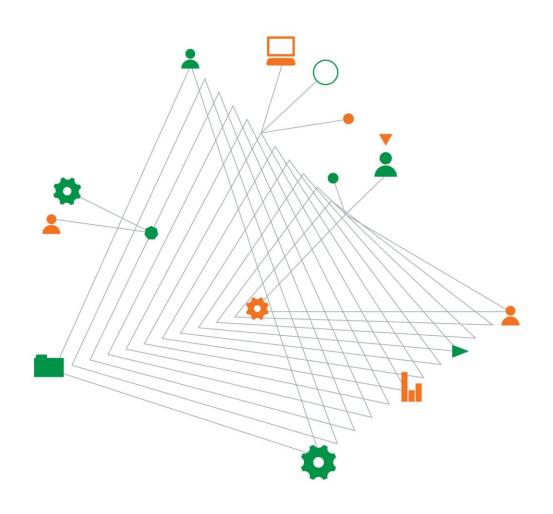


Mirvac Real Estate Pty Ltd

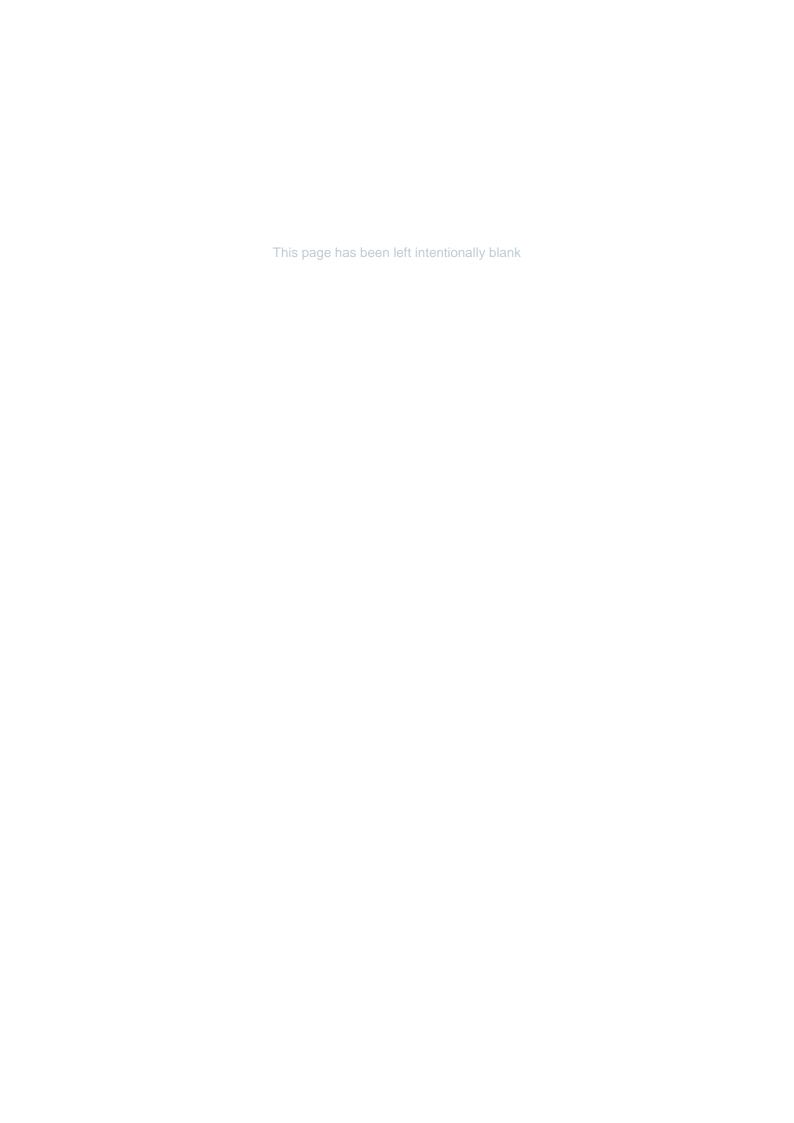
Asbestos Management Plan

101-103 Miller Street North Sydney NSW 2060

30 July 2020



Experience comes to life when it is powered by expertise



Asbestos Management Plan

Prepared for Mirvac Real Estate Pty Ltd

Prepared by Coffey Services Australia Pty Ltd Level 19, Tower B, 799 Pacific Highway Chatswood NSW 2067 Australia t: +61 2 9406 1000 f: +61 2 9406 1002 ABN: 55 139 460 521

14 July 2020

754-SYDEN228268

Quality information

Revision history

Revision	Description	Date	Originator	Reviewer	Approver
R01	Final	23/07/2020	Phoebe Quessy	Raghurum Muguli	Raghurum Muguli

Distribution

Report Status	No. of copies	Format	Distributed to	Date
R01 Final	1	PDF	Mirvac Real Estate Pty Ltd	30/07/2020

Coffey Services Australia Pty Ltd ABN: 65 140 765 902

Table of contents

1	Purpose of document			
	1.1.	Document Retention	1	
	1.2.	Re-inspection and Review Requirements	1	
2.	Introd	luction	1	
	2.1.	Background	2	
	2.2.	Scope	2	
	2.3.	Legislative Requirements	2	
3.	State	ment of Limitations	3	
4.	Metho	odology	3	
	4.1.	Asbestos Fibre Identification	4	
	4.2.	Asbestos Survey	4	
5.	Resp	onsibilities	4	
6.	Contr	olling Asbestos Hazards	8	
7.	Risk	Assessment	9	
	7.1.	Asbestos Materials Risk Assessment	.10	
	7.2.	Suspect Materials	.14	
	7.3.	Asbestos Identification	.15	
	7.4.	Asbestos Monitoring	.15	
	7.5.	Asbestos Material Labelling and Signage	.15	
8.	Reco	rd Keeping	.16	
9.	Asbe	stos Removal Control Plan	.17	
10.	Asbe	stos Permit to Work	.17	
11.	Tools	and Equipment	.17	
12.	Remo	oval of Asbestos Containing Materials	.18	
	12.1.	Removal Requirements	.18	
	12.2.	Control Measures	.18	
	12.3.	Air Monitoring Requirements for Asbestos Removal Work	.19	
	12.4.	Storage and Disposal of Asbestos	.20	
	12.5.	Project Supervision	.21	
13.	Maint	enance Procedures	.21	
14.	Perso	onal Protective Equipment (PPE)	.21	
15.	Occu	pational Exposure Standards	.23	
16.	New	Finds Protocol	.23	
17.	Traini	ng and Awareness	.25	

18.	Glossary	25
10	References	28
19.	Neierences	20

Appendices

Appendix A - Asbestos Materials Control Log

Appendix B - Legislative Requirements and Additional Information

Appendix C - Asbestos Permit to Work

Appendix D - Asbestos Removal Control Plan Checklist

1 Purpose of document

1.1. Document Retention

This Asbestos Management Plan (AMP) is to be held at the workplace and in the Premise's Property File. The asbestos register and AMP are to be available for use by the following:

- Authorised Work Cover Inspectors;
- Property owners;
- Employers and workers;
- People intending to conduct business at the premises; and
- Health and Safety Representatives.

Should a contractor or service person handle, replace or carry out works that may disturb an item in the Asbestos Material Register, or a suspected asbestos containing material not currently on the Asbestos Material Register, there must be compliance with all workplace regulations and procedures covering the handling of such materials.

If the person conducting a business or undertaking (PCBU) with management or control of a workplace relinquishes management or control of the workplace, the person must ensure that the Asbestos Materials Register Report is given to the person/s that will be assuming management or control of the workplace.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with Statutory Requirements, Codes of Practice, Guidelines, Material Safety Data Sheets, Work Instructions or reasonable work practices.

1.2. Re-inspection and Review Requirements

In accordance to NSW Work Health & Safety Regulation (2017), if there is ACM or suspected ACM identified at the time of the survey, then a site-specific AMP must be compiled to outline the management practices for the ACM at the site.

The Asbestos Materials Register must be maintained and updated if the following circumstances:

- If the AMP is under review;
- If further ACM is identified at the premises;
- If ACM is removed or encapsulated; and or
- If the condition of the ACM changes i.e. by being damaged physically or by weathering.

2. Introduction

Coffey Services Australia Pty Ltd (Coffey) was commissioned by Mirvac Real Estate Pty Ltd to conduct an asbestos and hazardous materials survey of 101-103 Miller Street, North Sydney NSW 2060 and prepare and assist in implementing asbestos management strategies to reduce potential asbestos exposure to as low as practicable.

Jake Iskenderian and Phoebe Quessy of Coffey carried out the initial survey for asbestos material occurrences and associated potential exposure risks on the 11th March 2020.

The assessment was conducted based on the condition of the materials at the time of inspection and the future anticipated activities at the site.

No inspection can be guaranteed to locate all asbestos materials in a specific location and therefore this assessment cannot be regarded as absolute. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

A copy of the asbestos register and risk assessment can be found in the report '**754-SYDEN228268** – **101-103 Miller Street Hazmat Report** issued on 19th May 2020.

This AMP incorporates the following information:

- Asbestos Register (inclusive of);
- Mechanisms for communication of the Asbestos Register;
- Information on the safe work procedures in relation to asbestos products at the premises;
- Consultation requirements for works involving asbestos;
- Management decisions relating to asbestos products at the premises;
- Arrangements for dealing with accidents, incidents or emergencies involving asbestos products;
- Timetable for managing risks including priorities and dates for reviewing risk assessments;
- Air monitoring arrangements at the premises;
- Responsibilities of site/management personnel; and
- Training requirements/arrangements for workers or contractors.

2.1. Background

Coffey understands that Mirvac Real Estate requested this survey to produce an asbestos and hazardous materials register for the site in accordance with NSW Work Health & Safety Regulation (2017) and the Code of Practice: *How to manage and control asbestos in the workplace* (2019).

2.2. Scope

The scope of work required Coffey to:

- Conduct a full asbestos materials survey of all reasonably accessible areas within the site, to locate Asbestos Containing Materials (ACM);
- Collect representative samples of suspect ACM (where accessible) and submit samples for laboratory analysis;
- Document the details of materials identified including photographs of any samples taken;
- Record, collate and report the findings;
- Deliver one electronic report to the client; and
- Prepare an asbestos management plan to manage risks posed by asbestos materials at the site.

2.3. Legislative Requirements

This AMP has been designed to ensure compliance with the following legislative requirements:

NSW Work Health & Safety Act 2011

- NSW Work Health & Safety Regulation (2017)
- Code of Practice: How to manage and control asbestos in the workplace (2019)
- Code of Practice: How to safely remove asbestos (2019)
- Guidance Note on the Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd edition (NOHSC:3003(2005)]

3. Statement of Limitations

Coffey has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Coffey. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client instructions, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected. However, there can be no guarantee that conditions at specific points not able to be inspected do not vary from the interpreted conditions based on the available observations/data.

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

4. Methodology

Asbestos material surveys are undertaken considering a risk management approach, in accordance with best practice, Relevant Statutory Regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with asbestos materials identified during the survey and prioritised through Risk and Action Classifications.

The assessment by Coffey involved an onsite investigation for the presence of Asbestos Containing Materials (ACM). Information was collected from the site owners/occupiers/tenants on relevant issues pertaining to the site. Based on the available data and the status of the site at the time of inspection, no asbestos containing materials were identified.

Samples collected were representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Coffey Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted.

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques.

Onsite investigations cannot guarantee to locate the presence of restricted locations such as inline heaters in air conditioning systems. Whilst every effort will be made by the Consultant to locate and sample restricted areas, further access and detailed investigation may be required with the assistance of contractors and/or electricians.

No assessment can be regarded as absolute. Future refurbishment or refit, repair or rebuild of buildings may reveal materials concealed during the assessment, which were not accessible at the time of the Survey.

The register is made up of relevant information gathered on site plus an assessment of risk and assignment of action ratings by Coffey. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

4.1. Asbestos Fibre Identification

Samples taken from suspected asbestos containing materials are representative of the material sampled, individually identified, transported, analysed and reported in accordance with the National Occupational Health and Safety Commission (NOHSC) Guidelines, relevant Statutory Regulations, Codes of Practice and Coffey Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted.

The presence of asbestos in a bulk sample is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques.

4.2. Asbestos Survey

Asbestos Surveys are non-destructive and as such are not intended for use or referral for the purpose of demolition of, refit, repair or rebuild and modification or structural alterations. In the event of future demolition, refit, repair or rebuild and modification or structural alterations further investigation, which may entail destructive testing, shall be required.

No inspection can be guaranteed to locate all asbestos within the building. The assessment cannot be regarded as absolute, without extensive invasive investigation. Future demolition or modification to structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

5. Responsibilities

The key personnel responsible for the implementation and maintenance of the AMP include:

- Person conducting a business or undertaking (PCBU) with management or control of a workplace; and
- Engineering/Facilities/Maintenance/Asset Managers (referred to in the table below as FM).

Others required to comply with directives of the AMP include:

- · Contractors and trades staff; and
- Staff, their Health and Safety Representatives and visitors.

Responsible Person/s	Action
PCBU with management or control of a workplace / FM	Commission reviews of asbestos registers and the Asbestos Management Plan, including updates in legislative requirements as necessary. Include all ACM in the review if changes to conditions occur.

Responsible Person/s	Action
PCBU with management or control of a workplace / FM	Ensuring the content within the AMP is reviewed and updated following any changes in the workplace or work practices.
PCBU with management or control of a workplace / FM	Populating the action program within the AMP and coordinating the actions required.
PCBU with management or control of a workplace / FM	 Commission the inspection and identification (including labelling and re-inspections) of asbestos materials and other hazardous building materials at required frequencies.
PCBU with management or control of a workplace / FM	 Ensure procedures are in place for the control of contractors or personnel who may come into contact with ACM during the course of their work.
PCBU with management or control of a workplace / FM	Ensure resources and support are made available to the site controllers/tenants to initiate and progress AMP issues.
PCBU with management or control of a workplace / FM	Liaising with site controllers/tenants and providing immediate response to emergency situations involving asbestos.
PCBU with management or control of a workplace / FM	Ensuring communication and training strategies are in place as necessary for contractors and relevant personnel.
PCBU with management or control of a workplace / FM	Liaise with other responsible personnel on relevant matters relating to asbestos materials management and ensure that all concerns about asbestos are dealt with in a timely and satisfactory manner.
PCBU with management or control of a workplace / FM	 Ensure that the necessary asbestos materials work methods, control measures and safety standards meet the required standard.
PCBU with management or control of a workplace / FM	Ensure that licensed contractors are engaged (as per National Regulations) for 'friable' asbestos work and competent contractors are engaged for the maintenance or removal of other asbestos products. Ensuring the contractor has obtained necessary approvals from the regulatory authorities prior to such work.
PCBU with management or control of a workplace / FM	Consulting with all relevant stakeholders regarding proposed and existing asbestos materials control measures or unplanned disturbance to those materials.
PCBU with management or control of a workplace / FM	Ensuring that employees/site controllers/tenants and other stakeholders at the Subject Site have been suitably informed and consulted with regarding asbestos materials, risks, safety precautions and adopted control measures.
PCBU with management or control of a workplace / FM	 Maintain the Register, air-monitoring records, identification analyses records, records of asbestos control and removal, and ensure the AMR are updated following any site inspections and/or remedial works.

Responsible Person/s	Action
PCBU with management or control of a workplace / FM	 Ensure a current copy of the Register and all required site documentation are maintained in a current and readily accessible condition for viewing by stakeholders.
PCBU with management or	Demolition and Refurbishment Work
control of a workplace / FM	 prior to demolition or refurbishment work starting, must review the asbestos register and ensure all asbestos that is likely to be disturbed is identified and removed so far as is reasonably practicable
	 must provide a copy of the asbestos register to the person carrying out the demolition or refurbishment work before the work commences
	 must, if an emergency occurs and a structure or plant is to be demolished, ensure that before the demolition occurs there is a procedure to reduce the risk of exposure to asbestos to below the exposure standard and notify the regulator about the emergency.
Site Manager	 Ensure on-site adherence to procedures in place for the control of contractors or personnel who may come into contact with ACM's during the course of their work.
Site Manager	Ensure that the Register is made available to contractors or workers requiring such information as part of their work.
Site Manager	Provide an immediate response to emergency situations or incidents involving asbestos.
Site Manager	Ensure that a risk assessment is conducted for any operation that is possible to disturb asbestos building materials.
Site Manager	 Arrange or undertake site inductions for staff and contractors, and provide advice, training and consultation (internally or externally) to personnel regarding asbestos materials issues, if required.
Site Manager	 Audit asbestos management procedures and assist with reviews of the AMP.
Site Manager	 Providing all necessary information and instruction to contractors attending and working on site in relation to asbestos materials hazards, control measures and required work procedures.
Site Manager	 Ensure all incidents involving the actual or potential exposure of persons to asbestos are immediately reported and investigated and that recommendations are closed out.
Contractor	Consult with the Subject Site Supervisor/tenant on entering the Subject Site.
	 Look after their own safety and health, and the safety and health of other employees and contractors.

Responsible Person/s	Action		
	 Ensure that they carry out their work in compliance with relevant legislation and the organisation's safe work methods and demonstrate an acceptable level of safety performance. 		
	 Ensure that the right person is employed for each job, taking into account the type of work to be performed, the licences, training, certificates and qualifications required. 		
	 Immediately report any incident, injury, or hazards and any incidents of non-compliance with the AMP that has or may have occurred. 		
	 Not to impact on any asbestos material without complying with the AMP. 		
	 To bring to the attention of the Site Supervisor any suspect material. 		
	 Refer to AMP for guidance to identify, manage, and remove asbestos and other hazardous building materials. 		
	 Submit Risk Assessments and Health, Safety and Environment Plans when performing asbestos materials removal work. 		
	Undergo Contractor Induction.		
	 Develop a site specific asbestos removal control plan prior to performing the removal work. 		
All Workers, their health and	Ensuring they are familiar with the AMP as necessary.		
safety representatives, tenants and visitors	Supporting facilitated activities relating to ACM management.		
teriants and visitors	Comply with the AMP.		
	Not to impact on any asbestos materials.		
	Report asbestos related hazards.		
	Protect themselves and others in the Subject Site.		

6. Controlling Asbestos Hazards

Control measures will be implemented based on the level of risk of exposure to newly identified asbestos containing materials. The control measures must be aimed at eliminating risk arising from ACM and prevent exposure to airborne asbestos fibres. After elimination, the methods adopted should follow the remaining levels within the hierarchy of controls. The following information should be used as a guide when determining the correct control method for effective ACM management.

- If the ACM is friable and not in a stable condition, and there is a risk to health, it must be stabilised (such as the recent application of a paint sealant to the exposed vinyl floor sheeting edges) or removed by a certified asbestos removalist as soon as practicable.
- If the ACM is friable but is in a stable condition and is accessible, consideration should be given to its removal. If removal is not immediately practicable, short term control measures, such as sealing and enclosure, may be used until removal is possible.
- If the ACM is not friable and is in a good stable condition, minimising disturbance and encapsulation may be appropriate controls.
- Any remaining ACM is to be clearly labelled, according to the How to Manage and Control Asbestos
 in the Workplace, where possible, and regularly inspected to ensure it is not deteriorating or
 otherwise contributing to an unacceptable health risk.
- ACM needs to be removed before demolition, partial demolition, renovation or refurbishment if it is likely to be disturbed by those works.

7. Risk Assessment

From the findings of the asbestos materials survey, an individual risk assessment is conducted on each ACM. The following figure outlines the general likelihood of fibre release potential.

Higher likelihood of airborne fibres

Asbestos-contaminated dust (including dust left in place

after past asbestos removal)

Sprayed (limpet) coatings/loose fill

Lagging and packings (that are not enclosed)

Asbestos insulating board

Rope and gaskets

Millboard and paper

Asbestos cement

Floor tiles, mastic and roof felt

Decorative paints and plasters

Lower likelihood of airborne fibres

7.1. Asbestos Materials Risk Assessment

The presence of ACM can represent a real or potential health risk to humans. Where, due to material condition and location, a pathway to human exposure does not exist, and then the risks to human health are significantly reduced.

Asbestos containing materials (ACM)

This section details the categorising of each instance of ACM with regards to friability, condition, accessibility, risk where applicable. Note that the samples which were found not to contain ACM were not categorised for friability, condition, accessibility or risk. Coffey included in the ACM register, the estimated quantities of the material from which the sample originated, for identification purposes.

In order to determine the level of risk associated with the identified ACMs the following aspects need to be assessed:

- Friability;
- Condition assessment; and
- Accessibility.

The following sections identify the descriptors used in the abovementioned categories observed on site.

ACM friability

Each instance of confirmed ACM was categorised by Coffey in accordance with the categories outlined in the table below:

ACM friability assessment

Rating	Descriptor	Decision Rule
N/A	Not-Applicable	Non-asbestos containing material.
N - No	Non- Friable	Asbestos-containing material which, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure alone.
Y - Yes	Friable	Asbestos-containing material which, when dry, is or may become crumbled, pulverized or reduced to powder by hand pressure.

ACM condition assessment

The condition of each instance of confirmed or presumed ACM was classified as one of the three categories outlined in the two tables below:

ACM Condition assessment

Rating	Ranking / Descriptor	Non-Friable ACM	Friable ACM
VG	Very Good	Sealed/Encapsulated, no damage	Sealed/Encapsulated, no damage
G	Good	Unsealed, no damage	Sealed/Encapsulated
F	Fair	Unsealed, cracked and weathered	Cracked and damaged

Р	Poor	Damaged or Debris	Damaged and or debris

Detailed condition assessment descriptors (ACM)

Descriptor	Guideline
Good	Material is intact and shows no signs of deterioration; No water staining or evidence of material being impacted by water; and/or Any stable (sealed), non-friable asbestos material with no exposed edges.
	The material must also be well sealed along the surface and edges (i.e. well painted and ceiling/wall sheets must be butt jointed into moulded plastic and the corners or edges must be similarly covered with moulding such a timber quadrant or timber strap).
Fair	 Material is breaking up, delaminating or coming loose from the substrate; and/or Slight water staining or buckling is evident; and/or Unsealed and not damaged asbestos cement material used internally. This is recorded only if the damage/deterioration is less than ten per cent (10%) of the total area of the material.
Poor	 Material is non- cohesive. Parts of an installation may be dislodged, or large amounts of dust or pieces of material debris are located on ground near/below the installation; and/or Water has dislodged some of the material or has caused it to break away from the substrate, or the material is saturated with the potential to fall. Signs of accumulated dust or small pieces of material debris on ground near or below the installation and accidental or deliberate damage. Also applies to debris and friable asbestos material with ANY degree of compromised encapsulation and/or enclosure.

Accessibility (ACM)

The accessibility to each instance of confirmed ACM was classified one of the three categories outlined in the table below:

Accessibility (ACM)

Descriptor	Guideline
Low	Where activities within the area where ACM are located are unlikely to impact the material; or Areas where the probability of being occupied by building users for extended periods on a regular basis are rare. (e.g. The material is located externally or above a suspended ceiling, in the roof space, or concealed in service ducts or piping)
Medium	Where activities within the area where ACMs are located may occasionally impact the material, or Areas where the probability of being occupied by building users for short periods on a regular basis is high.

	e.g. Plant rooms and workshops containing operational plant or equipment and are occasionally visited. Corridors, lunchrooms, toilets and internal elevated surfaces where a ladder is required for access.
High	Where activities within the area where ACM are located are readily impact the material, or Areas where the probability of being occupied by building users for extended periods on a regular basis is high. E.g. Offices and workshops which are always occupied. As part of job occupants may come into contact with damaged or deteriorated ACM.

ACM level of risk

A risk assessment for each individual ACM to allow informed decisions about control measures during the ongoing occupancy of the assets was undertaken. The risk assessment then identifies the risk treatment options on how to manage *in situ* ACM, determined during the site inspection and is presented in the table below:

ACM risk matrix

Condition	High Accessibility	Medium Accessibility	Low Accessibility
Very Good	Medium	Low	Very Low
Good	Medium	Medium	Low
Fair	High	Medium	Medium
Poor	High	High	Medium

^{*}Note that the above decision rules are a guide only and some instances of ACM may have additional risk assessment outcomes, as appropriate.

Description of risk levels (ACM)

Risk Level	Guideline
Very Low	Material stable. Reassess condition prior any planned works likely to have an impact on these materials.
Low	Material stable. Reassess condition within 12 months.
Medium	Material may remain <i>in situ</i> under effective interim administrative controls. Material condition to be improved or likelihood of disturbance to be reduced within 12 months.
High	Area where the material is present; is not suitable for occupancy, remediation is required as soon practicable. Imminent risk of harm. This category also applies to demolition and/or refurbishment works that will be impacting on asbestos-containing materials.

The following terminology is used within the register to describe the materials identified

Material Descriptors

CH Chrysotile (white) Asbestos

CR Crocidolite (blue) Asbestos

AM Amosite (brown) Asbestos

NAD No Asbestos Detected

ACM Asbestos Containing Material or product

SMF Synthetic Mineral Fibre

PCB Polychlorinated Biphenyls

Pb Lead

NLD No Lead Detected

HFC Hydrofluorocarbons

HCFC Hydrochlorofluorocarbons

CFC Chlorofluorocarbons

Acronyms

NOHSC National Occupational Health and Safety Commission

NATA National Association of Testing Authorities, Australia

A/C Air Conditioning

F/C Fibre Cement

PLM Polarised Light Microscopy

SEM Scanning Electron Microscopy

EDAX Energy Dispersive X-ray Analysis

AAS Atomic Absorption Spectroscopy

Units of Measurement

m	Metre	L	litre
m^2	square metres	mg/L	milligrams per litre
m^3	cubic metres	mg/kg	milligrams per kilogram
km	kilometre	fibre/mL	fibres per millilitre
mg	milligram	mL	millilitre
kg	kilogram	%	percentage
μF	micro Farads		

7.2. Suspect Materials

Should materials of unknown composition, or materials suspected of containing asbestos be encountered on site and are not documented in the existing asbestos register, such materials should be treated as if they are ACM until sampled and NATA accredited laboratory analysis confirms otherwise. In the event that additional ACM are identified, a risk assessment shall then be conducted by an appropriately qualified and competent person. For example, in the event that demolition or refurbishment works are to be carried out in areas previously not inspected for the presence of ACM such as inaccessible wall cavities or beneath floors, an inspection and risk assessment should be performed by a competent person prior to the commencement of the planned demolition/ refurbishment works.

The risk assessment of the ACM is to be reviewed when:

- The AMP is reviewed;
- Further asbestos or ACM is identified at the Workplace;
- There is evidence that control methods are not effective:
- A significant change is proposed for the workplace or for work practices or procedures relevant to the risk assessment such as major refurbishment or demolition;
- There is a change in the condition of the ACM;
- The asbestos material has been removed from or disturbed, enclosed or sealed.

The frequency of the inspections will also take into consideration whether the ACM:

- Has a high propensity to release airborne asbestos fibres;
- Is in poor condition;
- Is likely to be damaged or further deteriorate;
- Likely to be disturbed due to work practices in the Workplace;
- Is in an area where workers are exposed to the material.

In any case a risk assessment review for asbestos is to be conducted if a material is suspected of containing asbestos and has not been previously sampled in the Coffey 2020 investigation.

7.3. Asbestos Identification

Products suspected of containing asbestos and requiring identification are to be referred to the Building Manager who will arrange for sample analysis to be undertaken.

WHEN IN DOUBT TREAT THE PRODUCT AS ASBESTOS CONTAINING MATERIAL UNTIL IDENTIFIED AS OTHERWISE.

The results of all samples analysed for asbestos identification will be recorded on the Asbestos Materials Register.

7.4. Asbestos Monitoring

Monitoring is to occur before, during and after planned asbestos removal work in accordance with the asbestos removal control plan.

7.5. Asbestos Material Labelling and Signage

A labelling system (stickers) is established and must be maintained on site to enable the visual and legible identification of ALL asbestos materials recorded on the Asbestos Materials Register. The labels are fixed to the area and are to be maintained in-situ at all times.

The labels used must comply with AS 1319 Safety Signs for the Occupational Environment, and a competent person is to determine their required location. The labels are to be affixed in a secure manner and checked annually to ensure they are not damaged, missing, obscured or faded.

If a risk assessment suggests an ACM might be disturbed or persons might be exposed, and it is not practical to label the ACM (e.g. ceiling panels, furnaces or a friable ACM such as lagging) a prominent warning sign, specifying the ACM, is to be posted in the immediate vicinity. If floor tiles have been identified as containing asbestos, an appropriate warning sign, displayed on an adjacent wall might read, "WARNING FLOOR TILES CONTAIN ASBESTOS. DO NOT DISTURB WITHOUT PROPER TRAINING AND EQUIPMENT." Warning signs should be placed at the main entrance to the work areas where asbestos is present. This will ensure that asbestos is not unknowingly disturbed without the correct precautions being taken.



8. Record Keeping

A complete record of all activities and work permits relating to asbestos works, which have been undertaken at the site is to be maintained. The records that are to be kept include:

- Copies of all asbestos survey reports, including updates and amendments
- · Copies of all permit to work documents
- Site induction records pertaining to the information disseminated to contractors
- Prior to conducting work onsite
- Induction records pertaining to the information disseminated to employees regarding the presence of asbestos onsite
- Asbestos Removal Control Plans for asbestos removal works
- · Records of any removal or other asbestos related works onsite
- Clearance certificates indicating areas are safe to reoccupy after asbestos removal works
- Asbestos fibre air monitoring results
- · All versions of the asbestos register
- Records dealing with Regulated and Trackable Waste and landfill disposal documentation.

Re-inspections of all ACM remaining on site are to be conducted by a suitably qualified person only. The re-inspection process will involve a visual assessment of the materials to determine if there has been any deterioration since the last inspection and, if so, what course of action should be taken i.e. temporary encapsulation, isolation or immediate removal.

Once the re-inspection has been completed, the Asbestos Containing Materials Register is to be updated accordingly.

9. Asbestos Removal Control Plan

As outlined in the Code of Practice: *How to safely remove asbestos* (2019) an Asbestos Removal Control Plan is required to be prepared prior to undertaking asbestos removal work. When preparing the asbestos removal control plan, the licensed asbestos removalist should consult with the person who commissioned the work, the person with management or control of the workplace (if not the same person), workers and their health and safety representatives.

Once the asbestos removal control plan is prepared, a copy must be:

- given to the person who commissioned the licensed asbestos removal work
- readily accessible on-site for the duration of the licensed asbestos removal work to: a person conducting a business or undertaking at the workplace
- workers and their health and safety representatives

The asbestos removal control plan must also be made available for inspection under the WHS Act.

Refer to Appendix D for Asbestos Removal Control Plan Checklist.

10. Asbestos Permit to Work

If it is determined, after consultation with the asbestos register, that ACM is present in the vicinity of the planned works, an Asbestos Permit to Work (PTW) will be required.

The Asbestos PTW is designed to ensure appropriate work practices are employed in the vicinity of ACM. The Asbestos PTW will document what ACM is to be removed, encapsulated or otherwise protected prior to the contracted maintenance or building works proceeding. The Asbestos PTW will also indicate other requirements such as the need for personal protective equipment (PPE), barricading and airborne fibre monitoring.

An Asbestos PTW will only be issued to competent, licensed (class A or B) asbestos removalists. When the work is completed, the permit will be signed and returned to the permit officer who will cancel it after ensuring that a clearance certificate is provided. The Building Manager will retain copies of all Asbestos PTW removal plans, JSEAs and work method statements with the site asbestos register.

Refer to Appendix C for the Asbestos Permit to Work Form.

11. Tools and Equipment

Tools and equipment to be used for asbestos removal work are required to generate a minimum amount of airborne fibres during use. High-speed abrasive power or pneumatic tools such as angle grinders, sanders, saws, and high-speed drills MUST NEVER be used. Hand tools only are permitted.

At the end of the removal work all tools are to be either:

- · Decontaminated (i.e. fully dismantled and cleaned under controlled conditions)
- Placed in a sealed container and used only for asbestos removal work
- Disposed of as asbestos waste

Prohibited Practices

Work practices that are prohibited include:

- Work practices in the vicinity of asbestos materials that may disturb or, damage the material, cladding, enclosure, sealant or containment barrier;
- Workers using a high-pressure water process to clean an asbestos product or to clean up debris from an asbestos product;
- Workers using compressed air to clean an asbestos product or a surface where debris from an asbestos product is present.

12. Removal of Asbestos Containing Materials

12.1. Removal Requirements

A detailed site specific Asbestos Removal Control Plan is to be developed by the asbestos removalist prior to commencing the ACM removal work and a copy must be given to the person who commissioned the work and be readily accessible on-site to PCBU, workers, their health and safety representatives and any occupants. Any ACM removal work shall be performed by a reputable, licensed asbestos materials removalist, in accordance with the Code of Practice: *How to safely remove asbestos* (2019). Where applicable the regulator will be notified in writing five days prior to the commencement of the works.

12.2. Control Measures

The selection of the most appropriate control measure is determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be therefore applied:

If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed removalist:

If the ACM are friable but are in a stable condition (e.g. rope seals) and are accessible, serious consideration should be given to their removal. If removal is not immediately practicable, short-term control measures, such as sealing, enclosure or similar and labelling may be able to be used until removal is possible;

If the ACM are not friable and are in a good, stable condition (e.g. cement panel) minimising disturbance, ongoing maintenance and periodic inspection would be appropriate controls. All damaged edges should be appropriately sealed, and the installation labelled;

All known or suspected ACM remaining on site should be appropriately labelled, where possible, and regularly inspected to ensure they are not deteriorating resulting in a potential risk to health;

Prior to any demolition, partial demolition, renovation or refurbishment, asbestos containing materials likely to be disturbed by those works should be removed in accordance with the Code of Practice: *How to safely remove asbestos* (2019).

If any unknown ACM's are discovered during any works on the property or there is a change in the condition of the known ACM situations all work should be stopped immediately, and the building/project manager notified. A Licensed Asbestos Assessor or Competent Person should be engaged to assess the potential risk from the materials, undertake asbestos air monitoring to determine the potential for further contamination from the materials and advise of the appropriate control measures.

It is the responsibility of the contractor undertaking any works on ACM to ensure:

- Workers who may be exposed to ACM are sufficiently protected to avoid personal injury or harm and to prevent asbestos fibre becoming airborne which may potentially contaminate other areas or affect others;
- Ensure there is project supervision by responsible persons to ensure employee exposure assessments, air monitoring, hygiene facilities, work barriers etc. are in place;
- Undertake project specific risk assessment of potential employee exposure to asbestos fibres and work methods to reduce the potential exposure to asbestos;
- Provide appropriate PPE and RPE such as P2 respirator (minimum), disposable coveralls, gloves and booties;
- Obtain appropriate license to undertake the removal/ remedial works;
- Maintain documentation including building permits, safety plans, work processes and environmental controls;
- Utilise appropriately trained employees;
- Undertake all work activities to protect the health of employees, tenants and members of the general public;
- Inform the PCBU, workers, the person who commissioned the work, and any occupants in the vicinity of the workplace of any potential hazards associated with the work activities;
- Written evidence of employee training and information;
- Provision of adequate ventilation (where applicable); and
- Transport and handle all ACM as contaminated waste and dispose at a licensed contaminated waste disposal facility.

12.3. Air Monitoring Requirements for Asbestos Removal Work

Asbestos air monitoring is *mandatory for all friable removals* and must be undertaken by a NATA accredited company for air borne asbestos monitoring. The individual conducting the air monitoring should be an independent licensed asbestos assessor. Air monitoring is also to be considered when more than 10m² of bonded ACM is removed to ensure control methods are adequate and also where the removal is being undertaken in or next to a public location.

The following table (extracted from the Code of Practice: *How to safely remove asbestos*) outlines the action limits for air monitoring results.

Table 1. Action Levels for Asbestos Air Monitoring Results.

Action Level Control		Action	
Less than 0.01 fibres/ml	No new control measures are necessary	Continue with control measures	
	1. Review	Review control measures	
At 0.01 fibres/ml or more than 0.01 fibres/ml but less than or equal to 0.02 fibres/ml	2. Investigate	Investigate the cause	
oqual to 0.02 maios/iiii	3. Implement	Implement controls to eliminate or minimize exposure and prevent further release	
	Stop removal work	Stop removal work	
More than 0.02` fibres/ml	2. Notify regulator	Notify the relevant regulator by phone followed by fax or written statement that work has ceased and the results of the air monitoring	
	3. Investigate the cause	Conduct a thorough visual inspection of the enclosure (if used) and associated equipment in consultation with all workers involved with the removal work.	

12.4. Storage and Disposal of Asbestos

All asbestos waste shall be double bagged, using 200 μ m (0.2 mm) thick polyethylene bags. Asbestos waste shall be bagged once at the workface and a second time away from the workface but prior to leaving the removal area enclosure. It is recommended that a maximum bag size of 1200 mm (length) x 900 mm (width) be used. Bags should be filled to no more than 50 per cent capacity, and contents should be wet before sealing. Consistent with good manual handling practice, bags should not exceed 16 kg in weight. The bags must be decontaminated before they are placed in waste bins. Each bag shall be labelled in accordance with Globally Harmonised System of Classification and Labelling of Chemicals (GHS) requirements on its outermost surface, with the following warning statement:

DANGER

ASBESTOS WASTE

DO NOT INHALE DUST

MAY CAUSE LUNG CANCER

Alternatively, other approved containers may be used. If waste bags are not suitable then the ACM is to be sealed in double lined heavy duty plastic sheeting before they are placed into the skip or for non-friable ACM they may be placed directly into the waste bin that has been double lined with heavy duty plastic sheeting (200 µm minimum thickness) but it must be kept damp to minimise the release of

airborne asbestos fibres. To comply with GHS requirements the top and side of each bin or container should be labelled with the words 'Danger: Asbestos do not break seal'.

12.5. Project Supervision

Prior to the removal of any high-risk ACM a Licensed Asbestos Assessor or Competent Person, with experience in asbestos materials removal works, shall be engaged, at the cost of the project, to work independently of the asbestos removal contractor. The assessor will be responsible for ensuring the asbestos materials removal contractor achieves a satisfactory level of workmanship and complies fully with statutory requirements and the requirements of the technical specification.

Commensurate with the above requirements, the specific duties of the supervising assessor may include:

- Inspection of the integrity of the containment prior to commencement of asbestos removal works;
- Inspection of the asbestos materials removalist's equipment, including but not limited to decontamination and negative air units, water filtration systems, vacuum equipment, personal protective equipment (PPE);
- Assessment of the asbestos removalist's work methods, use and maintenance of PPE/RPE and decontamination procedures;
- Clearance visual inspection of the work area after the removal of ACM to ensure the ACM has been removed to a satisfactory standard; and
- Organising air monitoring and developing the air monitoring requirements for the particular ACM removal.

The Project Manager is to notify the Site Manager, Workers, Health and Safety Representatives, Contractors, Building Occupants and others providing details of the date, time and location of the removal works before they start as well as ensuring the Asbestos Removal Control Plan is adequate for the works to be undertaken.

13. Maintenance Procedures

Maintenance tasks that may involve ACM are to be addressed under controlled conditions, to prevent and minimise the risk of exposure of the maintenance personnel or any other person to airborne asbestos fibres. Appendix F of the Code of Practice: *How to manage and control asbestos in the workplace* (2019) details procedures to be adopted for certain maintenance tasks. These are:

- Safe work practice 1 Drilling for asbestos containing material
- Safe work practice 2 Sealing, painting, coating and cleaning of asbestos-cement products
- Safe work practice 3 Cleaning leaf litter from gutters of asbestos cement roofs
- Safe work practice 4 Replace cabling in asbestos cement conduits or boxes
- Safe work practice 5 Working on electrical mounting boards (switchboards) containing asbestos
- Safe work practice 6 Inspection of asbestos friction materials.

14. Personal Protective Equipment (PPE)

The personal protective equipment requirements for work involving ACM at the Subject Site are to be based on the risk assessment.

The Code of Practice: *How to safely remove asbestos* (2019) should be consulted to determine the PPE needs as well as AS/NZS 1715-1994 Selection, Use and Maintenance of Respiratory Protective Devices and AS/NZS 1716-2003 Respiratory Protective Devices.

The following table outlines the respiratory protective equipment required for any process that has the potential to disturb asbestos:

Work Procedure	Required respirator	Filter type
Simple enclosure erection for containing undamaged asbestos materials to prevent damage – no direct handling but possible disturbance of asbestos	Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator	P1 or P2
Inspection of the condition of any installed friable asbestos, which appears in poor condition or has been disturbed	Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator	P1 or P2
Sampling material for the purpose of identifying asbestos	Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator	P1 or P2
Removal of non-friable asbestos (e.g. asbestos cement sheets, ceiling tiles and vinyl tiles)	Disposable, half-face particulate respirators OR Half-face, particulate filter (cartridge) respirator	P1 or P2
Extensive sample operations on friable asbestos	Full-face, particulate, filter (cartridge) respirator	P3
Maintenance work involving the removal of small quantities of friable asbestos (e.g. replacement of friable asbestos gaskets and insulation)	Full-face, particulate, filter (cartridge) respirator	P3
Certain forms of wet stripping in which wetting is prolonged and effective, and certain small-scale dry stripping operations	Full-face, powered air-purifying particulate respirator OR Full-face, positive pressure demand air-line respirator	P3
Certain forms of dry stripping and ineffective wet stripping (light wetting, no time given to saturate)	Full-face, powered air-purifying particulate respirator OR Full-face, positive pressure demand air-line respirator No lesser respirator will suffice	P3

Other PPE required includes, but is not limited to:

- Disposable coveralls
- Boot protectors

Disposable PPE and RPE filters used during the asbestos removal works should be treated as asbestos waste and disposed of in approved asbestos waste bags after completion of the works.

15. Occupational Exposure Standards

Asbestos Air Monitoring

It is the aim to keep personal exposure to ACM as low as reasonably achievable. Where occupational exposure to asbestos materials is likely to occur, exposure is not to exceed half the occupational exposure standards for each hazardous building materials type or category as published by the National Occupational Health and Safety Commission (Safe Work Australia).

Occupational exposure for asbestos is measured using the Membrane Filter Method, by collecting a sample of air from the breathing zone of a person, over a minimum of four hours duration.

The current National Exposure Standards TWA for asbestos are:

- Chrysotile (white) asbestos 0.1 fibres/ml
- Amosite (brown) asbestos 0.1 fibres/ml
- Crocidolite (blue) asbestos 0.1 fibres/ml
- Other forms of asbestos or a mixture of asbestos types 0.1 fibres/ml

16. New Finds Protocol

The new finds protocol is to be implemented in a scenario where a newly suspected asbestos containing material is identified onsite, including if hazardous materials present on site have been inadvertently disturbed through actions by employees, site users, maintenance personnel, contractors, visitors, or damaged by severe weather conditions (e.g. hail or fire damage to a corrugated asbestos cement roof). Where such damage has occurred the Health and Safety Representative shall be notified immediately.

In the case of the above, protocol should be implemented in accordance with the flow chart diagram in Figure 1.

Potential ACM identified. Contact Site Supervisor/FM ASAP. Site Supervisor/FM conduct a visual assessment of suspected emergency ACM situation. Is ACM or suspected ACM present? Resume normal work Yes Resume normal work activities on the provision the ACM will remain Is ACM or suspected ACM undisturbed and in sound condition. No damaged, deteriorated? Otherwise manage the ACM hazard in accordance with company requirements and AMP. Yes Are unprotected personnel present in the vicinity of the material and at Yes risk of exposure to asbestos? Evacuate all unprotected personnel from the immediate area and restrict access by use of barricades/barriers and signage. No Engage Competent Person to Has the damaged suspected ACM been positively identified as visually inspect, collect sample if required and provide definitive result No containing asbestos? ASAP. Yes Resume normal work activities on the provision No Does the sample or material contain personnel will not be Yes Is clean-up remediation required? at risk of exposure asbestos? ACM. Yes No Engage a licensed removal contractor ASAP to affect cleanup and disposal of ACM. Engage a Competent Person to perform air monitoring, inspections and Resume normal work activities. provide clearance certification if required. Update Register and AMP. Install barriers to prevent further contamination. Investigate the cause of the emergency situation and implement changes to work practices if necessary. Resume normal work activities

Figure 1: ACM Emergency Response Flow Chart

17. Training and Awareness

A PCBU must ensure that information, training and instruction provided to a worker is suitable and adequate, having regard to:

- The nature of the work carried out by the worker;
- The nature of the risks associated with the work; and
- The control measures implemented.

Employees, contractors and others who manage or may come into contact with ACM at the Subject Site either directly or indirectly should be provided with asbestos awareness training. Such training may include the following topics:

- Purpose of the training;
- The health risks associated with Asbestos;
- Information on the presence of ACM, including the types of asbestos, uses and typical locations/likely occurrences where ACM may be encountered;
- The PCBU and the worker's roles and responsibilities under the Asbestos Management Plan;
- Where the Register is located, how to access it and understand the information contained within it:
- The timetable of asbestos materials removal;
- Process and safe work procedures to be followed to prevent exposure including accidental release;
- The correct use of PPE & RPE, implementation of controls measures and safe work methods to minimise the risks from ACM, limit the exposure to workers and limit the spread of asbestos fibres outside any asbestos work area;
- The relevant National Exposure Standards and control levels for asbestos; and
- The purpose of any exposure monitoring or health surveillance that may occur.

Records of Training must be kept whilst the worker is carrying out the work and for five years after the worker cease the work and be made available for inspection by the regulator.

18. Glossary

Definitions

Accredited Laboratory – means a testing laboratory accredited by NATA (National Association of Testing Authorities, Australia).

Air Monitoring – means atmospheric sampling for airborne contaminants including asbestos and SMF fibres or lead dust to assist in assessing human exposure and the effectiveness of control measures. This includes exposure monitoring, clearance monitoring (asbestos) and control monitoring.

Appropriately Qualified Person - means the person possesses the qualifications and experience necessary to find hazardous materials in a building.

Approved Respirator - A respirator which complies with AS/NZS 1716 - Respiratory Protective Devices.

Approved Vacuum Cleaner - Vacuum cleaning equipment that passes all extracted air through a High Efficiency Particulates Air (HEPA) filter before the air is discharged into the atmosphere and conforms to the relevant requirements of the AS 3544 - Industrial Vacuum Cleaners for Particulates.

Asbestos – fibrous form of those mineral silicates that belong to the serpentine or amphibole groups of rock-forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos) and tremolite.

Asbestos Containing Material (ACM) – means any material, object, product or debris containing asbestos.

Asbestos Removalist – means a person whose business or undertaking includes asbestos removal work or a self-employed person whose work includes asbestos removal work.

Asbestos Removal Control Plan – A site specific document to be prepared by the removal contractor based on the information in the Code of Practice: *How to safely remove asbestos*.

Asbestos Work - means work undertaken in connection with a construction work process in which exposure to asbestos may occur and includes any work process involving the use, application, removal, mixing or other handling of asbestos or asbestos containing material.

Asbestos Removal Work – means work undertaken to remove friable or bonded asbestos containing material.

Asbestos Work Area – means the immediate area in which work on ACM is taking place. The boundaries off the work area must be determined by a risk assessment.

Bonded asbestos material - means any material (other than friable asbestos material) that contains asbestos.

Bonded asbestos removal work - means work in which bonded asbestos material is removed, repaired or disturbed.

Clearance Inspection – means a mandatory visual inspection carried out by a competent person to verify that an asbestos work area has been rendered free of visible asbestos contamination and is safe to be returned to normal use after work involving the disturbance of ACM has taken place. A clearance inspection must include a visual inspection and may also include clearance air monitoring and/or settled dust sampling.

Clearance Monitoring – means air monitoring using static or positional samples to measure the level of airborne asbestos fibres in an area following work on ACM. An area is cleared when the level of airborne asbestos fibres is measured as being below 0.01 fibres/ml.

Construction Work - include all work performed in or in connection with the installation, erection, repair, cleaning, painting, renewal, renovation, dismantling, maintenance, ornamentation or demolition of buildings, ships, structures, pipes, plant, machinery, parts, artefacts, appliances, or tools or parts thereof.

Control Actions - In the process of implementing hazardous building materials management, it is fundamental that any identified situations have control actions determined to prevent personnel from being placed at risk.

Control Monitoring – means air monitoring using static or positional to measure the level of airborne asbestos fibres in an area during work on ACM or airborne lead dust in an area of lead paint removal. Control monitoring is designed to assist in assessing the effectiveness of control measures. Its results are not representative of actual occupational exposures and should not be used for that purpose.

Exposure Standard (TWA) - represent the National Occupational Health and Safety Commission (NOHSC) maximum exposure level by inhalation of airborne concentration of atmospheric lead over an eight-hour day, for a five-day working week, over an entire working life and expressed as 8-hour TWA (Time weighed average). The TWA do not represent 'no-effect' levels which guarantee protection to every worker.

Friable Asbestos Containing Material – means asbestos containing material that, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.

Hazard – means any matter, thing, process, or practice that may cause death, injury, illness or disease.

HEPA - High Efficiency Particulate Air. A filtering system capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micron in diameter or larger.

Membrane Filter Method - is the technique outlined in the NOHSC <u>Guidance Note on the Membrane</u> Filter Method for Estimating Method Airborne Asbestos Fibres 2nd Edition [NOHSC:3003 (2005)].

National Association of Testing Authorities, Australia (NATA) – the organization that approves the method of sampling for airborne asbestos fibres, bulk sample analysis of asbestos containing materials and hazardous materials inspections.

NOHSC - National Occupational Health and Safety Commission.

PPE/RPE - Personal / Respiratory Protective Equipment.

PM – Project Manager of the asbestos removal job. If a Principal Contractor has been appointed the Project Manager of the Principal Contractor, if no PM appointed then the owner is the Project Manager.

Person in charge of area - The person in charge of the building or area affected by the asbestos removal.

Restricted Area - A location requiring an Access/Work Permit because unprotected activity to undertake the intended purpose may expose a person to hazardous respirable (airborne) asbestos fibre. For example: Drilling a switch board containing asbestos; entry to a ceiling space containing asbestos or lead dust; entry to a riser shaft containing asbestos; access onto a fragile asbestos cement roof; a cupboard containing asbestos pipe lagging.

Risk – means the likelihood of a hazard causing harm to a person.

Safe Work Australia - An independent statutory agency responsible to improve occupational health and safety and workers' compensation arrangements across Australia.

19. References

NSW Work Health & Safety Regulation (2017)

Australian Standard AS2601, The Demolition of Structures, Section 1.6.

Australian Standard AS1319, Safety signs for the occupational environment

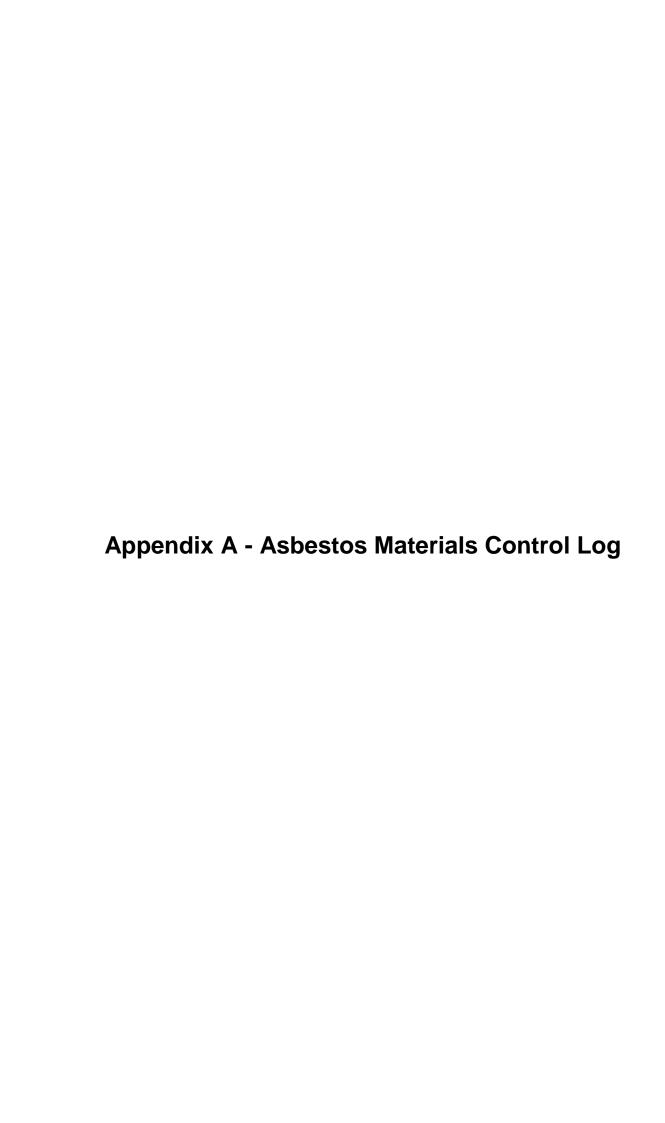
National Institute for Occupational Safety and Health [NIOSH (U.S.A.)], *Manual of Analytical Methods, Elements by ICP, Method 7300*, 4th Edition, Issue 2 - 1994

National Occupational Health and Safety Commission (NOHSC), *Approved Criteria for Classifying Hazardous Substances*, 1008 – 2002

Code of Practice: How to manage and control asbestos in the workplace (2019)

Code of Practice: How to safely remove asbestos (2019)

National Occupational Health and Safety Commission (NOHSC), Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition, 3003 - 2005



This page has been left intentionally blank

ASBESTOS MATERIALS MAINTENANCE LOG

The following log should be maintained by the responsible person. It should contain information relating to the on-going maintenance or control measures associated with Asbestos Materials including; removal, remedial works, repairs, inspection, monitoring and clearance details etc.

Date	Scope/Location	Carried out by	Result/Comments	Entered by

Appendix B - Legislative Requirements and Additional Information

This page has been left intentionally blank

LEGISLATIVE REQUIREMENTS — ASBESTOS

This document has been produced for information only and is under regular review due to frequent changes in legislation and guidance. It contains information relating to the column headings only and not, for instance, in relation to asbestos removal. It is the duty of employers, premise owners and controllers of premises etc to ensure they are familiar with the latest applicable state legislation and guidance.

Introduction:

New (Harmonised) work health and safety laws commenced in the Commonwealth, New South Wales, Queensland, the Australian Capital Territory and the Northern Territory on 1 January 209 and in Tasmania and South Australia on 1 January 2013.

For links to these legislations and the most current information on the progress of legislative change for the other states, please access Safe Work Australia at: http://www.safeworkaustralia.gov.au/Legislation/Pages/ModelWHSLegislation.aspx

Transitional Arrangements

Safe Work Australia has developed transitional principles that set out how arrangements under existing work health and safety legislation are intended to transition to the new harmonised system. There are transitional principles statements for both the WHS Act and Regulations. These are available from the Safe Work Australia site:

http://www.safeworkaustralia.gov.au/Legislation/transitional-arrangements/Pages/transitional-arrangements.aspx

Further, each state and territory work health and safety authority has also developed resources to assist their jurisdiction with the transition. If you have any questions regarding transitional arrangements in your jurisdiction please <u>contact your regulator</u>.

Further Useful Resources

Safe Work Australia publishes a range of guidance material to provide information on the model work health and safety laws and to assist compliance. This information can be accessed from:

http://www.safeworkaustralia.gov.au/Legislation/guidance-material/Pages/guidance-material.aspx

For More Information Contact:

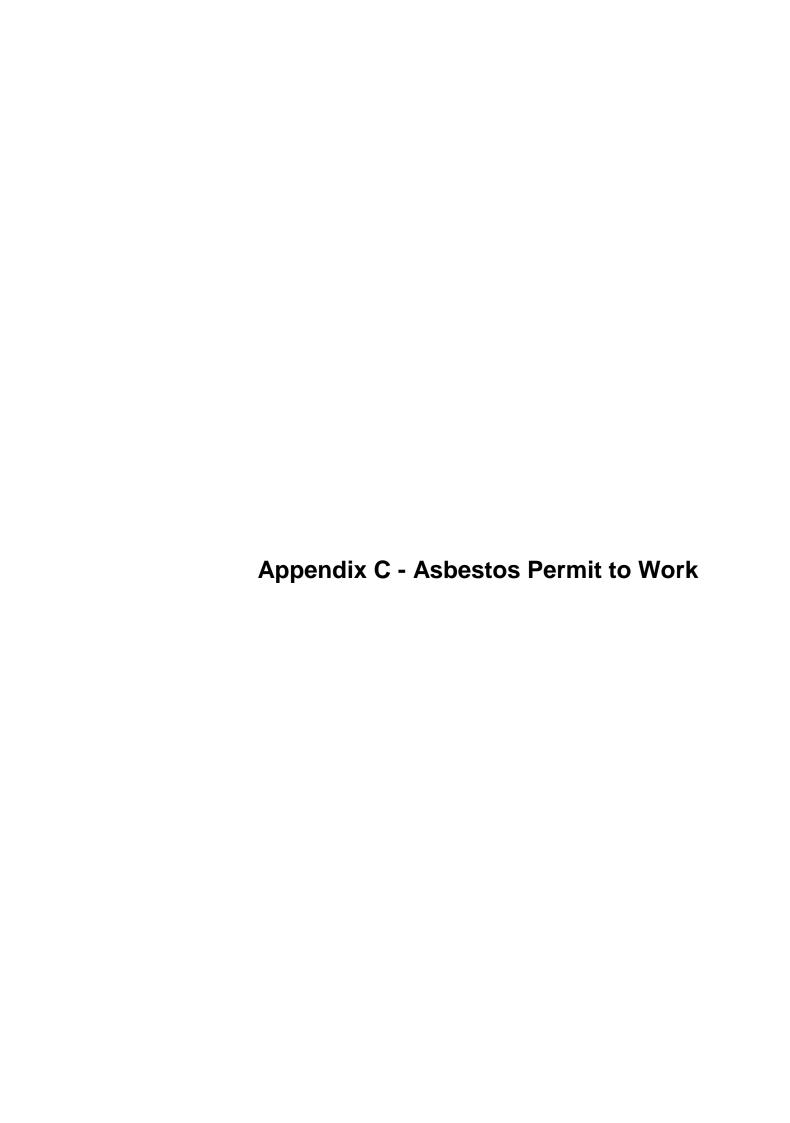
Coffey Services Australia – Work Health and Safety Section:

Phone: 02 9406 1000 Email: WHS_Support@Coffey.com Web: www.coffey.com

LEGISLATIVE REQUIREMENTS — ASBESTOS

This document has been produced for information only and is under regular review due to frequent changes in legislation and guidance. It contains information relating to the column headings only and not, for instance, in relation to asbestos removal. It is the duty of employers, premise owners and controllers of premises etc to ensure they are familiar with the latest applicable state legislation and guidance.

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
New South Wales NSW Work Health & Safety Act 2011 NSW Work Health & Safety Regulation (2017) Supported by: Code of Practice: How to manage and control asbestos in the workplace (2019) Code of Practice: How to safely remove asbestos (2019)	Occupier's responsibility to determine whether asbestos is present and if so to identify the type, location, friability and condition of ACM. 'a person who manages or controls a workplace must, so far as is reasonably practicable, identify all asbestos containing materials (ACM) at the workplace and have them recorded in an asbestos register.' NSW Work Health & Safety Regulation (2017) Also to conduct risk assessment on the basis of the above plus likely disturbances. Results of Atmospheric monitoring are to be available for potentially affected employees.	Undertake review and revision of risk assessment when condition of asbestos changes, remedial work has been carried out or the assessment is no longer valid. Maximum review timeframe is 5 years.	The site specific Asbestos Register needs to include the date, type, location, condition and work likely to disturb ACM identified during the survey. The Asbestos Register must be maintained and also updated if: further ACM is identified and/or, ACM is removed, disturbed or encapsulated. At least once every 5 years. A copy of the Asbestos Register is made available to: persons working at the workplace; and licensed asbestos removalist; and persons performing other tasks as prescribed at s. 4.4.305 Notification to Authority 24hrs prior for removal work for ACM < 10 m² and non-friable and then by a competent person and 5 days prior for other cases. Notification to Authority with 24hrs of unexpected situations.	Training and record of same is required for persons involved in asbestos removal work. If practicable, presence of ACM in a workplace has to be labelled. Before refurbishment or demolition: ensure Asbestos Register is obtained, reviewed and is current undertake necessary inspections A licenced asbestos removalist is required unless: • ACM < 10 m² and non-friable and then by a competent person and removal work is < 1 hr in any 7-day period.	The person who commissioned the asbestos removal work must obtain a clearance certificate from an independent person before the area where the asbestos removal work was being performed is re-occupied.



This page has been left intentionally blank

ASBESTOS PERMIT TO WORK

Page 1

Building or maintenance work in areas known to contain asbestos materials is prohibited, unless a permit to work has been issued to the personnel involved. This permit to work is issued to the nominated recipient for the specific occasion stipulated below:

Work P	ermit No:							
Date of	issue:							
This Pe	ermit is issued to:							
This Permit is valid up to:								
Asbestos Licence Number: (if applicable)								
Organis	Organisation/Company:							
Superv	supervisor:							
Contac	t Telephone Number:							
Locatio	n & Duration of Works:							
•	otion of Works:							
Asbesto	os containing materials have been used in various locations throughout the building to proceed with work, confirm the following:							
1.	Has the existing Asbestos Register been examined jointly							
	with building management?	YES - NO						
2.	Has the area where the intended works are to be performed been examined jointly with building Management?	YES - NO						
3.	Are asbestos containing materials present in the work area?	YES - NO						
4.	Will the works impact on or disturb the asbestos containing materials?	YES - NO						
5.	If YES to question 4 above, are the appropriate asbestos work procedures as	VEQ. NO						
6.	outlined in the Asbestos Management Plan documented and understood? If YES to question 4 above, have you submitted a risk assessment for	YES - NO						
0.	the task that you intend to undertake?	YES - NO						
7.	Are tenants, staff or public at risk of exposure to airborne asbestos?	YES - NO						
8.	Is it necessary to evacuate tenants, public or employees prior to work commencing?	YES - NO						
Asbesto	os materials are not to be disturbed without the approval of Building Managemer							
perform Plan. If	ned in accordance with the special requirements or work procedures outlined in the A any unknown materials, or materials suspected of containing asbestos are encount ately and Building Management notified.	Asbestos Management						
	read and understood the requirements and procedures described in the Asbestos \mathbf{I} mit to work:	Management Plan and						
	y authorize the Building Management to engage an asbestos removal contractor nazards that was created due to my/our Company activity and the removal cost ony:							
	ding Management Representative Company Representative							
Dull	any management representative Company representative							

Appendix D - Asbestos Removal Control Plan Checklist This page has been left intentionally blank

The document was evaluated against the minimum criteria in the Code of Practice: *How to safely remove asbestos* (2019) – Appendix A.

Table 1 – Components of the Asbestos Removal Control Plan

Information to be included in the asbestos removal control plan	Buildings and Structures		Appropriately Addressed
access romeral control plan	Friable	Non-friable	Appropriately Additional
Notification	l	1	
Notification requirements have been met and required documentation will be on site (e.g. removal licence, control plan training records).	Yes	Yes	
Identification			
Details of asbestos to be removed (e.g. the locations, whether or not asbestos is friable/non-friable, its type, condition and quantity being removed)	Yes	Yes	
Preparation			
Consult with relevant parties (health and safety representative; workers; person who commissioned the removal work, licensed assessors)	Yes	Yes	
Assigned responsibilities for the removal	Yes	Yes	
Program of commencement and completion dates	Yes	Yes	
Emergency plans	Yes	Yes	
Asbestos removal boundaries, including the type and extent of isolation required and the location of any signs and barriers.	Yes	Yes	
Control of electrical and lighting installations	Yes	Yes	

Personal protective equipment (PPE) to be used, including respiratory protective equipment (RPE).	Yes	Yes	
Removal		1	
Details of air monitoring program, Control and clearance.	Yes	No	
Waste storage and disposal program	Yes	Yes	
Methods for removing the ACM (wet or dry methods)	Yes	Yes	
Asbestos removal equipment (spray equipment, asbestos vacuum cleaners, cutting tools, etc.)	Yes	Yes	
Details of required enclosures, including their size, shape, structure etc., smoke testing enclosures and the location of negative pressure exhaust units.	Yes	No	
Details on temporary buildings required by the asbestos removalist (e.g. decontamination units) including details on water, lighting and power requirements, negative pressure exhaust units and the locations of decontamination units.	Yes	May be required depending on the job.	
Other risk control measures to prevent the release of airborne asbestos fibres from the area where asbestos removal is undertaken.	Yes	Yes	
Decontamination			
Detailed procedures for workplace decontamination, the decontamination of tools and equipment, personal decontamination and the decontamination of non-disposable PPE and RPE.	Yes	Yes	
Waste disposal		ı	
Method of disposing of asbestos wastes, including details on:	Yes	Yes	
• the disposal of protective clothing			

the structure(s) used to enclose the removal area	Yes	No	
Clearance & Air Monitoring			
Name of the independent licensed asbestos assessor or competent person engaged to conduct air monitoring (if any).	Yes	No	
Consultation			
Consult with any people who may be affected by the removal work, including neighbours	Yes	Yes	

Other Comments:

SWMS Review

	Mandatory			
Item	Checklist Criteria	Complies		
01	Does the SWMS set out a logical step-by-step process of all work activities to be undertaken?	Y/N		
02	Does the SWMS describe how each activity will be carried out?	Y/N		
03	Does the SWMS consider the environment within which the activities are to be undertaken?	Y/N		
04	Does the SWMS identify safety, health and environmental hazards that may arise through the work?	Y/N		
05	Does the SWMS clearly document and control risk for each hazard identified?	Y/N		
06	Does the SWMS describe all plant and equipment that will be used?	Y/N		
07	Does the SWMS identify relevant Standards, Codes of Practice & Legislation to be complied with?	Y/N		
80	Does the SWMS identify any pre-start and in-process certifications/authorisations/permits/meetings?	Y/N		
09	Does the SWMS provide for and identify consultation with the workers that will undertake the task?	Y/N		
10	Has the SWMS been approved by a responsible supervisor/manager?	Y/N		
11	Does the SWMS provide emergency information?	Y/N		
As Applicable				
Item	Checklist Criteria	Complies		
12	Does the SWMS provide for emergency procedures including rescue requirements for "high risk activities"	Y/N		

13	Does the SWMS effectively communicate any high-risk activities which may affect interfacing trades?	Y/N
14	Does the SWMS provide specific licensing and qualifications required by workers for specific tasks?	Y/N
15	Does the SWMS specify supervision, training and/or trialling required to enable the work to be done safely?	Y/N
16	Does the SWMS and risk assessment provide controls for public, people & plant in the vicinity of the task?	Y/N

Comments: