



CFMEU
CONSTRUCTION
AND GENERAL

Report

by

**CFMEU Construction & General Division
NSW Branch**

Principal Contractor – Rock and Earth Exchange

Address – Menangle Park Paceway Menangle Park NSW



Background:

On 19 January 2010, at approximately 2.00pm, a 53 year old male truck driver sustained fatal injuries when an articulated vehicle (semi trailer) he was driving rolled on him, while he was tipping soil on a reclamation site at Menangle Park Paceway.

It would appear that he had reversed his semi trailer, articulating the prime mover to form a “V” formation between the prime mover and trailer (acute angle). As he raised the load the trailer rolled over trapping him the cabin of the prime mover (truck).

The worker was employed by Frontier Civil Engineering Pty Ltd, a small demolition and excavation company as a truck driver. At the time he was driving a Frontier Civil Engineering badged company truck.

Harold Park, the owners and operators of Menangle Park Paceway, have engaged a company trading as Rock and Earth Exchange to undertake the backfilling of an expired sand mining lease on the Paceway site.

Sand mining had been undertaken on this site for some twenty (22) years until it ran out of commercial quarried sand. The old mining lease appears to occupy approximately seven (7) hectares of land located adjacent to the paceway.

The scope of works entailed the sourcing of clean material suitable for the backfilling of the void left by the sand mining operation. Rock and Earth Exchange had sourced a constant supply of this type of material and had been filling the void for the past two (2) years to the designed level.

At the time of the incident, the remaining scope of works was to create a “raised” edge to deflect wind coming across field along with the associated dust onto the horse training track. The edge was also to provide a separation between the proposed truck access for the new sand mining lease some distance away and the horse training track, to avoid the spooking of the horses during their training schedule.

The modus operandi being implemented at the time of the incident was to have a Rock and Earth Exchange controller taking down the truck numbers and direct the trucks where to tip. Shepherds’ Earth Moving owner operator was engaged to level the earth to an agreed RL using a bulldozer.

The Rock and Earth Exchange site controller who witnessed the incident has taken leave to undertake counselling.

Observations:

On passing through the rail underpass, clear evidence exists of the scope and size of the area being reclaimed. A constant stream of trucks bringing soil to the site was evident. All trucks observed - approximately fifteen (15) during the inspection - were truck and dog trailer configuration. No articulated vehicles were observed.

Trucks were observed being directed via radio as to path and area to tip their load. Because of the nature of the site, there appeared to be no constraints to vehicle movements and clear access to the tipping face was possible.

The tipping face was relatively flat with some camber evident. The area where the incident took place had been graded over by the bulldozer operator to remove any evidence of the incident. It presented as neat and tidy.

There was clear evidence that the site tipping face was being controlled by a worker engaged by Rock and Earth Exchange, as I witnessed the check sheet with Rock and Earth Exchange printed on it.

The tipping controller advised me that he had only started the day before as his predecessor had taken time off following the incident.

The site where the alleged soil came from was inspected at Kangaroo Point. At the time of inspection, there didn't appear to be anybody on that site and the site was locked. The fence was sign posted with Frontier Civil Engineering and Star Max Homes the builder A Saliba and telephone numbers.

In addition, there was a larger excavator and its various implements on site. The excavator apart from the manufacturers name had no other street visible markings.

Street observation revealed that a waterfront house had recently been demolished and that some excavation had taken place in order to accommodate the new house design. I estimated that approximately three semi trailer loads of earth had been removed in addition to the house rubble.

Truck records obtained for the vehicle involved in the fatality appear to indicate that it was maintained. Records date from 2001 with 5,251km on the odometer with the last entry being 8/9/2009. The records indicate that approximately \$3,000 has been spent on repairs over this period.

All indications to date demonstrate that the worker was an experienced driver. The outstanding matter which remains unexplained is why the semi was articulated in this manner placing the driver at risk of being crushed in the event of the trailer rolling over as occurred in this instance.

Conclusion:

It would appear from the available evidence that the major contributing factor in this fatality was the placement of the prime mover in relation to the trailer i.e. being placed in the "V" (acute angle) in relation to the trailer. This had the effect of following actions:-

1. Preventing the soil/load from being tipped as it would have a backup effect on the trailer.
2. Because of the backup effect on the load e.g. the soil/load would still be at the apex of the trailer as it was raised. This would contribute to the overturning moment if the trailer was not perpendicular.
3. Articulating the prime in relation to the trailer (acute angle) in the event of a roll over, there can only be one result, a crushed prime mover cabin. The driver must ensure that the prime mover and trailer are in a straight line.
4. By articulating the prime mover and trailer into a "V" formation the deceased was not able to drive forward to release/shake the load and prevent the material from backing up. This type of truck trailer configuration because of the volume of material in the trailer have propensity to choke up. Because of the uneven spoil load (rocks one side dirt the other) more weight can be on one side of the trailer than the other. At height this can have a devastating effect.
5. It is an understanding in the transport industry that articulated vehicles are only elevated when on level ground as they have a propensity to overturn.
6. It is a custom practice on farms when tipping grain in windy conditions to tie ropes to the tractor using same as an anchor to prevent tipper trailers overturning.
7. The iron ore industry have banned this type of elevating to tip vehicle on their sites and only allow vehicles which have a side tipping action i.e. rotation of the trailer body as opposed to elevation.

Recommendation:

Recommend that correspondence be issued to WorkCover asking them to put out a National alert advising what not to do when tipping using an articulated vehicle as occurred in this instance.



View Showing remains of truck cabin



View Showing tipper trailer appears to have a twist



View showing area of incident yellow sand forms part of horse training track.



View showing area of incident. Area appears level.

