

The movement of powered mobile plant



This document provides information about WorkSafe's focus on the movement of powered mobile plant during construction work

We're focusing on mobile plant

WorkSafe inspectors are currently visiting construction sites across Victoria to ensure duty holders are meeting their obligations by identifying hazards and controlling risks associated with powered mobile plant (mobile plant).

Background

In the last three years six people were fatally injured by mobile plant at Victorian construction sites:

- a worker was crushed in a boom lift basket when it was struck by a motor vehicle as he was loading it onto a tilt-tray truck
- a member of the public was struck on the head by the bucket of a skid steer loader
- a concrete truck driver was run over by his truck while on-site
- a worker was struck by the bucket of an excavator
- a truck driver was crushed between a roller and the truck float while the roller was being loaded, and
- a worker was crushed by a truck and trailer rolling down a hill uncontrollably.

Common risks

Common risks associated with the movement of mobile plant on construction sites include:

Ground workers or other persons being:

- run over by plant
- struck by slewing plant, such as excavators
- crushed between plant and another object
- struck by overturning plant.

Mobile plant operators being:

- ejected from a mobile elevating work platform (mobile EWP) if the mobile EWP becomes unstable or overturns
- crushed against structures, and
- electrocuted after contacting powerlines.

Risks will increase if operators are not appropriately trained and competent in the use of the particular type or model of mobile plant being used.

Duty to control risk

High risk construction work (HRCW) includes construction work at workplaces where there is any movement of powered mobile plant.

An employer or self-employed person must not perform HRCW if there is a risk to any person (including ground workers, plant operators or the public) unless a safe work method statement (SWMS) is prepared, and the work is performed according to the SWMS.

Risk control measures

A combination of risk control measures, starting with the highest level of control that is reasonably practicable, is usually required.

Control of risk hierarchy

- 1. Eliminate the risk** where reasonably practicable, for example eliminate the risk of a crane overturning on rough ground by transporting the load on a truck rather than using a pick and carry crane.

Reduce remaining risk by:

- 2. Substituting** a new activity, procedure or plant, for example by painting structural steel on the ground and only using mobile plant for touch up work.
- 3. Isolating persons from the hazard**, for example by:
 - creating a safety zone around the plant to restrict access while the plant is in use, and
 - separating vehicle and personnel access ways.
- 4. Using engineer controls** for example:
 - using a boom type mobile EWP with a secondary guarding system when there is a risk of a worker being crushed between the basket and a structure
 - having bump stops at edges of slabs to reduce the risk of plant driving off the slab and overturning.

5. Reduce remaining risk by using administrative controls, for example:

- placing warning signs at access points
- undertaking and documenting pre-start checks
- verifying operators are trained and competent
- ensuring mobile plant movement risks are covered in site inductions and tool box talks
- using personal plant proximity alarm systems.

6. Reduce remaining risk by using personal protective equipment, for example by using high visibility clothing, helmets, and steel cap boots.

Review and revise risk controls

Employers must review and, if necessary, revise risk controls:

- before plant is used for the first time
- before making a change to the plant or the way the construction work is performed
- if new or additional information about hazards or risks becomes available
- after an incident has occurred
- if the risks are not adequately controlled, or
- after receiving a request from a health and safety representative.

Note: If risk controls measures are revised or do not adequately control the risks, the SWMS must be revised.

The movement of powered mobile plant

SWMS requirements

HRCW has specific risk control duties, including the requirement that work must not be performed until a SWMS has been developed.

The SWMS must:

- identify work that is HRCW
- state the hazards and risks of that work
- sufficiently describe measures to control those risks
- describe how the risk control measures are to be implemented, and
- be set out and expressed in a way that is readily accessible and comprehensible to those who use it.

If a SWMS is not being followed, the HRCW work must stop immediately or as soon as it is safe to do so.

Note: Employers must consult affected workers when identifying hazards and determining risk control measures.

Additional duties exist in relation to HRCW and SWMS – refer to 'Further information' section.

Specific duties that apply

An employer must not allow an employee to perform high risk work unless the employee holds an appropriate high risk work licence in relation to the work.

Employers also have a duty to, so far as is reasonably practicable, eliminate risks associated with using powered mobile plant, such as the plant overturning, objects falling on the operator of the plant, the operator being ejected from the plant and collisions with pedestrians or other plant.

Employee legal duties

A person must not perform high risk work unless the person holds an appropriate high risk work licence in relation to the work.

While at work, employees must take reasonable care of their own health and safety and that of others who may be affected by their acts or omissions at work. This includes not interfering with or misusing items provided at a workplace (such as tampering with or bypassing crush protection on a mobile EWP).

Further Information

Contact WorkSafe Advisory Service on 1800 136 089 or go to worksafe.vic.gov.au

- Compliance Code – Demolition
- Compliance Code – Plant
- Guide book – Using powered mobile plant near overhead assets
- Industry Standard – Civil construction
- Industry Standard – Concrete pumping
- Information About – Controlling crush risks when using mobile elevating work platforms (MEWPs)
- Information about – Safe work method statements
- Safety Alert – Heavy construction plant on housing sites
- Sample safe work method statement (SWMS) for high risk construction work (HRCW)
- Video – Overhead crush and electrocution hazards when using boom lifts
- Video – Overhead crush and electrocution hazards when using scissor lifts

Note: This guidance material has been prepared using the best information available to WorkSafe, and should be used for general use only. Any information about legislative obligations or responsibilities included in this material is only applicable to the circumstances described in the material. You should always check the legislation referred to in this material and make your own judgement about what action you may need to take to ensure you have complied with the law. Accordingly, WorkSafe cannot be held responsible and extends no warranties as to the suitability of the information for your specific circumstances or actions taken by third parties as a result of information contained in the guidance material.