

Mobile Plant Procedure – Fatal Risk

Approved: 7 December 2021 Review due: December 2024

1. Objective

The purpose of this procedure is to promote the safe use of mobile plant at Goulburn-Murray Water (GMW) workplaces.

This procedure supports the requirements of the GMW Safety Management System (SMS), far as reasonably practicable, to control the risks involved with mobile plant.

2. Scope

This procedure applies to all GMW employees, contractors (where reasonably practicable) and labour hire that undertake activities involving mobile plant on GMW controlled worksites.

3. Procedure

Mobile plant can be described as any equipment that may be drawn or is capable of being driven (this includes trailer mounted equipment, remote rollers, drawn rollers, etc.). Any equipment temporarily placed on trailers for transport and use such as compressors, generators or fuel cells are to be considered mobile plant for the purposes of this procedure.

A significant sub-section of mobile plant is Powered Mobile Plant; this procedure will feature predominantly on this sub section:

- Powered Mobile Plant means plant that is provided with some form of self-propulsion and is ordinarily under the direct control of the operator (eg. forklifts, tractors, quad bikes, earth-moving machinery and mobile cranes)
 - Powered mobile plant also introduces significant risk factors that need to be addressed, such as:
 - The powered mobile plant overturning
 - Objects falling on the operator of the powered mobile plant
 - The operator being ejected from the powered mobile plant
 - The powered mobile plant colliding with pedestrians or other powered mobile plant
 - Loading/Unloading mobile plant

Passenger vehicles (e.g. Ford Ranger, Mitsubishi Triton, Mitsubishi ASX, etc.) that are driven onto a Construction Site or where designated (by SWMS, Signage, Safe Work Instructions, Plant Safety Data Sheets, etc.) are to be treated as mobile plant and the requirements of this procedure are to apply. This does not include driving to, and parking, in the designated administration area (this area should be delineated as such, and not within the confines of the designated worksite).

Note: GMW's standard fleet vehicles do not meet the requirements of this procedure, and should not be taken onto a construction site.



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Managing mobile plant at GMW workplaces

The diverse nature of GMW workplaces introduces significant complexity into how mobile plant is managed and who is responsible for the safe operation, maintenance and storage of mobile plant.

To clarify any ambiguity surrounding the safe management of plant at GMW workplaces, GMW has defined responsibilities for the following situations:

- Mobile plant owned or operated at GMW workplaces by GMW workers or contractors:
 - The requirements of this procedure apply to all mobile plant that is:
 - Directly owned by GMW and operated by GMW workers
 - Hired or leased by GMW and operated by GMW workers
 - Owned or operated by a contractor engaged by GMW to undertake work on behalf of GMW
- Mobile plant owned or operated by a third party (pursuant to a lease, licence, temporary land access arrangement or other agreement) at GMW workplaces:
 - Where mobile plant is stored or operated at a GMW workplace by a third party (pursuant to a lease, access licence or other agreement with GMW), the following conditions apply:
 - The third party is responsible for the safe delivery, operation, maintenance, storage and removal of all mobile plant owned, hired or leased by the third party
 - The third party is responsible for ensuring that all mobile plant operated at a GMW controlled worksite is compliant with, and operated in accordance with relevant legislation and standards
 - The third party must notify GMW of any risks to GMW workers or assets associated with the storage or operation of the mobile plant and define the risk controls in place to manage these risks
 - The third party must comply with all requirements of the licence, lease or other agreement with GMW in relation to the safe operation, maintenance and storage of mobile plant
- Information controlling mobile plant requirements will fall to are in which the mobile plant is being operated, for example:
 - If mobile plant is being used by a principal contractor in an area that has been formally handed over to that principal contractor for the purposes of works, then the mobile plant requirements will be provided by that principal contractor
 - If there was a requirement for that mobile plant to leave the principal contractor area and work within a GMW worksite, then this and any other GMW procedure would apply, as they would now be deemed to be on a GMW controlled worksite
 - They would need to be inducted and treated as any other GMW contractor



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Associated risks with mobile plant

There are significant risks associated with using mobile plant. Severe injuries can result from the unsafe use of mobile plant including:

- Limbs amputated by unguarded moving parts of machines
- Being crushed by mobile plant
- Sustaining fractures from falls while accessing, operating or maintaining mobile plant
- Electric shock from mobile plant that is not adequately protected or isolated
- Hearing loss from operating noisy mobile plant without using appropriate hearing protection
- Injuries as a result of prolonged exposure to vibration
- Burns or scalds due to contact with hot surfaces, or exposure to flames or hot fluids.

The following steps must be implemented to manage the risks associated with mobile plant:

1. Identify hazards associated with the use of mobile plant at GMW workplaces
2. Assess the inherent risks associated with the identified mobile plant
3. Identify and implement risk control measures where reasonably practicable
4. Assess the residual risks associated with these hazards following the implementation of the risk control measures.
5. Review risk control measures

Obtaining information regarding plant

In order to manage the risks associated with operating, maintaining or storing mobile plant at GMW workplaces, the manager/supervisor who is responsible for operation and/or maintenance of the item of mobile plant should obtain information regarding the item of plant from operators, maintainers, designers, manufacturers, importers, regulators and suppliers.

This information is to include:

- The purpose for which mobile plant was designed or manufactured
- Operating and maintenance manuals
- The results of any calculations, analysis, testing or examination of the plant
- Any specific conditions necessary for the safe use of the plant

It is important that workers who will be required to operate and/or maintain an item of mobile plant are consulted as early as possible when planning to introduce new mobile plant or change the way mobile plant is used.



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This information must be incorporated into the plant risk assessment for the item of mobile plant. Mobile plant risk assessments must be readily available to all workers operating, maintaining, repairing or inspecting the mobile plant. Where third parties own and operate mobile plant on GMW workplaces, managers/supervisors will be required to check the contractor's compliance.

All information relating to mobile plant should be recorded within Maximo

- In some cases Maximo may provide reference to where further information can be located (and visa versa), for example:
 - GMW's document management system (e.g. Objective)
 - Physical manuals/documents (e.g. User manual, workshop manual, etc.)

Mobile plant risk assessments

Where mobile plant is operated or maintained by GMW workers, the manager/supervisor, in collaboration with workers responsible for operating and/or maintaining the item of plant, must undertake a risk assessment of the plant.

When developing a mobile plant risk assessment, additional information should be sought from workers who regularly operate and maintain the mobile plant as they have a working knowledge of the hazards and risk associated with the mobile plant. Drawing on the experience, knowledge and ideas of workers will result in improved identification of hazards and the development of effective risk controls.

Mobile plant risk assessments must be undertaken when:

- Before an item of mobile plant is used for the first time; or
- When any alterations are made to the item of mobile plant; or
- When a near miss or incident occurs in relation to the item of mobile plant

The purpose of the mobile plant risk assessment is to determine:

- The hazards and risks
- How significant each risk is
- Whether existing control measures are effective
- What action should be taken to control each risk
- How urgently the action needs to be taken

When assessing the risks associated with mobile plant, the following must be considered:

- Whether it is reasonably practicable to eliminate the risks or, if not, to further minimise the risks so far as is reasonably practicable
- The processes and activities undertaken with the mobile plant



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- The potential impact of the hazard
 - i.e. how severe could an injury or illness be
 - e.g. could the hazard cause lacerations, amputation, serious or fatal crushing injury, burns, or loss of hearing
- How likely is the hazard to cause harm
- How frequently are workers exposed to the hazard
- The existing risk control measures in place

Other factors to consider when undertaking a mobile plant risk assessment include:

- The type of conditions that the mobile plant is being used in
 - e.g. in a confined space, muddy or dusty environment, or on a steep embankment
- The condition of the mobile plant
 - e.g. is it old and missing safety features found on new mobile plant, is it unreliable or often needs responsive maintenance
- Are there other people or items of mobile plant in the vicinity, if so, what effect do they have on the identified hazards where and when is access required during the installation, operation or maintenance of mobile plant and in an emergency
- Work practices and procedures that exist in relation to mobile plant safety
 - e.g. isolation to carry out maintenance, minimum PPE requirements
- The level of training, information, instruction and supervision that is provided to workers and other persons who may be exposed to mobile plant
- Does the mobile plant's safety depend on the competency of its operators
- How is work with mobile plant organised, for example:
 - Pedestrian and vehicular traffic around the mobile plant
 - Time spent on repetitive tasks
 - Shift work arrangements

Risk assessments must be documented and be made available to managers/supervisors, health and safety representatives, workers and relevant regulators on request.

It is recommended that the manager/supervisor facilitate the review of a mobile plant risk assessment in the following circumstances:

- When there are significant changes to the work environment
- Where there are significant changes to work processes, which might result in changes to noise emission or exposure
- At the request of a health and safety representative
- When an incident has occurred



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Selecting mobile plant risk controls

Where a piece of mobile plant is used at a GMW workplace, the worker (or third party) responsible for the operation and/or maintenance of the item of mobile plant must ensure risk controls are implemented to ensure the safety of workers and to prevent damage to the workplace.

The hierarchy of controls (see table below) must be used to select the risk control that most effectively eliminates or, where that is not reasonably practicable, minimises the risk in the circumstances.

The identification and selection of risk control measures must be undertaken in consultation with relevant workers including but not limited to those who are trained and competent.

The hierarchy of control ranks the methods of controlling the risk from the highest level of protection and reliability to the lowest so that the most effective controls are considered first.

The effective control of risks for mobile plant may involve a single risk control measure or a combination of two or more different risk controls.

The most effective risk control measure is to eliminate mobile plant completely from the workplace. Given the reliance on mobile plant to undertake work at GMW workplaces, eliminating the need to operate mobile plant is generally not practicable and other risk control methods need to be implemented.

Administrative controls and Personal Protective Equipment (PPE), when used on their own, tend to be the least effective in minimising risks because they rely on human behaviour and supervision.

The table below provides examples of possible risk control measures to be applied to eliminate or mitigate the hazards of operating, maintaining and storing mobile plant at GMW workplaces.



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Hierarchy of Controls	Example of possible risk control measures
Elimination (Highest level Control)	<ul style="list-style-type: none"> Purchasing mobile plant with low noise emissions
Substitution	<ul style="list-style-type: none"> Replace the plant with an alternate (i.e. replacing hydraulic actuators with electric to remove pressure hazards from the workplace) or using remote controlled mowing equipment on steep embankments
Isolation	<ul style="list-style-type: none"> Using concrete barriers to isolate plant from workers Energy tag and lockout procedures and processes
Engineering	<ul style="list-style-type: none"> Installing guards to prevent contact with moving parts. Installing rollover protection Inclusion of pressure relief valves on high pressure equipment
Administrative	<ul style="list-style-type: none"> Pre-start inspections Maintenance program to ensure mobile plant is maintained appropriately Develop Safe Work Instructions, Safe Work Method Statements (SWMS), Plant Safety Data Sheets (PSDS) for undertaking tasks involving mobile plant Providing adequate training and supervision Licencing requirements Warning signage
Personal Protective Equipment (PPE) (Lowest level control)	<ul style="list-style-type: none"> High visibility clothing, hard hats, safety footwear, gloves, safety goggles, ear plugs, etc.

When assessing the most appropriate risk control measures for mobile plant, the following risk control measures must be considered:

- Guarding and exclusion zones (isolation)
- Safety Observers
- Operational controls
- Emergency stops
- Warning devices
- SWMS / SWI / PSDS
- Processes for isolating sources of energy

Specific requirements for each of the above risk control measures are identified in the *Victorian WorkSafe Compliance Code – Plant*.

In addition, reference should be made to the *Occupational Health and Safety Regulations 2017 (Vic)* for specific risk controls required for items of powered mobile plant



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Plant requiring specific risk controls

Specific risk controls are required under the *Occupational Health and Safety Regulation 2017 (Vic)* for certain types of plant, including:

- Powered mobile plant
- Plant that lifts or suspends persons, plant or loads
- Lasers
- Pressure equipment
- Tree lopping
- Scaffolds

Tractors used in the workplace must be fitted with roll over protection (ROPS).

Warning devices

Reversing or motion alarms:

- GMW and contracted mobile plant, other than ride on mowers and all-terrain vehicles, must have an audible alarm

Flashing Cab Lights:

- GMW and contracted mobile plant must have a flashing roof light activated when working on our sites.
- Fitting of flashing or rotating warning lamps:
 - At least one lamp of the correct colour must be mounted on top of the vehicle and when lit be visible in normal daylight from any direction at a distance of not less than 200 metres
 - Additional lamp(s) of the correct colour may be fitted to the vehicle
 - Where it is not possible to see the one lamp from any direction, additional lamp(s) of the correct colour must be fitted to the vehicle
 - No part of the lens of any lamp must be visible either directly or indirectly to the driver when seated in the normal driving position
 - If more than one warning lamp is fitted, they must be placed symmetrically about the centre line of the vehicle or combination of vehicles
- It is recommended that the light(s) be of a Society for Automotive Engineers (SAE) – SAEJ845 Class 1
 - SAE J845 refers to omnidirectional or 360 degree display of the light
 - SAE Class (1) refers to the brightness and intensity of the light

- Note:**
- This applies when on a Construction Site or where designated (by SWMS, Signage, Safe Work Instructions, Plant Safety Data Sheets, etc.)
 - Turn the flashing roof light off when leaving construction sites



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Prohibited items of mobile plant

As a general rule, unsafe mobile plant is prohibited or limited in its use as per the risk assessment at any GMW workplace. From time to time GMW may advise (via notifications) of items of mobile plant which are prohibited or limited in their use. If such a notification is made then that item is expressly prohibited from being used and is to be tagged out and placed in another location to stop it being used.

If it's been determined by GMW that a piece of mobile plant is to be limited in its use then a senior leader is to sign off on its usage following a mobile plant risk assessment review.

Instruction, training and supervision

Before any mobile plant is used at a GMW workplace, the manager/supervisor (or third party) responsible for the operation and/or maintenance of the item of mobile plant must provide all workers and other persons who will use the plant with all information, training, instruction or supervision that is necessary to inform them of the risks and controls associated with the use of the plant.

Training will be provided in accordance with the *Training and Development – Operational Policy and Procedure*.

Training programs for mobile plant should be practical and 'hands on' and take into account the particular needs of workers, for example literacy levels, work experience and specific skills required for safe use of the mobile plant.

Managers/supervisors must ensure all instruction, training, and supervision is undertaken in accordance with the relevant PSDS information, and may be supported with safe work procedures that include instructions on:

- The correct use of guarding, PPE and other control measures
- How to safely access and operate the mobile plant
- Who may use an item of mobile plant
 - for example only authorised or licensed operators
- How to carry out inspections, cleaning, repair, maintenance and shut-down
- Emergency procedures
 - Information regarding any emergency procedures relating to mobile plant must be displayed to be readily seen by persons who may be affected by the operation of the mobile plant

Uncertified or unqualified trainees must be under the direct supervision of a certified or qualified person at all times, as authorised by GMW managers. A training logbook must be issued to the trainee and when completed signed off by the supervisor.



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After the training period the trainee must then undergo an assessment by a certified trainer and assessor together with an experienced operator, before the trainee can operate the mobile plant unsupervised.

Certain types of mobile plant, such as industrial lift trucks and some types of cranes, require the operator to have a high risk work licence before they can operate the mobile plant. Licence requirements for high risk work activities must be identified.

All GMW employees and contractors on GMW Sites must be assessed competent by a trained and competent person before using mobile plant.

Competency can be verified by evidence of:

- Licence(s)
 - VicRoad Vehicle Licences
<https://www.vicroads.vic.gov.au/licences/licence-and-permit-types>
 - WorkSafe Victoria High Risk Licences
<https://www.worksafe.vic.gov.au/all-high-risk-work-licence-classes>
- Verification of Competency (VOC), for items of mobile plant that do not require a licence (e.g. Excavator, Roller, etc.)
 - In the first instance it would be expected that this be completed by a Registered Training Organisation (RTO)
 - For items of mobile plant that a course with a RTO does not exist, a trained and competent person must have assessed the worker as competent

Managers and supervisors must take action to correct any unsafe work practices associated with mobile plant as soon as the unsafe practices are identified.

Using mobile plant at GMW workplaces

Mobile plant must only be used for the purpose for which it is designed, in accordance with any GMW requirements, the manufacturer's instruction and any legal requirements.

As a minimum this includes, but is not limited to, the following:

- Drivers/operators must be licensed as required by law; or
- Verification of Competency for mobile plant that does not require a licence
- Seat belts must be worn where fitted
- Persons must only ride in designated seating



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- Personal hand-held devices (including mobile phones and music devices) must not be used:
 - while operating mobile plant
 - while in control of a vehicle unless via a hands-free device in compliance with the law (also refer to Safe Driving Procedure)
- **Note:** It is not illegal to use a CB or two-way radio, although this should be reduced to a minimum and primarily used for safety communication purposes as there is still a requirement to driver have proper control of the mobile plant/vehicle at all times
- Any loads must be safely stored and restrained while the mobile plant is in motion
- Safe Work Method Statements (SWMS) must be in place for the use of mobile plant at worksites

Workers (or third parties) who operate plant should be assessed competent, and suitably supervised (if required), so that they do not put themselves or others at risk.

All operating manuals and instructional material provided by the manufacturer must be retained and made available to all workers to ensure that the mobile plant it is correctly operated and maintained once it is in the workplace.

Pre-start inspections

A worker required to use or operate an item of mobile plant (including hired plant) at a GMW workplace must undertake a pre-start inspection prior to using the item of plant.

The pre-start inspection must be undertaken in accordance with manufacturer's requirements, GMW requirements, or any other requirements specified by the supplier of the mobile plant (i.e. hire company requirements). Where practicable, the details of the pre-start checks should be recorded in the mobile plant logbook.

Loading and unloading mobile plant

The loading and unloading of plant and plant loads can result in fatal injuries if the risks are not adequately controlled – operators can be caught in plant when it falls or rolls over and persons in the vicinity can be struck. The important role that operator competency can play has been highlighted above.

Project and mobile plant risk assessment processes are also good ways to identify hazards and determine controls for managing loading and unloading risks.

A safe work method statement (SWMS) must be developed before work in and around mobile plant starts. The SWMS must identify the relevant hazards and controls to manage mobile plant risks.



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The dynamic nature of construction sites means that hazards can change throughout a working day and so there is a need to continually confirm that the hazards are being suitably controlled – new or changed controls may be required as the work progresses.

It is extremely dangerous to load and unload mobile plant without loading ramps being secured. Loading ramps are to be checked for bends or cracks before they are used. Damaged ramps or fixing components (such as pins or R-clips) should never be used and are to be ‘tagged out’ and reported if discovered.

Soft or boggy ground conditions and sloping or uneven terrain can affect the stability of ramps when loading or unloading mobile plant. Where possible it should be established that:

- Ramps will only be set up on hard, level surfaces
- If there is a slight slope, the front of vehicles will be set up on the higher side of the slope
- Ramps will never be set up on a side slope

Work planning processes should ensure that people are not near an area in which plant or plant loads are being loaded or unloaded. Busy sites or public spaces should have an exclusion zone established with controls such as:

- Physical barriers
- Clear signage
- Use of a safety observer

There may also be traffic management requirements that need to be considered dependant on the location when loading or unloading mobile plant.

Exclusion zones for mobile plant

All persons must maintain a minimum exclusion zone of 15 metres around mobile plant while it is in operation.

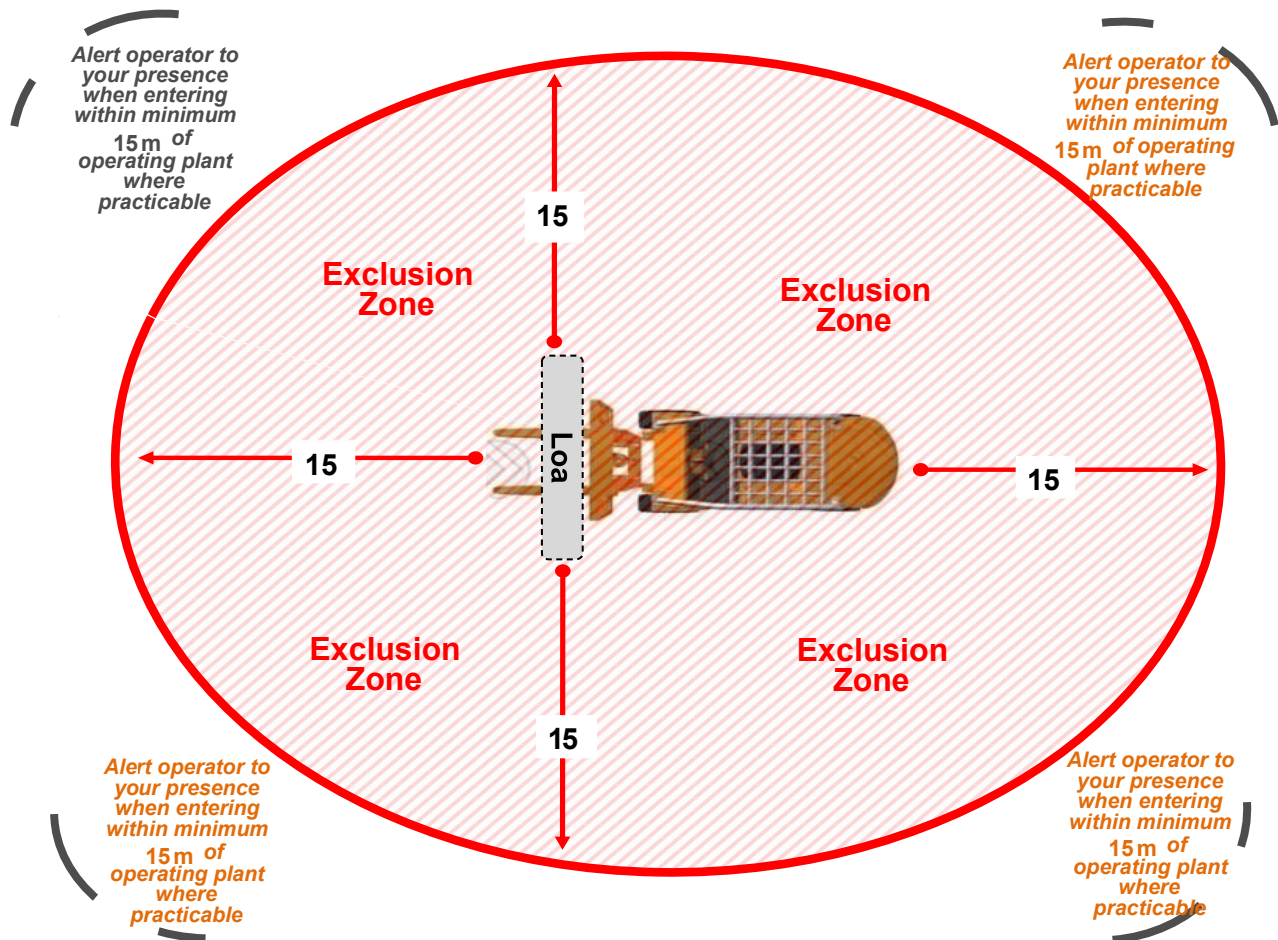
This exclusion zone is a 360° arc around the machine extending from the machine or any protruding load.



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The following diagram provides further guidance on this requirement.



A Safety Observer shall be used at all times where an exclusion zone has been established with mobile plant and will be under the supervision of the mobile plant operator unless a risk assessment determines there is no requirement for a safety observer.

An exemption to the requirement for a 15 metre exclusion zone may only apply where:

- Robust physical barriers (or equivalent traffic management controls) have been implemented to effectively separate people from the mobile plant
- It is absolutely necessary for a person acting as a designated spotter to enter this zone



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- In the event it is absolutely necessary to enter the exclusion zone (e.g. when acting as a designated spotter) the following controls must be applied before approaching:
 - Positive communication must be exchanged between the operator and the approaching person
 - The person must remain in clear view of the operator at all times
 - The plant operator must cease operations place the machine into neutral to prevent accidental contact with the person or accidental operation of the plant

Faulty or unsafe mobile plant

Any faulty or unsafe mobile plant is to be tagged out as per LOTO requirements and secured so that the mobile plant can't be accessed or used until deemed safe by a competent person.

Cleaning, maintaining and repairing mobile plant

Mobile plant should be serviced and repaired according to the manufacturer's requirements.

Maintenance can be conducted in several distinct ways, as follows:

- *Scheduled / Planned maintenance*
 - Maintenance and servicing carried out at predetermined intervals and with planned criteria and actions. A scheduled maintenance routine, usually activated by time, kilometers, work hours, etc. A maintenance schedule is to be established Maximo for all items of mobile plant that require maintenance. Based on the maintenance schedule developed, Maximo will generate a work order for the maintenance required on an item of mobile plant
- *Unplanned maintenance*
 - Unplanned or reactive maintenance includes mobile plant breakdowns, issues with mobile plant operation and minor repairs necessary to prevent any further deterioration of mobile plant condition
 - A risk assessment must be carried out to determine if it is necessary to remove the mobile plant from service until maintenance or repairs are completed
 - Following completion of unplanned or reactive maintenance, a work order shall be created which includes information about the maintenance undertaken



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- **Cleaning plant**
 - *Workers* using or operating mobile plant must regularly clean the item of mobile plant to remove any accumulation of dirt, grease and oil and plant materials
 - Any cleaning activities involving the removal of oil or grease from mobile plant must be undertaken in a location with suitable waste collection facilities
 - Plant materials accumulated on mowing or other vegetation management equipment must be cleaned from the item of mobile plant before it is removed from the area/worksite where it is used to manage the spread of weeds and plant diseases

- An annual inspection of trailers must be completed. These inspections can be spread over a 12 month period, but all trailers must be inspected by December annually.

Isolating mobile plant

Before any maintenance activity is performed on an item of mobile plant, appropriate risk control measures must be implemented to ensure the safety of the worker undertaking the work.

Mobile plant incidents, damage or theft

A worker shall report all incidents involving mobile plant to their manager/supervisor. Mobile plant damage or theft must be immediately reported to the relevant manager/supervisor and an IRIS report to be raised. These occurrences may require further investigation by police, insurance companies or others, depending on the circumstances.

Storing mobile plant

Mobile plant that is not in use must be stored so that it does not create a risk to workers or other people in the workplace. Managers/Supervisors must ensure that mobile plant not in use is left in a state that does not create a risk to the health or safety of any person, and is secured to prevent theft or vandalism.

Mobile plant may present a risk to health or safety if measures are not taken to prevent the mobile plant moving of its own accord (for example, rolling down a sloping surface, floating down a river), or to prevent unauthorised operation.

Where land based powered mobile plant is unattended for any length of time, the operator of the powered mobile plant must ensure that the item of powered mobile plant has been parked on a firm, level surface with the handbrake applied, the motor switched off and the key removed.



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Mobile plant designed to store, transport of dispense chemicals, fuels or other hazardous substances must be bunded and secured away from other mobile plant unless while refueling. Chemical spill kits MUST be located in proximately to the stored substances.

Making changes to mobile plant

Where there is a requirement to alter the design of an item of mobile plant, change the way the mobile plant is used or change a system of work associated with the mobile plant, a PSDS review must be undertaken.

The PSDS review must:

- Be undertaken by a person who is appropriately qualified, competent and experienced in the design and operation of the item of plant
- Include an assessment of all aspects of the proposed task
- Outline the reasons a purpose-designed item of mobile plant cannot be used for the proposed task, such as the impracticability of using it or additional risks that using purpose-designed mobile plant would generate
- Take into account the recommendations of the designer, manufacturer or supplier of the mobile plant and ensure the proposed use is not outside its capabilities
- Identify differences between the item of mobile plant and one that is purpose-designed for the task, and describe measures used to control the risks that such mobile plant is designed to control
- Amend any relevant documentation
 - for example, operator and maintenance manuals and signage

Where a PSDS review identifies that the mobile plant is not suitable for the proposed task, it must not be used for that task.

Making alterations to mobile plant

Where possible, the designer and manufacturer of an item of mobile plant should be consulted prior to making any alterations to GMW owned mobile plant to ensure all relevant safety issues have been considered.

Alterations are not to be made to any GMW mobile plant unless:

- Approval has been given (*in writing*) by GMW
- A safety in design workshop has been completed
- All risk assessments, work instructions have been completed
- Service/Maintenance schedules have been amended / updated
- The alterations have been signed off by an appropriately qualified person



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Any alterations made to an item of mobile plant will result in GMW assuming the obligations of a designer or manufacturer for that piece of mobile plant.

If the original designer or manufacturer cannot be contacted (for older mobile plant or imported mobile plant), any alterations must be carried out by an appropriately qualified and experienced person in accordance with the relevant technical standards (see Appendix A).

In the case of mobile plant that requires design registration, the altered design must be registered if the alteration to the design may affect health and safety.

Mobile plant should be isolated from power sources and be unable to be switched on or activated accidentally before alterations begin or while alterations are being carried out.

Before returning altered mobile plant to service the following must be implemented:

- Adequate control measures in place to eliminate or, where that is not reasonably practicable, minimise any risks created by the alteration including providing information and training for users and supervisors about the changes
- Inspect and test the mobile plant, having regard to the altered design specifications and relevant technical standards.

Alterations to mobile plant are not permitted unless prior approval is first obtained by the relevant Executive Leadership Team (ELT) member/General Manager (GM) responsible for the item of mobile plant.

Reviewing mobile plant risk controls

Existing risk controls for mobile plant must be monitored and reviewed at regular intervals to ensure they remain effective.

Existing risk controls for mobile plant must be reviewed:

- When a risk control measure does not control the risk it was implemented to control so far as is reasonably practicable
- Before a change at the workplace or with the mobile plant that is likely to give rise to a new or different risk to health or safety that existing risk control measures may not effectively control
- A new hazard or risk is identified
- If the results of consultation indicate that a review is necessary
- If a Health and Safety Representative (HSR) requests the review



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The process used for the initial risk assessment must be used when reviewing existing risk control measures.

When undertaking a review of the mobile plant risk controls, workers involved in operating and maintaining the mobile plant must be consulted to confirm the following:

- Are the relevant workers aware of the control measures and do they understand them
- Are the risk control measures working effectively in both their design and operation, e.g. guarding
- Have all hazards associated with the mobile plant been identified
- Has the purchase of a new item of mobile plant made the job safer
- Are safety procedures being followed
- Has an incident occurred in relation to the mobile plant
- If new legislation, technology or information becomes available, does it indicate current controls may no longer be the most effective?
- When deciding how frequently to review risk controls, consideration must be given to:
 - The level of risk
 - High risk mobile plant may need more frequent review
 - The type of mobile plant involved
 - There may be particular stages in the life of the mobile plant where a more frequent review is needed

4. Roles and Responsibilities

Responsibility	Who
Approval	General Manager, People Culture and Safety
Ownership and implementation	Manager, Safety, Wellbeing and Environment

GMW Executive Leadership Team (ELT)

- GMW ELT are responsible for overseeing and ensuring the implementation of the requirements of this procedure and related procedures within their respective functional areas.
- This includes ensuring all work involving mobile plant is suitably risk assessed and that appropriate controls are implemented to minimise the risk of injury or harm to workers



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Senior Leadership Team (SLT)

- Provide resources to identify and manage hazards associated with the safe use of plant
- Provide communication, supervision, instruction, and access to training in the safe use of plant
- Include plant located at their workplaces in the site plant register

Managers/Supervisors

- Assess and manage hazards associated with the safe use of mobile plant in consultation with workers and/or HSR's
- Implement and regularly review controls to mitigate the risks of working with mobile plant
- Provide workers with appropriate personal protection equipment and ensure they are correctly used and maintained as required
- Ensure PSDS and SWMS is created and identified controls are implemented prior to commencing any task that involves the use of mobile plant
- Implement strategies to make sure that all required maintenance, inspection, testing and calibration is undertaken on mobile plant at workplaces within their area of responsibility
- Develop and implement a maintenance, inspection and testing program for mobile plant to meet regulatory, standards, manufacturer's, and GMW, requirements

Safety, Wellbeing, and Environment (SWE) Team

- Provide advice, support, and consultation with the safe use of plant

Workers

- Follow any instructions in relation to the safe use of mobile plant:
 - PSDS
 - SWMS
 - SWI
- Implement risk control measures prior to commencing any task that involves the use of mobile plant
- Wear and maintain Personal Protective Equipment (PPE).
- Comply with PPE signage requirements
- Undertake relevant OHS training when required
- Report hazards, risks, or incidents in relation to mobile plant to their GMW manager/supervisor and record within IRIS



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5. Definitions

Competent Person:

Means a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task.

- A competent person has a more specific meaning in the following circumstances:
 - For design verification, the person must have the skills, qualifications, competence and experience to design the mobile plant or verify the design
 - For inspection of mobile plant for registration purposes the person must have educational or vocational qualifications in an engineering discipline relevant to the mobile plant being inspected, or knowledge of the technical standards relevant to the plant being inspected

Hazard:

A situation that has the potential to harm a person and/or the environment and/or damage property

Hierarchy of controls:

Identify the risk control actions and responsibilities by identifying controls in the following specific order:

- Eliminate the hazard. If elimination of the hazard is not reasonably practicable, minimise the risk so far as reasonably practicable by:
 - substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk
 - isolating the hazard from any person exposed to it implementing engineering controls
 - If a risk then remains, then minimise the remaining risk, so far as is reasonably practicable, by implementing administrative controls
 - If a risk then remains, then minimise the remaining risk, so far as is reasonably practicable, by ensuring the provision and use of suitable Personal Protective Equipment (PPE)

In-Service:

The period during the life of plant from the beginning of commissioning until disposal

Inspections:

Activities such as viewing, measuring, examining, testing, gauging, calculating, checking, verifying one or more characteristics of a product design, material, manufacture, product, service, process, mobile plant or reports and determination of their conformity with specific requirements or, on the basis of professional judgement, with general requirements

NOTES:

- The above activities may require multiple parties
- For inspection the 'competent person' should be the 'in-service inspector' or a person with equivalent qualifications and experience



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Inspector:

A person able to inspect pressure equipment for the purpose of establishing conformity with the specified requirements

Pressure Equipment:

Equipment including boilers, pressure vessels, pressure piping, and pressurized storage tanks. Pressure equipment also includes ancillaries such as interconnected parts and components, valves, gauges and other fittings, headers, bolting, gaskets, supports and pressure-retaining accessories. Unless noted, it does not normally include items such as pumps, fans, and similar machinery.

Pressure Vessel:

Any vessel designed to be subjected to pressure, internally or externally.

Risk:

Risk is the likelihood and consequence of injury or harm occurring when exposed to a hazard

Risk control:

Means taking action to eliminate health and safety risks so far as is reasonably practicable, and if that is not possible, minimising the risks so far as is reasonably practicable. Eliminating a hazard will also eliminate any risks associated with that hazard

Safety Observer:

A person who has been appointed to maintain and control exclusion zones and safety envelopes

Spotter:

A person, generally for assets (overhead and underground), who has been trained to maintain and control distances of plant and equipment to ensure a job is done in the safest manner possible to avoid injury warning others of any unsafe approaches to a job or project

Worker:

Worker means a person who carries out work in any capacity for GMW, including work as:

- An employee
- A contractor or subcontractor
- An employee of a contractor or subcontractor
- An employee of a labour hire company who has been assigned to work at GMW
- An apprentice or trainee
- A student gaining work experience
- A volunteer
- A worker of a prescribed class

Workplace:

A place where work is carried out by GMW and includes any place where a worker goes, or is likely to be, while at work



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6. Document history

Doc #	Date approved	Approved by	Approval #
A4005594	7 December 2021	Glenda Smith, General Manager People, Culture & Safety	A4226275

7. Associated documents

Document name	#
Victorian Occupational Health & Safety Act - 2004	
Victorian Occupational Health & Safety Regulations – 2017	
Victorian WorkSafe Compliance Code – Plant	
Fleet Procedure	A3788032
Trailer Procedure	A3987421
Safe Driving Procedure	A3817203
Inspection Test Plan Procedure	A4075834
Hazard Monitoring Assessment and Control – Plant Risk Assessment Checklist (Template)	A1053263
Safe Work Method Statement (SWMS) Template	A2828117
Safe Work Instruction (SWI) Template	A3499261
Plant Safety Data Sheet (PSDS) Template	A3499285
Plant Competency Assessment Template	A569915
Plant Pre-Start Checklist	A492158
Training and Development – Operational Policy and Procedure	A3659202



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Appendix A - Standards applicable to mobile plant (not exhaustive)

The following table is a list of published technical standards that provide guidance on the design, manufacture and use of certain types of mobile plant and attachments. These technical standards provide guidance only and compliance with them does not guarantee compliance with the OHS Act and Regulation in all instances. This list is not exhaustive

Plant Description	Reference Number	Standard Title
Cranes including hoists and winches	AS 1418 (Series)	Cranes Including Hoists and Winches
	AS 4991 - 2004	Lifting devices
	AS 2550 (Series)	Cranes – Safe use
Earthmoving machinery	AS 2294.1	Earthmoving machinery – Protective structures - General
	AS 2958.1	Earthmoving Machinery – Safety – Wheeled machines-Brakes
	AS 4772	4772 Earth-moving machinery – Quick hitches for excavators and backhoe loaders
	ISO 6165	Earthmoving machinery – Basic types – Identification and terms and definitions
	ISO 6746-1	Earth-moving machinery - Definitions of dimensions and codes - Part 1: Base machine
	ISO 6746-2	Earth-moving machinery - Definitions of dimensions and codes - Part 2: Equipment and attachments
	ISO 7133	Earth-moving machinery – Tractor scrapers – Terminology and commercial specifications

