Fall from Heights	Was run over by a dump truck he had been driving when he was thrown out or jumped from the cab	

4/08/1994 Australia Western Australia Non-Coal Open-Cut	Unintended Operation of Equipment	The deceased was driving a 190t haul truck fully loaded down a ramp when it mounted the roadside windrow and fell onto its side. The driver's cab was crushed upon impact with the road.	We recommend on going consideration be given to the issue of tiredness and the issue of drugs and alcohol within the industry
8/12/1993 Australia Western Australia Non-Coal Open-Cut	Unintended Operation of Equipment	The deceased was a passenger in a light vehicle in an open cut gold mine. The vehicle rolled over an embankment and came to rest in water on its passenger side. The deceased was thrown partially from the vehicle and sustained fatal crush injuries	Ensure edges of precipitous places along roadways are adequately marked and visible
29/11/1992 Australia Western Australia Non-Coal Open-Cut	Unintended Operation of Equipment	The deceased, a mobile equipment operator in an open cut iron ore mine, was reversing a water truck down a slight grade on a narrow road to fill the water tank of a drill when the truck went over the edge of the road and down an embankment.	
22/11/1992 Australia Western Australia Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Whilst working on brakes of a service truck a fitter at an open cut/underground nickel operation was fatally injured when the truck lurched forward running over him when a peer started the engine while truck was supported by a jack under front of truck	Site inductions are important for new employees. Safety equipment and awareness around operating equipment is essential.
23/07/1992 Australia Western Australia Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	The deceased, a contract fitter at an open cut gold mine, was servicing the air conditioning on a haul truck. The driver thought the job had been completed and drove off. The deceased was run over by the truck.	
23/05/1992 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Was crushed when the front end loader he was driving overturned into a small gully	
1992 Australia Tasmania Non-Coal Open-Cut	Other	Pinned under dump truck	
3/05/1991 Australia Western Australia Non-Coal Open-Cut	Unintended operation of Equipment	Was driving a loaded 85 ton truck downhill to the tip of the haul road under construction. The truck passed a bulldozer travelling in the same direction, went over a windrow and travelled 24m down into the gully. He was thrown from the truck.	
1991 Australia South Australia Non-Coal Open-Cut	Other	Truck drove over quarry bench	

5/10/1990 Australia Queensland Non-Coal Open-Cut	Unintended operation of Equipment	Driver of empty off-road dump truck was thrown from cab when truck skidded across haul road and collided with another truck.	Haul roads be constructed of material to reduce slippery conditions on wet surfaces. All operators of water carts to be trained in watering facilities. Procedures to be set in place to educate drivers of slippery conditions and anti-slip methods.
15/11/1989 Australia Queensland Non-Coal Open-Cut	Unintended operation of Equipment	Crushed in cab of a 4WD when CAT haul truck ran over the 4WD.	
30/04/1989 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when loader left road and overturned.	
1989 Australia Tasmania Non-Coal Open-Cut	Unintended Operation of Equipment	Received head injuries when truck reversed over dump.	
7/10/1988 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	Was killed when his dump truck ran off the road and over the bank	
2/01/1988 Australia Tasmania Non-Coal Open-Cut	Other	Front End Loader rolled over.	
5/08/1985 Australia Queensland Non-Coal Open-Cut	Other	Crushed by pipe when he was knocked from a truck to the ground.	Slings should not exceed recommended included angle of 120 degrees and a common manifold ring be used. Hooking chain over ends of pipes should be ceased. Suppliers should ensure pipes are positioned to enable the wraparound chain lifting method be used.
15/07/1985 Australia New South Wales Non-Coal Open-Cut	Other	The bulldozer operator was thrown from the cabin when it caught on something, and the operator was then run over by the dozer.	
21/06/1985 Australia Queensland Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Crushed by truck.	
1985 United Kingdom Non-Coal Open-Cut	Other	Jump leads were being used by a truck driver to start a loader, when the operator left the vehicle while in reverse gear. When the engine started, due to a faulty interlock switch, it moved in reverse and killed a miner. reverse and killed	

1985 United Kingdom Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Was crushed and killed when he entered the space between the hopper section and the rear end of the body. The hydraulic system failed and allowed the raised hopper to fall without warning.	
1/08/1984 Australia Western Australia Non-Coal Open-Cut	Other	Was a passenger in an Isuzu truck which was passing a haulpack. The haulpack turned right and the Isuzu hit it between the front and rear wheels.	
18/11/1983 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Front end loader operator left a decline ramp and overturned.	
26/01/1983 Australia New South Wales Non-Coal Open-Cut	Other	Head crushed between rock and the bucket of a front end loader.	
13/12/1982 Australia New South Wales Non-Coal Open-Cut	Unintended operation of Equipment	Death as a result of injuries received when a front end loader he was operating overturned.	
23/10/1981 Australia Western Australia Non-Coal Open-Cut	Unintended operation of Equipment	While driving a haul truck down 6% grade haulroad, the truck left the road and plunged down the embankment, throwing the driver from the compartment	
29/04/1981 Australia New South Wales Non-Coal Open-Cut	Unintended operation of Equipment	Loader overturned on a bank.	
9/03/1981 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Killed when he took unit without direction to obtain firewood from a dump within the quarry and ran it backwards down access road and backed over a 10m drop.	
1981 United Kingdom Non-Coal Open-Cut	Other	A reversing vehicle in a quarry struck and killed a miner	Increased fitting of aids to improve visibility
1981 Australia Tasmania Non-Coal Open-Cut	Tyre Explosion	Tyre Explosion	
21/11/1980 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Killed when he took a unit without direction to obtain firewood from a dump within the quarry, and ran it backwards out of control and crashed.	
10/09/1980 Australia Queensland Non-Coal Open-Cut	Unintended operation of Equipment	Crushed under truck carrying tin-bearing gravel which overturned into hopper.	

1/09/1980 Australia Queensland Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Crushed by front end loader while attempting to remove loose stone from under the bucket of the moving loader.	
30/05/1980 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Was killed when his unit toppled backwards over the overburden tip head	
1979 United Kingdom Non-Coal Open-Cut	Other	At the surface of an iron ore mine a fitter passing through the 1m space between a crusher and a front loader shovel was crushed when the driver of the loader started the engine and it jumped forward. The safety valve which stops the engine starting until the gear is in neutral was inoperative.	
1979 United Kingdom Non-Coal Open-Cut	Unintended operation of Equipment	Driver was killed when he jumped from a moving truck and was run over by the rear wheels. The drive shaft was broken, but the brakes were still operable. However driver was not applying the brakes properly.	
1979 United Kingdom Non-Coal Open-Cut	Electrocution	While checking the transmission of a dump truck, a contractor's workshop manager received a fatal electric shock when the vehicle was reversed, with body raised, into an 11kV overhead power line.	
28/11/1978 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Front end loader overturned and crushed the operator	
15/11/1978 New Zealand Non-Coal Open-Cut	Fall of Roof/Sides/Highwall	Operator was crushed when the unit was hit by several large rocks crushing it	
6/11/1978 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Operator was crushed when the unit overturned	
7/07/1978 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Operator was crushed, when the unit overturned on a quarry bench	
18/03/1978 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Operator was crushed when the unit capsized	
1978 United Kingdom Non-Coal Open-Cut	Other	A lorry driver who was waiting for his vehicle to be loaded by an excavator was killed instantly when he walked in the path of a reversing scraper.	
1978 United Kingdom Non-Coal Open-Cut	Other	Was crushed beneath a large dump truck wheel which fell from its position on the back of a lorry. It was not secured.	

1/12/1977 New Zealand Non-Coal Open-Cut	Other	Killed when he backed over the loading ramp	
3/10/1977 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Reversed truck over edge of waste dump.	
30/03/1977 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	While making a tight turn in a loader with a large rock in the bucket and raised, it capsized	
23/12/1976 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	Was killed when the front end loader he was driving overturned crushing him to death	
13/10/1976 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Reversed his Euclid truck over the edge of a waste dump.	
24/07/1976 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Crushed by load suspended from front end loader when the earth ramp on which the loader sat collapsed.	
1976 New Zealand Non-Coal Open-Cut	Other	Assisting in the removal of an engine weighing 4.5 tonne from a dumptruck when he crawled underneath to uncouple the steering hoses while the engine was suspended. When the hoses released, the engine swung and struck his head.	
1976 New Zealand Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Died from crush injuries when he inadvertently operated the tipping lever mechanism while refitting the clutch housing of a vehicle	
1976 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Killed when a front end loader ran off the access road and into a gravel pit	
1976 United Kingdom Non-Coal Open-Cut	Other	Run over by a loaded dump truck despite it being fitted with audible reversing alarms	
4/12/1975 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Front end loader he was operating got out of control and rolled off the quarry road and down a bank	
28/04/1975 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Front end loader he was operating on access road went over the side of the road	
28/02/1975 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Aveling Barford dump truck he was driving went over the side of the access road above the quarry	

14/12/1974 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Front end four wheeled loader driver drove with a loaded bucket raised 7ft in the air down a steep access road to load a friend's trailer with topsoil when he lost control and capsized.	
11/09/1974 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	While on quarry access road, operator of front end loader lost control when he hit the side bank, ran over the outside bank and capsized.	
1974 Australia New South Wales Non-Coal Open-Cut	Unintended operation of Equipment	Died from crush injuries when he rolled his loader down an embankment.	
7/11/1973 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Crushed when a front end loader he was driving overturned.	
31/03/1973 New Zealand Non-Coal Open-Cut	Fall of Roof/Sides/Highwall	Involved in a fall of ground of a loader operator in quarry	
24/03/1972 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	Operating a heavy 4 wheeled front end loader, capsized the machine over a 3ft bank and into a stream adjacent the quarry stockpile area.	
1972 Australia New South Wales Non-Coal Open-Cut	Unintended Operation of Equipment	Was struck by an unattended truck which ran out of control down a slight slope	
11/03/1971 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	Fatally injured when front end loader which he was operating overturned.	
18/12/1970 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	Was operating a small gravel screening plant fed by a front end loader from river gravels. He misjudged the ramp width and the machine rolled over on him	
1970 Australia New South Wales Non-Coal Open-Cut	Unintended Operation of Equipment	He endeavoured to stop a truck which was loaded with ore from rolling over an embankment, but went over and trapped the driver inside.	
21/03/1969 New Zealand Non-Coal Open-Cut	Unintended Operation of Equipment	Machine skidded on a wet road in the pit and went over an embankment	
1969 New Zealand Non-Coal Open-Cut	Other	Fatally injured when run over by a lorry	

1969 New Zealand Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Killed when he drove his machine under a bin to clean up spillage without first making sure that there was enough head room	
1969 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Machine rolled over the side of a gravel ramp to a hopper	
1/01/1969 New Zealand Non-Coal Open-Cut	Fall from Heights	Was killed when he fell from the loader driven by his father and was crushed under the rear wheel	
1968 New Zealand Non-Coal Open-Cut	Fall from Heights	Was killed in a quarry when he suffered fatal head injuries after falling from a motor lorry which was being loaded with steel plate	
1968 New Zealand Non-Coal Open-Cut	Other	Was killed when his machine rolled over a bank	
7/04/1966 Australia Queensland Non-Coal Open-Cut	Unintended Operation of Equipment	End loader he was driving overturned and crushed him.	
1966 Australia New South Wales Non-Coal Open-Cut	Unintended operation of Equipment	Back end loader left the road and overturned	
1966 Australia New South Wales Non-Coal Open-Cut	Other	Had a crushed skull from a truck which ran over him	
1966 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1966 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1966 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1966 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
4/11/1965 Australia Queensland Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Crushed between a truck and a shovel.	

21/01/1965 Australia Queensland Non-Coal Open-Cut	Fall of Roof/Sides/Highwall	Struck by roof fall at White Rock Quarry while operating a scoop mobile loader.	
1965 Australia New South Wales Non-Coal Open-Cut	Unintended operation of Equipment	Front end loader he was driving collided with an embankment and overturned, breaking his neck	
1965 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1964 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1964 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1964 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
22/02/1963 Australia Queensland Non-Coal Open-Cut	Other	Fatally injured whilst engaged in loading operations when he was knocked onto rocks between the shovel and the wall.	
1963 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1963 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1963 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
1963 Australia New South Wales Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Trapped between the bucket and front of loader when he reached over and pressed the starter.	
1962 Australia New South Wales Non-Coal Open-Cut	Other	Died from injuries sustained when the Euclid truck he was driving went over the edge of a dump prior to dumping soil	
1962 Australia New South Wales Non-Coal Open-Cut	Other	Front end loader he was driving ran over the edge of a low bench in a sand pit and rolled onto him	

1962 New Zealand Non-Coal Open-Cut	Other	Killed in a loader incident	
1962 New Zealand Non-Coal Open-Cut	Unknown	Killed in a loader incident	
3/08/1961 Australia New South Wales Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Caught up in the revolving shaft of a front end loader	
18/05/1959 Australia New South Wales Non-Coal Open-Cut	Other	Killed when crushed between a moving hopper truck and a parked motor lorry	
13/05/1959 Australia New South Wales Non-Coal Open-Cut	Drowning	Crushed and drowned when pinned beneath an overturned front end loader in an old water filled pit	
26/02/1959 New Zealand Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Was killed when the bucket arm of an overhead loader he was using fell on him pinning him against the framework of the machine	
23/07/1958 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Was killed when the machine ran over the edge of the roadway and capsized on top of him.	
11/03/1958 New Zealand Non-Coal Open-Cut	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Was killed when the loaded tray of the truck fell on him while he appears to have been examining the hoist which had broke.	
27/02/1958 New Zealand Non-Coal Open-Cut	Fall from Heights	Was killed when a loaded dozer he was operating capsized over a shallow ledge.	
2/12/1957 New Zealand Non-Coal Open-Cut	Unintended operation of Equipment	Truck driver was killed as the result of a truck accident	
4/02/1952 Australia Queensland Non-Coal Open-Cut	Unintended operation of Equipment	Fatally injured whilst driving a tractor equipped with a front end loader transporting battery residues to a motor truck which overturned on the access road.	
UNKNOWN OPEN-CUT MINE			
9/12/2006 Australia Victoria Unknown Unknown	Unintended operation of Equipment	A drill rig offsider was fatally injured when a drill rig support truck he was driving down a slope rolled over and he was crushed under the trucks tray.	
10/06/2004 United States Coal Unknown	Other	Driver lost control descending a steep grade due to a brake failure and overturned and was ejected from the cabin.	Testing of equipment including brakes and seatbelts was implemented, tag, lock and remove faulty equipment from service.

25/08/2003 Canada Unknown Unknown	Electrocution	While dumping a load of gravel, the worker raised box of truck and came into contact with overhead power lines.	
14/04/2003 Canada Unknown Unknown	Unintended Operation of Equipment	Driver was killed when trailer of his truck rolled over onto the truck cab.	
28/06/2002 United States Coal Unknown	Unintended Operation of Equipment	Truck went through a berm, causing truck to overturn and slide into impoundment.	Improve visibility issues when trucks are reversing, improve roadway berms and have workers wear seatbelts when operating equipment.
17/07/1989 Australia Western Australia Non-Coal Unknown	Other	Was driving a road train from the mine after dumping a load of ore from another mine when it was involved in a head on collision with a haul truck.	
15/05/1989 Australia Western Australia Non-Coal Unknown	Unintended operation of Equipment	Was reversing a truck to dump at the low grade stockpile when a rear wheel sunk into the edge. A loader was connected to the truck by a chain to the front bumper. The operator got into the loader and started pulling it, when the bumper bar fell off the truck and it started rolling back down the stockpile. A large rock struck the truck driver as he jumped from the truck.	
20/06/1980 Australia Western Australia Unknown Unknown	Unintended operation of Equipment	Was using a loader to push material into a hopper. The loader went too far and the front wheels dropped. The cab of the loader was crushed against the underside of the grizzly over the hopper.	
1971 Australia New South Wales Non-Coal Unknown	Other	Crushed between a loader and a truck following brake failure of the loader	
27/09/1960 New Zealand Unknown Unknown	Catastrophic Failure	Received fractured skull when a stub axle on the loader broke, causing the loader to overturn and causing a concrete counterweight to strike his head	
NON COAL UNDERGROUND MINES			
19/09/2007 United States Non-Coal Underground	Unintended Operation of Equipment	Mechanic was operating a rubber tire mantrip when it struck a rib and overturned.	
30/08/2007 Australia Western Australia Non-Coal Underground	Other	LHD was filling a stope from 15 meters above when a loader was found upside down at the base of the fill.	

30/07/2007 United States Non-Coal Underground	Fall of Roof/Sides/Highwall	Miner backed a utility truck into a crosscut when a fall of ground covered the truck and caused it to catch fire.	
19/06/2007 United States Non-Coal Underground	Fall from Heights	Victim was travelling in LHD when it fell through the floor of a void which had developed in the backfill.	
3/04/2007 United States Non-Coal Underground	Other	Driver was operating a haul truck that left the road and ejected the driver as he was not wearing a seatbelt.	Ensure all safety defects are found and repaired, ensure equipment suitable for project, ensure dangerous areas were guarded and that operators wear seatbelts.
26/03/2007 Australia Western Australia Non-Coal Underground	Other	While operating concrete truck driver lost control and the vehicle struck the side wall.	
9/01/2007 Australia New South Wales Non-Coal Underground	Other	An underground operator was killed when he was pinned by a remotely operated front end loader reversed and pinned him against a wall.	
22/04/2006 United States Non-Coal Underground	Other	Operator was gathering wash down hoses to wash under railroad scales when he tripped over the hoses and fell in front of a front end loader travelling through the area.	Risk Assessment to find possible hazards and establish safe work practices. Keep the working areas tidy.
6/03/2006 Canada Non-Coal Underground	Unknown	Worker fatally injured when operating a Load Haul Dump machine from a remote platform.	
18/10/2005 United States Non-Coal Underground	Unintended operation of Equipment	Worker left water truck without brakes on and when it started rolling away tried to stop it but was run over.	Implementation of mobile machine parking procedures.
28/09/2005 United States Non-Coal Underground	Unintended operation of Equipment	Victim was fatally injured when water truck he was driving crashed at the bottom of a mine's slope entrance.	Policy to adequately supervise employees, ensure workers don't have to work with high dust levels and efficient repair of safety defects in machines.
31/05/2005 United States Non-Coal Underground	Unintended operation of Equipment	Victim was in passenger seat training new miner when he lost control and plummeted 70 feet down a hill. Driver wore seat belt and survived, passenger wasn't wearing seatbelt.	Provide adequate training including theory and practical at another location prior to on-mine experience.
31/01/2005 United States Non-Coal Underground	Unintended operation of Equipment	Mechanic was fatally injured when his tractor rolled over on an S curve of an underground roadway.	Create policy which governs speed and gear selections for operational environments, defects should be found and tagged prior to shift, training program to ensure equipment is used by operator manuals.

24/08/2004 United States Non-Coal Underground	Unintended Operation of Equipment	Miner backed loader under chute and went out to operate controls when his loader rolled and pinned him against the wall.	Train employees in equipment safe operating procedures, check equipment for faults regularly and train workers in parking procedures.
7/01/2004 New Zealand Non-Coal Underground	Unintended Operation of Equipment	A loaded articulated dump truck overturned on a quarry haul road fatally injuring the driver	
15/01/2003 Australia Western Australia Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A fitter was to examine a LHD reported to have faulty brakes. The LHD was being moved to a suitable location when the engine stopped and the fitter tried to immobilise it by jack-knife. Fitter received fatal injuries when LHD rolled down decline	
14/06/2001 United States Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A 56-year-old miner with 35 years mining experience was fatally injured at an underground platinum mine. The victim was connecting an air hose, when he was struck by an LHD that entered the work area.	Equipment operators should proceed cautiously when entering areas where personnel are working on foot. Mine operators should take measures to ensure all underground personnel who work near mobile equipment wear reflective clothing.
4/06/2001 United States Non-Coal Underground	Unintended Operation of Equipment	A miner first class, was fatally injured at an underground platinum mine. The victim had parked his load-haul-dump tractor (LHD) and was loading steel into the bucket by hand when the LHD drifted forward and struck him.	Mobile equipment should not be left unattended unless the controls are in the park position and the parking brake is set. When mobile equipment is parked, the bucket or blade should be lowered to the ground.
1/06/2001 Australia Victoria Non-Coal Underground	Other	Underground maintenance labourer suffered fatal injuries when he was crushed under the engine compartment cover of an underground truck.	
9/01/2001 United States Non-Coal Underground	Unintended Operation of Equipment	A miner with 7 years mining experience was fatally injured at an underground gold mine. The victim was wetting down the underground haulage way when he backed his water truck over a berm, falling approximately 60 feet into the stope.	Dump sites should be provided with restraints or devices that prevent over-travel. Signs or warning devices should be installed near underground dump locations to alert operators of mobile equipment.
22/11/2000 Canada Non-Coal Underground	Unintended Operation of Equipment	Two mechanics were working to remove an inflated wheel assembly from an underground haulage truck. Multi-piece rim failed and the tire was propelled off axle and struck the two employees. One employee was fatally injured and second was critically injured.	

3/08/2000 United States Non-Coal Underground	Other	A 33-year-old miner with 13 years mining experience was fatally injured at an underground gold mine. The victim was taking a break on a muck pile when a loader entered the area and, unable to see him, lowered the bucket on him.	Rules designating break times and areas should be established and followed
16/05/2000 Australia Western Australia Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Operator of a charge-up vehicle just charged a stope face and chained it off to prevent access when the deceased arrived on an LHD. The deceased dismounted to meet the blast crew member and the LHD rolled forward trapping him against the charging unit.	
2/02/2000 United States Non-Coal Underground	Unintended Operation of Equipment	A 45-year-old miner with 2 years mining experience was fatally injured at an underground gold mine. The victim was operating a water truck when he backed over an unguarded edge, into the open stope.	
29/09/1999 United States Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A labourer was fatally injured when he was operating a rubber-tired loader/forklift unit and lost control wedging unit against rib. When he attempted to exit the machine he accidentally lowered the boom pinning himself between boom and frame of machine.	Persons should enter and exit equipment through designated areas. Equipment operators must maintain control of their equipment. Guarding panels be installed to prevent persons from exiting where moving components present a hazard.
21/07/1999 United States Non-Coal Underground	Unintended Operation of Equipment	A mechanic was fatally injured at a gold mine. He was in the process of making repairs on a front-end loader when the bucket fell, pinning him between the bucket lift arm and the loader frame. The bucket was not blocked.	Maintenance should not be performed on equipment unless components are blocked and secured against hazardous motion.
18/06/1999 Australia Tasmania Non-Coal Underground	Other	Loader hit timber frame of mine, which fell and struck the operator.	
10/01/1999 United States Non-Coal Underground	Other	A miner was fatally injured at an underground gold mine. The victim parked his 22T haul truck in a dead-end drift and shut off the lights while remaining at the operating controls, perhaps to take a break. A 33T haul truck backed into the parked vehicle.	Headlights be on while persons are in cab of mobile equipment. Visible warning devices be used when parked equipment creates a hazard. Mobile equipment with restricted visibility to rear not to be reversed until operator has checked that it is safe.
5/11/1998 United States Non-Coal Underground	Other	A utility man was fatally injured operating a rear-steer tractor equipped with a small bucket for clean up work. He drove the tractor forward, stuck his head outside the cabin and was fatally injured when it struck a steel conveyor support leg.	Equipment operators should remain inside operator's compartments when equipment is moving.

3/05/1998 Australia Western Australia Non-Coal Underground	Other	The deceased was operating a remotely controlled loader when it appears he was crushed against the sidewall by the loader bucket. Initial reports indicate that the deceased may have inadvertently operated the wrong control.	
8/01/1998 Australia Western Australia Non-Coal Underground	Unintended Operation of Equipment	A female employee had been operating a load-haul-dump machine by remote control in an ore drive of an underground gold mine was found pinned between the rear left side of the loader and sidewall of the ore drive.	
20/11/1997 Australia Western Australia Non-Coal Underground	Fall of Roof/Sides/Highwall	The operator was loading ore from a previous blast from the drawpoint of an open stope, using a remotely controlled load-haul-dump (LHD) unit. At that time, a rockfall was heard in the area and a dust cloud was observed	
28/08/1997 United States Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A labourer was fatally injured waiting for his haul truck to be loaded with ore. He apparently got out of the truck and was run over by a 3-½ yard load-haul-dump unit which was returning from the maintenance shop.	
10/07/1997 Australia Western Australia Non-Coal Underground	Fall of Roof/Sides/Highwall	The deceased was operating a remote controlled loader on a stoping when there was a seismic tremor. All personnel were evacuated and a roll call taken. It was revealed that a man was missing and they returned to find him buried under rock.	When working underground always wear safety helmet with light attached. Never attempt to work while under the influence of alcohol or drugs.
4/06/1997 Australia Queensland Non-Coal Underground	Unintended Operation of Equipment	Loader fell into stope.	Physical structures or barriers should be installed to prevent mobile equipment falling into hazardous openings. Formal procedures for work practices should be implemented for work in hazardous areas. Lighting installed to illuminate hazardous openings.
13/03/1997 United States Non-Coal Underground	Unintended Operation of Equipment	A contractor foreman was fatally injured when the 3/4-ton pickup truck he was driving over travelled the roadway and rolled down the side of a mountain approximately 90 feet, to the next lower roadway.	
15/01/1997 United States Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A lube technician with 13 months of mining experience was killed at a gold mine. The employee was walking along the rib in the area of the mine where equipment was being lubricated and fuelled. She was crushed against the rib by a moving 3½ yard loader.	New employee induction should be carried out before the employee starts any work on site. Regular maintenance and inspections should be carried out on all equipment in accordance with manufacturer's specifications.

6/10/1996 Australia Queensland Non-Coal Underground	Unintended Operation of Equipment	Loader fell into stope.	Where a vertical edge will be used as a backfill/tipping location, a stop log should be constructed in accordance with a procedure developed using a recognised risk management process.
18/05/1996 United States Non-Coal Underground	Unintended Operation of Equipment	A supervisor was killed when he had backed a truck down to where a roadway was being widened. His right rear wheel dropped over edge. He decided to dump part of load which caused truck to roll over down bank. Truck didn't have doors or seatbelts.	Berms to be provided on roadways where a significant elevation exists. Seatbelts should be worn when operating equipment. All equipment should be regularly maintained and inspected in accordance with OEM specifications. Operator training is mandatory.
10/05/1996 United States Non-Coal Underground	Fall of Roof/Sides/Highwall	A driller and a labourer were killed instantly at a limestone mine when they had driven into the underground mine prior to haulage operations. A 40ft by 40ft by 5ft slab of limestone fell from back and crushed truck.	
3/04/1996 United States Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A loader operator was killed when he was mucking in a gallery of mine using a front-end loader. A witness saw loader in motion at gallery with no operator onboard. Employee was found dead in gallery. It is believed that he was run over by loader.	Regular maintenance and inspections should be carried out on all equipment to ensure safe operation is possible.
24/12/1995 United States Non-Coal Underground	Unintended Operation of Equipment	A development miner was fatally injured hauling copper ore to crusher on the surface. He was discovered on main ramp lying about six feet behind the truck he was operating. His upper body was crushed indicating that he was run over by his truck.	Employees should not operate any machinery under the influence of alcohol.
31/10/1995 United States Non-Coal Underground	Unintended Operation of Equipment	A floor driller was fatally injured as he was driving a golf cart away from work site when a front-end loader backing through ventilation curtains struck and dragged golf cart. Victim jumped from cart but was run over by wheels of front-end loader.	Equipment should be regularly maintained and inspected to be sure that all safety functions are working and that equipment is fit for purpose.
14/05/1995 Australia Western Australia Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	The operator of a remote controlled loader was crushed between the rear of machine and wall of stope drawpoint he was bogging. The deceased was working alone at time and was found with radio transmitter harnessed to him in normal operating manner.	

25/11/1993 Australia Western Australia Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	The deceased was crushed against the sidewall of a stope access drive by a remote controlled loader. He had approached the working area on foot and was not wearing a cap lamp. The operator of the loader did not know that anyone was in the vicinity.	
1/11/1992 Australia South Australia Non-Coal Underground	Explosives	A male miner using a pneumatic ANFO loader died when the explosive prematurely exploded. He was loading a large diameter up hole with explosives. The detonator and primer had been placed in position in the hole. When the ANFO-loader was turned on to pneumatically load the ANFO into the hole the charge detonated. An exact cause has not been identified.	
2/10/1992 Australia Queensland Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Crushed between lip of a loader bucket and an underground development face.	Standard work procedures must be drawn up and enforced to cover the situation where persons are lifted in the bucket of Load Haul Dump Units.
18/08/1992 Australia Western Australia Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	The deceased, a supervisor at an underground nickel mine, was on foot near a haul truck underground. His position was unknown to the driver. He was run over by the truck.	Before entering vicinity of mobile equipment a person must make visual contact with operator. To indicate intention of moving a parked truck operators should sound horn prior to moving. Persons working underground should have reflective strips on overalls
24/08/1991 Australia Western Australia Non-Coal Underground	Fall of Roof/Sides/Highwall	Operator and another miner were scaling the backs of the decline about 8m from the face, standing in the bucket of the loader, when miner scaled down a slab and both were crushed by a slab of rock which fell on them.	
26/01/1991 Australia Queensland Non-Coal Underground	Unintended Operation of Equipment	A load haul dump operator drove his unit through a warning barricade and fell into an open stope.	Mine Management in consultation with the Chief Inspector of Mines investigate the size and positioning of additional signs, particularly in relation to Ore Passes and open stopes.
26/09/1989 Australia Queensland Non-Coal Underground	Other	Crushed between flying rail of loco and wall of cross-cut while rake of trucks was being loaded from a chute.	
18/03/1989 Australia Queensland Non-Coal Underground	Inrush	Overwhelmed by rush of fill while operating a load-haul dump.	

16/09/1988 Australia Western Australia Non-Coal Underground	Unintended operation of Equipment	Was bogging a cross cut face with a rail mounted mechanical bogger which derailed and tilted, jamming him against the wall.	
4/01/1988 Australia Tasmania Non-Coal Underground	Unintended operation of Equipment	While driving a loader it fell into a 30m open stope.	
11/06/1986 Australia Western Australia Non-Coal Underground	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Was assisting with the unloading of a 60 tonne dump truck from a float. The truck fell off the jacks and his head was caught between the front tyre and a block of wood.	
3/09/1985 Australia New South Wales Non-Coal Underground	Fall of Roof/Sides/Highwall	While final mucking of a stope with a loader, when a fall of ground above them struck them, killing 1 man.	
11/02/1984 Australia Western Australia Non-Coal Underground	Unintended operation of Equipment	A 4m long steel beam was being towed down the decline by a front end loader, when the beam dug into the floor and struck the operator.	
8/01/1984 Australia Western Australia Non-Coal Underground	Unintended operation of Equipment	Was driving a loader down the haulroad into the pit when it struck the wall and overturned	
29/10/1983 Australia Western Australia Non-Coal Underground	Other	Was sitting in a Toyota which was parked in front of a Terex truck. The truck driver started it and drove forward. The Toyota was rolled under the front bumper of the truck.	
5/01/1982 Australia Tasmania Non-Coal Underground	Other	Crushed between a truck and a wall.	
16/07/1981 Australia Western Australia Non-Coal Underground	Fall from Heights	Was tipping into an ore pass when the edge gave way and the loader fell into the pass.	
5/03/1981 Australia Western Australia Non-Coal Underground	Other	Was driving a stores truck which was struck by a train at a level crossing on site, driver being thrown from the truck on impact	
29/08/1979 Australia New South Wales Non-Coal Underground	Other	Miner was crushed between a CAVO loader and the drive wall.	

1979 United Kingdom Non-Coal Underground	Fall of Roof/Sides/Highwall	In a potash mine where the roof was supported by roof bolts, an electrician was fatally injured when struck by a piece of material which fell from the 4.5m high roof. It fell on a loader canopy and then rolled onto the miner	
16/03/1978 Australia Queensland Non-Coal Underground	Other	Crushed between two load-haul dump units in underground parking bay.	
7/06/1977 Australia New South Wales Non-Coal Underground	Other	Drove into an ore pass in an EM7 vehicle	
1974 Australia New South Wales Non-Coal Underground	Asphyxiation	Died of asphyxiation when flipping the loader going around a bend and being crushed underneath.	
13/12/1972 Australia Queensland Non-Coal Underground	Other	Jammed between LHD's while walking up incline.	
1972 Australia New South Wales Non-Coal Underground	Other	Died while attempting to halt a runaway truck. He was jammed between the truck and some fixed machinery	
1970 Australia New South Wales Non-Coal Underground	Other	Slipped and fell under the wheels of a front end loader	
26/07/1968 Australia Queensland Non-Coal Underground	Unintended Operation of Equipment	Died from head injuries while operating a Wagner MTPF-10 diesel ore carrier.	
17/11/1966 Australia Queensland Non-Coal Underground	Other	Crushed between top edge of empty Granby truck and the underside of timber buffer bar while riding the truck back across a tipple.	
1966 Australia New South Wales Non-Coal Underground	Other	A back end loader he was driving collided with a wall, crushing his chest against a pipe	
10/02/1960 Australia New South Wales Non-Coal Underground	Unintended operation of Equipment	Fouled the controls of a Travers motor causing the carriage to roll and jam him	

13/11/1957 Australia New South Wales Non-Coal Underground	Other	Was crushed between a truck and a small hand winch	
30/08/1957 Australia Queensland Non-Coal Underground	Other	Fatally injured when he put his head into the shaft when he was struck by a truck which had fallen down the shaft from a higher level.	
29/11/1956 Australia New South Wales Non-Coal Underground	Other	Killed when crushed between mechanical loader and truck	