

## MDG 1 - Fatal Incidents on Free Steered Vehicles in Underground Coal Mines

<b>Incident Information</b>	<b>Agent of Fatality</b>	<b>Events</b>	<b>Recommendations</b>
<b>12/12/2007</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	Killed at a surface truck load out area. While travelling down at 8-9% grade the truck became bogged in mud. An employee placed a loader above the truck to drag it up the incline when attaching the chain the loader rolled into the truck driver and killed him.	When parking on grade turn wheels into berm and set park brake, conduct pre-op checks, conduct task training.
<b>17/12/2006</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	Mechanic and co-workers were on a rubber tire personnel carrier when a rock fall occurred due to moisture.	Increased training for miners about geological surveys. Updated roof plan and increased roof support should also be included.
<b>4/11/2006</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	While using a battery powered scoop to pull a shuttle car cable towards the power centre, it got lodged between the scoop tyre and the mine floor, unwound from canopy post and fatally struck the operator in the head.	Initiate policy that ropes should be used for pulling cables and not vehicles. Cable pulling policy training also.
<b>24/05/2006</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	Utility man operating a scoop was fatally injured by two wooden planks that entered the scoop deck. Haulageways were not clear of extraneous debris.	Reinstate the need to keep roadways clear of waste materials and install protection for the scoop operators.
<b>23/01/2006</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A truck driver fell from a truck while not wearing a seatbelt and was run over by his own truck. He may have been cleaning his mirrors at the time with defective door.	Contractor to implement policy of wearing seatbelts while operating trucks. Examination of equipment pre-shift should also be performed.
<b>30/12/2005</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	Victim was struck from behind by a loaded coal hauler as he had exited shuttle car and was using mine phone waiting for belt to re-energize. Worker was then not treated with first aid, but taken to another location. This movement increased the rate at which he died.	New load limits given to haulers, no more mixing of repaired components and equipment and more extensive training.
<b>11/05/2005</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	Victim was contacted by the front end of a loaded loader, with an obstructed view for the operator.	Change in operating procedure about peoples in the areas of moving equipment.
<b>29/03/2005</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	Operator was fatally injured when backing a shield hauler into a crosscut and the machine ran over 14 foot of channel, causing channel to flip up and enter the operators compartment.	Workers receive mine road examination training, removal of excess material from roadways and shield hauler with a cage to protect operator.
<b>9/11/2004</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	While attaching a loader to a truck to pull it, loader hand brake was not set and rolled back into truck, pinning the man in between.	Do not work between heavy equipment, always set the parking brake and use visual communications.

<b>10/02/2004</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	While operating track mounted personnel carrier, driver was using excessive speed and struck a closed airlock door.	Grades of roads reduced in airlock area, brakes were fixed and then regularly checked on transport, new speed limits given and pre-operational checks always to be carried out.
<b>20/06/2002</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Asphyxiation	Utility man was lubricating bearings when bunker cars moved as victim placed himself in a pinch point, crushing him.	Do not perform maintenance without motion blockage and train staff in hazard identification.
<b>11/05/2002</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Electrocution	Operator cut a corner and pinched the loader on an electric cable, which energized the loader and when he tried to free the cable was electrocuted.	Do not use unestablished routes of travel, protect all protruding electric cables, policy to follow when cable touches rubber wheel and always wear gloves where possible.
<b>27/02/2002</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A truck driver was fatally injured when his truck ran over him as it rolled down a decline. After loading coal into trailers, driver stopped to check a spillage. Only applying minimal brakes, truck rolled down decline over victim as he tried to re-enter.	Set brakes before dismounting or leaving vehicle. Know truck's capabilities and limits. Provide hazard training for new drivers. Provide task training for new tasks. Block wheels to prevent movement when parking trucks on a steep grade.
<b>31/01/2002</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A miner was fatally injured when he was hit by a battery powered Uni-hauler. Victim was walking into an entry as uni-hauler operator pulled hauler into entry in order to load coal. Later victim was found on ground entangled in vent curtain he was carrying	Equipment operators insure they maintain a safe distance between equipment being operated. A warning to be sounded when the equipment operator's visibility is obstructed. Never position yourself in an area or location where equipment operators can't see you.
<b>17/09/2001</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	A miner was fatally injured when struck by a scoop. Victim was last heard with a hammer making repairs to a line curtain at face. Scoop was being used to clean up and haul coal. Scoop entered face area noticed he had run over miner.	Always maintain a safe distance between yourself and moving equipment. Pre-start checks be adequate to identify hazards effecting safe operation of equipment before it is placed into service. Wear reflective clothing to increase chances of being seen.
<b>27/07/2001</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A truck driver received severe injuries while conducting maintenance on his truck. He had put a metal stand under tray and then raised body in order to lift truck off ground. While under truck it rolled backwards pinning victim who later died from injuries.	Turn engine off, place transmission in gear, set park brake and always make sure equipment is securely blocked against motion, before performing repair or maintenance work. Don't depend on hydraulic systems to hold mobile equipment stationary.
<b>14/03/2001</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	A foreman was fatally injured during a fall of roof as he was operating a scoop inby roof supports. A roof bolting machine operator informed foreman he couldn't get machine into area to bolt roof. Foreman used a scoop inby supports to remove fallen material	Never work or travel under unsupported roof. Always do a thorough and complete preshift examination for hazardous conditions prior to performing any work in an area. Always know and follow the provisions of the approved Roof Control Plan.

<b>31/07/1999</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	A mobile bridge operator was travelling out of mine in a diesel powered open personnel carrier. A piece of mine roof fell from between roof supports. Falling roof material struck victim in face and upper torso, resulting in fatal injuries.	Mine roof in all travelways and haul roads be thoroughly examined as a part of the pre-shift and on-shift examinations. Any loose or unconsolidated roof material be taken down or supported. Covered personnel carriers to be used to transport personnel.
<b>12/03/1999</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A shuttle-car operator was fatally injured when he was crushed between operator's deck and rib. Operator had dumped a load at feeder and was returning to face. On the return trip to face, shuttle car hit rib crushing the victim.	All electrical equipment be frequently examined, tested and maintained to assure safe operating conditions. All self-propelled face equipment operated in coal mines where the top to bottom height is 42" or greater, be provided with cabs or canopies.
<b>17/12/1998</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	A serviceman was fatally injured when he fell from a moving personnel carrier. Whilst trying to position himself in an open rail personnel carrier, carrier hit a kink in the track and victim fell over front of carrier and was crushed as it ran over him.	Open personnel carriers be equipped with guards. Personnel carriers not to be overcrowded. Personnel carriers be operated at speeds consistent with conditions. Personnel carriers be under direction of a supervisor and operator be familiar with procedures
<b>6/06/1998</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A section foreman was operating scoop in the process of installing a conveyor belt drive. Using scoop to apply down pressure to raise head roller, the bucket slipped off. Effect of bucket slipping off forced the drivers side into roof, causing fatal injuries.	Machinery should be used only for the purposes for which it was specifically designed.
<b>22/05/1998</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A truck driver was fatally injured when he became crushed under truck as it rolled when he either jumped or was thrown out. Driver had just left pit when he lost control. It is believed that engine stalled, leading to a loss of steering.	Haul truck braking systems must be constantly maintained in good repair and adjustment. Equipment operators should always wear seat belts. In event of a runaway vehicle, the best chance for reduced injury is for the operator to stay in the vehicle.
<b>6/03/1998</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	An electrician trainee was fatally injured when he was crushed between a rib and man bus which was hit by a scoop. The victim was talking to co-workers as a scoop was tramping through a curtain. Once the scoop was through curtain it hit man bus.	Equipment should be parked away from curtains a sufficient distance to allow moving equipment enough room to clear the curtain while passing through.
<b>13/06/1997</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A mechanic was repairing a lift jack of a bucket on a loader. A steel beam was placed to support one of bucket arms. While mechanic was working on lift jack, beam split allowing bucket to fall. Mechanic attempted to escape when he was hit by bucket.	

<b>20/05/1997</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A utility worker was fatally injured when his diesel scoop hit a steel beam of an overcast. Victim was pushing a dust trailer out of mine when he stopped on a grade. Scoop travelled back down grade and hit overcast destroying ROPS, crushing victim.	
<b>18/03/1997</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Electrocution	A truck driver was fatally injured when his truck hit a high voltage electrical line. After leaving mine with a full load he stopped and attempted to cover load with tarp. Mechanism hit an overhead 23000V power line, which electrocuted driver.	
<b>31/01/1997</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Explosives	Scoops were operated in a circle haul scheme hauling coal from face to dump area. A section foreman operated a scoop and stopped in a crosscut, articulated, to allow mechanic to see bucket pin. While stopped, second scoop collided fatally injuring foreman	
<b>29/01/1997</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Other	A surface labourer driving a pickup truck arrived at an underground workshop area. Labourer exited truck and when he attempted to retrieve something from the back of the truck an explosion occurred, fatally injuring him. There were explosives in the truck	
<b>19/09/1996</b> <b>Australia</b> <b>Queensland</b> <b>Coal</b> <b>Underground</b>	Drowning	Fatally injured by drowning when the MPV transport vehicle he was driving ran off the surface area into a surface water lagoon.	
<b>23/04/1996</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	The operator of a rear dump truck hauling overburden from a 5700 shovel to a dump site suffered fatal injuries when the truck was driven through a windrow and over a 34m highwall.	
<b>11/04/1996</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	A roof bolting machine operator was fatally injured when he was crushed by a personnel carrier against a bolting machine. 2 miners arrived at mining area by personnel carrier and passed roof bolter. Personnel carrier rolled down grade and hit roof bolter.	

<b>7/02/1996</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	A loading machine operator was assisting a mechanic repairing a loading machine at a rehabilitation site. When they were applying grease to machine a portion of rock fell suddenly killing loading machine operator and seriously injuring the mechanic.	
<b>19/12/1995</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	An incompetent person was operating a material hauler down a haul road. Vehicle was in neutral and operator put it into 1st gear causing engine to stall and operator jumped off. Machine came to rest against guard rail and operator was under wheels.	Equipment operators are to have suitable training and induction before operating any machinery. Machinery is to be operated with transmission in a suitable gear. All equipment to be maintained on a regular basis according to manufacturers specifications.
<b>26/04/1995</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A fitter was fatally injured when a LHD ran over him. The fitter had moved the LHD to a position up hill to carry out maintenance. Failure to apply brakes resulted in the LHD running over the deceased.	
<b>3/03/1992</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A contractor was killed when his head was crushed between the mine roof and the drivers' compartment of a LHD. During loading out of a fall in roof stone the loader became positioned on the stone reducing overall clearance.	
<b>26/06/1991</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	A machineman sustained fatal injuries when crushed between the rib and the steering wheel of a dual seat MPV at the bottom of a drift. The driver was operating the machine from the incorrect driving terminal and the rib was undercut.	
<b>1/03/1990</b> <b>Australia</b> <b>Queensland</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	Fatally injured when a front end loader he was operating near a mine portal lost control and crashed into a stone roof pushing the cab forward, crushing the operator against the steering wheel and control panel.	
<b>1989</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	The bucket of a LHD was raised too high during transport of the LHD on a rail flat-top and it took out some cross roof supports which initiated a roof fall.	
<b>8/02/1988</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Asphyxiation	Contractor had loaded metal onto a truck when the load shifted and 2 bars fell onto his body crushing and asphyxiating him.	

<b>10/10/1986</b> <b>New Zealand</b> <b>Coal</b> <b>Underground</b>	Other	Miner was killed when his head became trapped between a beam supporting the roof of the mine and the sterkrade truck that he was driving into the mine carrying mining timber	
<b>1985</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Other	Killed while failing to observe underground transport rules	
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<b>1985</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Other	Man killed due to poor planning and poor communication underground.	
<b>13/09/1983</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Asphyxiation	While driving kneeling with chest between roll bars, a door struck the roll bars, crushing them and pinning the driver between them.	
<b>25/03/1983</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Other	Surveyor was hand drilling when he was struck by a man transport, sustaining massive head injuries.	
<b>10/09/1982</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Other	Was hit by a man transport while performing maintenance on a roadway without any sufficient signage or barriers erected.	
<b>19/03/1981</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Unintended operation of Equipment	Driver of a large road watering truck careered off the road and fell 11m down to a coal receiving dump bridge. Brakes were not correctly adjusted.	
<b>9/09/1979</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Unintended operation of Equipment	Workman was fatally injured when knocked down by a loader which had its parking brake overridden following 3 minutes of compression with engine off.	
<b>1977</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Other	Run over by a diesel transporter whilst engaged in stonedusting	
<b>1977</b> <b>United Kingdom</b> <b>Coal</b> <b>Underground</b>	Other	Was acting as a sighting point for a surveyor while squatting when he was run over by a shovel loader with reduced visibility.	

<b>1973</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	Miner was crushed against side of loader he was operating when roof stone fell.	
<b>1973</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Other	Man received severe injuries when he was struck and dragged by a haulage car.	
<b>1973</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	Machine man was struck by falling material and roof when the loader he was driving took out some roof supports, which fell onto the loader and killed the driver.	
<b>16/12/1972</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Gas Ignition Explosion	Methane was ignited from an electric arc from a porta-bus	
<b>25/09/1972</b> <b>United States</b> <b>Coal</b> <b>Underground</b>	Gas Ignition Explosion	Methane was ignited from one of several parts of a non-permissible personnel carrier.	
<b>1968</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Unintended operation of Equipment	Was crushed between a BU loader and the support props. He was operating the machine and had worked himself into a position where he was unable to reach the controls and the machine continued to move. Because of the defect, the shovel end on the floor struck a prop and caused the machine to slew.	
<b>8/09/1966</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Electrocution	Found dead near the cable entry gland of a loading machine, when the chisel edge of some multigrips had penetrated a power core cable.	
<b>1966</b> <b>New Zealand</b> <b>Coal</b> <b>Underground</b>	Other	Was fatally injured when hit by full boxes which ran from one road onto another road on which he was trucking.	
<b>24/05/1962</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	Death of two men at intersection in solid work where a coal ply of about 30 inches was being left under mudstone. There was a fall where the conventional type of coal loader was being used.	
<b>30/03/1962</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	Death of 2 machineman during loading of top coal associated with pillar extraction in a thick seam, when the coal roof above a wide section collapsed without warning.	
<b>1962</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Fall of Roof/Sides/Highwall	Struck on head by coal fall from right hand face	

<b>2/11/1960</b> <b>Australia</b> <b>Queensland</b> <b>Coal</b> <b>Underground</b>	Unintended Operation of Equipment	Fatally injured when he was crushed beneath a colliery motor truck which rolled from a private mine roadway.	
<b>1/06/1956</b> <b>Australia</b> <b>New South Wales</b> <b>Coal</b> <b>Underground</b>	Explosives	Detonator which he was holding in his left hand accidentally exploded, which was initiated by an electric charge from a loader he was using at the time	
<b>19/04/1932</b> <b>Australia</b> <b>Queensland</b> <b>Coal</b> <b>Underground</b>	Contact with Moving or Rotating Plant (Guarding/Access to Danger Zone)	Fatally injured from compound fractures of the pelvis and femur and a rupture of the bladder when attempting to couple a loaded truck. While moving, the trucks fouled and he was jammed between the buffer of a moving truck and woodwork of a standing truck.	