

MINE SAFETY INVESTIGATION UNIT

INFORMATION RELEASE

Serious injury

Date	Incident occurred on 7 December 2011
Event	Person crushed between telehandler/forklift and delivery truck
Location	Tasman Underground Coal Mine, Newcastle, NSW

At a glance

A delivery truck driver received serious spinal and pelvic fractures when he was crushed by steel mesh being unloaded from his truck by a telehandler/forklift.

- A telehandler was being used to unload roof mesh from a delivery truck.
- The attempted load was at the limit of the machine's capacity.
- The truck driver moved between the suspended load and the truck.
- The load slid forward from the tines and crushed the truck driver against the truck.
- There are important observations for all mine operators.



The incident

On 7 December 2011 a delivery truck driver was seriously injured at the Tasman Underground Coal Mine. He was delivering a load of steel mesh to be used as roof support underground at the mine.

When the driver arrived at the mine there were no prior arrangements for dealing with the delivery. Staff on the surface of the mine sought to identify a person who could unload the truck.

A mine deputy, who had been assigned to light duties, was working on the surface of the mine.

The mine deputy undertook to unload the truck using the mine's telehandler, which is a multi-purpose materials handling machine (pictured).

The mine deputy was not the normal operator of the telehandler, and had not been involved in either the yard work or the surface attendant role before.

The mine deputy had not unloaded roof mesh before and had not been given an authorisation by the mine operator to operate the telehandler machine.



It is noted that the truck driver and the mine deputy discussed how to unload the mesh as neither had undertaken the task before. There appears to have been some uncertainty as to how many packs of mesh could be lifted in one go.

The mine deputy began unloading the bundles of mesh assisted by the truck driver.

The first attempt to lift four bundles in one load resulted in an overload alarm sounding on the telehandler. The mine deputy realised the telehandler was overloaded, stopped the lift, and then continued to unload two bundles at a time.

The men reported there were some difficulties getting the telehandler tines between the bundles of mesh because of their manner of loading, and the orientation of the truck.

Work continued two bundles at a time, leaving the remaining stack of three bundles at the front section of the truck tray.

The remaining three bundles were then lifted in one load.

The mine deputy said he had difficulty with the load suspended above the truck tray, and that the amber load alarm light was indicating.

At that time the truck driver was picking up tie down straps, and appears to have moved along the truck tray entering the zone between it and the forklift and truck tray as the forklift was reversing.

As the forklift moved away, the mesh shifted on the steel forks and the top two bundles slid forward. The movement of the top two bundles of mesh crushed the truck driver against the truck tyre and tray.

He was severely injured and transported to John Hunter Hospital by road ambulance.

The mine

The Tasman Mine is a small underground coal mine near the town of Seahampton 20 kilometres west of Newcastle, NSW. The mine produces about 975,000 tonnes of coal per annum.

Production from the mine is by the bord and pillar method. At the time of the incident the mine was receiving regular supplies of materials to be used in supporting the mine roadways as the mine developed. One of those materials was the steel mesh bundles delivered by General Carrying Pty Ltd.

The carrier

The delivery truck driver was working for General Carrying Pty Ltd, based near Camden.

The mesh bundles had been loaded into containers by a steel products manufacturer in Perth, WA and transported by rail to Sydney.

The truck driver had picked up the container of mesh from the rail yard in Chullora, Sydney, the day before the incident and taken it to the carriers' yards. The bundles of mesh remained on the truck overnight and the packing of the mesh had not changed since it left Perth. The truck driver transported the mesh to Tasman Mine the next morning, arriving at the mine at 9am.

It was the first time he had delivered to the Tasman Mine.

The unloading area

The location of the incident was the designated unloading area which, according to reports, had always been the place where mesh was unloaded.

That location was affected by a main access road into the underground workings.

The location was not sealed or concreted but was a compacted material.

Observations

The serious nature of this incident is combined with the frequency with which this type of activity occurs at all mine operations.

The potential exposure to this type of hazard is high, so the Investigation Unit recommends that there be layers of effective controls in place.

A detailed investigation report is in the advanced stages of preparation, and is expected to be published in the near future.

A crucial point to emerge from the investigation is an understanding of where the centre of the load is and the effect this has on the optimum weight that may be lifted.

The overall dimensions of the bundles of mesh meant that the effective centre of the load was 0.125 metres past the centre of the forks.

This reduced the effective lifting capacity of the load from 4 tonne to 3 tonne, meaning that the three bundles of mesh being lifted were at the outer limit or beyond the rated capacity of the machine.

