



Work Health and Safety Regulation 2017 R427 requires a copy of the asbestos register and management plan to be available and readily accessible to all workers intending to carry out works at the workplace. The intent of this legislation is to minimise accidental disturbance of asbestos based products. If asbestos based products are to be disturbed reference to the asbestos management plan must be consulted first for guidance.

Work Health and Safety Regulation 2017 R428 requires that the management plan must be controlled by a person who is in control of the workplace.

The Nominated Controller of the Asbestos Management Plan for this workplace is:

Prepared for: Capital Insight Pty Ltd Rina Rodriguez Rina.rodriguez@capitalinsight.com.au

Work Health and Safety Regulation 2017 R425 and R429 requires workplaces to have an Asbestos Register and Management Plan, Reviews must be undertaken when changes occur in the Workplace or when asbestos is removed or more asbestos is identified, otherwise a review every 5 years is sufficient.

Date of Register: 24/04/2024 Date of Review: 24/04/2029



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# **HAZARDOUS BUILDING MATERIALS REGISTER**

# 1.1 SCOPE OF REPORT AND DISCUSSION

A Hazardous Materials report was undertaken on area 6 prior to the construction of World Class End of Life Project (WCEoLP) in this area.

No access was available to area 6 as the walls are all sheeted with plasterboard. Access was available to the adjoining room and the site could be seen from a ladder against the common wall. Area 6 has a concrete floor , unpainted plaster walls and no ceiling.



## 1.2 LIMITATIONS

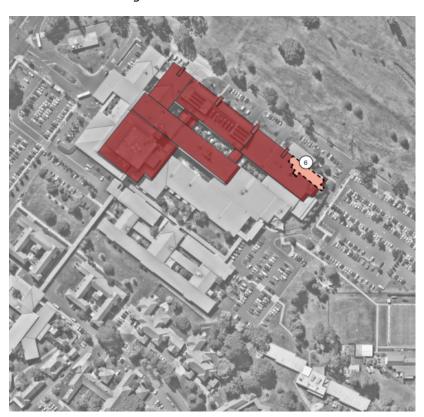
Access to area 6 was Limited as it could only be seen from next door due to no access to the area.

- 1.2.1 To the extent permitted by law, EnviroScience Solutions Pty Ltd will not be responsible in tort, contract or otherwise for any loss or damage, including for any personal injuries or death, or any consequential loss, loss of markets and pure economic loss, suffered by the Customer, whether or not the loss or damage occurs in the course of performance by EnviroScience Solutions Pty Ltd of this contract or in events which are in the contemplation of EnviroScience Solutions Pty Ltd and/or the Customer or in events which are foreseeable by EnviroScience Solutions Pty Ltd and/or the Customer.
- 1.2.2 To the extent that liability has not been effectively excluded by the preceding clause, then EnviroScience Solutions Pty Ltd limits its liability to:
  - (a) The supply of services again; or
  - (b) The payment of the cost of supplying the services again, at the election of EnviroScience Solutions Pty Ltd.



# 1.3 HAZARDOUS MATERIALS REGISTER

# 1.3.1 Satellite Image of the Premises





## 1.3.2 Risk Action Table

The following Risk Action Table is used in each table of this register to assign a risk score that translates into five different actions (1-5). The table should assist the person/s responsible for maintaining the Hazardous Building Materials Register with a tool to determine the course of action and develop an action schedule for the particular hazardous building material that will assist in budgeting for remediation / abatement works.

Descriptor	Item	Action
A1	Action 1	RESTRICT ACCESS & REMOVE
		As a guide, the material conforms to one, or more, of the following:
		• Friable or poorly bonded to substrate, located in accessible areas;
		<ul> <li>Severely water damaged, or unstable;</li> </ul>
		<ul> <li>Further damage or deterioration likely;</li> </ul>
		<ul> <li>Asbestos debris and stored asbestos in reasonably accessible areas; and</li> </ul>
		Significant peeling and flaking in lead paint in areas that pose immediate risk to
		children / resident. Removal considered lead risk work
A2	Action 2	ENCLOSE, ENCAPSULATE OR SEAL BY LICENCED CONTRACTORS - REINSPECT
		PERIODICALLY
		As a guide, the material conforms to one, or more, of the following:
		Damaged material;
		• In reasonably accessible area;
		Friable material or poorly bonded to substrate, with bonding achievable;
		Possibility of disturbance through contact;
		Possibility of deterioration caused by weathering; and
		Large areas of peeling and flaking
A3	Action 3	REMOVE DURING REFURBISHMENT OR MAINTENANCE. ENCLOSE, ENCAPSULATE OR SEAL BY GENERAL MAINTENANCE CONTRACTORS. REINSPECT PERIODICALLY
		As a guide, the material conforms to one, or more, of the following;
		Asbestos debris or stored material in rarely accessed areas;
		Further disturbance or damage unlikely other than during maintenance or service:
		Asbestos friction materials, gaskets and brake linings; and
		Small / moderate areas of peeling and flaking lead paint in an area that posed
		low risk. Remedial works suitable by a general maintenance contractor
A4	Action 4	NO REMEDIAL ACTION – REINSPECT PERIODICALLY
		As a guide, the material conforms to one, or more, of the following:
		Firmly bonded to substrate and readily visible for inspection;
		Inaccessible and fully contained; and
		Stable and damage unlikely
A5	Action 5	NO ACTION REQUIRED – NO HAZARDOUS BUILDING MATERIALS IDENTIFIED



## 1.3.3 Asbestos

No visible ACM

Please refer Appendix I for results of products that were considered and consequently analysed but did not contain asbestos. The following tabulated summary details the findings of Asbestos Building Materials and Products.

Asbestos Register

Date	Image	Location of Sample, Specific Building Materials, and Approx. m2 of Sampled Area	Laboratory Sample Number and Results, Friable or Non- Friable	Risk Action Rating	Observation and Comments
24/04/2024		Airconditioning Duct 35 Metal ductwork with sprayed limpet coating	Vermiculite coating Sample Taken 30859-S01 No Asbestos Detected	A5	No Action Required
24/04/2024		External Wall Cladding 1000 Aluminium and resin cladding	Resin Sample Taken 30859-S02 No Asbestos Detected	A5	No Action Required  Old flammable wall cladding has been removed from entire hospital and replaced with aluminium cladding



## 1.3.4 Lead-Based Paints

The table below depicts where the sample was obtained, together with the sample results. The guide above defines a lead-based paint as a paint film or component coat of paint system containing lead or lead compounds, in which the lead content is more than 0.1% by weight of the dry film as determined by laboratory testing. Laboratory results are located in Appendix II.

No paint potential lead based paint was identified during the inspection

**Lead Based Paints Register** 

Date	Image	Location in Building	Sample Number and Lab Results	Risk Action Rating	Conclusion
24/04/2024		Area 6	No Sample Taken	A5	No lead paint visible



# 1.3.5 Synthetic Mineral Fibres (SMFs)

Synthetic Mineral Fibres were observed during the inspection in the ductwork insulation which was encapsulated.

Synthetic Mineral Fibres Register

Date	Image	Location in Building	Inspection Type	Risk Action Rating	Condition & Accessibility
24/04/2024		Ductwork Insulation	Visual Inspection	A5	Good Condition Accessible to Trades People Encapsulated



## 1.3.6 Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls (PCB) are identified by visual observation in fluorescent light fittings with guidance from the Australian and New Zealand Environment and Conservation Council (ANZECC) Checklists.

LED lights throughout - no PCBs sighted

**Polychlorinated Biphenyls Register** 

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Date	Image	Location in Building	Inspection Type	Risk Action Rating	Condition & Accessibility
24/04/2024		Area 6	Visual Inspection	A5	No PCBs Sighted



## 1.3.7 Phenols

No phenols were sighted during the inspection

Phenols are an early form of plastic formed between Phenol and Formaldehyde and quite often bound together with the use of a fibrous material, they may sometimes even contain asbestos. The main source of Phenols within buildings is Bakelite products such as electrical switches or light fittings.

## **Phenols**

Date	Image	Location in Building	Inspection Type	Risk Action Rating	Condition & Accessibility
24/04/2024		Adjacent Area 6	Visual Inspection	A5	No phenols sighted



## 1.4 CONCLUSIONS

No Asbestos, Lead Paint, PCBs or Phenols were identified during the inspection of area 6. SMF materials were identified encapsulated in the Air Conditioning Ducting in a good condition.

The following recommendations will assist the asset owner and building occupants to meet the requirements of the NSW Work Health and Safety Act and NSW Work Health and Safety Regulation 2017 in the case of unexpected find of hazardous building material/s.

If an unexpected asbestos find eventuates, depending on the type and quantity of the material, it should be scheduled to be removed under controlled conditions utilising a licensed asbestos removal contractor (Class B – Bonded removalist) or (Class A – Friable removalist). It is recommended that a Scope of Works be drawn up prior to engaging an asbestos removalist to ensure that the appropriate legislative requirements are adhered to, these legislative and guidance requirements are detailed below.

Legislation also recommends that it is good occupational hygiene practice to undertake airborne asbestos air monitoring, using a competent laboratory during the asbestos removal and that an independent Occupational Hygienist undertake a visual clearance inspection, coupled with air monitoring and site contamination assessment at the end of the removal process. For guidance on exposure standards and recommended procedures please refer to some of the codes of practice and standards, listed in the References section near the end of this report.

It is recommended that the licensed contractor prepare a safe method of work statement including wet removal methods for the asbestos removal works, utilising Type P1 or P2 half face particulate respirators, appropriate personnel decontamination procedures and appropriate disposal methods, refer to some of the legislative codes of practice and standards listed in the References section near the end of this report for guidance.

If the material is to remain in situ, and unlikely to be disturbed it should be noted on the premises' asbestos register. If the asbestos material is removed the register should be updated to reflect this change in the management plan. All the asbestos materials should be managed according to the asbestos management plan.

If additional asbestos based products are identified on-site the asbestos register should be updated to include these products. If products are disturbed airborne asbestos air monitoring coupled with an independent assessment should be undertaken to assess the risk.

The materials identified in this report were mostly in good condition and can be managed effectively according to the Asbestos Management Plan. Provided they remain in this condition and are not disturbed they pose minimal risk if left in situ. If renovation or demolition works are to occur the asbestos based materials which are likely to be disturbed should be removed prior to works commencing.

If asbestos based products are disturbed, the area should be isolated and an independent assessment by an Occupational Hygienist should be undertaken coupled with airborne asbestos air monitoring.

Reported By

Phill Abbott I AA000117

Approved By

fell Dely



24/04/2024

Juliet Duffy, MSM MAICD MAIOH Director, Occupational Hygienist Licensed Asbestos Assessor (LAA000102) NATA Signatory

# **ASBESTOS MANAGEMENT PLAN**

- Provided the Asbestos Containing Material (ACM) remains in good condition and is not disturbed they pose minimal risk if left in situ.
- If the ACM is in fair condition it should be removed under controlled conditions and replaced, during routine maintenance works.
- · If the ACM is in poor condition it should be removed under controlled conditions as soon as practicable.
- · If renovation or demolition works are to occur the asbestos based materials which are likely to be disturbed should be removed prior to works commencing.

If asbestos based products are disturbed, the area should be isolated and an independent assessment by an Occupational Hygienist should be undertaken coupled with airborne asbestos air monitoring.

## 1.5 MANAGEMENT RESPONSIBILITY

NSW Work Health and Safety Regulation 2017 R428 R429 requires that the management plan must be controlled by a person who is in control of the workplace. The person is responsible to ensure that the management plan is kept up to date, including documenting asbestos removal works, subsequent damage and if new asbestos products are identified on-site.

If the nominated person is no longer responsible for the Asbestos Register and Management Plan the person must as far as reasonably practicable transfer the ownership and the actual documents to the new nominated person.



## 1.6 IDENTIFICATION AND SIGNAGE

NSW Work Health and Safety Regulation 2017 R422, R424, R427 and R429 requires that the person with the management control of the workplace to identify asbestos containing materials and the asbestos material that has been identified to date should be labelled and ensured that it complies with the Australian Standard 1319: Safety Signs for the Occupational Environment; signage should be similar to the label detailed below.



Signage should also be placed at the entry points to the building/plant similar to the one detailed below:





## 1.7 CONTROLLING THE RISK

As all asbestos types are known carcinogens, and it is when the asbestos fibres are released and become airborne that they pose a potentially deadly occupational health hazard. The main route of entry into the body is through inhalation, and they deposit directly into various sections of the respiratory tract depending on their fibre size. The three main diseases associated with asbestos exposure are Asbestosis, Lung Cancer and Mesothelioma.

Therefore, when we are managing asbestos in the workplace we want to minimise potential exposures to asbestos fibres, particularly when they become airborne. Many asbestos containing materials that are in the workplace are in good condition, and if left undisturbed is it unlikely that asbestos fibres will become airborne and the risk is extremely low. However, if the material is in a poor condition, or is likely to be disturbed (i.e. maintenance activities, renovation or demolition works) the asbestos containing materials should be removed.

To reduce to likelihood of asbestos materials being disturbed in the workplace, the asbestos material should be identified (i.e. the Asbestos Register) and managed to minimise the risk of disturbance through signage and administration controls, such as permit to work systems. The management plan should be followed with vigour to ensure exposures do not occur.

#### 1.8 SAFE WORK METHODS

The methods need to be adopted for all asbestos works undertaken on-site, when works are undertaken the management records contained within this report need to appropriately, documented, as evidence. The following methods have been extracted from the Code of Practice; How to Manage and Control Asbestos in the Workplace [Safe Work Australia: 2011] under the Creative Commons copyright licence.

Asbestos removal works need to be undertaken by a registered asbestos removalist, who will notify Safe Work NSW of works and provide a satisfactory and safe asbestos removal method, prior to works commencing on-site.



## 1.8.1 Drilling of Asbestos Containing Material

## SAFE WORK PRACTICE 1 - DRILLING OF ACM

The drilling of asbestos cement sheeting can release asbestos fibres into the atmosphere, so precautions must be taken to protect the drill operator and other persons from exposure to these fibres. A hand drill is preferred to a battery-powered drill, because the quantity of fibres is drastically reduced if a hand drill is used.

Equipment that may be required prior to starting work (in addition to what is needed for the task)	<ul> <li>A non-powered hand drill or a low-speed battery-powered drill or drilling equipment. Battery-powered drills should be fitted with a local exhaust ventilation (LEV) dust control hood wherever possible. If an LEV dust control hood cannot be attached and other dust control methods such as pastes and gels are unsuitable then shadow vacuuming techniques should be used</li> <li>Disposable cleaning rags</li> <li>A bucket of water, or more as appropriate, and/or a misting spray bottle</li> <li>Duct tape</li> <li>Sealant</li> <li>Spare PPE</li> <li>A thickened substance such as wallpaper paste, shaving cream or hair gel</li> <li>200 μm plastic sheeting</li> <li>A suitable asbestos waste container (e.g. 200 μm plastic bags or a drum, bin or skip lined with 200 μm plastic sheeting)</li> <li>Warning signs and/or barrier tape</li> <li>An asbestos vacuum cleaner</li> <li>A sturdy paper, foam or thin metal cup, or similar (for work on overhead surfaces only).</li> </ul>
PPE	<ul> <li>Protective clothing and RPE (see AS1715, AS 1716). It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.</li> </ul>
Preparing the asbestos work area	<ul> <li>If the work is to be carried out at a height, appropriate precautions must be taken to prevent falls.</li> <li>Ensure appropriately marked asbestos waste disposal bags are available.</li> <li>Carry out the work with as few people present as possible.</li> <li>Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. close door and/or use warning signs and/or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment.</li> <li>If drilling a roof from outside, segregate the area below.</li> </ul>



SAFE WORK PRACTICE 1 – DRILLING OF ACM			
	If access is available to the rear of the asbestos cement,		
	segregate this area as well as above.		
	If possible, use plastic sheeting, secured with duct tape, to cover any surface within the asbestos work area that could become contaminated.     Ensure there is adequate lighting.		
	Ensure there is adequate lighting.     Avoid working in windy environments where asbestos		
	fibres can be redistributed.		
	<ul> <li>If using a bucket of water, do not resoak used rags in the bucket, as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.</li> </ul>		
Drilling vertical surfaces	<ul> <li>Tape both the point to be drilled and the exit point, if accessible, with a strong adhesive tape such as duct tape to prevent the edges crumbling.</li> </ul>		
	<ul> <li>Cover the drill entry and exit points (if accessible) on the asbestos with a generous amount of thickened substance.</li> <li>Drill through the paste.</li> </ul>		
	Use damp rags to clean off the paste and debris from the wall and drill bit.		
	<ul> <li>Dispose of the rags as asbestos waste as they will contain asbestos dust and fibres.</li> </ul>		
	Seal the cut edges with sealant.		
	<ul> <li>If a cable is to be passed through, insert a sleeve to protect the inner edge of the hole.</li> </ul>		
	Mark the point to be drilled.		
Drilling overhead horizontal	Drill a hole through the bottom of the cup.		
surfaces	<ul> <li>Fill or line the inside of the cup with shaving cream, gel or a similar thickened substance.</li> </ul>		
	<ul> <li>Put the drill bit through the hole in the cup so that the cup encloses the drill bit, and make sure the drill bit extends beyond the lip of the cup.</li> </ul>		
	Align the drill bit with the marked point.		
	Ensure the cup is firmly held against the surface to be		
	drilled.		
	Drill through the surface.		
	<ul> <li>Remove the drill bit from the cup, ensuring that the cup remains firmly against the surface.</li> </ul>		
	Remove the cup from the surface.		
	Use damp rags to clean off the paste and debris from the drill bit.		
	Dispose of the rags as asbestos waste, as they will contain asbestos dust and fibres.		
	Seal the cut edges with sealant.		
	- Sear the out eages with scalarity		



SAFE WORK PRACTICE 1 – DRILLING	G OF ACM
	If a cable is to be passed through, insert a sleeve to protect
	the inner edge of the hole.
	Use damp rags to clean the equipment.
Decontaminating the asbestos	Carefully roll or fold any plastic sheeting used to cover any
work area and equipment	surface within the asbestos work area, so as not to spill
	any dust or debris that has been collected.
	If necessary, use damp rags and/or an asbestos vacuum
	cleaner to clean any remaining visibly contaminated
	sections of the asbestos work area.
	Place 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 before they
	are removed from the asbestos work area.
Personal decontamination	If disposable coveralls are worn, clean the coveralls while
should be carried out in a	still wearing RPE using a HEPA vacuum, damp rag or fine-
designated area	water spray. RPE can be cleaned with a wet rag or cloth.
designated area	While still wearing RPE, remove coveralls, turning them incide out to entrop any remaining contamination and
	inside-out to entrap any remaining contamination and then place them into a labelled asbestos waste bag.
	Remove RPE. If non-disposable, inspect it to ensure it is
	free from contamination, clean it with a wet rag and store
	in a clean container. If disposable, cleaning is not required
	but RPE should be placed in a labelled asbestos waste bag
	or waste container.
	Refer to the Code of Practice: How to Safely Remove Asbestos
	for
	more information.
	Visually inspect the asbestos work area to make sure it has
Clearance procedure	been properly cleaned.
	Clearance air monitoring is not normally required for this
	task.
	Dispose of all waste as asbestos waste.
	Refer to the Code of Practice: How to Safely Remove Asbestos
	for more information.



1.8.2 Sealing, Painting, Coating and Cleaning of Asbestos Cement (Bonded) Products

## SAFE WORK PRACTICE 2 – SEALING, PAINTING, COATING AND CLEANING OF ASBESTOS-CEMENT PRODUCTS

These tasks should only to be carried out on asbestos that are in good condition. For this reason, the ACM should be thoroughly inspected before starting the work. There is a risk to health if the surface of asbestos cement sheeting is disturbed (e.g. from hailstorms and cyclones) or if it has deteriorated as a result of aggressive environmental factors such as pollution. If it is so weathered that its surface is cracked or broken, the asbestos cement matrix may be eroded, increasing the likelihood that asbestos fibres will be released. If treatment is considered essential, a method that does not disturb the matrix should be used. Under no circumstances should asbestos cement products be water blasted or dry sanded in preparation for painting, coating or sealing.

Equipment that may be required prior to starting work (in addition to what is needed for the task)	<ul> <li>Disposable cleaning rags</li> <li>A bucket of water, or more as appropriate, and/or a misting spray bottle</li> <li>Sealant</li> <li>Spare PPE</li> <li>A suitable asbestos waste container</li> <li>Warning signs and/or barrier tape.</li> </ul>
PPE	<ul> <li>Protective clothing and RPE (see AS1715, AS 1716).         It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.         Where paint is to be applied, appropriate respiratory protection to control the paint vapours/mist must also be considered.     </li> </ul>
Painting and sealing	<ul> <li>When using a spray brush, never use a high-pressure spray to apply the paint.</li> <li>When using a roller, use it lightly to avoid abrasion or other damage.</li> </ul>
Decontaminating the asbestos work area and equipment	Use damp rags to clean the equipment. If required, use damp rags and/or an asbestos vacuum cleaner to clean the asbestos work area. Place 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 before they are removed from the asbestos work area.



## SAFE WORK PRACTICE 2 – SEALING, PAINTING, COATING AND CLEANING OF ASBESTOS-CEMENT PRODUCTS

## Preparing the asbestos work area

- If work is being carried out at heights, precautions must be taken to prevent falls.
- Before starting, assess the asbestos cement for damage.
- Ensure appropriately marked asbestos waste disposal bags are available.
- Carry out the work with as few people present as possible.
- Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. close door and/ or use warning signs and/or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment.
- If working at a height, segregate the area below.
- If possible, use plastic sheeting secured with duct tape to cover any floor surface within the asbestos work area which could become contaminated. This will help to contain any runoff from wet sanding methods.
- Ensure there is adequate lighting.
- If using a bucket of water, do not resoak used rags in the bucket, as this will contaminate the water.
   Instead, either fold the rag so a clean surface is exposed or use another rag.
- Never use high-pressure water cleaning methods.
- Never prepare surfaces using dry sanding methods.
   Where sanding is required, you should consider removing the asbestos and replacing it with a non-asbestos product.
- Wet sanding methods may be used to prepare the asbestos, provided precautions are taken to ensure all the runoff is captured and filtered, where possible.
- · Wipe dusty surfaces with a damp cloth.



SAFE WORK PRACTICE 2 – SEALING, I CEMENT PRODUCTS	PAINTING, COATING AND CLEANING OF ASBESTOS-
Personal decontamination should be carried out in a designated area	<ul> <li>If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth.</li> <li>While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then place them into a labelled asbestos waste bag.</li> <li>Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container.</li> </ul>
	Refer to the Code of Practice: How to Safely Remove Asbestos for more information.
Clearance procedure	Visually inspect the asbestos work area to make sure it has been properly cleaned.  Clearance air monitoring is not normally required for this task.  Dispose of all waste as asbestos waste.
	Refer to the <i>Code of Practice: How to Safely Remove</i> Asbestos for more information.



# 1.8.3 Cleaning Leaf Litter from Gutters of Asbestos Cement Roofs

SAFE WORK PRACTICE 3 – CLEANING LEAF LITTER FROM GUTTERS OF ASBESTOS CEMENT			
ROOFS			
	A bucket of water, or more as appropriate, and detergent		
Equipment that may be	A watering can or garden spray		
required prior to starting	A hand trowel or scoop		
work (in addition to	Disposable cleaning rags		
what is needed for the	A suitable asbestos waste container		
task)	Warning signs and/or barrier tape		
	An asbestos vacuum cleaner.		
	Protective clothing and RPE (see AS1715, AS 1716). It is likely that		
PPE	a class P1 or P2 half face respirator will be adequate for this task,		
	provided the recommended safe work procedure is followed.		
	Since the work is to be carried out at a height, appropriate		
Preparing the asbestos	precautions must be taken to prevent the risk of falls.		
work area	Ensure appropriately marked asbestos waste disposal containers		
	are available.		
	Segregate the asbestos work area to ensure unauthorised		
	personnel are restricted from entry (e.g. use warning signs and/ or		
	barrier tape at all entry points). The distance for segregation should		
	be determined by a risk assessment.		
	Segregate the area below.		
	<ul> <li>Avoid working in windy environments where asbestos fibres can be redistributed.</li> </ul>		
	If using a bucket of water, do not resoak used rags in the bucket as		
	this will contaminate the water. Instead, either fold the rag so a		
	clean surface is exposed or use another rag.		
	Disconnect or re-route the downpipes to prevent any entry of		
Gutter cleaning	contaminated water into the wastewater system and ensure there		
	is a suitable container to collect contaminated runoff.		
	Contaminated water must be disposed of as asbestos waste.		
	Mix the water and detergent.		
	Using the watering can or garden spray, pour the water and		
	detergent mixture into the gutter but avoid over-wetting as this		
	will create a slurry.		
	Remove the debris using a scoop or trowel. Do not allow debris or		
	slurry to enter the water system.		
	Wet the debris again if dry material is uncovered.		
	Place the removed debris straight into the asbestos waste		
	container.		



SAFE WORK PRACTICE 3 – CLEANING LEAF LITTER FROM GUTTERS OF ASBESTOS CEMENT ROOFS		
Decontaminating the asbestos work area and equipment	<ul> <li>Use damp rags to wipe down all equipment used.</li> <li>Use damp rags to wipe down the guttering.</li> <li>Where practicable, and if necessary, use an asbestos vacuum cleaner to vacuum the area below.</li> <li>Place debris, used rags and other waste in the asbestos waste container.</li> <li>Wet wipe the external surfaces of the asbestos waste container to remove any adhering dust before it is removed from the asbestos work area.</li> </ul>	
Personal decontamination should be carried out in a designated area	<ul> <li>If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth.</li> <li>While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then place them into a labelled asbestos waste bag.</li> <li>Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container.</li> </ul>	
	Refer to the Code of Practice: How to Safely Remove Asbestos for more information.	
Clearance procedure	<ul> <li>Visually inspect the asbestos work area to make sure it has been properly cleaned.</li> <li>Clearance air monitoring is not normally required for this task.</li> <li>Dispose of all waste as asbestos waste.</li> </ul>	
	Refer to the Code of Practice: How to Safely Remove Asbestos for more information.	



# 1.8.4 Replace Cabling in Asbestos Cement (Bonded) Conduits or Boxes

SAFE WORK PRACTICE 4 – REPLACE CABLING IN ASBESTOS CEMENT CONDUITS OR BOXES		
	Disposable cleaning rags	
	<ul> <li>A bucket of water, or more as appropriate, and/or a misting spray</li> </ul>	
be required prior to	bottle	
٠ ,	200 μm thick plastic sheeting	
1	Cable slipping compound	
needed for the task)	<ul> <li>Appropriately marked asbestos waste disposal bags</li> </ul>	
	Spare PPE	
	Duct tape	
	Warning signs and/or barrier tape	
	An asbestos vacuum cleaner.	
	<ul> <li>Protective clothing and RPE (see AS1715, AS 1716). It is likely that a</li> </ul>	
PPE	class P1 or P2 half face respirator will be adequate for this task,	
	provided the recommended safe work procedure is followed.	
	<ul> <li>If the work will be carried out in a confined space, appropriate</li> </ul>	
Preparing the asbestos	precautions must be taken to prevent the risk of asphyxiation.	
work area	<ul> <li>Ensure appropriately marked asbestos waste disposal bags are</li> </ul>	
	available.	
	<ul> <li>Carry out the work with as few people present as possible.</li> </ul>	
	Segregate the asbestos work area to ensure unauthorised personnel	
	are restricted from entry (e.g. use warning signs and/ or barrier tape	
	at all entry points). The distance for segregation should be	
	determined by a risk assessment.	
	Use plastic sheeting secured with duct tape to cover any surface	
	within the asbestos work area which could become contaminated.	
	Place plastic sheeting below any conduits before pulling any cables	
	through.	
	Ensure there is adequate lighting.	
	<ul> <li>Avoid working in windy environments where asbestos fibres can be redistributed.</li> </ul>	
	If using a bucket of water, do not resoak used rags in the bucket as     this will contaminate the water instead of the rag so a clean	
	this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.	
	Wet down the equipment and apply adequate cable slipping	
Replacement or	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.	
	Ropes used for cable pulling should have a smooth surface that can	
	easily be cleaned.	
	Do not use metal stockings when pulling cables through asbestos	
	cement conduits.	
	Do not use compressed air darts to pull cables through asbestos	
	cement conduits/ducts.	



SAFE WORK PRACTICE 4 – REPLACE CABLING IN ASBESTOS CEMENT CONDUITS OR BOXES		
	Use damp rags to clean the equipment.	
Decontaminating the	Wet wipe around the end of the conduit, sections of exposed cable	
asbestos work area	and the pulling eye at the completion of the cable pulling operation.	
and equipment	If the rope or cable passes through any rollers, these must also be	
	wet wiped after use.	
	Wet wipe the 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.	
	Carefully roll or fold any plastic sheeting used to cover any surface	
	within the asbestos work area, so as not to spill any dust or debris that has been collected.	
	If required, use damp rags or an asbestos vacuum cleaner to clean	
	any remaining visibly contaminated sections of the asbestos work	
	area.	
	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 before they are removed	
	from the asbestos work area.	
	If disposable coveralls are worn, clean the coveralls while still	
Personal	wearing RPE using a HEPA vacuum, damp rag or fine-water spray.	
decontamination	RPE can be cleaned with a wet rag or cloth.	
should be carried out	While still wearing RPE, remove coveralls, turning them inside-out to	
in a designated area	entrap any remaining contamination and then place them into a labelled asbestos waste bag.	
	Remove RPE. If non-disposable, inspect it to ensure it is free from	
	contamination, clean it with a wet rag and store in a clean container.	
	If disposable, cleaning is not required but RPE should be placed in a	
	labelled asbestos waste bag or waste container.	
	Before to the Code of Breatists How to Cofely Borrows Asharts for many	
	Refer to the Code of Practice: How to Safely Remove Asbestos for more information.	
	Visually inspect the asbestos work area to make sure it has been	
Clearance procedure	properly cleaned.	
F	Clearance air monitoring is not normally required for this task.	
	Dispose of all waste as asbestos waste.	
	Refer to the Code of Practice: How to Safely Remove Asbestos for more	
	information.	



1.8.5 Working on Asbestos Containing Electrical Switchboards

# SAFE WORK PRACTICE 5 – WORKING ON ELECTRICAL MOUNTING BOARDS CONTAINING ASBESTOS

If the asbestos-containing electrical mounting panel must be removed for work behind the board, the procedures outlined in the *Code of Practice: How to Safely Remove Asbestos* must be followed. If drilling is required, the control process should be consistent with the measures in Safe Work Practice 1.

Safe Work Practice 1.		
Equipment that may be required prior to starting work (in addition to what is needed for the task)	<ul> <li>A non-powered hand drill or a low-speed battery-powered drill or drilling equipment. Battery-powered drills should be fitted with a LEV dust control hood wherever possible. If a LEV dust control hood cannot be attached and other dust control methods, such as pastes and gels, are unsuitable then shadow vacuuming techniques should be used</li> <li>Duct tape</li> <li>Warning signs and/or barrier tape</li> <li>Disposable cleaning rags</li> <li>A plastic bucket of water and/or a misting spray bottle</li> <li>Spare PPE</li> <li>A suitable asbestos waste container</li> <li>200 µm plastic sheeting</li> <li>An asbestos vacuum cleaner.</li> <li>Protective clothing and RPE (see AS1715, AS 1716). It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure</li> </ul>	
	is followed.	
Preparing the asbestos work area	<ul> <li>As the work area will involve electrical hazards, precautions must be taken to prevent electrocution.</li> <li>Ensure appropriately marked asbestos waste disposal bags are available.</li> <li>Carry out the work with as few people present as possible.</li> <li>Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. use warning signs and/ or barrier tape at all entry points). The distance for segregation should be determined by a risk assessment.</li> <li>Use plastic sheeting secured with duct tape to cover any surface within the asbestos work area which could become contaminated.</li> <li>Ensure there is adequate lighting.</li> <li>Avoid working in windy environments where asbestos fibres can be redistributed.</li> <li>If using a bucket of water, do not resoak used rags in the bucket as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.</li> <li>Providing the panel is not friable, maintenance and service work</li> </ul>	
	may include:	



SAFE WORK PRACTICE 5 – WORKING ON ELECTRICAL MOUNTING BOARDS CONTAINING ASBESTOS		
Work on electrical mounting		
panels	replacing asbestos containing equipment on the electrical	
	panel with non-asbestos equipment	
	operate main switches and individual circuit devices	
	pull/insert service and circuit fuses	
	bridge supplies at meter bases	
	use testing equipment	
	access the neutral link	
	Install new components/equipment.	
	Use damp rags to clean the equipment.	
Decontaminating the asbestos	Carefully roll or fold any plastic sheeting used to cover any	
work area and equipment	surface within the asbestos work area so as not to spill any dust or debris that has been collected.	
	<ul> <li>If there is an electrical hazard, use an asbestos vacuum cleaner to remove any dust from the mounting panel and other visibly contaminated sections of the asbestos work area.</li> </ul>	
	If there is no electrical hazard, wet wipe with a damp rag to	
	remove minor amounts of dust.  • Place 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 before they are removed from the asbestos work area.	
	If disposable coveralls are worn, clean the coveralls while	
Personal decontamination	still wearing RPE using a HEPA vacuum, damp rag or fine-	
should be carried out in a	water spray. RPE can be cleaned with a wet rag or cloth.	
designated area	While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then place them into a labelled asbestos waste bag.     Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container.  Refer to the Code of Practice: How to Safely Remove Asbestos for	
	more information.	
Clearance procedure	Visually inspect the asbestos work area to make sure it has     been preparly cleaned.	
clearance procedure	been properly cleaned.     Clearance air monitoring is not normally required for this	
	task.	
	Dispose of all waste as asbestos waste.	
	Refer to the Code of Practice: How to Safely Remove Asbestos for	
	more information.	
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## 1.8.6 Inspection of Asbestos Friction Materials

SAFE WORK PRACTICE 6 - IN	SPECTION OF ASBESTOS FRICTION MATERIALS	
This guide may be used when friction ACM (e.g. brake assemblies or clutch housings) need to be inspected or housings need to be cleaned. Compressed air must not be used to clean dust from a brake assembly.		
Equipment that may be required prior to starting work (in addition to what is needed for the task)	A misting spray bottle     Duct tape     Warning signs and/or barrier tape     Disposable cleaning rags     A bucket of water and detergent     Spare PPE     A suitable asbestos waste container     A catch tray or similar container     An asbestos vacuum cleaner.	
PPE	<ul> <li>Protective clothing and RPE (see AS1715, AS 1716). It is likely that a class P1 or P2 half face respirator will be adequate for this task, provided the recommended safe work procedure is followed.</li> </ul>	
Preparing the asbestos work area	<ul> <li>Ensure appropriately marked asbestos waste disposal bags are available.</li> <li>Carry out the work with as few people present as possible.</li> <li>Determine whether to segregate the asbestos work area</li> <li>Ensure unauthorised personnel are restricted from entry by using barrier tape and/or warning signs.</li> <li>Use a suitable collection device below where the work will be carried out to collect any debris/ runoff.</li> <li>Ensure there is adequate lighting.</li> <li>Avoid working in windy environments where asbestos fibres can be redistributed.</li> <li>If using a bucket of water, do not resoak used rags in the bucket as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or use another rag.</li> </ul>	



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- Use hand tools rather than power tools to reduce the generation of airborne fibres.
- Partially open the housing and softly spray the inside with water using the misting spray bottle. Any spillage of dust, debris or water must be controlled (e.g. capturing any runoff in a container) and either filtered or disposed of as asbestos waste.
- Open the housing and clean all asbestos parts using a damp rag, ensuring all runoff water is caught in an asbestos waste container.

#### Dry method:

- Place a tray under the components to catch dust or debris spilling from the housing or components during the inspection and dispose of any material as asbestos waste.
- Use an asbestos vacuum cleaner to remove asbestos from the brakes and rims or other materials before carrying out the inspection.

# Decontaminating the asbestos work area and equipment

- Use damp rags to clean the equipment, including the dust collection tray.
- If necessary, use damp rags or an asbestos vacuum cleaner to clean any remaining visibly contaminated sections of the asbestos work area.
- Place debris, used rags 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 before removing them from the asbestos work area.



SAFE WORK PRACTICE 6 – INSPECTION OF ASBESTOS FRICTION MATERIALS		
Personal decontamination should be carried out in a designated area	<ul> <li>If disposable coveralls are worn, clean the coveralls while still wearing RPE using a HEPA vacuum, damp rag or fine-water spray. RPE can be cleaned with a wet rag or cloth.</li> <li>While still wearing RPE, remove coveralls, turning them inside-out to entrap any remaining contamination and then place them into a labelled asbestos waste bag.</li> <li>Remove RPE. If non-disposable, inspect it to ensure it is free from contamination, clean it with a wet rag and store in a clean container. If disposable, cleaning is not required but RPE should be placed in a labelled asbestos waste bag or waste container.</li> </ul>	
	Refer to the Code of Practice: How to Safely Remove Asbestos for more information.	
Clearance procedure	<ul> <li>Visually inspect the asbestos work area to make sure it has been properly cleaned.</li> <li>Clearance air monitoring is not normally required for this task.</li> <li>Dispose of all waste as asbestos waste.</li> </ul>	
	Refer to the Code of Practice: How to Safely Remove Asbestos for more information.	

## 1.8.7 Sampling of Asbestos Materials

If additional suspected asbestos based products are identified on-site, especially in difficult to access areas or during the course of demolition and/or refurbishment activities a representative sample should be obtained and sent for laboratory analysis. Until results are obtained the product should be assumed to contain asbestos and treated accordingly, until laboratory analysis indicates otherwise.

## 1.8.7.1 Laboratory Sampling Guidelines

- The sample should be representative of the larger bulk material.
- Material from any repaired and repatched areas should be treated as separate sub-samples.
- The sample should include a full cross-section. For example, a sample of insulation material should include material from the outer cool face of armouring cement, if present, through to the inner hot face of the main insulating layer.
- The quantity of the sample collected should preferably be 5-100 grams, except floor tiles that are required to be a minimum of approximately 100 square centimetres.
- The sample should be transported in a labelled sealed container and preferably protected from undue vibration and disturbance.
- As complete a sample history as possible should be recorded. This includes the exact location of the sample, chemical and physical conditions affecting the sample, and a factual description of the sample and sub-samples.

## 1.8.7.2 Procedure to Obtain Samples

Send sealed sample (preferably double bagged, plastic clip lock bags are sufficient) to: EnviroScience Solutions Pty Ltd, PO Box 1645, Dubbo, NSW, 2830

A competent person should take the following steps to carry out sampling:

## 1.8.7.2.1 PREPARATION

- Make sure no one else is in the vicinity when sampling is done.
- · Shut down any heating or cooling systems to minimize the spread of any released fibres.
- Turn off any fans if you're inside. If outside, then sample on a non-windy day.
- Do not disturb the material any more than is needed to take a small sample.
- · Collect the equipment you will need for sampling, including: pliers, resealable plastic bags, disposable coveralls, waterproof sealant, plastic drop sheet, water spray bottle.
- P2 respirator, rubber gloves.

#### 1.8.7.2.2 TAKING THE SAMPLE

- · Wear disposable gloves.
- · Put on respiratory protective equipment (RPE).
- · Wear a pair of disposable coveralls.
- Lay down a plastic drop sheet to catch any loose material that may fall off while sampling.
- Wet the material using a fine mist of water containing a few drops of detergent before taking the sample. The water/detergent mist will reduce the release of asbestos fibres.
- · Carefully cut a thumb nail piece from the entire depth of the material using the pliers.
- · For fibre cement sheeting, take the sample from a corner edge or along an existing hole or crack.
- · Place the small piece into the resealable plastic bag.
- Double bag the sample, include the date and location and an asbestos caution warning.
- · Tightly seal the container after the sample is in it.
- · Carefully dispose of the plastic sheet.
- Use a damp paper towel or rag to clean up any material on the outside of the container or around the area sampled.
- · Dispose of asbestos materials according to state or territory and local procedures.
- · Patch the sampled area with the smallest possible piece of duct tape to prevent fibre release.
- Send the sample to a NATA-accredited laboratory or one that is either approved or operated by the relevant regulator.

## 1.8.7.2.3 CLEANING UP

- Seal the edges with waterproof sealant where the sample was taken.
- Carefully wrap up the plastic drop sheet with tape and then put this into another plastic rubbish bag.
- · Wipe down the tools and equipment with a dampened rag.
- · Place disposable gloves and coveralls into a rubbish bag, along with the damp rag and drop sheet.



- · Seal plastic bag.
- · Wash hands.
- · Keep RPE on until clean-up is completed.
- · Follow a decontamination procedure (personal washing) upon completion of the task.

## 1.9 PERMIT TO WORK

## 1.9.1 Asbestos Removal Works

Before works commence ensure that the following minimal considerations have been addressed. Please photocopy and complete the permit to work documentation to ensure that a record of the asbestos removal works is evidenced. A record of these works should be kept with the Management Plan and the Asbestos Register should be updated.



PERMIT TO WORK - ASBESTOS REMOVAL SITE CHECKLIST			
Site address:			
Item	Checked by	Date checked	
Barriers and signs erected			
2. Remediation Area inspection:			
Emergency exits established and identified     Fire extinguishers appropriately placed     Site water runoff contained     Bag disposal area/enclosure inspected     Asbestos disposal bags in remediation area     Bag ties in remediation area     Electric equipment or cabling protected against water     Air handling systems isolated and sealed off in adjacent buildings, including windows closed			
3. Decontamination unit inspection:			
Hot and cold water connected and operating     Change room/decontamination lighting operating     Decontamination drainage system checked     Contaminated clothes container provided			
4. Change Room			
<ul> <li>Protective clothing and spares in change room</li> <li>Safety gumboots available</li> <li>Towels/soap/shampoo/nail cleaners in the change room</li> <li>Respirator storage and cleaning facilities provided</li> </ul>			
All personnel trained in use and maintenance of PPE and emergency procedures			
6. Air monitoring in place			
7. Asbestos waste facilities available			
8. Appropriate waste transportation vehicles			
	•	•	



PERMIT TO WORK - ASBESTOS REMOVAL SITE CHECKLIST				
<ul> <li>Wash bay area</li> <li>Drivers trained, including cabins set on recirculating air, windows up.</li> <li>Automatic tarps to cover wet soil loads</li> <li>Plastic lined if possible friable asbestos.</li> <li>Decontamination procedures</li> </ul>				
9. Documentation required to be onsite:				
<ul> <li>Training records</li> <li>Asbestos removal control plan</li> <li>Asbestos removal licence</li> </ul>				
Name of Nominated Asbestos Controller and Signature:				
Name of Asbestos Removalist and Signature:  Name of Occupational Hygienist and Signature:				
DATE WORKS UNDERTAKEN:				



### 1.9.2 Asbestos Disturbance/Maintenance Works

Please photocopy and complete the permit to work documentation to ensure that asbestos works are undertaken correctly. A record of these works should be kept with the Asbestos Register and Management Plan.

PERMIT TO WORK - ASBESTOS DISTURBANCE/MAINTENANCE CHECKLIST				
Site address:				
Item	Checked by	Date checked		
Has a Safe Work Method been utilised? If so is the operator familiar and understands what is required?				
Work Area Established including barriers and signs erected and area isolated:				
<ul> <li>Emergency exits established and identified</li> <li>Bag disposal area/enclosure inspected</li> <li>Electric equipment or cabling protected against water</li> <li>Air handling systems isolated and sealed off in adjacent buildings, including windows closed</li> </ul>				
3. Personal Protection				
<ul> <li>All personnel trained in use and maintenance of PPE, including respirators and personal decontamination procedures.</li> </ul>				
<ul> <li>All personnel trained in the health hazards of asbestos</li> </ul>				
4. Air monitoring in place and locations				
5. Asbestos waste facilities available				
<ul> <li>Asbestos disposal bags in remediation area</li> <li>Bag ties in remediation area</li> </ul>				
Name and Signature of Nominated Asbestos Controller:  Name and Signature of Contractor or Employee undertaking the works:				
DATE WORKS UNDERTAKEN:				



### 1.10 RECORDS OF CHANGES AND ACTIVITIES

Date	Location	Asbestos Product	Activity	Signature*
Example	Female Toilet, Eastern Wall	Bonded Asbestos Cement Sheet	Drilled to affix paper dispenser	
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<sup>\*</sup> The person identified with the responsibility of the management and control of the Asbestos Register and Management Plan must sign and ensure that the permit to work system had been implemented, and works have been undertaken in the prescribed manner.



## **LEAD-BASED PAINTS**

As per AS4361.2:2017 Guide to Hazardous Paint Management, Part 2: Lead paint in residential, public and commercial buildings; defines a lead based paint as a paint film or component coat of paint system containing lead or lead compounds, in which the lead content is in excess of 0.1% by weight of the dry film as determined by laboratory testing.

It is also recommended that during removal of painted surfaces appropriate safety precautions to reduce the risk of dust generation and ingestion, be adopted by the demolition contractor and disposal of lead based painted objects should be deposited at a licensed landfill. It is also recommended that during any refurbishment works undertaken remediation of any lead contaminated dust be carried out prior to the commencement of works.

#### 1.11 HEALTH HAZARDS FROM LEAD EXPOSURE

- Lead interferes with many body processes and is poisonous to most organs and tissues, including the bones, intestines, kidneys, nervous system, and reproductive organs.
- Acute lead poisoning (high exposure over a short period of time) can cause fatigue, anaemia, constipation, and damage to the nervous system.
- · Chronic lead poisoning (exposure over a longer period of time) can cause fatigue, joint pain, and weakness.
- · Lead poisoning can damage the foetus in pregnant female workers and impair fertility in male workers.
- · Workers are exposed to lead when they inhale lead-containing dust or ingest lead residue from their hands (for example, when eating, chewing gum, or smoking).
- Lead is a suspected human carcinogen and has been shown to cause cancer in laboratory animals.



#### 1.12 LEAD DUST CONTROLS

The Regulation requires employers to select lead dust controls based on the following hierarchy:

- 1. Engineering controls (for example, barriers, enclosures, general ventilation, local exhaust ventilation).
- 2. Administrative controls (for example, wash stations, separate eating and changing areas, and limiting the time workers are exposed to lead).
- 3. Personal protective equipment (such as respirators and disposable coveralls)
  - Respirators will be used in conjunction with other controls to reduce worker exposure to lead, unless air monitoring information suggests otherwise.
  - A HEPA vacuum will be used for clean-up and decontamination.

#### 1.13 ACCEPTABLE CONTROL METHODS FOR REMOVING LEAD-CONTAINING PAINT

- The work methods in the following table are acceptable, provided that the respirator selection, dust suppression, and other controls are adhered to.
- The following control options will be used to eliminate or reduce the risk to workers from the hazards of lead dust exposure, unless air monitoring information suggests otherwise.

Work activity	Dust suppression	Other controls	Respirator type	
Manual (hand) sanding or scraping	<ul> <li>Peeling paint will be misted with water before scraping.</li> <li>Debris will be misted before sweeping or vacuuming.</li> <li>A HEPA vacuum will be used to remove debris.</li> </ul>	placed below the work area.  Barriers (for example, a tape barrier) will be installed to restrict access to the work area.  Signs will be posted at every entrance to the work area.	single-use N95, N99, or P100 respirator • Half-face respirator	
Manual scraping using heat guns	The heat gun temperature must be kept as low as practicable. Debris will be misted before sweeping or vacuuming.	placed below the work area.  Barriers (for example, a tape barrier) will be installed to restrict access to the work area.	with HEPA P100	



Work activity	Dust suppression	Other controls Respirat	
	A HEPA vacuum will be used to remove debris.	where significant removal will take place.  Where full enclosures are required, they will be equipped with HEPA-filtered mechanical ventilation.  Signs will be posted at every entrance to the work area.  Workers will use disposable coveralls.	
Manual scraping using a chemical stripper	Debris will be misted before sweeping or vacuuming.  A HEPA vacuum will be used to remove debris.	placed below the work area.  Barriers (for example, a tape barrier) will be installed to restrict	with HEPA P100 series/organic vapour cartridges • Additional
Removing paint using powered hand tools	Tools equipped with a HEPA-filtered dust collection system will be used. Debris will be misted before sweeping or vacuuming.	placed below the work area.  Barriers (for example, a tape barrier) will be installed to restrict access to the work area.	NIOSH-approved single-use N95, N99, or P100 respirator     Half-face respirator with HEPA P100 series filters



Work activity	Dust suppression	Other controls	Respirator type	
	A HEPA vacuum will be used to remove debris.	Workers will use disposable coveralls.		
	Tools without a dust suppression system will be used. Debris will be misted before sweeping or vacuuming. A HEPA vacuum will be used to remove debris.	placed below the work area.  Partial or full enclosures should be	elastomeric respirator equipped with P100 HEPA cartridges, or • Powered air-	



# 1.14 LEAD AIR MONITORING DURING REMOVAL WORKS, VISUAL CLEARANCES AND CLEARANCE AIR MONITORING

The Hygienist will throughout works undertake "real time" air monitoring to ensure that on-site processes and procedures adopted are satisfactory. During the lead management works Lead air monitoring, clearance air monitoring and monitoring during enclosure dismantling will be undertaken. At the completion of works a visual clearance inspection will also be undertaken.

The static air sampling will indicate if the removal work methods employed on-site by the certified contractor are proving to be effective work techniques.

Surface dust sampling will be taken at the completion of each section of works and sent away for analysis as evidence of satisfactory lead management procedures.

The following table indicates the required control levels and required actions.

Table 1 - Lead Control levels and required actions

Control Level	Control / Action	
Surface Dust Samples interior floors if >1 mg/m²	Vacuum, wet wipe and decontaminate area	
Surface Dust Samples of Exterior Surfaces >		
8mg/m²	again	
Real Time Static Air Monitoring* ≥0.02 mg/m <sup>3</sup>	Review control measures	
Real Time Static Air Monitoring* ≥0.05 mg/m³	Stop Lead Management Works and find	
Near Time state Air Monitoring 20.03 mg/m	cause	
Real Time Static Air Monitoring* ≥0.1 mg/m³	Stop Lead Management Works and	
Real Time Static All Monitoring 20.1 mg/m	Decontaminate Area	
*Current Occupational Exposure Limit (OEL) 0.15mg/m³. AIOH recommended OEL 0.1 mg/m³		
Clearance Air Monitoring must be below 0.075mg/m² as per SLR specification		



#### 1.14.1 Lead (Pb) Management Specifications

The bulk of the lead management will be preparing lead based paint surfaces ready for the application of new paint. Interim Site Security and Safety It is recommended that signage be placed around the perimeter of the site, together with barriers constructed of barrier tape and or trestles. Signage should be similar to the ones detailed below.

Interim Site Security and Safety: it is recommended that signage be placed around the perimeter of the site, together with barriers constructed of barrier tape and or trestles. Signage should be similar to the ones detailed below.





# 1.14.2 Lead (Pb) Removal and Site Remediation

As per legislation, the Lead (Pb) paint preparation works need to be undertaken by an experienced lead abatement contractor. It is also a requirement of legislation that the Contractor provide a Safe Work Method Statement as well as documentary evidence of personnel involved and their Lead (Pb) Biological Blood Level Monitoring program as per Part 7.6 of the NSW Work Health and Safety Act 2011, if regular lead works are to be undertaken.

As discussed, the experienced contractor will need to prepare a Safe Method of Work Statement including;

- A minimum 200µm thick plastic sheeting to create an "enclosure" prior to preparation works including on the floor to collect paint debris and to prevent other surfaces, this "enclosure" then needs to undergo a visual inspection by the Hygienist prior to Lead (Pb) works commencing.
- A "decontamination" facility for personnel and equipment needs to be adopted, with consideration for the reclaiming of contaminated water, coveralls, personal protective equipment and cloths used for cleaning etc. Work zones need to be considered and agreed to prior to works commencing this will ensure that clean areas are not contaminated and that contractor personnel adopt correct personal hygiene procedures. The work zones need to be separated by suitable airlocks or buffer zones.
- Adoption of wet removal methods during Lead (Pb) works to suppress and contain dust are to be utilised. To remove flaked and peeling paint and to prepare surfaces prior to painting wet scraping or wet sanding as detailed in the AS 4361 are to be adopted.
- Decontamination requirements for personnel, tools and equipment, the Lead (Pb) work area and any other areas that could become contaminated need to be considered and addressed in the plan. At the end of works all plant



and equipment within the Lead (Pb) work area including any remaining non-movable items, should be vacuumed and/or wet wiped to remove any residual dust if evidenced. After a satisfactory clearance, visual inspection coupled with "real time" clearance air monitoring both undertaken by the Hygienist the "enclosure" maybe sprayed with an adhesive (PVA) to contain any dust and then dismantled prior to demobilization.

Appropriate personal protection procedures including coveralls, and gloves, eye protection and Type P2 particulate respirators with particulate filter cartridges are to be used as a minimum requirement during painting works.

All possible Lead (Pb) contaminated materials, including paint debris, personnel protective equipment, plastic drop sheets etc must be documented in the Safe Work Method Statement describing the arrangements for storage, transport and disposal. Compliance with current environmental protection laws must be evidenced, as well as contingency plans for accidental spills.



# **SYNTHETIC MINERAL FIBRE PRODUCTS (SMFs)**

The information provided below is provided in the case of an unexpected find of SMF occurs. If works do need to be undertaken which will disturb this material, safety goggles, disposable coveralls, gloves and a class P2 respirator should be adopted. This will avoid any skin irritation and inhalation of airborne fibres.

Air monitoring should also be undertaken to ensure that levels are less than the current workplace exposure standard of 0.5 fibres/ml. Measurement of airborne levels of respirable SMF fibres is undertaken in accordance with the Guidance Note on the Membrane Filter Method for the Estimation of Airborne Synthetic Mineral Fibres [NOHSC:3006-1989] and if necessary the AS3640-2004: Workplace Atmospheres – Method for Sampling and Gravimetric Determination of Inhalable Dust. Using the MFM, respirable fibres are defined as being at least  $5\mu$ m long, and no more than  $3\mu$ m wide with a length to width ratio of at least 3 to1. The results are compared against the current NES for respirable SMF fibre (0.5 f/mL) or the complimentary gravimetric inhalable dust standard (2 mg/m3).



POLYCHLORINATED BIPHENYLS (PCBs)

The information provided below is provided in the case of an unexpected find of PCBs occurs. PCB material within fluorescent light fittings present a negligible risk unless damaged or leaking.

PCB material may be inhaled, ingested or absorbed through the skin. The National Occupational Health and Safety Commission (NOHSC) has determined a maximum exposure standard for PCB's:

- i. PCBs containing 42 % chloride
  - Time weighted average (TWA): 1 mg/m3
  - Short term exposure limit (STEL): 2 mg/m3
- ii. PCBs containing 54 % chloride
  - Time weighted average (TWA): 0.5 mg/m3
  - Short term exposure limit (STEL): 1mg/m3

All PCBs should be labelled:

# "CAUTION CONTAINS POLYCHLORINATED BIPHENYL (PCB) A TOXIC HAZARD AND TOXIC ENVIRONMENTAL CONTAMINANT"

The preferred control option is to remove and replace all PCB capacitors. Temporary storage of PCB-containing equipment should be placed in a polythene bag and sealed inside a metal container that is clearly marked with the details of the contents. If some of the material is leaking, then the container should be partially filled with an absorbent packing material.

All scheduled PCB waste must be treated by a licensed/approved operator. Solid and liquid scheduled waste must not go to landfill.



# **PHENOLS**

The main source of Phenol products is Bakelite products, such electrical switches. The Phenol material identified on-site was in a bonded format, and in this structure and condition does not present a significant risk in its current condition and state.

If Bakelite materials are disturbed, they should be handled similar to bonded (Non-friable) Asbestos. If works do need to be undertaken which will disturb this material, disposable coveralls, gloves and a class P2 respirator should be adopted. This will avoid any skin absorption or chemical inhalation.



## REFERENCES

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# APPENDIX I: ASBESTOS SAMPLE ANALYSIS RESULTS



### Protecting Health and the Environment Through Science

# LABORATORY ANALYSIS REPORT Asbestos Identification Report

Report No: B30859-R1 Report Date: Tuesday, 23 April 2024

Client: Health Infrastructure Analysed Date: Tuesday, 23 April 2024

Client Address: Locked Bag 2030, Laboratory Receival Date: Tuesday, 23 April 2024

Sampled Date: Friday, 19 April 2024

Sampled by: Phill Abbott

Attention: C/O Capital Insight Pty Ltd - Rina Rod Approved Identifier and Signatory: Arpit Dabhi

Sampled From: Orange Hospital - Area 6

Test Method: Polarised Light Microscopy (PLM) including Dispersion Staining (DS), EnviroScience Solutions Pty Ltd in-

house laboratory method, in accordance with Australian Standard AS4964-2004 'Method for the qualitative identification of asbestos in bulk samples'. Accredited for compliance with ISO/IEC:17025-

Testing.

Please note that EnviroScience Solutions does not accept responsibility for the sample submitted in

relation to its source.

St Leonards, NSW, 1590

Sample Number	Sample Location	Sample Description	Sample Size	Asbestos Detected	Fibres Detected
B30859-S1	Air Condition Duct Lagging	Vermiculite	5.5 gm	No	Organic
B30859-S2	Old External Cladding	Resin	2.1 gm	No	Organic



