

OHW Structure Removals

Issue date: 12/10/10
Review date: 14/09/13

SWMS number: SMS-06-SW-0959	SWMS Name: OHW Structure Removals			SWMS Team: Civil Construction Review Team
Custodian (Position): Services Manager Civil	Assumptions: Site specific risks are addressed and assessed in pre- work briefing			Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group) Services Manager Civil and Safety facilitator, Safety Support Services Division.
Approver (Position): Civil Electrical Works Manager Infrastructure Renewals	Plant/Equipment/Tools: <ul style="list-style-type: none"> Elevated Work Platform, Scissor Lift, Crane, Lifting Equipment Scaffolding Signs, Demarcation Fencing, Markers, Barricades, Paint Oxy– Acetylene Equipment Water Cart, Fire Extinguisher Straps, Ties, Rope Construction Equipment, Trolleys Bobcat Excavator Bogie tipper Skip bins Generator 	Records/Reporting: <ul style="list-style-type: none"> Worksite Protection Plan Pre-work Brief Site Specific Management Plan Daily Plant Checklist Hazardous Substance Register, MSDS Hot Work Permit (During Total Fire Ban) Fire Brigade Demolition Plan Services searches Electrical Permits Traffic Control 	Permits/licences required: <ul style="list-style-type: none"> Elevated Work Platform / Scissor Lift / Crane Operator Certificate Dogman Certificate Electrical Permit Holder Oxy – Acetylene Cutter / Welder Certificate 	PPE required: <ul style="list-style-type: none"> Safety Boots High Visibility Vests Hardhats Protective Clothing Safety Glasses, Face Shield <p>And as specified below.</p> <ul style="list-style-type: none"> Fall Arrest Devices Gloves, Riggers Gloves Welding Gloves / Spats / Goggles / Face Shield Ear Plugs, Ear Muffs, P2 Dust Mask During all Site Works a FIRST AIDER MUST be Present During all Site Works a FIRST AIDER MUST be Present
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 Moving Plant on Construction Sites, WorkCover 2004 Working in Total Fire Bans – Engineering Standard G3623 Working near Overhead Power Lines EC14 – Guide to Electrical Workers Safety Equipment AS/NZS 1891.4 – 2000 “Industrial fall arrest systems and devices – Selection, use and maintenance” AS 4839 portable oxy-fuel gas systems AS 2550.11-2004 Cranes, hoists and winches - Safe use - Vehicle-loading cranes WorkCover NSW Plant Guide WorkCover Code of Practice Excavation 2000 	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	Set up Crane	Struck By Crane Or Load	B+	Demolition plan (if required) implement exclusion zones for workers not involved in work control load with tag lines position cutter with clear escape route away from anticipated load movement. Wear head protection	C+	Workcover Ticketed Operator And Dogman SMS-11-Gd-0243 Trained Demolition Supervisor (If Required)	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Personnel Struck By Machinery	B+	Implement exclusion zones use ticketed operators.	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
2	Removal Of Portal Or Column	Contact With Services	B+	Locate services prior to starting work. Service searches to be on site and signed off mark and/or isolate services as appropriate maintain regulated clearances on electrical services	C+	Qualified Permit Holder QEL29/MEI61 Team Leader Work Group Leader	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225 Electrical Equipment SMS-06-GD-0268 Electrical Permits SMS-06-EN-0577 Services Search Checklist SMS-06-FM-0384 DEMOLITION PLAN
		Fall From Height	B+	Provide scaffold, use elevated work platform or wear harness	C+	Team Leader Work Group Leader Workcover Ticketed Operator SMS-11- Gd-0243	SSMP, Pre work Briefing SMS-06-FM-0163 Working at Heights SMS-06-GD-0240 PPE- SMS-06-GD-0323 Lifting Equipment SMS-16-FM-0089
		Falling Objects	C-	Hard hats to be worn at all times implement exclusion zone for workers not involved in tasks	D	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Rope Burns Cuts And Abrasions	C+	Use correct techniques, wear approved riggers gloves	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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		<p></p> <p>WARNING</p> <p><i>The Following Precautions Are To Be Undertaken For When Using Hot Works As In Activity 1 & 2 During Total Fire Bans:</i></p> <ul style="list-style-type: none"> • An Hot Works Permit Must Be Issued Before Work Tasks Are To Be Performed • The Welder Or Other Person In Control Of The Worksite Must Take Reasonable Care To Inspect The Workplace To Identify Potential Fire Hazards • All Fire Hazards Are To Be Removed Prior To Commencing Welding Tasks • Fire Fighting Equipment Must Be On Hand At The Worksite E.G. Water cart, Knapsacks, Fire Extinguishers • (Hot Works In Progress) Warning Signs Are To Be Placed At Appropriate Locations <p>Hot Work SMS-06-Pr-0329</p>					
		Fire From Oxy-Acetylene Cutting	B+	Hot work permit if required. Water cart, or fire extinguishers on site wet down work area	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Hot Work SMS-06-PR-0329
		Burns From Cutting Equipment And Hot Work	C+	Wear gloves long sleeve shirts, long pants , spats, goggles or face shield as appropriate	D	Team Leader Work Group Leader All Staff, Ticketed Cutter/ Welder	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Failure Of Lifting Equipment From Overloading	B+	Competent operators to assess loads carefully prior to lifting equipment to be properly maintained and marked	C+	Workcover Ticketed Operator And Dogman SMS-11-Gd-0243	SSMP, Pre work Briefing SMS-06-FM-0163 Lifting Equipment SMS-16-FM-0089 Plant SMS-06-PR-0225
		Struck By Falling Demolition Material	B-	Implement exclusion zones for workers not involved in work check load for loose items or improperly secured equipment	C-	Workcover Ticketed Operator And Dogman SMS-11-Gd-0243 Demolition Training	SSMP, Pre work Briefing SMS-06-FM-0163 Lifting Equipment SMS-16-FM-0089 Plant SMS-06-PR-0225
		Exposure To Hazardous Substance (Oxygen Or Acetylene)	B-	Handle cylinders with care to protect valves turn off valves when not in use equipment to meet as4839, as2030	C-	Team Leader Work Group Leader All Staff Ticketed Operator	Hazardous Substances SMS-06-GD-0199 AS4839, AS2030
3	Removal Of Holding Down Bolts	Fire From Oxy-Acetylene Cutting	B+	Hot work permit if required. Water cart, or fire extinguishers on site wet down work area	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Hot Work SMS-06-PR-0329

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		Burns From Cutting Equipment And Hot Work	C+	Wear gloves long sleeve shirts, long pants , spats, goggles or face shield as appropriate	D	Team Leader Work Group Leader All Staff Ticketed Cutter/Welder	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Exposure To Hazardous Substance (Oxygen Or Acetylene)	B-	Handle cylinders with care to protect valves. Turn off valves when not in use equipment to meet AS4839, AS2030	C-	Team Leader Work Group Leader Ticketed Operator	Hazardous Substances SMS-06-GD-0199 AS4839 AS2030
4	Removal Of OHWS Footing	Contact With Services	B+	Locate services prior to starting work. Service searches to be on site and signed off mark and/or isolate services as appropriate maintain regulated clearances on electrical services	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Excavation & Earthworks SMS-06-GD-0378 Services Search Checklist SMS-06-FM-0384
		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
		Falling Into Excavation	B+	Fill excavation as soon as practical implement exclusion zone erect barrier if left unattended	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Excavation & Earthworks SMS-06-GD-0378
		Dust From Excavation Work	B-	Implement exclusion zone wear dust mask	D	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		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
5	Material Transfer Of Steelwork And Footing	Unstable Loads	B+	Ensure materials are secured during transit. Don't exceed safe working load of plant.	C+	Workcover Ticketed Operator SMS-11-Gd-0243	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001

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6	Stockpiling And Final Removal Of Structure Components	Contact With Live O/H Wiring Or Other Services	A	Maintain regulated clearances on wires at all times. Isolate power where required.	C+	Qualified Permit Holder QEL29/MEI61 Team Leader Work Group Leader	Electrical Equipment SMS-06-GD-0268 Electrical Permits SMS-06-EN-0577
		Struck By Crane Or Load	B+	Demolition plan (if required) implement exclusion zones for workers not involved in work control load with tag lines position cutter with clear escape route away from anticipated load movement. Wear head protection	C+	Workcover Ticketed Operator And Dogman SMS-11-Gd-0243 Trained Demolition Supervisor (If Required)	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Rope Burns Cuts And Abrasions	C+	Use correct techniques wear approved riggers gloves	D	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Failure Of Lifting Equipment From Overloading	B+	Competent operators to assess loads carefully prior to lifting equipment to be properly maintained and marked	C+	Workcover Ticketed Operator And Dogman SMS-11-Gd-0243	SSMP, Pre work Briefing SMS-06-FM-0163 Lifting Equipment SMS-16-FM-0089 Plant SMS-06-PR-0225
		Demarcation of stockpile area	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
7	Disposal of old OHWS	Unstable load	B+	Ensure materials are secured during transit. Don't exceed safe working load of plant.	C+	Team Leader Work Group Leader All Staff Workcover Ticketed Operator	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225 SMS-11-GD-0243
		Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		Noise	C-	Use appropriate PPE (eg ear plugs)	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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		Hit by Moving Train	B+	Use appropriate Protection Plan	D	Protection officer Team Leader Work Group Leader All Staff	SSMP, Pre work Briefing

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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	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> <p>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).</p> <p>2. Identify the likelihood of this level of consequence occurring. (This is done after considering the effectiveness of the current controls in place)</p> <p>3. Score the risk using the combination of likelihood and consequence ranking.</p> <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	A	
1 Fatality (2-10 Major Injuries)	C4	Critical	C-	C+	B-	B+	A	A	A	
1 Major Injury	C3	Major	D	C-	C+	B-	B+	A	A	
1 or more Minor Injuries	C2	Minor	D	D	C-	C+	B-	B+	B+	
First aid treatment, or illness/injury not requiring treatment	C1	Negligible	D	D	D	C-	C+	B-	B-	