



Indian and
Northern Affairs

Affaires indiennes
et du Nord

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Your file Votre référence

Our file Notre référence

ACCIDENTS REPORTED IN THE N.W.T. - 1980

The Mining Safety Ordinance requires the mines to report serious and fatal injuries and accidents involving hoisting, bulkheads, fires, explosives, gases etc. even if no injuries occur. This is a summary of these incidents, including a statistical report of injuries.

Incidents - Fatalities

1. A dozer operator was run over by his machine in an open pit. The machine was hung up on a muck pile with the tracks running in reverse and the throttle open. The body was found 200 metres away in an area where the dozer had been working. There was no reasonable explanation why the operator was out of the cab when the machine was moving.
2. A diamond driller, working alone underground was crushed when his machine fell on him. His bit got stuck in the hole, and he was trying to free it by prying with a two-metre drill steel. The upright bar dislodged and he was trapped under the machinery.
3. A motorman was crushed between a battery locomotive and a ventilation doorframe. He had only been working at this mine for a few days, but had extensive underground mining experience elsewhere. He was mucking at a draw point and tramming to an ore pass. The door was partly open, resting against the cab. He may have tried to open the door while in motion, and fell partly out of the cab. There was no catch on the door. It was held shut against the ventilation by a counterweight. There was 15 cm. clearance between the motor and doorframe.

Incidents - Hoisting

1. An electrical malfunction dogged the cage at 350 metres, resulting in a kinked hoisting rope. Five metres was cut off the rope.
2. A skip tender dumped a load of muck down the shaft causing damage to the tail rope dividers. The skip indicating light was burned out, the proximity switch was manually by-passed

Hoisting - con't

- by the skiptender, and a pocket of muck dumped into the open shaft. A new set of operating procedures were posted which will prevent this from happening in the future. The next day, the skip was double-filled, and had to be hard-mucked in order to hoist, but no spill went down the shaft.
4. During routine inspection one lay length of tail rope of a friction hoist was found to be displaced. It was beat back into place with a hammer and subsequent inspections were satisfactory.
 5. A descending skip caught on the station timber and dogged. One hundred and thirty meters of hoisting rope was coiled on the bale. The rope was re-spooled without damage. The skip was adjusted and two guides replaced.
 6. During routine testing of hoist safety devices, the pinion brake failed and the ascending conveyance hit the sheave. The bearing timbers, secured only by drift-pins, popped up allowing timbers, sheave wheels and bracing to slide down the hoisting ropes and come to rest on the ground between the hoist room and the depacitated headframe. Two carpenters were working at the top of the headframe, sheeting it for winter operations. They fell to the ground, sustaining shoulder injuries.
 7. A double drum hoist was being used with one bucket and a counterweight for shaft sinking. The drum end of the hoisting ropes were anchored with a loop around the shaft. The loop pulled tight and wore a groove in the shaft when the drum was checked out. The shaft had to be replaced.
 8. The above hoist was being used to dewater the shaft using the sinking bucket. Ice completely filled the groove in the counterweight sheave. The rope came off, lodged between the sheave hub and pillow block and broke in two. The counterweight lodged in the muck at the shaft bottom. Damage was minimal, except for the loss of the rope.

Incidents - Gas

1. Two occurances of gas, believed to be methane were reported from diamond drill holes from the lower levels of a gold mine. Concentration was not in the explosive range.
2. A decline, driven in permafrost in the high arctic in 1973 was sealed to prevent ice formation. When it was reopened this summer, air samples 100 metres from the collar showed 3½% Carbon Dioxide, 9½% Oxygen and 87% Nitrogen. This atmosphere may be due to chemical combination of Oxygen from the air with sulphides in the rock and release of carbon dioxide from the carbonate rock.

Gas - Con't

3. Several reports were received of suspected methane from diamond drilling on deep holes. Underground diamond drill crews are issued with explosive gas detectors.

Incidents - Fires

1. A small fire occurred in an arc welder in a battery charging station underground. The welder tried two extinguishers in the station and neither worked. When he was away hunting for another one, the fire went out by itself. The extinguishers were found to be full of powder but the gas cylinders were empty. They will be checked and initiated monthly in future.
2. The mechanics were installing an acetylene tank for an atomic absorption spectrophotometer in an assay lab. They left a valve open, causing an excess of gas. This was ignited by a similar machine operating nearby. The resulting explosion caused a fire in the assay office. Damage was caused by both explosion and fire. Three technicians were slightly injured.
3. A small fire started in the electric wiring in a truck which was idling in an underground shop. The fire was put out with damage to the insulation and the oil gauge hose.
4. A small electrical fire damaged the wiring leading to a compressor house near the entrance to an underground mine. It was put out by the mechanics, using hand extinguishers. Damage was estimated at \$10,000.
5. Sparks from a welding torch lit on a paper towel, which spread to some grease near the drive belt of an underground crusher. It was put out without extensive damage. The crusher operator and welders were alerted to housekeeping improvements.
6. A small fire started in a conveyor drive belt at the top of a fine ore bin underground. The belts were replaced and re-tensioned.
7. A fire started in the brakes of an underground ore truck when they did not release completely. Damage was confined to the brake lining.
8. A fire started in the brakes of an underground lift truck when they failed to release completely. Damage was confined to the brake lining. These two similar fires occurred at the same mine a few months apart.

Incidents - Mobile Equipment

1. A scoop-tram upset due to running over a rock with one tire. It was decided that this particular machine was inherently unstable. ROPS canopy and seat belt was installed.

Incidents - Explosives

1. An explosive delivery truck, loaded with NCN failed to report at the main gate. He got lost on company roads and encountered a low hanging 2300 volt power line. No explosion or fire resulted, but union, public and media outcry was extensive.
2. A drift runner intersected a bootleg while drilling a round. The explosion resulted in facial lacerations to his partner.
3. Shortly after loading an open pit bench, smoke was seen coming from a hole. It was loaded with NCN, a primacord down line and two boosters. The primacord was immediately disconnected from the rest of the holes and the pit guarded. After two days there appeared to have been a small blast, the stemming was blown out of the hole. The bench was then blasted without any problem. It is believed that a sulphur fire was burning in the hole when loading started, and was not noticed.

Incidents - Electrical

1. An explosion occurred in a nickel-cadmium battery charging bank. It was attributed to overcharging and lack of ventilation. Damage was confined to the batteries which were destroyed.
2. The main power cable to an auxiliary hoist ruptured. The hoist was out of service for two days.
3. The D.C. generator of an M.G. set supplying power for a friction hoist burned out due to overload or underdesign or both. Production was disrupted for ten days. Auxiliary hoist permitted some mine services to continue.

Incidents - Fall of Ground

1. A miner was rock-bolting in a stope when a large piece of loose fell from the back. He suffered a broken leg and extensive bruises.
2. A miner was loading explosives in a drift when a large piece of loose fell from the face. He suffered broken vertebrae and extensive facial injuries.
3. A jumbo operator was drilling at the face of a crosscut. He left the operators position, to line up a cut hole while the other machine was drilling above. Loose fell from the face resulting in a fractured skull and hip.
4. A decline had been driven in permafrost during the winter. Underground diamond drilling was continuing. During the summer, there was signs of failure at the collar. Work was stopped and the crews taken out of the mine. About 100 tons of rock fell from the brow, almost covering the entrance.

Incidents - Miscellaneous

1. The mine services building for a mine in the arctic islands showed signs of settling. Drilling revealed several large ice lenses under the foundation. Warm mill solutions were melting the ice. Drifts were driven under the building, the ice was removed and replaced with concrete pillars. The mill was shut down for three months.
2. A drill rod stuck in the face of a decline in permafrost. While trying to free it, the boom arm broke, allowing the weight of the machine and boom to lie on the steel. A mechanic was sent down to cut the steel with a torch. When cut, the end of the steel hit the mechanic in the chest and face causing multiple fractures, bruises and lacerations.

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