<table>
<tr><td>SWMS number:
SMS-06-SW-0682</td><td colspan="3">SWMS Name:
Maintaining CCTV cameras at level crossings</td><td rowspan="2">SWMS Team:
• Steven Grant – Wireless & Systems Operations Manager
• Fred Devadoss – Safety Facilitator
• Andrew Boardman - Technical Specialist
• Graham Payne – Technical Specialist
• Andrew Outerbridge – Wireless & Systems Operations Centre Supervisor</td></tr>
<tr><td>Custodian (Position):
Wireless & Systems Operations Manager</td><td colspan="3">Assumptions:
N/A</td></tr>
<tr><td rowspan="2">Approving Authority (Position):
Asset Management & Maintenance Manager</td><td rowspan="2">Plant/Equipment/Tools:
• Battery drill
• Hand Tools</td><td rowspan="2">Records/Reporting:
Maintaining CCTV Cameras at Level Crossings Risk Assessment</td><td rowspan="2">Permits/licences required:
• Registered cabler under the ACMA Cabling Provider Rules</td><td>Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group)
• Safety Facilitator, Safety Support Services Division
• Technical Specialist, Communications & Control Systems Division</td></tr>
<tr><td rowspan="3">Applicable Standards, Codes of Practice and guidance:
• OHS Act 2000
• OHS Regulation 2001
• Rail Safety Act 2002
• Manual Handling Resource WorkCover NSW 2004
• WorkCover NSW Plant Guide
• WorkCover NSW Code of Practice "Safety Line Systems" 1995
• AS/NZS 1891 Industrial fall arrest systems and devices
• WorkCover Code of Practice for Control of workplace hazardous substances 1996
• AS/NZS 3000:2000 Electrical installations (known as the Australian/New Zealand Wiring Rules)</td><td rowspan="3">PPE required:
• Safety Boots
• High Visibility Vest
• Safety Glasses
• Hard Hats
• Protective Gloves (Rubber or PVC)
• Protective Gloves (Cut resistant or Leather).
• Fall Arrest System (Harness, Lanyards)</td></tr>
<tr><td>Inspection requirements
• Conduct maintenance as per the Manufacture’s Specifications.
• Maintain inspection and test records in accordance with SMS-16-SR-0057 Inspection and Testing and SMS-05-SR-0027 Records Management.
• Electrical inspecting & tagging – monthly
• Harnesses & Lanyards – Inspected every 6 months.</td><td>Service schedule:
N/A

MIMS or METRE Ref:
N/A</td><td>Training/Qualifications required:
• Rail Industry Safety Induction (RISI)
• Heights Safety Course</td></tr>
</table>

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 and 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. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment
2	Ascend tower structure to platform	Fall from heights	B+	All persons are certified and competent for working at heights. Maintain 3 points of contact when ascending ladder. Use Fall Arrest System (Harness, Lanyards) Second person required.	C-	Team Member	SMS-06-GD-0240 Working At Heights SMS-06-SW-0260 Fall Arrest Systems (Harnesses, Lanyards and Attachment Hardware)
		Hit by falling objects	B+	Isolate other employees / public from the area directly beneath. Secure tools and equipment. PPE: Safety Helmet	C-	Team Member	SMS-06-GD-0240 Working At Heights
3	Access camera	Fall from heights	B+	All persons are certified and competent for working at heights. Follow correct working at heights procedures. Use Fall Arrest System (Harness, Lanyards) Secure attachments (lanyard) to hand rail of the platform. Second person required.	C-	Team Member	SMS-06-GD-0240 Working At Heights SMS-06-SW-0260 Fall Arrest Systems (Harnesses, Lanyards and Attachment Hardware)
		Muscular strain	B-	Avoid reaching and stretching for prolonged periods.	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)
4	Repair / Replace camera or components (lens, lens filter, housing)	Hand injury	B-	Secure handling Use correct tools for the task.	C-	Team Member	
		Contact with electricity	A	When power is required (eg. camera focusing) avoid physical contact with exposed terminals. Use insulated hand tools. Remove watches, rings or other metal objects. When replacing camera or components isolate power to camera by disconnecting transformer. Measure terminal voltage to make sure power is isolated.	C-	Team Member	SMS-06-GD-0268 Working Around Electrical Equipment SMS-06-SW-0269 Electrical Shock Protocol
		Contact with chemicals (when cleaning lens or Perspex cover).	B+	PPE: Safety Glasses, Protective Gloves (Rubber or PVC). After wash hands thoroughly with water.	C-	Team Member	SMS-06-GD-0199 Dangerous Goods and Hazardous Substances SMS-06-GD-0323 Personal Protection Equipment
		Cuts and abrasions	C+	Be aware of sharp edges. Be aware of broken glass (replacing damaged lens). PPE: Protective Gloves (Cut resistant or Leather).	D	Team Member	SMS-06-GD-0323 Personal Protection Equipment

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)
4	Repair / Replace camera or components (lens, lens filter, housing) (cont.)	Injury from power tools (battery drill)	B-	Individual competent with use of tool Make sure drill is in good condition Use tool only for purpose it was designed for. Secure handling. Keep hands out of the path of drill bits. Avoid awkward hand positions where a sudden slip could cause your hand to move into the drill bit. Don't overreach. Keep proper footing and balance at all times. Wear proper apparel; loose clothing or jewellery can become caught in moving parts. PPE: Safety Glasses	C-	Team Member	SMS-06-PR-0225 Plant SMS-06-SW-0479 Power Drills
5	Descend tower structure	Fall from heights	B+	All persons are certified and competent for working at heights. Maintain 3 points of contact when ascending ladder. Use Fall Arrest System (Harness, Lanyards) Second person required.	C-	Team Member	SMS-06-GD-0240 Working At Heights SMS-06-SW-0260 Fall Arrest Systems (Harnesses, Lanyards and Attachment Hardware)
5	Descend tower structure (cont.)	Hit by falling objects	B+	Isolate other employees / public from the area directly beneath. Secure tools and equipment. PPE: Safety Helmet	C-	Team Member	SMS-06-GD-0240 Working At Heights SMS-06-GD-0323 Personal Protection Equipment
6	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. PPE: Safety Boots	C-	Team Member	SMS-06-GD-0323 Personal Protection Equipment

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.