

Carbon Monoxide: The Unseen Forklift Hazard

Workers and employers must be aware of the invisible dangers posed by forklifts operating in confined spaces.

Excessive carbon monoxide fumes emanating from poorly tuned forklifts poses an invisible, yet potentially deadly threat to workers.

While the perils associated with working near forklifts may seem obvious, recent cases suggest the unseen dangers of working in poorly ventilated areas with forklifts are being overlooked.

In Melbourne last December, seven casual workers packing pallets in a cold storage shed were hospitalised suffering from carbon monoxide poisoning.

WorkCover investigators examining the case concluded the poisoning stemmed from a poorly tuned LPG powered forklift operating in the storage area which was omitting excessive carbon monoxide.

Similar events have been reported in the US. In one bizarre case, employees in an office were overcome when a ventilating unit transferred air from a neighbouring warehouse in which LPG powered forklifts were emitting high levels of carbon monoxide.

Excessive carbon monoxide omissions can have a serious impact on the health of employees.

What is carbon monoxide and how does it affect you?

Carbon monoxide is a colourless, odourless, toxic gas that emanates from combustion sources such as gas burners and vehicle exhaust.

The gas impairs the blood's capability to utilise oxygen in inhaled air. At low concentrations it may cause headaches and fatigue. At higher concentrations it may cause poisoning and could even be fatal.



The measuring stick for recording carbon monoxide levels (the Australian Occupational Exposure Standard for Carbon Monoxide) is a time weighted average of 30 parts per million (ppm).

Some of the incidents in the US registered levels well in excess of the Australian standard. Some workplace recordings came in between 100 and 450 ppm while emission levels for the forklift were recorded up to 70,000 ppm. This is particularly disturbing when you consider that a properly tuned forklift will emit between 2,000 and 10,000 ppm.

How do we control this workplace hazard?

Control measures may include a combination of the following:

- ensure forklifts are regularly serviced and stay properly tuned;
- ensure good ventilation where internal combustion forklifts operate;
- if ventilation cannot be provided, use battery powered forklifts;
- if you are unsure of the adequacy of the ventilation, monitor the work environment with a gas detector;
- limit the work conducted in areas of poor ventilation;
- limit the access of people to poorly ventilated areas.

The dangers associated with carbon monoxide emissions are too great to ignore!

Compliance: not an issue for compromise

The Year 2000 has arrived and only minor instances of Y2K computer problems were reported in Australia. The relative calm has prompted some people to question whether the planning and money spent on checking for possible computer problems was worth it. How much should have been spent? Could the same result have been achieved if less money was invested in compliance programs? The answer is we will never know but the fact that no serious problems arose affecting a person's health and safety suggests the expense was worthwhile.

People working in the area of health and safety face the same problems on a daily basis. If money is spent on improving safety is there a guaranteed return - if less money is spent will the return be the same? These questions relate to our own personal values and how safe we want our workplace to be. If we want a safe and healthy workplace we must all be prepared to assist. Good 'housekeeping' must be practiced, while workplace hazards must be identified, reported and remedied

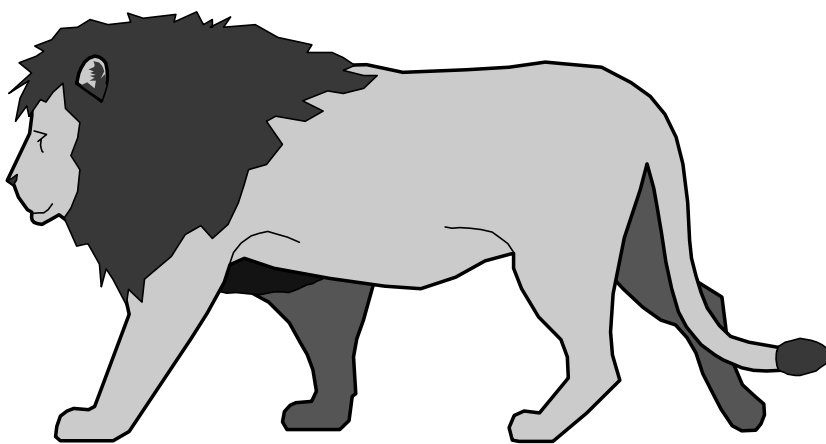
To ensure a safe and healthy workplace money will always be 'wasted', in the same way we replace tyres on a car while there is still tread on them. In safety, we do not have the option of risking accidents by pushing to the limit of breakdown. The challenge is for everyone to become involved in safety so problem areas can be identified and fixed prior to that breakdown.

African wildlife reserves - not just your average workplace hazards

An African wildlife reserve may be a slightly more exotic place to work compared to the floor of a pulp or paper plant but working in this sector can be fraught with a range of unusual occupational dangers.

According to a South African study, between January 1988 and December 1997 six workers on wildlife reserves were killed and 14 were reported injured in encounters with wild animals in South Africa.

The results of the study were charted on a table and some of the excerpts read like this:



<i>Worker category</i>	<i>Gender</i>	<i>Reserve</i>	<i>Date</i>	<i>Mammal involved</i>	<i>Outcome</i>	<i>Contributory factors</i>
Vet	M	KNP	27/3/88	Buffalo	Survived	Patrolling fence on foot
Hunter	M	Pilanesberg	5/7/96	Elephant	Died	Elephant injured by bullet
Gatekeeper	M	KNP	?/2/92	Leopard	Died	Window left open
Receptionist	F	KNP	24/2/92	Leopard	Survived	Bungalow window left open
Soldier	M	KNP	22/9/89	Elephant	Died	Temporary base in open; breeding herd
Trail guide	M	KNP	?/9/96	Giraffe	Died	Injured animal
Wildlife ranger	M	Mabalingwe	16/9/96	Hippo	Survived	Walking between hippo and body of water
Wildlife ranger	M	Manyeleti	23/1/88	Lion	Survived	Tracking injured lion on foot
Wildlife ranger	M	Mkuze	6/1/91	Rhino	Survived	Drugged rhino fell on ranger