The Work-related Liaison Service presents:

WORKWISE

WORK RELATED DEATH PREVENTION: **THE CORONIAL APPROACH**

A combined State Coroner's Office and Victorian Institute of Forensic Medicine publication.

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EDITORIAL

Welcome to the 3rd edition of WorkWise, and the final edition for 2006. This issue includes summaries of two work related coronial cases and an article discussing the risks of fatigue. The Work-related Liaison Service hopes that by summarising actual cases, the message about the importance of safety and risk analysis hits home.

The WRLS would like to wish all our readers a happy holiday season

Barbara Thorne
Manager, Specialist Investigations Unit

CORONER'S CORNER

Repeats of accidental deaths in the workplace are common. Often as a Coroner I will read a set of circumstances which mirror the facts surrounding other deaths. In most cases the solutions are already known.

By way of example, in December 1988 a six year old boy was killed when he fell under the wheels of a reversing forklift at a factory. The boy, along with other children, was riding on the forklift which was being used during a works' Christmas party. The operator of the forklift was unlicensed and had been drinking. The father, who was the works' manager, was aware of the fact that the children were being given a joy ride on the forklift.

The Coroner said:

"This case highlights the obvious hazards of using industrial equipment such as a forklift for a purpose other than for which it was intended...(and)... it is clearly inappropriate to use industrial equipment for the purpose of carrying children..."

There have been other instances where the use of industrial equipment for a works' Christmas party has resulted in tragedy. The rules should be: **do not** use industrial equipment for parties; **do not** mix alcohol and work equipment; **do not** allow untrained workers to operate industrial equipment.

This edition has also raised another repeat problem - issue of the failure to wear seatbelts during forklift operations. Nationally, in the case of forklifts, the single most significant incident of fatalities occurs with a rollover. In these cases either the seat belt is not fitted, or if fitted not worn. The fitting and **wearing of seatbelts** on forklifts **will save lives**.

I wish all our readers a safe, healthy and happy Christmas break.

Graeme Johnstone
State Coroner

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If you would like to subscribe to WORK**WISE**, please email us at: **wrls@vifm.org**

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FALLS FROM HEIGHTS

Incident Circumstances

Case: 0533/2001

Mr R was a 20 year old roof tiler who had just completed his apprenticeship. He was considered by his employer to be a reliable and keen employee who was always punctual and completed his work diligently.

At the time of the incident Mr R was working for his employer at a residential site, a single level brick veneer house that was undergoing extensive renovations.

Mr R was completing the final task he had to perform for the day. He had almost finished the pointing phase in the roofing process. This process involves the application of cement mixed with oxide (a colour) over the bedding.

A fellow employee recalled hearing a "bang like the gutter had broke" and upon looking towards the direction of the source of the noise, saw Mr R on the ground. Medical assistance was sought but Mr R suffered fatal injuries.

At the time, perimeter fall protection was not required as the roof angle was less than 30 degrees.

Coronial Investigation

Although the evidence is unclear due to the absence of a witness to the fall, it appeared that the fatal injuries received were a result of Mr R losing his balance whilst working on the roof of the house, ultimately falling approximately 3 metres to the ground.

Investigations conducted by Worksafe concluded that the most likely scenario was that Mr R was standing on the second gable roof, stretching over to the third gable, towards the spouting when he lost his balance.

Finding

At the time of the incident the Code of Practice for safe work on roofs excluded villa constructions.

The Coroner therefore recommended that the Code of Practice be widened to ensure that fall prevention measures are appropriate to all building sites.

The Prevention of Falls in Housing Construction (Code of Practice No.29, 2004) is now a practical guide to assist in complying with the Occupational Health and Safety (Prevention of Falls) Regulations 2003.

The regulations can be accessed via the following link:

http://www.worksafe.vic.gov.au/wps/wcm/connect/WorkSafe/Home/Laws+and+Regulations/Acts+and+Regulations/

Author Comments

This case highlights the dangers of falls and illustrates that the risk is not necessarily decreased if the height of the work area is relatively low (in this case it was only 3 metres).

Falls from heights are not only associated with unsafe employment practices. The WRLS has identified numerous cases where people have fallen whilst undertaking some form of do-it-yourself activity. A simple task such as cleaning the gutters of a house or pruning a tree can place a person in a vulnerable position and therefore at some risk of falling. It is critical that people undertaking home maintenance activities also realise the potential hazard of carrying out work at a height.

Feedback:
The WRLS team is keen to receive feedback about this communication.

Please email your comments, questions and suggestions to:
wrls@vifm.org

For more information, and access to the Forklift Safety resources and publications available on the WorkSafe website, please use the following link:

http://www.worksafe.vic.gov.au/wps/wcm/connect/WorkSafe/Home/Safety+and+Prevention/Health+And+Safety+Topics/Forklifts/D_Forklifts

Author Comments

The Work-related Liaison Service is currently investigating three cases which involve the tipover of a forklift truck and the death of the driver as a result of attempting to jump out of the cab.

The WRLS is looking at the significance of seatbelts and other issues associated with forklifts to ensure that all industries are advised of the ongoing hazards and the most practical solutions are adopted to rectify those.

FORKLIFT TIPOVERS – SEATBELTS SAVE LIVES

Incident Circumstances

Mr T was a 46 year old who worked on a casual basis for a manufacturing company. He was asked to remove some 200 litre barrels which were to be crushed and placed in a skip.

Mr T attempted to carry out the crushing and removal of the barrels by using a 2.7 tonne traction motor suspended from the tynes of a forklift which he then dropped onto the barrels. This method was not successful and so Mr T placed the traction motor near a power pole and used a large wooden crate with heavy machinery inside it instead.

When all the barrels had been crushed, Mr T went to pick up the traction motor to put it on a nearby pallet. The forklift had to travel up a slight incline so that the motor could be placed on a metal pallet and as the forklift's front right wheels touched a double metal rail track, the inner wheel spun on the metal. The forklift then tipped over and the deceased was crushed when he attempted to jump clear of the vehicle. Mr T had not been wearing a seat belt.

The coronial investigation found that Mr T had died of multiple injuries sustained in an industrial accident. No drugs or alcohol were detected.

Coronial Investigation

The coroner investigating the case focussed on the reasons that the forklift had tipped over and established a series of circumstances led to the forklift rollover:

- The wrong type of lifting sling was used. It was too long and the traction motor was not secured to stop it swinging and shifting the centre of gravity of the forklift to the left.
- Both the tynes were moved to the left to allow for clear vision, this was usual practice but in this case it further contributed to the shifting of the centre of gravity to the left.
- (Mr T.) approached the incline at an angle instead of straight on, placing the forklift at an angle to the left, further shifting the centre of gravity to the left.
- Tyre pressure in all tyres was 25% or greater under-inflated, further contributing to the instability of the forklift.

Findings

The coroner found that; "*the centre of gravity of the forklift was changed when the weight of the traction motor was placed on the left tyne. The traction motor was swinging freely and it tilted the forklift to the left. As this occurred (Mr T.) has tried to jump clear of the forklift. Instead of jumping to the opposite direction of the tilt he attempted to jump to the same side. The top of the rollcage crushed him against the ground*".

The coroner handed down the following recommendations in relation to this incident:

1. Seatbelts to be fitted to all forklifts to secure the driver.
2. "Wings" to be fitted to both sides of the forklift seat to prevent the driver falling out due to rollover.
3. Continuous safety training and bi-yearly assessments of persons using forklifts.
4. Solid tyres to be used on forklifts instead of inflated tyres.

At the time of this incident WorkSafe's acting Executive Director, Trevor Martin, released the following statement:

"Since 1985 eight people have been crushed and killed after jumping from overturning forklifts. These deaths would have been prevented if the drivers had worn seatbelts."

"*The message is clear, seatbelts save lives*," Mr Martin said.

Note:

This case and those currently under review by the WRLS highlight the importance of wearing seatbelts where ROPS is fitted. Without a seatbelt fitted and worn, ROPS creates a further hazard in itself. Preliminary review of this information suggests that a duality of fitting seatbelts and ROPS is essential and the need to educate forklift drivers of the risks associated with only having one of these safety devices is critical.

> Alert today.
> Alive tomorrow.

CONSEQUENCES OF FATIGUE

When you are working, being tired can be dangerous.

Like drugs or alcohol, sleepiness slows reaction time, decreases awareness, impairs judgment and increases the risk of accident. Being fatigued at work can mean a number of things, including falling asleep while driving a vehicle or simply not paying attention whilst using a piece of equipment or machinery.

A 2001 study found that a person who has been awake for over 24 hours has the same performance deficit as someone who is twice over the legal blood alcohol limit for driving.

The Work-related Liaison Service has identified 19 possible fatigue related heavy vehicle fatalities in the transport industry alone. Further investigation and liaison is required to determine the exact causes of these work-related fatalities, but this is a strong indication that fatigue is a big problem in the workplace and needs attention.

Three things can contribute to fatigue at work. These are:

- the amount and quality of rest prior to and after a work period.
- the time of day that work takes place
- the length of time spent at work and in work related duties (such as travelling to and from work)

Typically, combinations of these factors contribute to the risk of fatigue.

In Australia, it is estimated that driver fatigue is a factor in:

- 15% of fatal crashes involving heavy vehicles;
- 10% of all serious crashes; and
- 7% of all less severe crashes.

The annual cost of heavy vehicle fatigue related crashes has been estimated at around $250 million. There is of course a human cost too.

Workers must prevent fatigue by recognising it, responding to it and reporting it.

Employers have a responsibility to prevent fatigue in their employees and must ensure that employees have fatigue management training or are enrolled in a fatigue management scheme.