



Work Method Statement

Warning

You cannot undertake this activity in the rail corridor unless you have completed a pre work brief.

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) must also be met in line with the [Personal Protective Equipment \(PPE\) Work Instruction](#).

- Long/Long and safety boots are to be worn at all times while in the rail corridor, a rail yard or when working on the AK Car,
- High Visibility Vests are to be worn when in a rail yards or in the rail corridor, and
- PPE is to comply with any additional local rules or requirements.

Works on the AK Car are also to comply with the following Work Method Statements:

[Work in the Rail Corridor General Requirements](#), [Air and Power Tools](#), [Heights](#), [Manual Tasks](#), [Needle Stick Injuries](#), [Plant and Equipment – Servicing/Refuelling](#).

Work Activity:	Working in and around the AK Car	WMS No: WHS-WI-050
Coverage:	Standard Gauge Operational Track in QLD, NSW, ACT, VIC, SA, WA & NT	Version No: 2.0
Approved By:	Phillip Campbell – Acting Executive General Manager Enterprise Services	Date Approved: 20th February 2017

<i>What are the tasks involved?</i>	<i>What are the hazards and risks?</i>	<i>What are the control measures?</i>	<i>Related Documents</i>
Enter rail corridor/yard to access the AK Car.	Unqualified to enter site	• Ensure all site inductions/track safety awareness training has been completed and is up to date prior to entering site.	Work in the Rail Corridor General Requirements Work Method Statement
	Struck by rail or road traffic on site	• Follow all local site/track rules or instructions. • Follow designated walking paths in yards.	
Getting on & off AK Car outside platform	Fall from height: <ul style="list-style-type: none"> - while climbing on/off AK Car - down steep embankments - from overbridge into water/oncoming traffic 	• Comply to 'Heights' Work Method Statement • Move AK Car to a safer site if possible • Use end door on AK Car on embankments • Maintain 3 points of contact while climbing on/off AK Car • Ensure both hands are free when climbing on/off AK Car	Heights (including work on ladders) Work Method Statement
	Hit by train or track vehicles in a multiple track area	• Embark/disembark AK Car when advised by locomotive crew that it is safe to do so. • Embark/disembark AK Car on opposite side to live running lines. • Use lookout when climbing on/off AK Car. • Use end doors on AK Car in multiple track areas • Move AK Car to a safer site if possible.	Work in the Rail Corridor General Requirements Work Method Statement



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	<p>Walk on uneven ground – Slips, Trips or falls</p> <p>Strains, sprains, slips or trips while climbing on/off AK Car due to:</p> <ul style="list-style-type: none"> - normal conditions - inadequate lighting - wet conditions <p>Strain or sprain while loading goods onto AK Car</p>	<ul style="list-style-type: none"> • Watch where you are walking at all times and look out for objects which could result in slips, trips or falls. • Move AK Car to a safer site if possible • Maintain 3 points of contact while climbing on/off of AK Car at all times. • Ensure both hands are free when climbing on/off AK Car. • Do not jump from AK Car to ground. • Use flashlight if light is inadequate. • Remain inside AK Car if conditions are unsafe to disembark AK Car. • Comply with “Manual Tasks’ Work Method Statement. • Place goods on floor of AK Car prior to embarking/disembarking. • Load heavy goods with assistance of second operator. 	<p>Manual Tasks Work Method Statement</p>
<p>Immobilise AK Car to conduct work on or under rollingstock.</p>	<p>Unplanned movement of train causes fatality or severe injury to worker underneath or working on AK Car</p>	<ul style="list-style-type: none"> • Inform train driver and train manager of work to be performed on/under the AK Car. • Seek assurance from train driver that train will not move until approval is given that everyone is clear of train and work has been finished. • Reduce the brake pipe pressure inside the AK Car to zero on the brake pipe air gauge. • Open emergency brake cock inside AK cabin. • Tag the emergency brake cock with System Operators name tag and place red flag in bracket on front, end and both sides of AK Car. Tag can only be removed by staff member who placed it there in the first place. • AK Car must not be moved until all tags and red flags have been removed and drivers have been informed the train is safe to move. 	



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<p>Carry out pre run checks, cabling and general duties outside of AK Car:</p> <ul style="list-style-type: none"> • Undertake ground check. • Use gauge board for calibration check. • Measure superelevation. • Tie and secure cables to AK Car. • Tie and secure cables to loco. • Repair or replace laser system components. • Undertake calibration checks. • Clean camera lenses. • Clear debris from under laser system. 	<p>Hit by train or track vehicle while undertake work on/under the AK Car</p>	<ul style="list-style-type: none"> • Utilise driver and track maintenance staff for safe working requirements if required. • Use second operator as lookout while performing work. • Undertake work from opposite side of AK Car to live running lines. • Move AK Car to a safer site if possible. 	<p>Work in the Rail Corridor General Requirements Work Method Statement</p> <p>Needle Stick Injury Work Method Statement</p>
	<p>AK Car moves due to brake leaking off causes fatality or severe injury to worker underneath or working on AK Car</p>	<ul style="list-style-type: none"> • Follow "Immobilise AK Car" instructions to immobilise AK Car movements. • Use second operator as lookout while performing work. 	
	<p>Injury to System Officer (laceration, strain, sprain, head/shoulder injury, etc) from contact with rollingstock due to:</p> <ul style="list-style-type: none"> - poor visibility under AK Car - low clearance while working under AK Car 	<ul style="list-style-type: none"> • Use flashlights when working under the AK Car, as required. • Second operator to assist by passing tools to operator under AK Car. • Wear bump caps or hard hats when working under AK Car. 	
	<p>Needle stick injury</p>	<ul style="list-style-type: none"> • Comply with 'Needle Stick Injury' Work Method Statement (WHS-WI-313). • Move AK Car to a safer site if deemed to be high risk of needle stick injury. 	
	<p>Snake and insect bites</p>	<ul style="list-style-type: none"> • Assess site for risks of insects or snakes (long grass, near culverts and dams, under rocks, sleepers and burrows). • Move AK Car to a safer site if deemed to be high risk of snake or insect bite. • Ensure first aid kit is accessible. 	
<p>Inspection / repair / maintenance of laser beam under AK Car.</p> <ul style="list-style-type: none"> • Repair or replace laser system components • Undertake calibration check • Clean camera lenses • Clear debris from under system • Disassemble laser beam • Move and lift laser beam • Re-assemble laser beam 	<p>Laser beam reflected or projected to person whilst working on the stationary AK Car in field.</p>	<ul style="list-style-type: none"> • Follow maintenance and safety procedures detailed in laser system user manuals. • Isolate laser in computer room through laser system software or key switch when undertaking maintenance on the laser beam. • When laser beam maintenance requires lasers to be turned on establish a 3.6m exclusion zone around laser system or erect approved shielding around the laser. • Wear Laser Safety Glasses suitable for a 3B laser when working on laser beam under AK Car. • Advise non AK Car personal of work being performed and dangers associated with work. 	<p>ImageMap Laserail Profile Measurement System, Equipment Operation and Maintenance Manual</p>



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	Laser beam reflected or projected to person whilst working on the stationary AK Car in depot or over a pit.	<ul style="list-style-type: none"> • Advise onsite Maintenance Manager / Supervisor that the AK Cars are equipped with 3B lasers and that their staff must not enter any established exclusion zone set up around the AK Cars. • Follow maintenance and safety procedures detailed in laser system user manuals. • Isolate laser in computer room through laser system software or key switch when undertaking maintenance on the laser system. • When laser beam maintenance requires lasers to be turned on, establish a 3.6m exclusion zone around laser system or erect approved shielding around the laser. • Limit access and place safety signage at entry and exit points to underground pits. • Wear Laser Safety Glasses suitable for a 3B laser when working on laser system under AK Car. 	
	Manual handling injury in lifting and removing beam	<ul style="list-style-type: none"> • Comply with 'Manual Task' Work Method Statement. • Use mechanical lifting aid to assist in lifting and moving beam. • Utilise two people when lifting the beam. 	Manual Tasks Work Method Statement
Operations on AK Car	Repetitive strain injury to eyes, hands, neck and shoulders.	<ul style="list-style-type: none"> • Comply with 'Manual Task' Work Method Statement. • Take regular rest breaks and all opportunities to rest throughout the day. • Regularly rotate duties between System Operators. • Undertake regular upper limb exercises. 	Manual Tasks Work Method Statement
	Fatigue due to long days	<ul style="list-style-type: none"> • Take regular rest breaks and all opportunities to rest throughout the day. • Regularly rotate duties between System Operators. • Do not drive a motor vehicle after long shifts. • Stay in a hotel to ensure an adequate nights sleep if required. • Advise manager of days with potential to exceed 12 hours. • Ensure 8 hour breaks between shifts. • Do not book flights on days when recording exceeds 8 hours. 	Fatigue Work Instruction
	Injury while moving between AK Car carriages	<ul style="list-style-type: none"> • Maintain 3 points of contact when moving through vestibules and AK Car carriages at all times. 	



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	Fall from train while AK Car is in motion	<ul style="list-style-type: none"> • Ensure all outside doors are closed when AK Cars are in motion. 	
Refuelling/Decant of AK Cars with contractors tanker Note: When refuelling or decanting the AK Car in a facility or yard with dedicated fuelling and decanting facilities follow all local rules and instructions.	Diesel fire during refuelling	<ul style="list-style-type: none"> • Comply with 'Plant and Equipment-Servicing/Refuelling' Work Method Statement. • Confirm Fire Extinguishers (CO2, Foam or Powder) are available prior to starting work. • Handle Diesel Fuel according to safety data sheet. • Wear additional PPE including gloves, eye/face protection and overalls. 	Plant and Equipment – Servicing/Fuelling Work Method Statement Diesel Fuel Safety Data Sheet Environmental Incident Management EVN-PR-002
	Tanker (or equipment) struck by train on adjacent running lines	<ul style="list-style-type: none"> • Ensure adequate safe working is in place prior to works commencing. • Brief contractor of track safe working requirements. • Position AK Cars on outermost siding and avoid the need to cross adjacent running lines. 	
	Spill of fuel or effluent	<ul style="list-style-type: none"> • Confirm spill kit is available prior to starting work. • Handle Diesel Fuel according to safety data sheet. • Monitor the external fuel gauge on the tank during refuelling to avoid spillage. • No refuelling is to be undertaken within 100m of visible open culverts or waterways unless located at a dedicated fixed refuelling site. • Wear additional PPE including gloves, eye/face protection and overalls. • Manage spills in accordance to ENV-PR-002. 	
	Uncontrolled movement of AK Cars during refuelling	<ul style="list-style-type: none"> • Follow "Immobilise AK Car" instructions to immobilise AK Car movements. 	
Generator service, oil and air filter change	Spill or uncontrolled release of oil, coolant or fuel.	<ul style="list-style-type: none"> • Confirm spill kit is available prior to starting work. • Handle liquids according to safety data sheet. • Wear additional PPE including gloves, eye/face protection and overalls. • Manage spills in accordance with ENV-PR-002. • When undertaking oil changes ensure oil containers are safe and securely positioned to collect waste oil and have enough capacity to collect waste oil without over filling. 	Oil and Diesel Fuel Safety Data Sheet Environmental Incident Management EVV-PR-002



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	Burns from hot oil, oil filter or Genset	<ul style="list-style-type: none"> • Defer work until Genset has cooled down or undertake prior to Genset being started. • Wear additional PPE including gloves, eye/face protection and overalls. • Ensure access to running water and/or burn kit. 	
	Heat exhaustion by working in hot generator room	<ul style="list-style-type: none"> • Defer work until Genset has cooled down or undertake prior to Genset being started. • Limit work time in generator room. • Maintain hydration while undertaking work. • Take regular rest breaks. 	
	Hearing damage due to noise in Generator room	<ul style="list-style-type: none"> • Wear hearing protection while undertaking work in the generator room. 	
Filling of AK Car water tanks	Manual handling injury while relocating water hose reel	<ul style="list-style-type: none"> • Comply with 'Manual Task' Work Method Statement. • Seek assistance from second operator if difficult to lower / raise hose reel from train. • Carefully manoeuvre hose reel into position whilst on train platform. • Wind hose onto hose reel with care if bending over. 	Manual Tasks Work Method Statement
	Muscle strain due to bending or laying on platform to open / close water valve and/or connect/disconnect hose.	<ul style="list-style-type: none"> • Comply with 'Manual Task' Work Method Statement. • Take care when bending over or laying on platform. 	
	Uncontrolled movement of AK Cars during watering.	<ul style="list-style-type: none"> • Follow "Immobilise AK Car" instruction to immobilise AK Car movements. 	



References

<p>Standards, Codes of Practice, Guidance:</p> <p>Applicable law, and in particular: Commonwealth Work Health and Safety law Commonwealth Codes of Practice, and Rail Safety laws</p> <p>First Aid Work Instruction</p> <p>Code of Practice - Hazardous Manual Tasks</p> <p>ImageMap Laserail Profile Measurement System, Equipment Operation and Maintenance Manual</p>	<p>Plant / Equipment / Tools:</p> <p>Rollingstock including 3 x FAM Passenger Wagons (AK Cars), Generator, ImageMap Laserail Profile Measurement System and Pacific Realtime ROAMES System.</p> <p>Equipment including air/power tools; air hoses; compressed air source; power cords, etc.</p> <p>Fire Fighting equipment (Fire Extinguishers: CO2, Foam or Powder)</p> <p>First Aid Equipment – consider burn kits if access to running water is limited.</p>
<p>Training Requirements:</p> <p>Check that workers have the information, training, instruction or supervision that is necessary to protect them from risks arising from using or maintaining the plant, tools and equipment.</p> <p>Safeworking awareness and competency requirements in line with the Protocol for Entering the Rail Corridor (Australia wide).</p>	<p>Inspection / Testing requirements:</p> <p>Before starting work, check all equipment is in good working order as per supplier or manufacturer instructions.</p> <p>Check plant / equipment / tools in line with relevant sections of this work method statement. “Tag out” any unsafe, faulty, or worn tools or leads / hoses and return for servicing.</p>
<p>Developed by:</p> <p>Erik Svilans – AK Car Systems Officer Mark Wood – Senior AK Car Systems Officer Rhys Higham – Track Recording Manager</p> <p>Date: 20th February 2017</p>	<p>Reviewed by:</p> <p>David Dowson – AK Car Operations Manager Rhys Higham – Track Recording Manager Kieran Riches – Corporate Work Health & Safety Manager</p> <p>Date: 20th February 2017</p>