Working on Electrical Switchboards Containing Asbestos

SWMS number:
SMS-06-SW-0116

SWMS Name:
Working on Electrical Switchboards Containing Asbestos

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

Custodian:
Principal OHS Adviser

Assumptions:
Asbestos material is NOT friable
Precautions are taken to protect from electrocution in accordance with SMS-06-SW-0276 Work on Low Voltage Installations

Content reviewed by Technical expert (SME) and RailCorp safety professional

Senior Safety Adviser, S&E Group

Approving Authority:
GM Safety Risk

Plant/Equipment/Tools:
- hand drills (preferred) or
- low-speed battery powered drills with LEV dust control hood
- duct tape
- bucket of water/water spray
- rags
- asbestos waste bags
- asbestos vacuum cleaner fitted with HEPA filter, if using dry methods
- 200µm plastic sheeting

Records/Reporting:
Nil

Permits/licences required:
Nil

Applicable Standards, Codes of Practice and guidance:

- OHS Reg Cl 43, 207, 259 – 261
- NOHSC CoP for the Safe Removal of Asbestos 2005
- NOHSC CoP for the Management and Control of Asbestos in Workplaces 2005
- WorkCover CoP Low Voltage Electrical Work
- WorkCover NSW CoP Electrical Practices for Construction Work

PPE required:

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

Inspection requirements
Test to be carried out to confirm installation isolated
Vacuum cleaner to be tested and tagged monthly

Visual inspection of electrical leads and HEPA 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).
- Electrical trades licence for working on Low voltage installations

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
		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 contract employees	
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, all site employees and contract employees	
		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. • Make sure marked asbestos waste bags are available.	D	Supervisor, all site employees and contract employees	

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3	Commence work	Electric shock/electrocution	B-	• Work on low voltage electrical installation to be done in accordance with SMS-06-SW-0276 Work on Low Voltage Installations	C-	Supervisor, all site employees and contract employees	SMS-06-SW-0276 Work on Low Voltage Installations
		Disturbance of asbestos fibres through the following tasks • replacement of asbestos containing equipment on the electrical panel with non-asbestos equipment • operation of main switches and individual circuit device • pulling/inserting service and circuit fuses • bridging supplies at meter bases • accessing the neutral link, • installation of new components/equipment • using testing equipment Removing the asbestos-containing electrical mounting panel to work behind the board,	B-	Providing asbestos is not friable (i.e means asbestos-containing material which, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure), follow process for asbestos removal as per SMS-06-GD-0228 Hazardous Materials If drilling is required refer to SMS-06-SW-0112 Drilling Asbestos Cement Products During General Maintenance Construction Work	C+	Supervisor, all site employees and contract employees	SMS-06-GD-0228 Hazardous Materials SMS-06-SW-0276 Work on Low Voltage Installations SMS-06-SW-0112 Drilling Asbestos Cement Products During General Maintenance Construction Work

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4	Decontaminate area and equipment	Asbestos fibres left in work area	B-	• Clean work area and equipment thoroughly using damps rags – avoid over wetting area • Roll or fold any plastic sheeting used to cover work surfaces with care avoid spilling any dust or debris that has been collected • Vacuum area using an asbestos vacuum cleaner to remove any dust or debris from the mounting panel and other visibly contaminated sections of work area • Place debris, used rags, plastic sheeting and other waste in the asbestos waste bags • Wet wipe external surfaces of asbestos waste bags to remove any adhering dust	C-	Supervisor, all site employees and contract employees	
5	Using asbestos vacuum cleaner	Possible electric shock/ electrocution	B-	• Vacuum cleaner must have in date tag and earth leakage device • Inspect leads before use for damage	D	Supervisor, all site employees and contractors	SMS-06-SW-0274 Electrical Equipment Selection Inspection & Testing SMS-06-SW-0266 Workplace Electrical Hazards
6	Bagging of 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	

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)
7	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	
8	Conduct clearance inspection	Area not in fit condition for return to usual service	C-	• Competent person (independent of work done) to conduct visual inspection to make sure area has been properly cleaned • Remove warning signs and barriers • Dispose of all waste, including all asbestos waste and dispose of in accordance with EPA requirements.	D	Competent person, or controller of work area Supervisor, all site employees and contractors employees	

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

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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.