

SWMS – Civil inspections and maintenance work on boundary fencing.

Issue date: 04/10/07
Review date: 04/10/10

SWMS number: SMS-06-SW-0761	SWMS Name: Civil inspections and maintenance work on boundary fencing.			SWMS Team: Livio Radman Dragan Sukara Wal Bailey Mick Meehan
Custodian (Position): Business Systems Officer, Illawarra Region. Peter Sharpe.	Assumptions: Fine weather and daylight hours. Staff have had Regional Induction. Staff briefed in SWMS: Civil inspections and maintenance on the Right of Way, outside the danger zone of the railway track. Staff briefed in Civil underbridge, overbridge and footbridge SWMS when working near underbridges, overbridges, or footbridges.			Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group)
Approving Authority (Position): General Manager, Infrastructure Maintenance.	Plant/Equipment/Tools: <ul style="list-style-type: none"> Handtools. Powered hand tools Ropes and harnesses. Needle stick kit. 	Records/Reporting: <ul style="list-style-type: none"> Production report. 	Permits/licences required: <ul style="list-style-type: none"> Industrial Rope Access II as required. Minor Plant operator competency as required. Arc welding ticket as required. 	<ul style="list-style-type: none"> Structures Manager - Asset Management, Metroplitan Infrastructure, Illawarra. Safety Officer - Asset Management, Metroplitan Infrastructure, Illawarra.
Applicable Standards, Codes of Practice and guidance: <ul style="list-style-type: none"> Workcover Code of Practice, for the storage and handling of Dangerous Goods, 2005. National Code of Practice for Manual Handling NOHSC:2005 (1990). Workcover Code of Practice: Moving plant on construction sites. Workcover Code of Practice: Noise Management, and Protection of hearing at work. Workcover Guide: Safe working at heights. 	Inspection requirements <ul style="list-style-type: none"> Electrical equipment has current test tag. Daily plant check. Daily harness check. Industrial ropes and harnesses current certification tag. 	Service schedule: Nil.	Training/Qualifications required:	PPE required: <ul style="list-style-type: none"> Steel Cap Boots Safety Glasses High visibility vest Long sleeve shirt as required. Long pants as required. Hard Hat Gloves as required. Spats as required. Chaps as required. Ear protection as required. Face shield as required Welding goggles as required. Dust mask, respirator as required. Disposable overalls as required.

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1.	Accessing or leaving the work site.	Slips, trips, falls, and fall from heights from accessing the fence.	B+	Conduct on site risk assessment, and identify hazards to be avoided. Stay safe distance from drops, eg cutting edges, culverts etc. Use ropes and tie off point as required. Have path cleared through vegetation prior to inspection as required. Correct footwear.	B-	Worksite supervisor Team member	SMS-06-GD-0240. Working at heights. SMS -06-SW-0527. Safety footwear.
		UV exposure.	B+	Apply 30 plus, sunscreen at required intervals, after referring to MSDS. Wear long sleeve shirt if required. Wear broad brim hat if required.	C+	Team Member.	SMS-06-SW-0537. Sunscreen.
		Contact with toxins from spiders, wasps, etc.	C+	Inspect before commencing work. Wear Gloves.	C+	Team Member.	SMS-06-SW-0530. Protective gloves.
		Cuts, abrasions, allergic reactions from vegetation.	B+	Wear appropriate PPE, safety glasses, gloves etc.	B-	Team Member.	SMS-06-SW-0529. Eye protection. SMS-06-SW-0530. Protective gloves.
		Needle stick injury.	B-	Identify possible needle stick locations. Wear gloves. Dispose of needles with needle stick kit.	C+	Worksite supervisor.	SWI: Needle stick kit. SMS-06-SW-0530. Protective gloves.
		Carrying tools and equipment to fence.	B+	Instruction in correct lifting techniques.	B-	Worksite supervisor.	SMS-06-GD-0001. Guide to Manual Handling.
2.	Load/Unload equipment from vehicle.	Manual handling.	C+	Correct manual handling techniques. Team Lifts. Use mechanical aids as required.	C-	Team Member	SMS-06-GD-0001. Guide to Manual Handling.
		Contact with sharp objects.	C+	Remove or blunt if possible. Wear gloves.	C-	Team Member.	SMS-06-SW-0530. Protective gloves.

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2.		Crush injury.	B-	Correct manual handling techniques. Team lifts. Orderly loading of truck. Use mechanical lifting device where possible. Stay clear of moving equipment such as tail gate loaders and lifting devices.	C+	Team Member	SMS-06-GD-0001. Guide to Manual Handling.
		Incorrect loading of truck resulting in roll over, equipment/plant/tools coming of vehicle.	B+	All equipment/plant and tools to be secured. Balanced loading of truck.	B-	Worksite supervisor Truck driver.	
		Electric shock from overhead power lines or wiring.	B+	Staff to have been trained in Electrical Awareness or RISI. Maintain Electrical clearances. Obtain Electrical Isolation permit prior to commencing work if required.	B-	Team Member.	SMS-06-GD-0268. Working around electrical infrastructure.
		Slips, trips, falls and fall from heights.	B+	Correct manual handling techniques. Team lifts. Orderly loading of truck. Get on and off truck using steps provided.	B-	Worksite supervisor Team member	SMS-06-GD-0001. Guide to Manual Handling.
3.	Cutting of path through vegetation with brush hook.	All hazards from step 1.		All controls from step 1.		Worksite supervisor Team member	
		Cuts and abrasions.	B+	Wear appropriate PPE, safety glasses, gloves etc.	B-	Team Member.	SMS-06-SW-0529. Eye protection. SMS-06-SW-0530. Protective gloves.
		Injury to others from swinging brush hook.	C+	Other team members to remain clear of brush hook user.	C-	Team Member.	
4.	Carrying out maintenance on the fence.	Explosion from ruptured hazardous material main, eg Gas,fuel etc.	B+	If excavating, carry out Railcorp approved Services search process, including "Dial B4U dig".	C+	Team Manager.	SMS-06-SW-0384. Service search. Dial B4U Dig.

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		Electric shock from severing underground power cables.	B+	If excavating, carry out Railcorp approved Services search process, including "Dial B4U dig".	C+	Team Manager.	SMS-06-SW-0384. Service search. Dial B4U Dig.
		Injuries from other work activity in the vicinity.	B+	Contact other worksite supervisor before entering worksite and obtain induction before entering.	B-	Worksite supervisor.	
		Carrying tools and equipment to the fence.	B+	Instruction in correct lifting techniques. Use mechanical means if required.	B-	Worksite supervisor.	SMS-06-GD-0001. Guide to Manual Handling.
		Electrical hazard from overhead transmission lines, whilst carrying long poles etc to the site.	C-	Identify possible hazards. Carry poles etc in horizontal position.	C-	Team Member	SMS-06-GD-0268. Working around electrical infrastructure.
		Slips, trips, and falls from wet surfaces and uneven surfaces.	B+	Identify, and avoid identified hazards. Wear correct footwear.	B-	Worksite supervisor Team member	SMS -06-SW-0527. Safety footwear.
		Manual handling of tools and equipment.	B+	Instruction in correct lifting techniques. Use mechanical means if required.	B-	Worksite supervisor.	SMS-06-GD-0001. Guide to Manual Handling.
		Injuries, cuts, abrasions from tools, materials, assets and equipment.	C+	Wear gloves. Correct use of hand tools.	C-	Team Member.	SMS-06-SW-0530. Protective gloves.
		Fall in open holes	B-	Take care, watch out for open holes. Cover open holes.	C+	Team Member.	
		Electric shock from electric fence	B-	Contact farmer/resident to disconnect power supply.	C+	Team Member.	
		Contact with toxins from spiders, wasps, etc.	C-	Inspect before commencing work. Wear Gloves.	C-	Team Member.	SMS-06-SW-0530. Protective gloves.
		Repetitive strain injury to neck and back.	D	Rest periods.	D	Worksite supervisor.	
		Needle stick injury.	B-	Identify possible needle stick locations. Wear gloves. Dispose of needles with needle stick kit.	C+	Worksite supervisor.	SWI: Needle stick kit. SMS-06-SW-0530. Protective gloves.

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		Electrocution from arc welding equipment.	B-	Follow SWI for welding.	C+	Welder	SWI: General arc welding.
		Burns from arc welding.	B-	Follow SWI for welding.	C+	Welder	SWI: General arc welding.
		Inhalation of fumes from arc welding.	B-	Follow SWI for welding. Respiratory PPE as per SWI.	C+	Welder	SWI: General arc welding. SMS-06-SW-0535. Respiratory protection.
		Damage to eyes from Arc welding.	B-	Follow SWI for welding. Eye protection PPE as per SWI. Screen work area.	C+	Welder	SWI: General arc welding. SMS-06-SW-0529. Eye protection.
		Damage to public person's eyes from Arc welding.	B-	Follow SWI for welding. Screen work area.	C+	Welder	SWI: General arc welding.
		Burns to staff from a fire.	C-	Clean site of combustible material. Have appropriate fire fighting equipment on site. Designated look out.	D	Worksite supervisor.	SWI: Appropriate SWI for fire fighting equipment to be used.
		Injuries using power tools.	B-	Use applicable SWIs of tools being used.	C+	Worksite supervisor.	SWI: Applicable to tool being used.
		Noise from plant and power tools.	C+	Wear hearing protection.	D	Team Member.	SMS-06-GD-0531. Hearing protection.
		Contact with chemicals.	B+	Work in accordance with required MSDS. Eye protection PPE and wear gloves.	C+	Worksite supervisor. Team Member.	MSDS: Applicable to chemical being used. SMS-06-SW-0529. Eye protection. SMS-06-SW-0530. Protective gloves.

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		Struck by flying object.	B+	Eye protection PPE. Hard hat as required. Full face shield if required.	B-	Team Member.	SMS-06-SW-0529. Eye protection. SMS-06-SW-0532. Protective helmets.
		Objects falling from height.	B-	Secure loose objects including tools. Defined exclusion zones with bollards and tape, below worksite. Hard hat PPE as required.	C-	Team Member.	SMS-06-SW-0532. Protective helmets.
		Airborne dust.	C+	Respirator/dust mask PPE.	C-	Team Member.	SMS-06-SW-0535. Respiratory protection.
		Aggravated person from the public, commuter or resident.	D	Advertise work with signage. Provide defined exclusion zones with bollards and tape. Employ security at dangerous locations.	D	Worksite supervisor.	SMS-06-SW-0242. Managing workplace violence.
		Injury to public.	D	Advertise work with signage if required. Provide defined exclusion zones with bollards and tape if required. Use staff to manage pedestrian traffic if required. Deploy appropriate traffic control using accredited traffic control contractors.	D	Worksite supervisor.	SMS-06-SW-0372. Work on or near public roads. SMS-06-SW-0369. Worksite traffic management. SMS-06-SW-0370. Worksite traffic plan.
		Struck by RMV	C+	Deploy appropriate traffic control using accredited traffic control contractors.	C-	Worksite supervisor.	SMS-06-SW-0372. Work on or near public roads. SMS-06-SW-0369. Worksite traffic management. SMS-06-SW-0370. Worksite traffic plan.
5.	Pack up worksite.	Material or equipment left on site.	C+	Carry post work inspection.	D	Worksite supervisor.	

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MIMS STANDARD JOBS LISTING.

Std Job Code	Activity Description	Std Job Code	Activity Description	Std Job Code	Activity Description
P15800	REPLACE STOCK FENCING AND GATES	P15C01	REPAIR URBAN FENCES AND GATES	P00012	EXAMINATION BY BRIDGE EXAMINER
P15801	REPLACE URBAN FENCING & GATES	P15C04	REPAIR STOCK FENCES AND GATES	P00013	SPECIAL INSPECTION OF BRIDGE
P15802	REPLACE WITH HIGH SECT'Y FENC'G & GAT	P15E01	EMERGENCY REPAIR URBAN FENCES AND GAT	P00014	EXAMINATION BY STEEL BRIDGE EXAMINER
P15803	INSTALL BOUNDARY FENCING & GATES	P15E02	EMERGENCY REPAIR STOCK FENCES AND GAT	P00015	INSPECTION BY STRUCTURES INSPECTOR

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NOTE: Each work group or team member must sign off on the SWMS to acknowledge they have been briefed about or instructed in the SWMS

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RailCorp Level 2 Risk Matrix - Regional & Local (Workplace)		Likelihood/Frequency							Definition for Use - Regional & Local level (Workplace)
		Event Frequency	Less than once every 1000 years	Once every 100 to 1,000 years	Once every 10 to 100 years	Once every 1 to 10 years	More than once per year up to and including 10 times per year	More than 10 times per year	
		Historical (Likelihood)	Unheard of in the rail industry	Has occurred once or twice in the rail industry	Has occurred many times in the rail industry, but not in NSW	Has occurred once or twice in NSW	Has occurred frequently in NSW	Has occurred frequently at specific locations	
Consequence		Workplace Predictive (Likelihood)	Not expected to occur	May occur only in exceptional circumstances	Could occur at some time but not likely	You would expect it to occur at least once in the next 10 years performing similar activities	You would expect it to occur at least once this year performing similar activities	You would expect it to occur at least once this month performing similar activities	As an example, the Level 2 scale would be used when examining the risk of slips, trips and falls on specific RailCorp platforms within a region or at a particular station, or the risk of fire within a depot.
			F1	F2	F3	F4	F5	F6	
Incredible	Improbable	Remote	Occasional	Probable	Frequent				
>10 Fatalities	C6	Disastrous	B-	B+	A	A	A	A	There are 3 options for descriptors which can be used to determine the frequency category. One set of descriptors is provided for frequency, one for historical likelihood, and one for predictive likelihood in the workplace. Choose the most appropriate. To score the risk, follow the steps: 1. Identify the magnitude of the credible consequence if the risk were to occur. If applicable, risks should be considered in terms of the safety (this matrix), commercial and environmental impact (using other matrices). 2. Identify the likelihood of this level of consequence occurring. (This is done after considering the effectiveness of the current controls in place) 3. Score the risk using the combination of likelihood and consequence ranking. Note: Where there are a range of credible consequences which may lead to a different level of risks and/or where the controls may be different. It may be useful to score the risk more than once.
2-10 Fatalities	C5	Catastrophic	C+	B-	B+	A	A	A	
1 Fatality (2-10 Major Injuries)	C4	Critical	C-	C+	B-	B+	A	A	
1 Major Injury	C3	Major	D	C-	C+	B-	B+	A	
1 or more Minor Injuries	C2	Minor	D	D	C-	C+	B-	B+	
First aid treatment, or illness/injury not requiring treatment	C1	Negligible	D	D	D	C-	C+	B-	