Bridge Retransoming Works

SWMS number:
SMS-06-SW-1052

SWMS Name:
Bridge Retransoming Works

SWMS Team:
Track Review Team

Custodian (Position):
Track Works Manager Commercial / Renewals

Assumptions:

Site specific risks are addressed and assessed in pre- work briefing

Approving Authority (Position):
Safety and Quality Manager, Commercial / Renewals

Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group)
Track Works Manager & SEQ Coordinator Asset Management Group Commercial / Renewals

Applicable Standards, Codes of Practice and guidance:

- 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
- EC14 – Guide to Electrical Workers Safety Equipment
- WorkCover NSW Plant Guide

Equipment/Plant/Tools:

- Backhoes, Dumpys, Hi-Rail Trucks, Straps, Ties
- Scaffolding, Scissor Lift, Elevated Work Platform
- Signs, Barricades, Timber Decking on Bridge
- Hydraulic Equipment
- Hand Tools, Rail Jacks, Tenaka Drill
- Oxy-LPG Cutting Equipment
- Water Cart, Fire Extinguisher

Records/Reporting:

- Worksite Protection Plan
- Pre-work Brief
- Electrical Permits
- Electrical Tool Test
- Fuel, Gas and Hydraulic Oil MSDS
- Daily Plant Checklist
- Traffic Management Plan
- Hazardous Substance Register
- Hot Works Permit (During Fire Ban)

Permits/licences required:

- Electrical Permit Holder
- Backhoes, Dumpys, Hi-Rail Trucks Operator Certificates
- Rough Cutters Ticket

Personal Protective Equipment required:

- Safety Boots
- High Visibility Vests
- Hardhats
- Protective Clothing
- Safety Glasses

And as specified below.

- Gloves
- Fall Arrest Devices

Inspection requirements:
Nil

Service schedule:
Nil

Training/Qualifications required:

- Construction Industry Induction

• AS 4839 portable oxy-fuel gas systems • AS 2550.5-2002 Cranes, hoists and winches - Safe use - Mobile cranes • AS 2550.10 -2006 Cranes, hoists and winches -safe use- Elevating work Platforms • AS/NZS 1891.4 – 2000 “Industrial fall arrest systems and devices – Selection, use and maintenance” • AS1576 Scaffolding General requirements		**MIMS or METRE Ref:** Nil	• Track Safety Awareness or RISI (Rail Industry Safety Induction)	• Welding Goggles / Gloves / Spats • Type 1 Respirator Masks • Hearing protection

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Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed In accordance with (name associated documentation)
1	General Activities - Bridge Works	Contact With Live O/H Wires	B+	Power Outage Or Maintain Safe Clearances	D	Qualified Permit Holder	Work Around Elect. Equip. SMS-06-GD-0268 Electrical Permits SMS-06-EN-0577
		Struck By Moving Plant	B+	Reversing Beepers & Piloting Plant Movements, exclusion zone (3mtrs)	D	All Staff	Plant SMS-06-GD-0225 Pre work Briefing SMS-06-FM-0163
		Fall From Height	B+	Provide Scaffold, Elevated Work Platform Or Wear Harness	C-		Working at Heights SMS-06-GD-0240 Fall Arrest Systems SMS-06-GD-0241
		Hearing Damage From Plant	C-	Use Hydraulic Equipment. Have Silencers Fitted To Machinery. Use PPE Use Ear Protection In Close Proximity To Machine	D	All Staff	PPE SMS-06-GD-0323 Noise Management SMS-06-GD-0273
		Vibrating	C-	Use Appropriate Size Tools For Task, Rotate Activity	C-		Plant SMS-06-GD-0225
		Struck By Hot Material During Oxy Cutting	B+	Cutting Area To Be Barricaded. Bridge Decked Out To Prevent Hot Material Falling. Water Cart On Site Due To Hot Works	D	All Staff	PPE SMS-06-GD-0323
2	Jacking Running Rails Up	Fall From Bridge Hit By Clips Strains And Sprains	B+	Bridge To Be Decked Out To As if Working From Heights Clips To Be Hit Off Using Techniques That Prevent Clips Flying Around The Site Rotate Tasks To Prevent Strains And Sprains	C-	All Staff	Working at Heights SMS-06-GD-0240 Fall Arrest Systems SMS-06-GD-0241

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3	Removing Old Transoms And Install New Transoms	Burning Bolts – Burn Injuries	B+	Staff Doing Hot Works To Wear Appropriate Leather Gloves	C-	All Staff	PPE SMS-06-GD-0323
		Stacking Transoms Once Removed – Sprains/Strains	C+	Use Mechanical Machinery To Stack And Remove Transoms	D		Manual Handling Guide SMS-06-GD-0001 Lifting Equipment Inspection SMS-16-FM-0089
		Boring New Holes In New Transoms – Hand And Leg Injuries	B-	Wear Required PPE Don't Drill Or Bore With Hands And Feet In The Immediate Area Of The Drill Bits	C-		PPE SMS-06-GD-0323 Plant SMS-06-GD-0225
		Lifting New Transoms Into Position – Sprains And Strains	B-	Use Mechanical Machinery To Lift And Install New Transoms	D	All Staff	Lifting Equipment Inspection SMS-16-FM-0089
4	Install New Plates And Rail	Sprains, Strains And Crush Injuries	B-	No Rail To Be Placed On New Plates Until All Staff Are Clear Of The Rail Being Lowered	D	Site Supervisor	Manual Handling Guide SMS-06-GD-0001
5	Use of Power Tools	Electrocution	B-	All Electrical equipment To Be Tagged /Tested, Earth Leakage Units To Be Used With All Tools	C-	All Staff	Work Around Elect. Equip. SMS-06-GD-0268
6	Public Safety General	Trips & Slips	B+	Used Defined Walkways, Remove Obstacles, Provide Barriers To Separate Construction Height Provide Sufficient Room For Public Access Around Works ,Warning Signs	D	All Staff	Workplace Risk Management SMS-06-PR-0104
		Struck By Object	B+	Separation Of Construction Site From Public, Ensure Sufficient Lighting During Night Shifts	D		Work on/near Public Roads SMS-06-GD-0372
		Personnel Struck By Machinery	B+	Provide Traffic Control Keep Public Separated From Worksite	D	H.V.S Services	

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		Security	B+	Lock Power Boxes, Improve Lighting	D	All Staff	Safety Knowledge Management SMS-18-SR-0098
8	Material Transfer	Unstable Loads	B-	Ensure Materials Secure During Transit. Don't Exceed Safe Working Load Of Plant.	D	Licence, Competent	Plant SMS-06-GD-0225
		Dust	B-	Keep Clear Of Work. Wear Type 1 Respirators. Water Down Material.	D	All Staff	Respiratory Protection SMS-06-SW-0535

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					
	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
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-

Extreme
High
Medium
Low

Definition for Use - Regional & Local level (Workplace)

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.

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.

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 liklihood 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 matricies).

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 or risks and/or where the controls may be different. It may be useful to score the risk more than once.