



Moving Plant on Construction Sites

This bulletin is based on a safety alert published by WorkCover New South Wales, 29 December 2006, titled *Moving Plant on Construction Sites*.

There have been a number of recent incidents where workers have suffered serious injuries from being hit by moving plant on construction sites. Two of these incidents have resulted in fatalities in New Zealand.

Health and safety requirements

The Health and Safety in Employment (HSE) Act 1992 requires employers and other parties with duties under this Act to ensure that controls are implemented to eliminate, isolate or minimise the risk of moving plant colliding with pedestrians or other moving plant.

They must also ensure that moving plant is fitted with appropriate safety features and warning devices that are maintained and tested, to alert people who are at risk from the movement of the plant.

Working near moving plant is a high-risk activity. Where moving plant is in operation, particular care should be taken to ensure the safety of workers and members of the public.

Controls for the safe operation of plant

The use of specific measures to eliminate, isolate or minimise identified risks should involve the selection of the most effective control measures based on a risk assessment.

The controls identified in this safety alert are not exhaustive and it is expected that a number of measures would need to be selected and integrated into the system of work to ensure the highest possible level of safety.

The following are some of the control measures that should be considered:

- isolating vehicles and plant from persons on the site
- using fencing, barriers, barricades, temporary warning or control signs
- planning the direction that plant moves, so visibility is not restricted
- implementing safe working distances
- using clear communication systems
- minimising amount of plant working at one time
- using demarcation lines or zones
- ensuring all plant is fitted with an effective combination of mirrors and reversing aids (such as cameras) to reduce drivers' blind spots as far as possible

- using audible reversing alarms
- using reversing sensors
- using flashing lights
- using high visibility garments
- using spotters or observers.

The use of technology such as sensors or reversing cameras is a useful aid to the plant operator but these have limitations (e.g. blind spots) and must always be used with an effective warning system for persons at risk from the movement of the plant.

Hazards should be identified along with the appropriate controls required for the job and practicable steps that need to be taken to assist in ensuring the safety of workers and the public around moving plant. Traffic management plans and vehicle movement procedures are required for any work undertaken on or around state highways and public roads. Extensive information on traffic management plans is available from Transit New Zealand.

Workers must be consulted during the hazard identification process and should be involved in the development of hazard controls required including vehicle movement procedures, and receive instruction on the procedures of any traffic management plans in place. The hazard management plan and/or traffic management plan should be updated each time the conditions on a site change in a way that may affect the health and safety of persons at the workplace, or if they are found to be insufficient to effectively control the subject risks. Vehicle movement procedures and traffic management plans are particularly important where work is being undertaken on or near public roads.

Vehicle movement procedures should cover:

- positioning and repositioning of plant
- isolating workers/pedestrians from the moving plant
- plant being operated near underground or aboveground services
- plant operating in noisy environments
- moving plant onto a public road from site
- maintenance and servicing of plant
- planning the work so that plant moves in a forward direction as often as practicable
- reversing plant.

The plant operator should:

- follow all the directions in the hazard management plan or TMP or instructions from the site traffic management supervisor
- where practicable, operate plant in a forward direction
- ensure no persons are at risk before reversing
- avoid hazards by facing and maintaining attention in the direction of travel.

Further information

Further information on moving plant can be found in Transit New Zealand's *Code of Practice for Temporary Traffic Management* and the following Department of Labour publications:

- Construction Bulletin No 13: *Working on the Road*
- Construction Bulletin No 29: *Clean Sites Are Safe Sites*
- *Approved Code of Practice for Operator Protective Structures on Self-Propelled Mobile Mechanical Plant.*

The Department of Labour website www.dol.govt.nz also has further information.

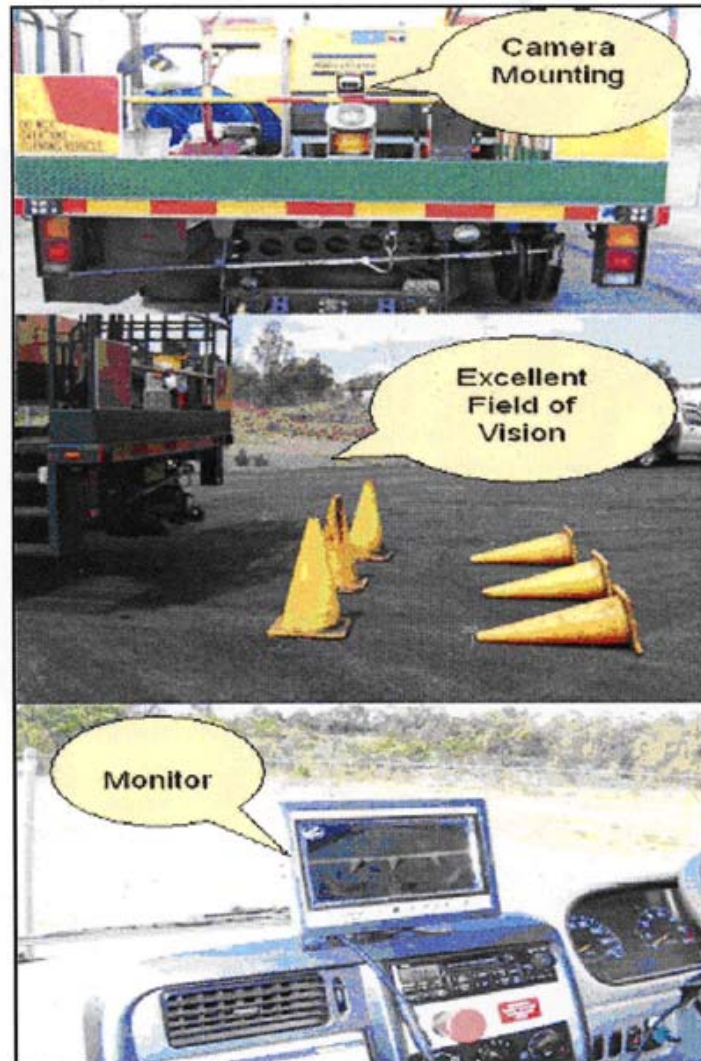


Figure 1: Example of a reversing camera

Disclaimer

This bulletin contains information regarding occupational health and safety and injury management. It sets out some of your obligations under the health and safety in employment legislation that the Department administers.

To ensure you comply with your legal obligations you must refer to the Health and Safety in Employment Act 1992 and the Health and Safety in Employment Regulations 1995.