

Site Establishment and Disestablishment

Issue date: 15/10/10
Review date: 14/04/13

SWMS number: SMS-06-SW-0992	SWMS Name: Site Establishment and Disestablishment			SWMS Team: Civil Construction Review Team
Custodian (Position): Services Manager Civil	Assumptions: Site specific risks are addressed and assessed in pre- work briefing			
Approver (Position): Civil Electrical Works Manager Infrastructure Renewals	Plant/Equipment/Tools: <ul style="list-style-type: none"> Red Flags & Green Flags, Detonators, Lamps Signs, Demarcation Fencing Water cart, Fire Extinguisher Straps, Ties Equipment Spill Kit, Sediment Traps / Hay Bales Plant & Equipment / Cranes Ballast / Cleaning Ramps, Broom Pipe Glue, Sealants, Concrete Fuel / Oils Portable Buildings Hand Tools, Power Tools 	Records/Reporting: <ul style="list-style-type: none"> Worksite Protection Plan Pre Work Brief Site Specific Management Plan Daily Plant Inspection Electrical Tool Test Tags Electrical Permits Services Searches Lifting Equipment Test Tags Environmental Protection Plan Hazardous & Dangerous Goods Register 	Permits/licences required: <ul style="list-style-type: none"> Electrical Permit Holder Plant Operator / Dogman Certificate 	Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group) Services Manager Civil and Safety facilitator, Safety Support Services Division
Applicable Standards, Codes of Practice and guidance: <ul style="list-style-type: none"> OH&S Act 2000 OH&S Regulation 2001 Rail Safety Regulation. 2003 RailCorp Network Rules & Procedures RailCorp Safety Management System. MSDS for all chemicals and hazardous Substances used on site Working near Overhead Power Lines EC14 – Guide to Electrical Workers' Safety Equipment National Code of Practice for Manual Handling [NOHSC:2005 AS 2550.5 Cranes, hoists and winches - Safe use – Mobile cranes 				PPE required: <ul style="list-style-type: none"> Safety Boots High Visibility Vests Hardhats Protective Clothing Safety Glasses <p>And as specified below.</p> <ul style="list-style-type: none"> Dust Masks / Type 2 Respirators Gloves Hearing Protection During all Site Works a FIRST AIDER MUST be Present
	Inspection requirements Nil	Service schedule: Nil	Training/Qualification required: <ul style="list-style-type: none"> Construction Industry Induction RISI (Rail Industry Safety Induction) 	

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1	Arrival and departure of construction staff and plant on site.	Public Struck by Machines	B-	Traffic management Plan	C-	Team Leader Work Group Leader All Staff RTA ticketed traffic controllers	SSMP, pre work briefing SMS-06-FM-0163 Plant SMS-06-PR-0225 Traffic management plan
		Equipment struck by train	B+	All plant and equipment to remain clear of the danger zone until such time that a work site protection plan has been drawn up and work site protection put in place and staff briefed.	C+	Team leader work group leader all staff Worksite Protection Officer.	SSMP, pre work briefing SMS-06-FM-0163 Network Rules and Procedures.
		Contact with live o/h wires (high voltage)	A	Maintain regulated clearances on wires at all times. Isolate power when in side Safe approach distance (SAD).	C+	Qualified Permit Holder QEL29/MEI61 Team Leader Work Group Leader All Staff	Electrical equipment SMS-06-GD-0268 Electrical permits SMS-06-EN-0577
		Hazard from spoil from tyres and tracks being dropped on external roads	C+	Provide ballast or cleaning ramp at site access if required Broom as necessary	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Environmental protection plan
2	Clearing the site or rehabilitation of the site	Manual handling injuries	B-	Correct manual handling procedures. "back-safe" training. Plant to move heavy and/or bulky items. As per Risk assessment.	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Manual handling guide SMS-06-GD-0001
		Struck by machine	B+	Implement exclusion zones for workers. All plant must have functional lights and alarms. Use ticketed operators. Wear head protection. Use spotter if required	C+	Team Leader Work Group Leader All Staff Workcover ticketed operators SMS-11-GD-0243	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323 Plant SMS-06-PR-0225
		Flying objects	B-	Implement exclusion zone wear eye protection	C-	Team leader work group leader all staff	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323
		Noise from plant	C+	Implement exclusion zones. Use appropriate plant with noise control measures. Use ear protection where required.	D	Team leader Work group leader all staff	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323

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		Personnel struck by vehicles or machinery	B+	Implement exclusion zones all plant must have functional lights and alarms as per plant inspection report. Use ticketed operators. Plan work to avoid congestion use truck pilots if appropriate	C+	Team Leader Work Group Leader All Staff WorkCover ticketed operator SMS-11-GD-0243	SSMP, pre work briefing SMS-06-FM-0163 Plant SMS-06-PR-0225 Truck pilots SMS-11-GD-0243
		Inhaling dust and fumes	B-	Implement exclusion zones. Wear type 2 respirators if required. Water down worksite at appropriate intervals if required.	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Hazardous substances SMS-06-GD-0199
3	Install/ remove environmental protection	Strike underground services	B+	Use service search maps and dial before you dig. searches to be on site. Mark out locations. Hand dig or use non destructive method to locate any services close to excavations	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Excavation & earthworks SMS-06-GD-0378
		Manual handling injuries	B-	Correct manual handling procedures. "back-safe" training. Plan to move heavy and/or bulky items. As per Risk assessment.	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Manual handling guide SMS-06-GD-0001
4	Delivery or removal of materials including portable building and amenities	Personnel struck by vehicles or machinery	B+	Implement exclusion zones all plant must have functional lights and alarms as per plant inspection report. Use ticketed operators. Plan work to avoid congestion use truck pilots if appropriate	C+	Team Leader Work Group Leader All Staff WorkCover ticketed operator SMS-11-GD-0243	SSMP, pre work briefing SMS-06-FM-0163 Plant SMS-06-PR-0225 Truck pilots SMS-11-GD-0243
		Struck by crane or load	B+	Implement exclusion zones for workers not involved in loading/ unloading. Control load with tag lines position dogman with clear escape route away from anticipated load movement. Wear head protection	C+	Team Leader Work Group Leader All Staff Workcover ticketed operator and dogman SMS-11-GD-0243	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323
		Failure of lifting equipment from overloading	B+	Select appropriate equipment for task. Competent operators to assess loads prior to lifting equipment to be properly maintained and marked.	C+	Team Leader Work Group Leader All Staff Workcover ticketed operator and dogman SMS-11-GD-0243	SSMP, pre work briefing SMS-06-FM-0163 Lifting equipment inspection SMS-16-FM-0089 Plant SMS-06-PR-0225

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		Struck by load	B+	Keep clear of suspended loads. Use ticketed operators. Exercise due care	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Lifting equipment inspection SMS-16-FM-0089 Plant SMS-06-PR-0225
		Contact with live o/h wires (high voltage)	A	Maintain regulated clearances on wires at all times. Isolate power when in side Safe approach distance (SAD).	C+	Qualified Permit Holder QEL29/ME161 Team Leader Work Group Leader All Staff	Electrical equipment sms-06-gd-0268 Electrical permits sms-06-en-0577
		Noise from plant	C+	Implement exclusion zones. Use appropriate plant with noise control measures. Use ear protection.	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323
		Unstable loads	B+	Ensure materials are secured before transit. Don't exceed safe working load of equipment check loads are stable before removing ties	C+	Team Leader Work Group Leader All Staff Workcover ticketed operators sms-11-gd-0243	SSMP, pre work briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Manual handling injuries	B-	Correct manual handling procedures. "back-safe" training. Plant to move heavy and/or bulky items. As per Risk assessment.	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Manual handling guide SMS-06-GD-0001
		Transfer of hazardous materials	B-	Read MSDS first. Use recommended PPE. Use recommended handling methods have spill kit available. Place in suitable secure storage.	C-	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 MSDS hazardous substances SMS-06-GD-0199
5	Construction of access roads and stockpiling areas	Strike underground services	B+	Service search maps and dial before you dig searches to be on site. Mark out locations. Hand dig or use non destructive method to locate any services	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Excavation & earthworks SMS-06-GD-0378

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		Personnel struck by vehicles or machinery	B+	Implement exclusion zones all plant must have functional lights and alarms. Use ticketed operators. Plan work to avoid congestion use truck pilots if appropriate	C+	Team Leader Work Group Leader All Staff WorkCover ticketed operator SMS-11-GD-0243	SSMP, pre work briefing SMS-06-FM-0163 Plant SMS-06-PR-0225 Truck pilots SMS-11-GD-0243
		Hit by moving or falling object	B+	Hard hats to be worn at all times. Implement exclusion zone for workers not involved in tasks. Plan work sites to avoid congestion	C+	Team leader Work group leader All staff	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323
		Hit by flying objects	C-	Implement exclusion zone wear eye protection	D	Team leader work group leader all staff	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323
		Manual handling injuries	B-	Correct manual handling procedures. "back-safe" training. Plant to move heavy and/or bulky items. As per Risk assessment.	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Manual handling guide SMS-06-GD-0001
		Fuel/oil spills	C-	Plant to be inspected daily. Use correct methods for filling machinery. Maintain spill response kits on-site.	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 MSDS environmental protection plan Plant SMS-06-PR-0225
		Inhaling dust and fumes	B-	Implement exclusion zones. Wear type 2 respirators if required. Water down worksite at appropriate intervals.	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Hazardous substances SMS-06-GD-0199
		Spoil from tyres and tracks being dropped on external roads	C-	Provide ballast or cleaning ramp at site access	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Environmental protection plan
		Run-off from stock piles	C-	Sediment traps placed around perimeter	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Environmental protection plan

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		Residual dirt on external roads flowing into stormwater	C-	Place hay bale around inlet	D	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Environmental protection plan
6	Erecting and connecting site amenities disconnecting, disassembly and removal of amenities	Electric shock	B+	All electrical equipment to be tagged /tested, earth leakage units to be used with all tools. Equipment to be fitted with effective safe guards. Correct use of PPE	C-	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Work around elect. Equip. SMS-06-GD-0268
		Crushed fingers	B+	Keep fingers clear of pinch points.	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 PPE SMS-06-GD-0323
		Electrocution connecting/disconnecting power	B+	Disconnect or isolate all services prior to commencing work. All electrical work to be carried out by licensed electrician	C-	Team Leader Work Group Leader All Staff Licensed electrical contractor	SSMP, pre work briefing SMS-06-FM-0163 Work around elect. Equip. SMS-06-GD-0268
		Come into contact with underground services	B+	Disconnect/isolate all services prior to commencing work service search maps and dial before you dig searches to be on site. Mark out locations. Hand dig or use non destructive method to locate any services	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Excavation & earthworks SMS-06-GD-0378
		Use Of Hazardous Materials E.G.: Pipe Glue, Sealants, Concrete Etc.	B-	Read MSDS. Use/apply as instructed by manufacturer. Trained first aid officer to be on site.	C-	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 MSDS Hazardous substances SMS-06-GD-0199

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7	Erect temporary boundary fencing	Strike underground services	B+	Service search maps and dial before you dig searches to be on site. Mark out locations. Hand dig or use non destructive method to locate any services	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Excavation & earthworks SMS-06-GD-0378
		Manual handling injuries	B-	Correct manual handling procedures. "back-safe" training. Plant to move heavy and/or bulky items. As per Risk assessment.	C+	Team Leader Work Group Leader All Staff	SSMP, pre work briefing SMS-06-FM-0163 Manual handling guide SMS-06-GD-0001

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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

Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date	Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date

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	
			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	
				F1	F2	F3	F4	F5	F6	
Consequence			Incredible	Improbable	Remote	Occasional	Probable	Frequent		
>10 Fatalities	C6	Disastrous	B-	B+	A	A	A	A	<p>Used for workplace hazards and safety risks that do not consider the whole of the network. Indicatively this matrix is appropriate for use where the hazards under consideration are up to 10% of the total network exposure. This includes regional and local workplace risk assessments.</p> <p>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.</p> <p>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.</p> <p>To score the risk, follow the steps:</p> <ol style="list-style-type: none">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. <p>Note: Where there are a range of credible consequences which may lead to a different level or risks and/or where the controls may be different. It may be useful to score the risk more than once.</p>	
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-		