ARTC

Plant and Equipment – Using Mobile Plant
(Fixed Site)

Warning
You cannot undertake this activity in the rail corridor unless you have completed a pre work brief and work site protection plan.
Reference should also be made to the Protocol for Entering the ARTC Rail Corridor and the Business Rules for Working in the ARTC Rail Corridor
Minimum Personal Protective Equipment (PPE) requirements must also be met in line with the Personal Protective Equipment (PPE) Work Instruction.

Work Activity:	**Plant and Equipment – Using Mobile Plant (Fixed Site)**			**WMS No:** WHS-WI-131
Coverage:	ARTC employees, and contractors directly managed by ARTC			**Version No:** 7.0
Developed by:	Corporate Work Health and Safety Manager	**Approved by:**	Executive General Manager Enterprise Services	**Date Approved:** 9 May 2016

Instructions

Before applying this work method statement, check that it is the right one for your worksite.

There are three types of work method statements, for three different types of worksites, as follows:

Site Type	Description	Examples
Fixed Sites	A larger worksite where there may be: - more than 1 – 2 pieces of plant on site, and - a larger number of workers on site. A fixed worksite may remain in place for a short time to a couple of days.	- installing / replacing sleepers and turnout bearers - level crossing upgrades - major drainage upgrades - placing ballast on track - under cutting sites
Linear Sites	A worksite involving rail mounted activities which work on a continual basis through the corridor	- ballast cleaning - ballast / rail train unloading - rail grinding - resurfacing
Maintenance Sites	Typically routine or periodic maintenance work. A maintenance site may involve 1 – 2 pieces of plant, supported by a maintenance team.	- delivery of track materials for a larger project - removing foul ballast from the formation - removing signal infrastructure (signal maintenance teams)

Speak with your supervisor if you are not sure which work method statement(s) apply to your work.

What are the tasks involved?	*What are the hazards and risks?*	*What are the control measures?*	*Related Documents*
Plan the work	Sites not supervised Access routes unsafe Planned location / movement of mobile plant not understood	A site supervisor must physically attend and supervise sites where mobile plant will operate. If there is a second site, such as a ballast stockpile some distance away, then the supervisor must ensure that: - the access route is safe and trafficable - plant operators are briefed with respect to any particular safety issues relevant to the route - the remote site is appropriately protected and managed – which may require turning the secondary site in to a separate site with its own site supervisor. If the site supervisor is required to leave the main site (including to visit the remote site) then all mobile plant work must stop until the supervisor returns, unless the supervision role can be temporarily assigned to another worker and this clearly communicated to all on site. The pre work brief must identify the planned location and movement of all mobile plant, and - determine suitable exclusion zone(s) to be applied (further information provided below) - confirm communication arrangements to be applied (further information provided below) - ensure that the operator of any mobile plant is competent - confirm that any mobile plant is in good working order (note: orange flashing lights and audible travel beepers must be fitted and working)	
Determine suitable exclusion zone(s)	Exclusion zone not in place Exclusion zone not enforced and/or worker enters in error Worker struck by mobile plant	Set up a suitable exclusion zone (minimum 5 metres) around mobile plant before starting. The exclusion zone must be visible (for example, marked with bollards or cones). Once in place, the site supervisor must ensure only the plant operator enters the zone unless - the mobile plant is stopped - the plant operator clearly understands a worker is to enter the exclusion zone - visual contact is maintained with the plant operator while the worker is in the zone - the supervisor gives clear permission for the worker to enter the zone	

What are the tasks involved?	*What are the hazards and risks?*	*What are the control measures?*	*Related Documents*
Confirm communication arrangements	Distraction resulting in: - supervisor not enforcing exclusion zone in error - mobile plant exceeding limits of authority - workers entering exclusion zone in error	On a site where mobile plant will operate: - only site supervisors and protection officers may be permitted to use mobile phones - site supervisors and protection officers may only use their mobile phones if they move to a safe place and remain stationary (do not wander) during the conversation - a mobile plant operator may use a radio, however they must notify the supervisor and bring the mobile plant to a stop with the equipment in a safe position before doing so - other workers may use radios, however must also move to a safe place and remain stationary (do not wander) during the conversation	
Do the work / Operate the mobile plant	Plant Operator's view obstructed Fall from heights Attachments disconnecting Reversing movements Unexpected movements Rail Traffic Lifting objects / materials	Always approach mobile plant from the direction in which the operator can see you. Always maintain three points of contact when accessing plant. Ensure locking pins or fully automatic quick hitches are in place for any attachments Plant Operator to confirm a clear path is available before moving. Plant Operator to sound horn before moving – 1 blast for forward, 3 blasts for reverse Ensure mobile plant is protected from any rail traffic at all times. (including if required to cross railway track, or the event of a breakdown) If lifting objects / materials: - check where the crane or plant is to be positioned to pick up, swing, and deposit the load - ensure no obstructions and/or breaches of approach distances to power lines - check the weight of the load and gear and ensure safe operation using relevant load charts - ensure a "controlled" lift – slow and deliberate.	

Additional Controls

The risk of being struck by plant can vary depending on a range of factors, including but not limited to:

1. The type of worksite
2. The location of the worksite
3. Track geometry (curvy / straight)
4. Surrounding topography (cuttings / embankments, deep cess)

There are a number of additional controls that may be considered to apply to the work, including:

Hazards	***Control***	***Explanation***
Struck by Plant	Inclusion Zone	Create a safe area adjacent to the worksite where workers are free to move to observe and direct the site. Use visible delineation (such as bollards, flagging tape, or witches hats) Brief Plant Operators to immediately stop mobile plant if observing workers outside the inclusion zone at any time. This can be used as an alternative to an exclusion zone, or in a way that compliments it.
	Only Forward Operation of Plant	Consider banning any reversing movement by mobile plant. Examples of situations where this may be appropriate include on bridges or near tunnels or platforms.
	Proximity Devices	Proximity devices can sound warnings if a physical obstacle or worker is detected within a pre-determined area around the plant.
	Reversing Cameras	Using mobile plant fitted with reversing cameras can provide assistance for plant operators. Plant Operators should not rely on reversing cameras alone, however (do not stop visual checks and warning horn blasts)
	Spotters / Observers	Assign an additional worker or workers to observe the operating range of the mobile plant and watch for potential obstructions. This would be appropriate for activities where a greater range of travel is required in a repetitive manner (such as “winging up” ballast with a hi-rail excavator). The spotter / observer must remain outside of the exclusion zone and have radio contact with the plant operator.
	Visual Checks	Where short reversing movements are needed, require the Plant Operator to make a visual check in all directions before sounding the horn to warn of the intended movement: - visual check and one blast of the horn to move forward, - visual check and three blasts of the horn to move in reverse

References	
Standards, Codes of Practice, Guidance: Apply other work method statements in addition to this one as relevant to the work. (for example, loading / unloading plant and equipment, work in the rail corridor)	**Plant / Equipment / Tools:** Additional PPE requirements to be determined, such as: - eye protection - gloves - hard hats - hearing protection - respiratory protection (such as a P2 dust mask)
Training Requirements: Check whether high-risk licenses are required and if so that workers have these. (The Commonwealth Work Health and Safety Regulation, Schedule 3, requires high-risk work licences for scaffolding, rigging, boom-type elevating work platform operation and fork lift truck operation). Check that workers have the information, training, instruction or supervision that is necessary to protect them from risks arising from the use of plant.	**Inspection / Testing requirements:** Plant Maintenance Procedures describe plant safety and inspection requirements, including: - general plant requirements EPP-32-03 General Plant Requirements - annual inspections using EPP3202F-02 Plant Inspection Requirements - daily inspections using EPP3202F-03 Daily Plant Record Book, and - on-site inspections using EPP3202F-05 On-Site Plant Inspection Report.