Terminating copper cable

SWMS number:
SMS-06-SW-0688

SWMS Name:
Terminating copper cable

SWMS Team:
- Renato Dovecer – Safety Coordinator
- Brett Gordon – Supervisor Comms Field Cable Network
- Stephen Lacy – Specialist Cable Network
- Andrew Brassel - Specialist Cable Network

Custodian (Position):
Safety Coordinator

Assumptions:
Applicable to all Communications & Control Systems division staff.

Approving Authority (Position):
Manager Communications Field Resources

Plant/Equipment/Tools:
- Hand tools

Records/Reporting:
- Terminating copper cable

Permits/licences required:
- Registered cabler under the ACMA Cabling Provider Rules

Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group)
- Supervisor Comms Field Cable Network – C&CS, Asset Management
- Safety Coordinator – C&CS, Asset Management

Applicable Standards, Codes of Practice and guidance:
- OHS Regulation 2001
- Rail Safety Act 2002
- Australian Standard AS 4292.1 2006 "Railway safety management - General requirements"
- National Code of Practice for Manual Handling [NOHSC: 2005 (1990)]
- Manual Handling Resource WorkCover NSW 2004
- AS 1940 The storage and handling of flammable and combustible liquids

Inspection requirements
N/A

Service schedule:
N/A

MIMS or METRE Ref:
N/A

Training/Qualifications required:
- Rail Industry Safety Induction (RISI)
- OHS Construction Induction Training Card

PPE required:
- Safety Boots
- High Visibility Vest
- Safety Glasses
- Hard Hats
- Protective Gloves (Disposable Latex)
- Protective Gloves (Cut resistant or Leather)
- Face Mask (P1 Industrial Low Tox)

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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	Cut cable to appropriate length	Cuts and abrasions	C+	Be aware of sharp edges. Cut away from body & limbs. Use appropriate tools. PPE: Protective Gloves (Cut resistant or Leather).	D	Line Manager	SMS-06-GD-0323 Personal Protection Equipment
		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-	Line Manager	SMS-06-GD-0001 Guide to Manual Handling
2	Strip cable	Cuts and abrasions	C+	Be aware of sharp edges. Cut away from body & limbs. Use appropriate tools. PPE: Protective Gloves (Cut resistant or Leather).	D	Line Manager	SMS-06-GD-0323 Personal Protection Equipment
3	Clean cable (if external jelly filled)	Contact with chemicals (Cable Cleaner)	B+	Do not touch your eyes while working with chemicals. Make sure there is access to water and soap. Wash hands thoroughly after working with chemicals. PPE: Safety Glasses, Protective Gloves (Disposable Latex)	C+	Line Manager	SMS-06-GD-0199 Dangerous Goods and Hazardous Substances SMS-06-GD-0323 Personal Protection Equipment SMS-06-SW-0195 Safe Handling and Storage of Flammable and Combustible Liquids

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	Clean cable (if external jelly filled). (cont.)	Exposure to fumes and odours	B-	Make sure work area is well ventilated. If necessary use face mask (P1 Industrial Low Tox).	C-	Line Manager	SMS-06-GD-0199 Dangerous Goods and Hazardous Substances SMS-06-SW-0195 Safe Handling and Storage of Flammable and Combustible Liquids SMS-06-GD-0323 Personal Protection Equipment
4	Mount Krone modules and terminate cable	Cuts and abrasions	C+	Be aware of sharp edges (distribution frame, krone modules, cable ties). Cut away from body & limbs. Use appropriate tools. All exposed or unused Krone positions should be covered using Krone cover strips. Where the Krone mounting frame is exposed, install additional Krone modules at the point of cable termination to prevent any cuts. Cut cable ties straight rather than on angle. PPE: Protective Gloves (Cut resistant or Leather).	D	Line Manager	SMS-06-GD-0323 Personal Protection Equipment
		Pinching injuries	C-	Careful handling when placing onto frame.	D	Line Manager	

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	Mount Krone modules and terminate cable (cont.)	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-	Line Manager	SMS-06-GD-0001 Guide to Manual Handling
		Repetitive strain injuries	B+	Reduce exposure by introducing frequent breaks and rotate jobs. Introduce frequent breaks	C-	Line Manager	SMS-06-GD-0001 Guide to Manual Handling

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.