Replacing Cabling in Asbestos Cement Conduits or Boxes

SWMS number:
SMS-06-SW-0114

SWMS Name:
Replacing Cabling in Asbestos Cement Conduits or Boxes

SWMS Team:
Asbestos Project Group
Principal OHS Adviser
Occupational Hygienist
OHS Consultant
Safety Representative

Custodian:
Principal OHS Adviser

Assumptions:
If the work will be carried out in a confined space comply with SMS-06-GD-0035 Confined Spaces

Approving Authority:
GM Safety Risk

Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group)
Senior Safety Adviser, S&E Group

Applicable Standards, Codes of Practice and guidance:

- OHS Reg Cl 43, 259 – 261
- NOHSC CoP for the Safe Removal of Asbestos 2005
- NOHSC CoP for the Management and Control of Asbestos in Workplaces 2005
- WorkCover NSW CoP Electrical Practices for Construction Work
- WorkCover NSW CoP for the Control of Workplace Hazardous Substances

Plant/Equipment/Tools:

- bucket of water
- rags
- duct tape
- asbestos waste bags
- cable slipping compound
- asbestos vacuum cleaner fitted with HEPA filter
- plastic sheeting (200µm)

Records/Reporting:
Nil

Permits/licences required:
Nil

PPE required:

- P1 or P2 dust mask minimum respiratory protection
- disposable coveralls with fitted hoods and cuffs
- boots without laces
- boot covers
- fall arrest harness as applicable

Inspection requirements
Vacuum cleaner to be tested and tagged monthly.

Visual inspection of electrical leads and HEPA filter for damage and condition before use

Clearance inspection of area following cleaning

Service schedule:
NA

MIMS or METRE Ref:
NA

Training/Qualifications required:

All workers to be trained in safe maintenance work on asbestos containing materials (TAFE course or equivalent).

Prepared using SMS-06-TP-0026 v1.0; Custodian: Principal OHS Adviser; Approver: GM Safety Risk; Issue date: 1/11/06; Review date 1/11/09

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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	Arrive on site	Site specific hazards Unfamiliar location Workers unaware of safe work practices	C-	• Undertake pre-work brief using the Pre-work Briefing form • All workers sign the SWMS sign off sheet • Attach completed Pre-work Briefing form to this SWMS	D	Supervisor	SMS-06-FM-0163 Pre-work briefing form
		Conditions may be inappropriate, eg too windy, too many people around, too wet, etc	C+	• Start work **only** when conditions are appropriate no wind or rain • Prevent working when there are numerous persons in close proximity	D	Supervisor, all site employees and contractors	
2	Establish work area	Unauthorised persons enter work zone	C-	• Place warning signs, barriers and tape at all entry points to the work area.	D	Supervisor	
		Area not prepared to enable easy cleaning and decontamination	C-	• Stick down plastic sheeting with duct tape to cover any surfaces within asbestos work area.	D	Supervisor, all site employees and contract employees	
		Unprepared to deal with waste	B-	• Make sure marked asbestos waste bags are available.	D	Supervisor	

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3	Commence work	Working at heights	B-	• Where required Use portable ladders/ scaffolds and elevated work platforms according to the relevant SWI • Attach and secure fall arrest system as appropriate and in accordance with the relevant SWI	C-	Supervisor, employees and contractors	SMS-06-GD-0240 Work at heights SMS-06-GD-0252 Working on Roofs SMS-06-SW-0264 Portable Ladders, Stepladders and Step Platforms SMS-06-SW-0282 Scaffolds SMS-06-SW-0310 Elevating Work Platforms SMS-06-SW-0254 Fall Arrest Systems (Anchorages) SMS-06-SW-0255 Fall Arrest Systems (Fall Arrest Devices) SMS-06-SW-0256 Fall Arrest Systems (Harness, Lanyards and Attachment) SMS-06-SW-0257 Fall Arrest Systems (Industrial Rope Access Systems) SMS-06-SW-0260 Fall Arrest Systems (Selection and Use of Pole Straps)

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4	Start replacing or installing cables	Release of asbestos fibres	B-	• Metal stockings **<u>are not to be used</u>** when pulling cables through asbestos cement conduits • Compressed air darts **<u>are not to be used</u>** for pulling cables through asbestos cement conduits/ducts. • Ropes used for cable pulling are to have a smooth surface that can be cleaned easily • Wet down the equipment and apply adequate cable slipping compound to the conduits/ducts throughout the process • Clean all ropes, rods or snakes used to pull cables after use. Cleaning should be undertaken close to the point(s) where the cables exit from the conduits/ducts	C-	Supervisor, all site employees and contract employees	
		Exposure to hazardous substance (cable slipping compound)	C-	• Attach completed hazardous substance risk assessment and MSDS to this SWMS • Follow controls as identified during the manual handling risk assessment.	D	Supervisor, all site employees and contract employees	Hazardous substance risk assessment for cable slipping compound MSDS for the cable slipping compound SMS-06-GD-0198 Dangerous Goods & Hazardous Substances Risk Assessment

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5	Decontaminate area and equipment	Asbestos fibres left in work area	B-	• Clean the area and equipment, the ends of conduits, sections of exposed cable and the pulling eye using damp rags at the completion of the cable pulling operation • When using a bucket of water, do not resoak used rags in the bucket. Fold the rag so a clean surface is exposed or use another rag. • Wet wipe any rollers that rope or cable passes through • Wet wipe external surface of excess cable pulled through the conduit/duct, as close as possible to the exit point from the conduit, before it is removed from the work site • Roll or fold any plastic sheeting used to cover any surface within the asbestos work area with care so as not to spill any dust or debris that has been collected • Clean any remaining visibly contaminated sections of the asbestos work area using damp rags or an asbestos vacuum cleaner • Place all debris, used rags, plastic sheeting and other waste in the asbestos waste bags/container • Wet wipe the external surfaces of the asbestos waste bags/container to remove any adhering dust	C+	Supervisor, all site employees and contract employees	
6	Using asbestos vacuum cleaner	Possible electric shock/electrocution	B-	• Vacuum only with cleaner that has current tag and earth leakage device	D	Supervisor, all site employees and contractors	SMS-06-SW-0274 Electrical Equipment Selection Inspection & Testing SMS-06-SW-0266 Workplace Electrical Hazards

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7	Bagging waste	Release of fibres	B-	• Fill the disposal bag to **only** half full • Evacuate air from the waste bag gently to prevent release of dust • Twist the neck of the bags tightly, fold the neck over and secure it in the folded position with adhesive tape • Clean the external surface by wet wiping to remove any adhering dust • Double bag the waste immediately when outside the work area and following decontamination.	C-	Supervisor, all site employees and contract employees	
8	Decontaminate personnel	Asbestos fibres present on personnel or clothing	B-	• Remove, all visible asbestos dust/residue from protective clothing, using an asbestos vacuum cleaner and/or wet wiping. • Take off disposable coveralls (while still using a respirator), place in an asbestos waste bag and dispose of as asbestos waste • Vacuum clothing and footwear using an asbestos vacuum cleaner, and wet wipe footwear • Discard disposable respirators as asbestos waste. Non-disposable respirators should be removed and thoroughly cleaned • Wash head, face and hands after removing the respirator, paying particular attention to fingernails.	C-	Supervisor, all site employees and contract employees	
9	Conduct clearance inspection	Area not in fit condition for return to usual service	C-	• Remove warning signs and barriers • Dispose of all waste, including all water, as asbestos waste and dispose of in accordance with EPA requirements. • Competent person (independent of work done) or controller of work area to conduct visual inspection to make sure area has been properly cleaned	D	Supervisor, all site employees and contract employees Competent person or controller of work area	

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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						
		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.