Inspection & Maintenance on Condition Monitoring Equipment

SWMS number:
SMS-06-SW-0907

SWMS Name:
Inspection & Maintenance on Condition Monitoring Equipment.

SWMS Team:
- Fred Devadoss – Safety Facilitator
- Gerry Kan - Manager, Condition Monitoring Operations
- Saiprasad Kulkarni - Technical Specialist
- Phil Clelland- Technical Specialist
- Peter Reay - Technical Specialist
- Emmanuel Fernandez - Technical Specialist
- James Kambourian – Technical Specialist
- Steve Haggett - Manager, Condition Monitoring Systems Unit

Custodian (Position):
Manager, Condition Monitoring Operations

Assumptions:
- Do not assume Greenfield site. Assume tamping, track work etc

Approving Authority (Position):
Manager, Condition Monitoring Operations

Plant/Equipment/Tools:
- Hand Tools
- Heat Source
- Battery torque wrench

Records/Reporting:
Condition Monitoring Systems maintenance Risk Assessment

Permits/licences required:
N/A

Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group)
- Steve Haggett - Manager, Condition Monitoring Systems Unit - C&CS, Asset Management
- Safety Facilitator – Safety Support Services

Applicable Standards, Codes of Practice and guidance:
- OHS Act 2000
- OHS Regulation 2001
- National Code of Practice for Manual Handling [NOHSC: 2005 (1990)]
- Manual Handling Resource WorkCover NSW 2004
- NSW Rail Safety Act 2002
- Network Rules and Network Procedures

Inspection requirements
N/A

Service schedule:
N/A

MIMS or METRE Ref:
N/A

Training/Qualifications required:
- Rail Industry Safety Induction (RISI)
- Protection Officer Level 1, 2, 3 or 4 - depending on site location.
- WorkCover OH&S General Induction.

PPE required:
- Safety Boots
- High Visibility Vest
- Safety Glasses
- Insulating gloves
- Hard Hat

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	Apply appropriate worksite protection & access worksite	Struck by train	A	Adhere to worksite protection. PPE: High Visibility Vest	C-	Protection Officer Team Member	SMS-06-GD-0323 Personal Protection Equipment
		Slips, trips and falls	B-	Awareness of terrain. Plan a clear path of travel; remove any slip, trip hazards. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment
2	Remove/restore ballast around trackside equipment	Hand injury	B-	Secure handling Use correct tools for the task.	C-	Team Member	
		Muscular strain	B-	Follow the correct bending and lifting techniques: keep back straight, elbows in and bend at the knees. When turning move your feet rather than twisting. Perform all movements smoothly, in a controlled, balanced, comfortable position. Avoid reaching and stretching Use correct tools for the task.	C-	Team Member	SMS-06-GD-0001 Guide to Manual Handling
		Slips, trips and falls	B-	Awareness of terrain. Plan a clear path of travel; remove any slip, trip hazards. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment
3	Install brackets and rail clamps	Hand injury	B-	Secure handling Use correct tools for the task.	C-	Team Member	
		Muscular strain	B-	Follow the correct bending and lifting techniques: keep back straight, elbows in and bend at the knees. Perform all movements smoothly, in a controlled, balanced, comfortable position. Avoid overreaching by working within easy arms reach. Use correct tools for the task.	C-	Team Member	SMS-06-GD-0001 Guide to Manual Handling

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)
3	Remove/install brackets and rail clamps (cont.)	Slips, trips and falls	B-	Awareness of terrain. Plan a clear path of travel; remove any slip, trip hazards. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment
4	Remove/install trackside equipment - various	Hand Injury	B-	Secure Handling Use correct tools for the task	C-	Team Member	
		Muscular Strain	B-	Follow the correct bending and lifting techniques: keep back straight, elbows in and bend at the knees. Avoid reaching and stretching Use correct tools for the task.	C-	Team Member	SMS-06-GD-0001 Guide to Manual Handling
		Slips, trips and falls	B-	Awareness of terrain. Plan a clear path of travel; remove any slip, trip hazards. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment
5	Remove/install trackside cables and connect	Hand Injury	B-	Secure Handling Use correct tools for task	C-	Team Member	
		Muscular Strain	B-	Follow the correct bending and lifting techniques: keep back straight, elbows in and bend at the knees. Perform all movements smoothly, in a controlled, balanced, comfortable position. Avoid overreaching by working within easy arms reach. Use correct tools for the task.	C-	Team Member	SMS-06-GD-0001 Guide to Manual Handling
		Electrical Shock	C+	Isolate electrical equipment. PPE: Insulating Gloves Isolate cabling inside the hut prior to working on any equipment that is insulated from the rails. Avoid contact with rail while working on any equipment that is insulated from the rail to avoid different earth potentials.	D	Team Member	SMS-06-GD-0268 Working Around Electrical Equipment SMS-06-EN-0552 General Requirements for Electrical Work

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)
5	Remove/install trackside cables and connect (cont.)	Slips, trips and falls	B-	Awareness of terrain. Plan a clear path of travel; remove any slip, trip hazards. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment
6	Test scanner	Slips, trips and falls	B-	Awareness of terrain. Plan a clear path of travel; remove any slip, trip hazards. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment
7	Vacate worksite and remove worksite protection	Struck by train	A	Adhere to worksite protection. PPE: High Visibility Vest	C-	Protection Officer Team Member	SMS-06-GD-0323 Personal Protection Equipment
		Slips, trips and falls	B-	Awareness of terrain. Plan a clear path of travel; remove any slip, trip hazards. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment

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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

Prepared using SMS-06-TP-0026 v1.3; Custodian: Senior OHS Adviser; Approver: GM Safety Systems; Issue date: 21/07/10; Review date 21/07/13

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.