



29 July 2021

4 Parramatta Square,  
12 Darcy Street, Parramatta  
NSW 2150

**State Significant Development (SSD No 15788005): Hazardous materials survey of existing aboveground buildings.**

To whom this may concern,

Please see attached Hazardous Materials Register and Asbestos Management Plan produced by Coffey (Project Ref: ENAURHOD06240AA), which accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of an application for a State Significant Development (SSD No 15788005). The SSDA is for a new education campus at Jindabyne, comprising of a new primary and high school, located at the Jindabyne Sport and Recreation Centre (JSRC).

This report addresses the Secretary's Environmental Requirements (SEARs), notably:

*Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered.*

The attached document covers the entire Sport and Recreation Centre owned by the Office of Sport. For your reference, please note only cottages 4, 12 and 17 are located within the area subject to the EIS associated with SSD No 15788005, and therefore the only structures proposed to be demolished.

Sincerely,

A handwritten signature in black ink that reads "D. Carey". The signature is written in a cursive style with a large loop at the end.

David Carey  
Project Director

**HAZARDOUS MATERIALS REGISTER  
AND ASBESTOS MANAGEMENT PLAN  
JINDABYNE SPORTS & RECREATION  
CENTRE  
THE BARRY WAY  
JINDABYNE NSW 2627**

Prepared for: Office of Communities  
Project Ref: ENAURHOD06240AA-Jindabyne  
Report Date: 16 December 2013

Fieldwork by:

Written/Submitted by:

Reviewed/Approved by:



Haysam Elhassan  
OHS Consultant



Aklesh Chand  
OHS Consultant



Phil Wadick  
OHS Principal

16 December 2013  
Project Ref: ENAURHOD06240AA-Jindabyne

Office of Communities  
Level 3, 6B Figtree Drive  
Sydney Olympic Park, NSW 2127

**Attention: Peter Nolan**  
**Office of Communities**

Dear Peter

**RE: Report - Hazardous Materials Register and Management Plan for Jindabyne Sports & Recreation Centre, Jindabyne NSW**

Coffey Environments Australia Pty Ltd (Coffey) is pleased to present its report and Management Plan following a Hazardous Materials Survey of Jindabyne Sports & Recreation Centre located at The Barry Way, NSW 2627 hereafter referred to as 'the site'.

Please note that all activities and services provided by Coffey are subject to the Methodologies and Statement of Limitations contained within this report.

Please do not hesitate to contact the undersigned should you wish to discuss any aspect of the report.

For and on behalf of Coffey



Justin Hobdell  
OHS Team Leader (NSW/ACT)

# RECORD OF DISTRIBUTION

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Appendix B: Permit to Work

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## EXECUTIVE SUMMARY

Coffey conducted a Hazardous Materials Survey of Jindabyne Sports & Recreation Centre located at The Barry Way, NSW 2627 on 26 September 2013. The survey was undertaken to facilitate the identification and location of Hazardous Materials to accessible areas to enable management of Asbestos Containing Materials (ACM) and other Hazardous Materials at the site.

From the site survey and laboratory analysis results a register of Hazardous Materials and an Asbestos Management Plan (AMP) has been produced in accordance with the requirements of the Work Health and Safety Regulation 2011. This contract was completed by Coffey on the basis of a defined program of work and terms and conditions agreed with the Client. We confirm that in preparing this report we have exercised all reasonable skill and care bearing in mind the project objectives, the agreed scope of works and prevailing site conditions.

- Asbestos Containing Materials

High Priority Asbestos Containing Materials (ACM) were identified at the time of the survey and are summarised below. Full details of the material assessments can be located within the register.

#### A1 Action items

- Textile (hessian) - External: beneath building – insulation lining to pipe work beneath the Hydro Hut building.

Recommend to isolate and remove by an AS-1 licensed removal contractor.

In accordance with current legislation [Work Health and Safety Regulation 2011] requirements, an Asbestos Management Plan (AMP) has been compiled with this survey. This AMP is to be maintained and made available with this report register at the work place for the use of Property managers, employers, workers, people intending to conduct business at the site and to Health and Safety representatives.

## **1 PURPOSE OF DOCUMENT**

### **1.1 1.1 Document Retention**

This document (i.e. Register of Hazardous Materials and Asbestos Management Plan) is to be held at the workplace and in the Premise's Property File. This register and AMP is 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.

Any contractor or service person required to undertake works at the premises must examine the Register of Hazardous Materials and determine whether their work activity will involve handling, replacing or potentially disturbing the materials as noted in the register. If ACM is identified at the site then the Asbestos Management Plan (AMP) must also be referred to.

Should a contractor or service person handle, replace or carry out works that may disturb an item in the Hazardous 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 Hazardous Materials Register Report is given to the person/s that will be assuming management or control of the workplace.

### **1.2 1.2 Re-inspection and Review Requirements**

In accordance to Work Health and Safety Regulation 2011, if there is ACM or suspected ACM identified at the time of the survey, then a site specific AMP has to be compiled to outline the management practices for the ACM at the site. Re-inspections of the ACM should be as specified within the AMP.

The Asbestos Materials Register must be maintained and updated in 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 was commissioned by Office of Communities to conduct a Hazardous Materials Survey ('The Survey') of a Sports & Recreational Facility located at The Barry Way, NSW 2627 on 26 September 2013.

Haysam Elhassan of Coffey carried out the inspection and Office of Communities provided information regarding the site and its history. Other information was obtained from vendor manuals, standards, guidelines, regulations and other material available in the public domain.

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

The scope of this investigation did not allow intrusive sampling techniques to be undertaken and therefore this report may only be used as a partial reference document for the purposes of demolition. Additionally the quantities provided in the Register (Section 4.2 – Asbestos Materials Register) in relation the Asbestos materials assessed are *estimates only* and therefore shall *not* be used as the basis for calling upon Tenders to cost for removal/remediation of the situation/s.

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.

### 2.1 2.1 Background

The site has been previously assessed by Coffey.

The purpose of the survey was to comply with current regulations and to identify hazards within the building to enable Asbestos materials to be managed.

### 2.2 2.2 Scope

The scope of work required Coffey to:

- Mobilise a consultant to and from the site.
- Liaise with personnel and collect data on the history, use and function of the site.
- Conduct a standard sampling hazardous materials survey of the site, to locate asbestos containing materials (ACM's), lead paint systems, ozone depleting substances (ODS's), polychlorinated Biphenyls in light capacitors (PCB's) and damaged, high risk synthetic mineral fibre (SMF) in accessible areas.
- Collect samples of suspect asbestos and lead paint material (where accessible) and submit samples for laboratory analysis. Note: Only 'typical' suspected occurrences are to be collected and sampled (e.g. one in every same fire door / gasket will be analysed. ODS's, PCB's and damaged, high risk SMF identified on a visual basis only.
- Document the details of materials identified including photographs of any samples taken
- Record, collate and report the findings.
- Deliver one bound and one electronic report to the client.

The AMP to incorporate the following information:

- Asbestos Register to include;
- Details of asbestos containing materials identified;
- Assessment of risk associated with ACM, and
- Control measures to mitigate these risks.
- Recommendations for the placement of labels and/or warning signs where not already affixed;
- Mechanisms for communication of the Asbestos Register;
- Information on the safe work procedures in relation to asbestos products at the premises;
- 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.

### 3 METHODOLOGY

Hazardous material surveys are undertaken considering a risk management approach, in accordance with best practice and recent State Government Legislation. An Occupational Health and Safety and Environmental risk assessment was conducted based on the condition of building materials identified during the survey and prioritised through Action Classifications, listed below.

The assessment involved the investigation for the presence of asbestos (ACM), Synthetic Mineral Fibre (SMF) (in friable and exposed condition), lead based paint systems (Pb), Polychlorinated Biphenyls (PCB) and Ozone Depleting Substances (ODS – (CFC, HCFC, HFC)). Information was collected from the owners/occupiers/tenants of the site on relevant issues pertaining to the site. Based on all the available data and the status of the site at the time of inspection, where items suspected of containing hazardous materials were identified, visual and/or analytical characterisation (where required) was performed and reported in this Hazardous Materials Register

Only 'typical' suspected asbestos material occurrences are inspected and sampled in accessible areas. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same building is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Furthermore, only one of each type of fluorescent light fitting is inspected and the details of the capacitor identified within is checked against the 1997 ANZECC register for the Identification of PCB-Containing Capacitors. Sample collection was performed in a non-destructive and non-invasive manner.

Standard sampling hazardous material surveys are restricted to areas that are reasonably accessible during the survey, with respect to the following:

- a) Without contravention of relevant statutory requirements or codes of practice;
- b) Without demolition or damage to finishes and structure; and
- c) Excluding plant and equipment that was 'in service' and operational.

Where the Surveyor encounters access restrictions during the survey, these situations are documented and reported (Section 4.1 - Building Description and Access Details).

No assessment can be regarded as absolute. Future demolition or refurbishment of structures may reveal materials concealed during the assessment, therefore not accessible at the time of the Survey.

As detailed above, an assessment of the resultant risks has been prioritised through the use of Action Classifications (Section 5 - Glossary).

#### 3.1 3.1 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 NATA endorsed Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. At the time of the survey, 15 samples were taken for analysis.

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

## 4 RESULTS

### 4.1 Building Description and Access Details

Assessment Date:	26 September 2013
Address:	The Barry Way, NSW 2627

#### DESCRIPTION

The Jindabyne Sports & Recreation Centre located at The Barry Way, NSW 2627 has been used at various times over the last century as a hospital and jail, but is now a playground for primary school children. Sport and Recreation New South Wales hosts groups of up to 180 children at a time who 'camp' there for a week and enjoy activities such as canoeing, fencing and climbing. Buildings on site consist of a Recreational Hall, Basketball courts, Pool shelter, Offices, Accommodation and various Sheds.



#### NO ACCESS AREAS

The following areas were not accessible at the time of the survey:

- Ski Hire facility

- Dining Hall & Moguls Restaurant ceiling space – height restriction
- Milton Lodge – no access to roof or ceiling space or beneath building
- Staff Cottage 12 – occupied (no access internally)
- Staff Cottage 17 – occupied (no access internally)
- Dining Hall – ceiling space due to height restriction
- Beneath all buildings

### **LIMITED ACCESS AREAS**

The following areas had limited access at the time of the survey:

Ceiling voids – Access restrictions.

This Register is to be read in conjunction with the whole report. Additional information is attached (Appendix D)

## 4.2 Hazardous Materials Register

For Action Classification, Material Descriptors and Register Terminology Coding please refer to Section 5-GLOSSARY

<b>Assessment by:</b>	Haysam Elhassan	<b>Date of inspection:</b>	26 September 2013
<b>Site Contact:</b>	Eric Burns	<b>Site Location:</b>	The Barry Way, NSW 2627

### REGISTER OF ASBESTOS CONTAINING MATERIALS

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>Jindabyne Sports &amp; Recreational Centre</b>																	
<b>External Grounds</b>																	
<b>Asbestos Containing Material (ACM)</b>																	
AF494	CH, AM	1	Asbestos cement	External: adjacent to the main road through the site – telecommunication pit linings	N	2	1	2	1	2	2	1	1	12	A3	3 units	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
EP-116	Remove	-	Asbestos cement	North of the Indoor sports facility, East of the Pistol Club, South of	-	-	-	-	-	-	-	-	-	-	-	-	Asbestos cement debris removed during

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
	d		debris	maintenance complex, scattered around, Lodge 5 and Margin Lodge, South of the Golf Club parking, South of the Ropes Course													remedial works January 2007.
<b>General Managers Residence (constructed approximately 2001)</b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b>Conference Building (constructed approximately 1993)</b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b>Administration Building (constructed approximately 2003)</b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b>Conference Building (2 x 4 units per building)</b>																	
<b>No Asbestos Detected (NAD)</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b>Indoor Gym and Sports Facility (constructed 1990's)</b>																	
<b>No Asbestos Detected (NAD)</b>																	
<b>Recreational Hall – Demolished</b>																	
<b>No Asbestos Detected (NAD)</b>																	
<b>Clinic</b>																	
<b>Asbestos Containing Materials</b>																	
Refer to EP-083	CH	2	Bituminous (black) electrical backing board	External: West side of facility in mounted metal box	N	1	1	1	1	1	0	0	1	6	A4	1.5 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
EP-133	CH, AM, CR	-	Asbestos cement levelling chocks	External: On top of Building footing	N	1	1	1	1	1	1	1	1	8	A3	3 m <sup>2</sup>	
Label/sign locations and			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulate broken edges.														

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Comments
recommendations																	
Refer to EP-133	CH, AM, CR	3	Asbestos cement wall cladding (painted)	External: North side porch	N	1	1	0	0	1	0	0	1	4	A4	8 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals..														
Refer to EP-133	CH, AM, CR	-	Asbestos cement wall and ceiling lining	External: North side porch	N	1	1	0	0	1	0	0	1	4	A4	12 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals..														
<b>No Asbestos Detected (NAD)</b>																	
EP-132	NAD	-	Fibre cement wall cladding (painted)	External: West elevation	-	-	-	-	-	-	-	-	-	-	-	-	
<b>TAFE</b>																	
<b>Asbestos Containing Materials</b>																	
Refer to EP-133	CH, AM, CR	4	Asbestos cement levelling chocks	External: On top of Building footing	N	1	1	1	1	1	1	1	1	8	A3	3 m <sup>2</sup>	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulate broken edges.														
<b>No Asbestos Detected (NAD)</b>																	
VO	NAD	-	Electrical board'	External West side of facility in mounted metal box)	-	-	-	-	-	-	-	-	-	-	-	-	New board. Previously sample EP-083
EP-134	NAD	-	Vinyl floor tiles 'White'	Internal: Female Toilet facilities (beneath new vinyl floor sheeting)	-	-	-	-	-	-	-	-	-	-	-	-	
EP-135	NAD	-	Vinyl floor tiles 'Black'	Internal: Female Toilet facilities (beneath new vinyl floor sheeting)	-	-	-	-	-	-	-	-	-	-	-	-	
<b>BBQ Shelter</b>																	
<b>No Asbestos Detected (NAD)</b>																	
Refer to EP-136	NAD	-	Sound dampener membrane x 2	Beneath sink unit draining board	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Hydro Hut</b>																	
<b>Asbestos Containing Materials</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
V.O	Suspect ACM	-	Suspect asbestos 'Tilux' partition	Internal: To shower stall	N	1	1	1	0	1	0	0	1	5	A4	-	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
V.O	Suspect ACM	5	Textile (hessian)	External: beneath building – insulation lining to pipe work	Y	3	2	2	1	2	2	2	2	2	A1		No access. Confirm if ACM prior to disturbance or removal.
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
VO	NAD	-	Electrical board	External: Meter box north side of building	-	-	-	-	-	-	-	-	-	-	-	-	New board. Previous sample EP-083
Refer to AF492	NAD	-	Rope	Internal: fireplace – rope seal to door	N	-	-	-	-	-	-	-	-	-	Nil	<1 m	'Coonara' brand fireplace
<b>Dining Hall and Moguls Restaurant (Constructed in 1984 – completely refurbished and extended in 2004)</b>																	
<b>No Asbestos Detected (NAD)</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b>Maintenance Depot Office and Stores</b>																	
<b>Asbestos Containing Materials</b>																	
EP-117	CH	-	Asbestos cement ceiling lining (painted)	External: Office verandah	N	1	1	0	0	1	0	0	1	4	A4	20 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
EP-118	NAD	-	Vinyl floor tiles	Internal: Office Toilets	-	-	-	-	-	-	-	-	-	-	-	-	
EP-119	NAD	-	Fibre cement wall lining (painted)	Internal: Office Toilets	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Torino Lodge</b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
<b><i>Jillamatong Lodge</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
VO	NAD	-	Electrical board	External: Meter box on north side of building	-	-	-	-	-	-	-	-	-	-	-	-	New board. Previous sample Ref EP-083
<b><i>Finsko's Lodge (constructed 1989)</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b><i>Ingegoodbee Lodge (Family unit constructed 1985)</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b><i>Jugungal Lodge (Family unit constructed 1985)</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b><i>Gungarlin Lodge (Family unit constructed 1985)</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b><i>Cootapatamba Lodge (Family unit constructed 1985)</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b><i>Margins Lodge (Family unit constructed 1985)</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b><i>Tar-gan-gil Lodge (Family unit constructed 1985)</i></b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>Snow Gums Lodge</b>																	
<b>Asbestos Containing Materials</b>																	
EP-077	CH	6	Asbestos cement wall lining	Basement 1; Boiler Room	N	1	1	0	0	1	0	0	1	4	A4	18 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
EP-079	CH	7	Compressed asbestos cement floor slab	Basement 1; Boiler Room and upper levels	N	1	1	0	0	1	0	0	1	4	A4	250 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
EP-078	NAD	-	Fibre cement wall and ceiling lining	Level 1; Drying Room	-	-	-	-	-	-	-	-	-	-	-		
EP-080	NAD	-	Profiled fibre cement wall cladding (painted)	External: Upper wall sections	-	-	-	-	-	-	-	-	-	-	-		
EP-081	NAD	-	Fibre cement wall	Level 3; Students bathrooms	-	-	-	-	-	-	-	-	-	-	-		

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
			(painted)	(including tile support wall lining)													
EP-082	NAD	-	Fibre cement wall (painted)	Level 3; Staff bathroom (including tile support wall lining)	-	-	-	-	-	-	-	-	-	-	-		
<b>Milton Lodge (constructed 2006)</b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b>Staff Cottage # 4</b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
EP-111	NAD	-	Fibre cement eaves lining & verandah ceiling lining (painted)	External: All elevations of cottage	-	-	-	-	-	-	-	-	-	-	-		
EP-112	NAD	-	Fibre cement wall lining	Internal: Bathroom	-	-	-	-	-	-	-	-	-	-	-		
<b>Staff Cottage # 7 – Pending Demolition (no access)</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Comments	
<b>Asbestos Containing Materials</b>																		
VO	Suspect ACM	8	Suspect asbestos insulation within old 'Rheem' hot water service	Internal: Ceiling space	Y	2	1	1	0	1	0	0	1	6	A4	2 m <sup>2</sup>		
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Confirm prior to disturbance.															
Refer to EP-083	CH	-	Asbestos containing electrical backing board	External: North side of Cottage in mounted metal box	N	1	1	1	1	1	1	1	1	8	A3	0.8 m <sup>2</sup>	Minor drill holes not sealed	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulate the drill holes.															
Refer to EP-092	CH, CR	9	Asbestos cement walls, joinery and eaves lining (painted)	External: All elevations of cottage	N	3	1	0	0	1	0	0	1	6	A4	160 m <sup>2</sup>		
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.															
Refer to EP-094	CH, CR	-	Asbestos cement walls lining	Internal: Throughout	N	3	1	0	0	1	0	0	1	6	A4	180 m <sup>2</sup>		

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Comments
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
Refer to EP-096	CH, CR	-	Asbestos cement ceiling lining	Internal: Throughout	N	3	1	0	0	1	0	0	1	6	A4	80 m <sup>2</sup>	Bathroom newer Fibre cement below original lining asbestos cement sheet
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
Refer to EP-101	NAD	-	Compressed fibre cement backing to ceramic tile hearth	Internal: Lounge room in front of heater	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-098	NAD	-	Cupboard door and wall lining	External: Old empty cabinet mounted on east side wall	-	-	-	-	-	-	-	-	-	-	-	-	Removed Prior to January 2008
<b>Staff Cottage # 9 – Pending Demolition (no access)</b>																	
<b>Asbestos Containing Materials</b>																	
VO	Suspect ACM	-	Suspect asbestos insulation within 'Rheem' hot water	Internal: Ceiling space	Y	2	1	1	0	1	0	0	1	6	A4	2 m <sup>2</sup>	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
			service														
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Confirm prior to disturbance.														
Refer to EP-083	CH	-	Bituminous (black) electrical backing board	External: West side of Cottage in mounted metal box	N	1	1	1	1	1	1	1	1	8	A3	0.8 m <sup>2</sup>	Minor drill holes
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulated minor drill holes.														
Refer to EP-092	CH, CR	10	Asbestos cement walls, joinery and eaves lining ( painted)	External: All elevations of cottage	N	3	1	0	0	1	0	0	1	6	A4	160 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
Refer to EP-094	CH, CR	-	Asbestos cement wall lining	Internal: Throughout (excluding lounge room)	N	3	1	0	0	1	0	0	1	6	A4	180 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
Refer to EP-096	CH, CR	-	Asbestos cement ceiling lining	Internal: Throughout	N	3	1	0	0	1	0	0	1	6	A4	80 m <sup>2</sup>	Bathroom newer fibre cement sheet lining below original

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
																	Asbestos cement lining
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
Refer to EP-097	CH	-	Asbestos cement manhole cover	Internal: Bathroom	N	1	1	0	0	1	0	0	1	4	A4	.02 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
Refer to EP-098	NAD	-	Cupboard door and wall lining	External: Old empty cabinet mounted on north side wall	-	-	-	-	-	-	-	-	-	-	-	-	Removed during Asbestos Remedial Works January 2008.
Refer to EP-114	NAD	-	Profiled fibre cement wall cladding planks	External: Cubby House located to the northeast of the block	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-115	NAD	-	Compressed fibre cement backing panel to quarry tile hearth	Internal: Lounge Room beneath fire place	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Staff Cottage 10 – Removed</b>																	
<b>No Asbestos Detected (NAD)</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>Staff Cottage 11 - Removed</b>																	
<b>No Asbestos Detected (NAD)</b>																	
<b>Staff Cottage # 12 (no access inside residency)</b>																	
<b>Asbestos Containing Materials</b>																	
Refer to EP-083	CH	11	Bituminous (black) electrical backing board	External: South side of Cottage in mounted metal box	N	1	1	1	1	1	1	1	1	8	A3	0.8 m <sup>2</sup>	Minor drill holes
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulated minor drill holes.														
Refer to EP-092	CH, CR	12	Asbestos cement walls, joinery and eaves lining ( painted)	External: All elevations of cottage	N	3	1	0	0	1	0	0	1	6	A4	120 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
Refer to EP-094	CH, CR	-	Asbestos cement wall lining	Internal: Kitchen. Lounge, Bedroom, toilet, hall, Toilet and bedrooms 2,3,4	N	3	1	0	0	1	0	0	1	6	A4	180 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
Refer to EP-096	CH, CR	-	Asbestos cement ceiling lining	Internal: Kitchen. Lounge, Bedroom, toilet, hall, Toilet and bedrooms 2,3,4	N	3	1	0	0	1	0	0	1	6	A4	60 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
Refer to EP-109	NAD	-	Cover plate	External: BBQ facility to the rear of the cottage	-	-	-	-	-	-	-	-	-	-	-	-	Removed during Asbestos Remedial Works January 2008.
<b>Staff Cottage # 13 – Pending Demolition (no access)</b>																	
<b>Asbestos Containing Materials</b>																	
Refer to EP-083	CH	-	Bituminous (black) electrical backing board	External: South side of Cottage in mounted metal box	N	1	1	1	1	1	1	1	1	8	A3	0.5 m <sup>2</sup>	Minor drill holes
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulated minor drill holes.														
Refer to EP-092	CH, CR	13	Asbestos cement walls, joinery and eaves lining ( painted)	External: All elevations of cottage (excluding rear extension)	N	3	1	0	0	1	0	0	1	6	A4	100 m <sup>2</sup>	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
Refer to EP-094	CH, CR	-	Asbestos cement wall lining	Internal: Throughout	N	3	1	0	0	1	0	0	1	6	A4	100 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
Refer to EP-096	CH, CR	-	Asbestos cement ceiling lining	Internal: Throughout	N	3	1	0	0	1	0	0	1	6	A4	60 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
Refer to EP-101	NAD	-	Fibre cement backing panel to ceramic tile hearth	Internal: Lounge room behind and beneath fire place heater	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-098	NAD	-	Cupboard door and wall lining	External: Old empty cabinet mounted on east side wall	-	-	-	-	-	-	-	-	-	-	-	-	Removed Prior to January 2008
<b>Staff Cottage 14 – Removed</b>																	
<b>No Asbestos Detected (NAD)</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>Staff Cottage 15 – Removed</b>																	
<b>No Asbestos Detected (NAD)</b>																	
<b>Staff Cottage 16 – Pending Demolition (no access)</b>																	
<b>Asbestos Containing Materials</b>																	
Refer to EP-083	CH	-	Bituminous (black) electrical backing board	External: North side of Cottage in mounted metal box	N	1	1	1	1	1	1	1	1	8	A3	0.5 m <sup>2</sup>	Minor drill holes
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulated minor drill holes.														
EP-092	CH, CR	-	Asbestos cement walls, joinery and eaves lining ( painted)	External: All elevations of cottage	N	3	1	0	0	1	0	0	1	6	A4	140 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
EP-094	CH, CR	-	Asbestos cement wall lining	Internal: Throughout	N	3	1	0	0	1	0	0	1	6	A4	200 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
Refer to EP-094	CH, CR	-	Asbestos cement cupboard wall lining	Internal: Hall	N	3	1	0	0	1	0	0	1	6	A4	2 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
EP-096	CH, CR	-	Asbestos cement ceiling lining	Internal: Throughout	N	3	1	0	0	1	0	0	1	6	A4	80 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
<b>No Asbestos Detected (NAD)</b>																	
Refer to EP-093	NAD	-	Fibre cement panel – heat shield (painted)	Internal: Lounge room behind fire place	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-095	NAD	-	Compressed fibre cement backing panel to ceramic tile hearth	Internal: Lounge room beneath fire place	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Staff Cottage 17 – no access inside of residency</b>																	
<b>Asbestos Containing Materials</b>																	
EP-083	CH	14	Bituminous (black) electrical backing	External: North side of Cottage in	N	1	1	1	1	1	1	1	1	8	A3	0.5	Minor drill holes

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Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
			board	mounted metal box												m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals. Encapsulated minor drill holes.														
EP-084	CH	15	Asbestos cement infill panels (painted)	External: North, east and west sides – lower section (between footings)	N	1	1	0	0	1	0	0	1	4	A4	10 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
EP-085	CH	16	Asbestos cement wall cladding (painted)	External: Garage facility to the rear of the cottage building	N	1	1	0	0	1	0	0	1	4	A4	10 m <sup>2</sup>	
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
EP-086	CH	17	Asbestos cement wall lining (painted)	To the external shed: One sheet only	N	1	1	0	0	1	0	0	1	4	A4	2 m <sup>2</sup>	(Variation on material sampled as EP-086 (Above))
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.														
EP-090	CH	-	Asbestos insulation board panel	Internal: Dining room backing to Rinnai gas fire	N	1	1	0	0	1	0	0	1	4	A4	1 m <sup>2</sup>	
Label/sign locations and			Label. Do Not disturb. Re-inspect at designated intervals.														

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Comments
recommendations																	
<b>No Asbestos Detected (NAD)</b>																	
EP-087	NAD	-	Fibre cement ceiling and wall lining (painted)	To The external shed – All other sections	-	-	-	-	-	-	-	-	-	-	-	-	
EP-088	NAD	-	Vinyl floor sheeting	External – Floor to entry porch	-	-	-	-	-	-	-	-	-	-	-	-	
EP-089	NAD	-	Fibre cement wall lining	Internal: Kitchen wet areas	-	-	-	-	-	-	-	-	-	-	-	-	
EP-091	NAD	-	Fibre cement ceiling lining	Internal: Bathroom	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Lodge # 5</b>																	
<b>Asbestos Containing Materials</b>																	
EP-125	CH, AM, CR	18	Asbestos cement wall and ceiling lining (older sheets only)	Internal: Throughout Toilet block	N	3	1	0	0	1	0	0	1	6	A4	5 m <sup>2</sup>	The toilet block linings are combination of Masonite, new fibre cement and old asbestos cement
Label/sign locations and			Label. Do Not disturb. Re-inspect at designated intervals.														

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
recommendations																	
<b>No Asbestos Detected (NAD)</b>																	
EP-083	NAD	-	Bituminous (black) electrical backing board	External: East end of the accommodation block	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-083	NAD	-	Bituminous (black) electrical backing board	External: Fuse box east end of the accommodation block	-	-	-	-	-	-	-	-	-	-	-	-	
EP-122	NAD	-	Bituminous waterproof membrane	External: Capping to footing stumps beneath building	-	-	-	-	-	-	-	-	-	-	-	-	
EP-123	NAD	-	Fibre cement wall cladding	External: Ends of building	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-123	NAD	-	Fibre cement verandah ceiling	External: Accommodation and toilet block	-	-	-	-	-	-	-	-	-	-	-	-	
EP-124	NAD	-	Fibre cement wall and ceiling lining	Internal: Throughout accommodation block	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Lodge 6 # Accommodation</b>																	

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments	
<b>No Asbestos Detected (NAD)</b>																		
Refer to EP-083	NAD	-	Bituminous (black) electrical backing board	External: East end of the building	-	-	-	-	-	-	-	-	-	-	-	-	-	Removed and replaced with non-asbestos Bakelite board
EP-126	NAD	-	Fibre cement wall cladding	External: East end of the building	-	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-126	NAD	-	Fibre cement eaves and verandah ceiling lining	External: Perimeter of building	-	-	-	-	-	-	-	-	-	-	-	-	-	
AF492	NAD	-	Rope	Internal: fireplace – rope seal to door	N	-	-	-	-	-	-	-	-	-	Nil	<1 m	'Coonara' brand fireplace	
<b>Lodge 6 # (Laundry/Ablutions)</b>																		
<b>Asbestos Containing Materials</b>																		
EP-127	CH, AM, CR	19	Asbestos cement wall cladding and eaves lining	External: Various locations mixed with EP-126 (above)	N	3	1	0	0	1	0	0	1	6	A4	30 m <sup>2</sup>		
Label/sign locations and recommendations			Label. Do Not disturb. Re-inspect at designated intervals.															

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>No Asbestos Detected (NAD)</b>																	
Refer to EP-127	NAD	-	Asbestos cement wall and ceiling lining	External: Throughout Shower/Drying room facility	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-126	NAD	-	Fibre cement wall lining (painted)	External: Throughout Laundry facility	-	-	-	-	-	-	-	-	-	-	-	-	
Refer to EP-126	NAD	-	Fibre cement wall cladding and eaves lining (painted)	External: Various locations mixed with EP-127 (below)	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Lodge 6 # (Toilet Block) - Demolished</b>																	
<b>No Asbestos Detected (NAD)</b>																	
No suspected asbestos containing materials identified in accessible areas at the time of the survey																	
<b>Mattress Store and Salvage (adjacent to Torino Lodge)</b>																	
<b>No Asbestos Detected (NAD)</b>																	
AF490	NAD	-	Fibre cement sheet wall panel	External: north side – wall lining	N	-	-	-	-	-	-	-	-	-	Nil	-	

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Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
V.O	NAD	-	Fibre cement sheet wall panel	Internal: wall partition – wall lining	N	-	-	-	-	-	-	-	-	-	Nil	-	'Hardiflex' – non-asbestos type sheet.

<b>Assessment by:</b>	Haysam Elhassan	<b>Date of inspection:</b>	26 September 2013
<b>Site Contact:</b>	Eric Burns	<b>Site Location:</b>	The Barry Way, NSW 2627

### REGISTER OF OTHER HAZARDOUS MATERIALS

Haz	Sample No.	Results	Photo ID	Description	Location	Friable	Extent of Damage	Surface Treatment	Occupant Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>Other Hazardous Materials Register</b>													
<b><i>Conference Building (constructed approximately 1993)</i></b>													
SMF	V.O	-	-	Insulation on ceiling lining	Internal: ceiling space throughout	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b><i>Administration Building (constructed approximately 2003)</i></b>													
ODS	HCFC R22	-		Refrigerant gas to the AC split systems	Ground Level: office	NA	G	Y	L	L	A4	3 units	
No suspected Pb paint, PCB or SMF containing materials identified in accessible areas at the time of the survey													
<b><i>Recreation Hall</i></b>													
PCB	V.O	Non PCB	-	Capacitor – Plessey, 8µf, Type P102	Internal: Ground Level Sound room	N	-	-	-	-	Nil	-	
No suspected Pb paint, SMF or ODS containing materials identified in accessible areas at the time of the survey													

Haz	Sample No.	Results	Photo ID	Description	Location	Friable	Extent of Damage	Surface Treatment	Occupant Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>TAFE</b>													
ODS	V.O	HCFC R22	-	Refrigerant gas to the 'Mitsubishi' AC split system	Internally located	NA	G	Y	L	L	A4	1 unit	
ODS	V.O	HCFC R22	-	Refrigerant gas to the 'Daikin' AC split system	Internally located	NA	G	Y	L	L	A4	1 unit	
No suspected Pb paint, PCB or SMF containing materials identified in accessible areas at the time of the survey													
<b>Jillamatong Lodge</b>													
ODS	V.O	Suspect HCFC	-	Refrigerant gas to the AC units	External: wall mounted installations	NA	G	Y	L	L	A4	3 units	
No suspected Pb paint, PCB or SMF containing materials identified in accessible areas at the time of the survey													
<b>Tar-gan-gil Lodge</b>													
SMF	V.O	SMF	-	Loose insulation batts on ceiling lining	Internal: ceiling space	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Snow Gums Lodge</b>													
SMF	V.O	SMF	-	Insulation to pipework	Basement 1: Boiler room	Y	Av	Y	L	L	A4	-	
SMF	V.O	SMF	-	Insulation beneath floor slab	Basement 1: Boiler room	Y	Av	Y	L	L	A4	-	
SMF	V.O	SMF	-	Insulation within wall cavity	Throughout	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													

Haz	Sample No.	Results	Photo ID	Description	Location	Friable	Extent of Damage	Surface Treatment	Occupant Activity	Risk Score	Action	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>Staff Cottage # 2</b>													
SMF	V.O	SMF	-	Loose insulation batts on ceiling lining	Internal: ceiling space	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 4</b>													
SMF	V.O	SMF	-	Loose insulation batts on ceiling lining	Internal: ceiling space throughout	Y	G	Y	L	L	A4	-	No access due to height restriction
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 7</b>													
SMF	V.O	SMF	-	Loose insulation batts on top of spray insulation on ceiling lining	Internal: ceiling space	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 9</b>													
SMF	V.O	SMF	-	Loose insulation batts on top of spray insulation on ceiling lining	Internal: ceiling space	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 10</b>													
SMF	V.O	SMF	-	Loose insulation (older) on ceiling lining	Internal: ceiling space variously throughout	Y	G	Y	L	L	A4	-	
SMF	V.O	SMF	-	Loose insulation batts (new) on ceiling lining	Internal: ceiling space –variously throughout	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													

Haz	Sample No.	Results	Photo ID	Description	Location	Friable	Extent of Damage	Surface Treatment	Occupant Activity	Risk Score	Action	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Comments
<b>Staff Cottage # 11</b>													
Lead	EP -107	7.2%		Exterior paintwork (Cream on grey)	Window sills	N	Av	P	M	M	A2	-	
SMF	V.O	SMF	-	Loose insulation (older sprayed style material) under new batts	Internal: ceiling space variously throughout	Y	G	Y	L	L	A4	-	
SMF	V.O	SMF	-	Loose insulation batts (new) on ceiling lining	Internal: ceiling space	Y	G	Y	L	L	A4	-	
No suspected PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 12</b>													
SMF	V.O	Suspect SMF	-	Loose insulation batts on ceiling lining	Internal: ceiling space throughout	Y	G	Y	L	L	A4	-	No access due to height restriction.
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 13</b>													
SMF	V.O	Suspect SMF	-	Loose insulation batts on ceiling lining	Internal: ceiling space throughout	Y	G	Y	L	L	A4	-	No access due to height restriction.
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 14</b>													
SMF	V.O	SMF	-	Loose insulation batts on ceiling lining	Internal: ceiling space –variously throughout	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 15</b>													
SMF	V.O	Suspect SMF	-	Loose insulation on ceiling lining	Internal: ceiling space throughout	Y	G	Y	L	L	A4	-	No access due to height restriction.

Haz	Sample No.	Results	Photo ID	Description	Location	Friable	Extent of Damage	Surface Treatment	Occupant Activity	Risk Score	Action	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Comments
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 16</b>													
SMF	V.O	SMF	-	Loose insulation on ceiling lining	Internal: ceiling space throughout	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Staff Cottage # 17</b>													
SMF	V.O	SMF	-	Insulation batts(stored)	External: below cottage	Y	Av	N	L	M	A2	-	
SMF	V.O	SMF	-	Loose insulation on ceiling lining	Internal: ceiling space throughout	Y	G	Y	L	L	A4	-	
SMF	V.O	SMF	-	Insulation within wall cavity	Internal: Kitchen	Y	G	Y	L	L	A4	-	
No suspected Pb paint, PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Lodge 6</b>													
Pb	AF493	35%	20	Paint (pale green)	External: toilet block – paint to external walls	Y	P	P	M	M	A2	-	
SMF	V.O	SMF	-	Insulation	Internal: ceiling space, throughout – sarking	N	G	Y	L	L	A4	60m <sup>2</sup>	
No suspected PCB or ODS containing materials identified in accessible areas at the time of the survey													
<b>Mattress and Salvage Store</b>													
Pb	AF491	31%	21	Paint (white)	External: perimeter of store – paint to walls and window frames	Y	P	P	M	M	A2	-	
No suspected SMF, PCB or ODS containing materials identified in accessible areas at the time of the survey													

## 5 GLOSSARY

Coffey adopt the following material and location assessment algorithms in order to assess the risks associated with individual asbestos containing materials located;

### ASBESTOS REGISTER SECTION

#### Friable

Variable	Score	Description
Friable	Y	Asbestos cement debris, or material which when dry may become crumbled, pulverised or reduced to powder by hand pressure.
	N	Bonded i.e. non-friable material

#### Materials Assessment

Variables	Scores	Examples of Score Descriptions
Asbestos Type	0	No asbestos
	1	Chrysotile only
	2	Amphibole asbestos (excluding crocidolite)
	3	Crocidolite
Product Type	0	No asbestos detected
	1	Bonded asbestos in good condition
	2	Friable asbestos in good condition or cement in poor condition
	3	Friable asbestos in poor condition
Extent of Damage	0	No visible damage
	1	Minor scratches or mark, broken edges
	2	Significant breakage, many small areas of damage to friable material
	3	High damage, visible debris
Surface Treatment	0	Bonded Asbestos including encapsulated asbestos cement
	1	Enclosed laggings, sprays and boards or bare cement
	2	Bare board or encapsulated lagging/spray or cement debris
	3	Unsealed lagging/spray

### Location Assessment

Variables	Scores	Examples of Score Descriptions
<b>Occupant Activity</b>	0	Rare disturbance, e.g. little used store room
	1	Low disturbance, e.g. Office type activity
	2	Periodic disturbance, e.g. industrial or vehicular activity which may contact ACMs
	3	High levels of disturbance e.g. fire door with AIB sheet in constant use
<b>Likelihood of Disturbance</b>	0	Usually inaccessible or unlikely to be disturbed
	1	Minimal likelihood for disturbance
	2	Likely disturbance
	3	Frequent disturbance
<b>Human Exposure Potential</b>	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
<b>Maintenance Activity</b>	0	Minor disturbance (e.g. possibility of contact when gaining access)
	1	Low Disturbance (e.g. changing light bulbs in AIB ceiling).
	2	Medium disturbance (e.g. lifting one or two ceiling tiles to access a valve)
	3	High level of disturbance (e.g. moving a number of AIB ceiling tiles to replace a valve or for re-cabling)

### Risk Score

The **asbestos containing material** risk score is a quantitative assessment determined by the sum of the scores based on the Materials and Location Assessments; i.e. Risk score = Material Score + Location Score (out of as possible 24).

Should no asbestos be detected then the register will indicate a risk score of 0.

Variable	Scores	Examples of Score Descriptions
<b>Risk Score</b>	0 - 6	Very Low Risk - Action Score A4
	7 - 12	Low Risk – Action Score A3
	13 - 18	Medium Risk – Action Score A2
	19 - 24	High Risk – Action Score A1

### **OTHER HAZARDOUS MATERIALS REGISTER SECTION**

Coffey adopt the following material and location assessment algorithms in order to assess the risks associated with individual **hazardous materials other than asbestos** located;

#### **Friable**

<b>Variable</b>	<b>Score</b>	<b>Description</b>
Friable	Y	Unsealed SMF
	N	Sealed SMF
	NA	Applicable to ODS, PCB, Lead in paint

#### **Material Assessment**

<b>Variable</b>	<b>Score</b>	<b>Examples of Score Descriptions</b>
<b>Extent of Damage</b>	G	Good condition
	Av	Average condition
	P	Poor condition
<b>Surface Treatment</b>	Y	Sealed
	P	Part sealed
	N	Not sealed

#### **Location Assessment**

<b>Variable</b>	<b>Score</b>	<b>Examples of Score Descriptions</b>
<b>Occupant Activity</b>	H	High traffic area
	M	Medium traffic area
	L	Low traffic area

#### **Risk Score**

The **hazardous materials other than asbestos** risk score is a qualitative assessment determined by the combination of Material and Location Assessments. Depending on the material one or all of these criteria may be used in assessing the recommended Action.

<b>Variable</b>	<b>Score</b>	<b>Examples of Score Descriptions</b>
<b>Risk Score</b>	L	Low exposure risk
	M	Medium exposure risk
	H	High exposure risk

## ACTIONS FOR ASBESTOS MATERIALS

Following the assessment for both asbestos containing materials an action score is assigned. For asbestos containing materials this will be assigned according to the risk score associated with the material.

### Action

<b>A1</b>	<b>Action 1</b>	<b>Restrict access and remove</b>
		As a guide, the material conforms to one, or more, of the following: Friable or poorly bonded to substrate, located in accessible areas Severely water damaged, or unstable Further damage or deterioration likely Friable asbestos material located in air conditioning ducting Asbestos debris and stored asbestos in reasonably accessible areas Post removal of A1 item, update Asbestos Materials Register and Asbestos Management Plan
<b>A2</b>	<b>Action 2</b>	<b>Enclose, encapsulate or seal and Label – Re-inspect according to Asbestos Management Plan</b>
		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 Post encapsulation of A2 item, update Asbestos Materials Register and Asbestos Management Plan
<b>A3</b>	<b>Action 3</b>	<b>Remove during refurbishment or maintenance and Label – Re-inspect according to Asbestos Management Plan</b>
		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 Readily visible for further assessment Asbestos CAF Gaskets Asbestos friction materials and brake linings
<b>A4</b>	<b>Action 4</b>	<b>No remedial action, Label – Re-inspect according to Asbestos Management Plan</b>
		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 Stable and damage unlikely

## Acronyms

<b>ACM</b>	Asbestos containing material
<b>NOHSC</b>	National Occupational Health and Safety Commission
<b>AMP</b>	Asbestos Management Plan
<b>V.O</b>	Visual Observation
<b>NATA</b>	National Association of Testing Authorities, Australia
<b>PLM</b>	Polarised Light Microscopy
<b>SEM</b>	Scanning Electron Microscopy
<b>EDAX</b>	Energy Dispersive X-ray Analysis
<b>CH</b>	Chrysotile Asbestos
<b>CR</b>	Crocidolite Asbestos
<b>AM</b>	Amosite Asbestos
<b>NAD</b>	No Asbestos Detected

## 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 National Code of Practice *How to Safely Remove Asbestos (Safe Work Australia 2011)*.

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 *Guidance Note on the Membrane Filter Method for Estimating Method Airborne Asbestos Fibres 2<sup>nd</sup> Edition* [NOHSC:3003 (2005)].

National Association of Testing Authorities, Australia (NATA) – the organisation 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.

## **6 RECOMMENDATIONS AND REMOVAL OF ASBESTOS CONTAINING MATERIALS**

### **6.1 Asbestos Materials Identified**

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.

In accordance with current legislation [Work Health and Safety Regulation 2011] requirements, an Asbestos Management Plan (AMP) has been compiled with the findings of this survey. The AMP is to be maintained and made available with this Hazardous Materials Register Report at the work place for the use of property owners, employers, workers, people intending to conduct business at the site and to Health and Safety representatives. Legislation requires that any Asbestos identified in the workplace, be clearly indicated. Labels are required to state the presence of Asbestos and the number and position be determined by a competent person. Signs must comply with AS 1319 Safety Signs for the Environment.

#### **6.1.1 Friable & Bonded Asbestos**

At the time of the survey the following friable ACM was identified and suspected:

##### *Hydro Hut*

- Textile (hessian) - External: beneath building – insulation lining to pipe work

At the time of the survey the following bonded ACMs were identified:

##### *External Grounds*

- Asbestos cement - External: adjacent to the main road through the site – telecommunication pit linings

##### *Clinic*

- Bituminous (black) electrical backing board - External: West side of facility in mounted metal box
- Asbestos cement levelling chocks - External: On top of Building footing
- Asbestos cement wall cladding (painted) - External: North side porch
- Asbestos cement wall and ceiling lining - External: North side porch

##### *TAFE*

- Asbestos cement levelling chocks - External: On top of Building footing

##### *Hydro Hut*

- Suspect asbestos 'Tilux' partition - Internal: To shower stall

##### *Maintenance Depot Office and Stores*

- Asbestos cement ceiling lining (painted) - External: Office verandah

##### *Snow Gums Lodge*

- Asbestos cement wall lining - Basement 1; Boiler Room

- Compressed asbestos cement floor slab - Basement 1; Boiler Room and upper levels

*Staff Cottage # 7*

- Suspect asbestos insulation within old 'Rheem' hot water service - Internal: Ceiling space
- Asbestos containing electrical backing board - External: North side of Cottage in mounted metal box
- Asbestos cement walls, joinery and eaves lining (painted) - External: All elevations of cottage
- Asbestos cement walls lining - Internal: Throughout
- Asbestos cement ceiling lining - Internal: Throughout

*Staff Cottage # 9*

- Suspect asbestos insulation within 'Rheem' hot water service - Internal: Ceiling space
- Bituminous (black) electrical backing board - External: West side of Cottage in mounted metal box
- Asbestos cement walls, joinery and eaves lining ( painted) - External: All elevations of cottage
- Asbestos cement wall lining - Internal: Throughout (excluding lounge room)
- Asbestos cement ceiling lining - Internal: Throughout
- Asbestos cement manhole cover - Internal: Bathroom

*Staff Cottage # 12*

- Bituminous (black) electrical backing board - External: South side of Cottage in mounted metal box
- Asbestos cement walls, joinery and eaves lining ( painted) - External: All elevations of cottage
- Asbestos cement wall lining - Internal: Kitchen. Lounge, Bedroom, toilet, hall, Toilet and bedrooms 2,3,4
- Asbestos cement ceiling lining - Internal: Kitchen. Lounge, Bedroom, toilet, hall, Toilet and bedrooms 2,3,4

*Staff Cottage # 13*

- Bituminous (black) electrical backing board - External: South side of Cottage in mounted metal box
- Asbestos cement walls, joinery and eaves lining ( painted) - External: All elevations of cottage (excluding rear extension)
- Asbestos cement wall lining - Internal: Throughout
- Asbestos cement ceiling lining - Internal: Throughout

*Staff Cottage 16*

- Bituminous (black) electrical backing board - External: North side of Cottage in mounted metal box
- Asbestos cement walls, joinery and eaves lining ( painted) - External: All elevations of cottage
- Asbestos cement wall lining - Internal: Throughout
- Asbestos cement cupboard wall lining - Internal: Hall
- Asbestos cement ceiling lining - Internal: Throughout

*Staff Cottage 17*

- Bituminous (black) electrical backing board - External: North side of Cottage in mounted metal box
- Asbestos cement infill panels (painted) - External: North, east and west sides – lower section (between footings)
- Asbestos cement wall cladding (painted) - External: Garage facility to the rear of the cottage building
- Asbestos cement wall lining (painted) - To the external shed: One sheet only
- Asbestos insulation board panel - Internal: Dining room backing to Rinnai gas fire

#### Lodge # 5

- Asbestos cement wall and ceiling lining (older sheets only) - Internal: Throughout Toilet block

#### Lodge 6 # (Laundry/Ablutions)

- Asbestos cement wall cladding and eaves lining - External: Various locations

## 6.2 General

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 National Code of Practice *How to Safely Remove Asbestos (Safe Work Australia 2011)*. Where applicable the regulator will be notified in writing five days prior to the commencement of the works.

## 6.3 Asbestos

Asbestos containing materials (ACM) are referred to as either friable or bonded.

*Friable asbestos* is in the form of a powder, or can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friable asbestos includes materials such as sprayed and thermal insulation, pipe lagging, millboard and gaskets, and can release fibres with only minimal disturbance.

*Bonded asbestos* products are ones in which the asbestos fibres are bound within the matrix of the material. Bonded asbestos is difficult to damage or cause the release of fibres by hand and includes materials such as asbestos cement sheeting (fibre cement or fibro), vinyl floor tiles and 'zelemite' electrical switchboards. However, bonded asbestos containing materials that have been subjected to weathering, physical damage, water damage, fire or other conditions may contain exposed fibres which could be released upon disturbance.

Friable ACM exhibits the greatest risk to human health as fibres are released upon minimal disturbance. As such removal and replacement would be the preferred option if such materials were found in accessible areas or air conditioning systems on the property.

Alternatively removal and replacement may not be the preferred option for bonded ACM in a good and stable condition as the risk associated with removal could be high (as in the case of only partial demolition of structures on site).

### 6.3.1 Licence requirements for asbestos removal work

It is a requirement that a Class B licensed contractor is engaged to remove any amount of bonded ACM greater than 10m<sup>2</sup> and a Class A licensed contractor is engaged to remove any quantity of friable ACM or bonded ACM greater than 10m<sup>2</sup>. However, it is recommended that an appropriately licensed contractor is utilised to remove all ACM's.

### 6.3.2 Air monitoring requirements for asbestos removal work

Asbestos air monitoring is *mandatory for all friable removals* and should be undertaken by an independent licensed asbestos assessor. Air monitoring is also to be considered when more than 10m<sup>2</sup>

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.

### 6.3.3 Asbestos Permit to Work

If it is determined, after consultation with the asbestos register, that ACM is present in the vicinity of 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 B for an example of an Asbestos Permit to Work Form.

### 6.3.4 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 National Code of Practice *How to Safely Remove Asbestos (Safe Work Australia 2011)*.

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.

### **Storage and Disposal of Asbestos**

All asbestos waste shall be double bagged, using 200 µm (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'.

### **6.3.5 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.

## 7 RECOMMENDATIONS AND REMOVAL OF HAZARDOUS MATERIALS

### 7.1 Synthetic Mineral Fibre

Un-bonded or bonded SMF that has severely deteriorated has the potential of becoming airborne. Health effects that may occur with exposure to certain SMF materials include; irritation of the skin, eyes and upper respiratory tract. As such removal and replacement would be the preferred option if such materials were found in accessible areas or air conditioning systems.

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

If the SMF is un-bonded or deteriorated, 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.

If the SMF is un-bonded or deteriorated, in a poor/unstable condition but in inaccessible areas (i.e. Ceiling space), removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, or provide personal protective equipment to personnel required to access the area etc) may be employed until removal can be facilitated.

If the SMF is bonded and in a poor/unstable condition; minimising disturbance and removal or encapsulation may be appropriate controls.

For bonded SMF in a good and stable condition, ongoing maintenance and periodic inspection to ensure they are not deteriorating would be appropriate controls.

Prior to any demolition, partial demolition, renovation or refurbishment, synthetic mineral fibre materials likely to be disturbed by those works should be removed in accordance with the NOHSC Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006 (1990)].

Further assessment of risk through airborne fibre monitoring can assist with decisions on the most appropriate, and urgency of, control measures.

#### 7.1.1 Ozone Depleting Substances (Refrigerants)

When CFC or HCFC refrigerants are in use, the following points should be considered:

1. What type of refrigerants are being used,
2. The loss rate of refrigerant,
3. What is the remaining economic life of the equipment?

Control strategies for CFC and HCFC refrigerants include:

CFC and HCFC based equipment should be made leak free (note that domestic refrigerators are leak free) where feasible;

CFC and HCFC based equipment should be converted/retrofitted or replaced with equipment using ozone benign refrigerants where feasible; and

A licensed contractor who will recycle and reuse the refrigerant should decommission CFC and HCFC based equipment that is being disposed of.

### **7.1.2 Lead Paint**

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

Regardless of condition, immediate access restrictions should be applied and removal undertaken if the lead-based paint is located in areas that are likely to be chewed or licked by children, knocked or are subject to friction.

If the lead-based paint is flaking or chalking, or in a poor/unstable condition (and not located in areas as described above), repainting is required as soon as practicable. However, the surface will need to be prepared by a light wet sanding with wet-and-dry sandpaper to help the paint stick to the surface. Take care not to generate lead dust or contaminate the areas with water from the wet-sanding process.

Lead-based paint in good condition (and not located in areas as described above), should be left in place, unless major renovation and comprehensive removal is planned.

Painting over lead-based paint is a temporary solution limited by the life of the paint. Alternatives to painting or the removal of lead-based paint include encapsulating the paint with other materials.

### **7.1.3 Polychlorinated Biphenyls**

Polychlorinated biphenyls (PCBs) are a group of organic compounds with variable chlorine substitution on a biphenyl backbone. The chemical properties of these products, namely a very high dielectric constant, low chemical reactivity and an extremely long life make these substances ideal for some industrial applications. These substances are very hydrophobic and are preferentially taken up into and stored in fat deposits for life. Once in the body they can cause a range of long term health problems including cancer. PCBs have been used widely in the electrical industry but would be encountered in our working environment in older buildings in the form of small capacitors fitted to fluorescent lights and electric motors in ceiling fans and occasionally within electrical cabinets.

As such the PCBs are within a "closed system", that is, entirely contained within a small sealed metal box and would pose no risk whatsoever unless the material is released from the capacitor as a result of leakage or rupture. PCBs appear as a colourless to straw/yellow oily substance. If they have been overheated the colour may darken to brown. Any substance of such an appearance occurring under fluorescent lights should be treated with caution and investigated. Non leaking capacitors in good order can be left in place. Regular inspection should be made to check for oil leaks under fluorescent lights and leaking capacitors should be replaced by a tradesman.

## 8 RESPONSIBILITIES

This AMP is designed to be integrated into Office of Communities existing maintenance and operations programs. It is critical to the AMP that all people involved in the management and functioning of the site are adequately informed and trained in the purpose and use of the AMP.

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,
- 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,
- 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.
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.
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

<b>Responsible Person/s</b>	<b>Action</b>
	information as part 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.
Site Manager	Provide an immediate response to emergency situations or incidents involving asbestos.
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.

Responsible Person/s	Action
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.
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.
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	<p>Consult with the Subject Site Supervisor/tenant on entering the Subject Site.</p> <p>Look after their own safety and health, and the safety and health of other employees and contractors.</p> <p>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.</p> <p>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.</p> <p>Immediately report any incident, injury, or hazards and any incidents of non-compliance with the AMP that has or may have occurred.</p> <p>Not to impact on any asbestos material without complying with the AMP.</p> <p>To bring to the attention of the Site Supervisor any suspect material.</p> <p>Refer to AMP for guidance to identify, manage, and remove asbestos and other hazardous building materials.</p> <p>Submit Risk Assessments and Health, Safety and Environment Plans when</p>

Responsible Person/s	Action
	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 safety representatives, tenants and visitors	Ensuring they are familiar with the AMP as necessary.  Supporting facilitated activities relating to ACM management.  Comply with the AMP.  Not to impact on any asbestos materials.  Report asbestos related hazards.  Protect themselves and others in the Subject Site.

## 8.1 8.1 Risk Action

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 at least once every five years to ensure it is kept up-to-date. This is to be organised by PCBU with management or control of a workplace and must be performed by a Competent Person.

## **9 MANAGING IN-SITU HAZARDOUS BUILDING MATERIALS**

### **9.1 9.1 General**

The management of in-situ ACM is important to ensure ACM are not disturbed or deteriorate to such an extent that staff and tenants, external contractors or visitors are unnecessarily exposed to airborne asbestos fibres.

The requirements of the contractor site induction will aid in the management of in situ ACM. Asbestos materials works issues should also be incorporated into building works contracts, designed to ensure any asbestos materials on, or in the Subject Site are dealt with in the appropriate manner.

### **9.2 9.2 Re-inspections**

Re-inspections of ACM remaining on site are to be conducted by a Competent Person only. Such re-inspections will comprise a visual assessment of the condition of the materials to determine whether the material remains in a satisfactory condition, or if deterioration has occurred since the previous inspection. Such re-inspections will determine if any remedial action, such as encapsulation, isolation or removal of the ACM, is required. A re-inspection is to be conducted at least once every five years to ensure it the Register kept up-to-date.

Normally, re-sampling of materials would not be required during re-inspections. If, however, previously unidentified or undocumented ACM, or materials suspected of containing asbestos, are encountered during the re-inspection process, sampling and analysis will need to be performed. The Register will be updated and re-issued at the completion of the re-inspection work.

### **9.3 9.3 Record Keeping**

The PCBU with management or control of a workplace shall maintain detailed records of all activities and work permits relating to asbestos works which have been undertaken on the Subject Site. The records kept should include:

- Copies of all asbestos materials survey reports, including updates and amendments;
- Site induction records pertaining to the informing of contractors about the presence of asbestos materials on site, and that such contractors have been appropriately trained in safe work procedures and practices;
- Records pertaining to the informing of Office of Communities employees about the presence of ACM on site, and that such employees have been appropriately trained in safe work procedures and practices;
- Records of any asbestos materials removal works performed on site;
- Clearance certificates indicating areas are safe to reoccupy after asbestos materials removal works;
- Air monitoring test results for airborne asbestos fibres;
- Previous versions of the asbestos materials register (if present);
- All asbestos related records and documents are to be retained for 70 years after the: removal of the ACM; after the building has been demolished.

## 9.4 9.4 Labelling and Signage

A labelling system should be implemented by the PCBU with management or control of a workplace throughout The Subject Site to clearly identify and provide warning of the presence of ACM at the workplace:

- Labels are to be placed on items of ACM identified or presumed and any ACM enclosed or inaccessible;
- The positions and number of labels required should be determined by a Competent Person. The location of labels should be consistent with the locations in the Register; and
- Warning labels are to be in a location that will alert persons not to disturb the material without the correct training.

If it is not practicable to label the asbestos directly a prominent warning sign must be posted in its immediate vicinity. All warning signs must comply with AS 1319 *Safety Signs for the Occupational Environment* and the National Code of Practice *How to Manage and Control Asbestos in the Workplace* (Safe Work Australia 2011). Examples of standard warning labels and signs for asbestos are illustrated below:



Signs should be placed at all main entrances to the work areas where asbestos is present.

## 10 SAFE WORK PRACTICES

### 10.1 10.1 General

Prior to any works such as demolition, major refurbishment, decommissioning, renovation or maintenance, the PCBU with management or control of a workplace must

- Review the Asbestos Register;
- Provide a copy of the Asbestos Register to the person carrying out the work; and
- Ensure Asbestos that is likely or liable to be disturbed is identified and, so far as is reasonably practicable removed.

*The PCBU with management or control of a workplace must, if the Register is deemed inadequate having regard to the proposed demolition or refurbishment, ensure that the Register is revised. This should be addressed by having an 'Intrusive Sampling' Pre-demolition / Major Refurbishment Asbestos Survey of the specified areas or buildings undertaken by a Competent Person.*

All ACM identified within the updated Register that may be impacted upon by the proposed works must be removed under controlled conditions prior to the commencement of the works by an appropriately licensed asbestos removal contractor. Work involving the removal of asbestos is to be conducted as per the guidelines in the National Code of Practice *How to Safely Remove Asbestos (Safe Work Australia 2011)*.

If unknown materials, or undocumented materials suspected of containing ACM are encountered during building works, such materials are to be treated as if they contain asbestos and any work that would impact on that material must immediately cease, pending sampling by a competent person and analysis by a NATA accredited laboratory. This will allow Office of Communities to determine what, if any, control methods may be required.

Any external contractor contracted by Office of Communities to perform works on or in the Subject Site where ACM may be present, should, prior to commencing work, undergo a site induction. Such an induction is designed to alert the contractor to the possible presence of ACM, and the various issues associated with working with asbestos materials. The asbestos register and AMP for the building should be consulted in the presence of the contractor during the site induction to determine if any asbestos materials are at risk of being disturbed as a result of the proposed works. If this is suspected to be the case, the contractor engaged is to ensure that an appropriately licensed asbestos removalist performs the asbestos removal work.

### 10.2 10.2 Maintenance Procedures

#### Asbestos

Minor maintenance tasks that may involve ACM at the Subject Site are to be addressed under controlled conditions to prevent and minimise the risk of airborne asbestos fibres to the maintenance staff themselves and any other person.

For undertaking minor asbestos maintenance, the National Code of Practice *How to Safely Remove Asbestos (Safe Work Australia 2011)* has procedures for certain maintenance tasks and they must be followed as per the Code of Practice. These maintenance tasks may include but are not limited to:

- The Drilling of Asbestos Containing Materials;

- Sealing, Painting, Coating of Asbestos Cement Products;
- Cleaning Leaf Litter from Gutters of Asbestos Cement Roofs;
- Replacing Cabling in Asbestos Cement Conduits or Boxes;
- Working on Electrical Mounting Boards (Switchboards) Containing Asbestos; and
- Inspection of Asbestos Friction Materials.

### **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 National Code of Practice How to Safely Remove Asbestos (Safe Work Australia 2011) 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.

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.

## 11 OCCUPATIONAL EXPOSURE STANDARDS

### Asbestos Air Monitoring

It is the aim of Office of Communities 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

Throughout the duration of the removal work works air test results should return results below 0.01 fibres/ml. The following table shows the actions to be taken should the fibre levels exceed the action level of 0.01 fibres/ml.

Action level (fibre/ml)	Control / Action
< 0.01	Continue with control measures
$\geq 0.01 \leq 0.02$	Review control measures, investigate cause and implement controls to minimise further release
$\geq 0.02$	Stop removal work and notify the regulator. Investigate cause including enclosure & equipment where present and clean immediate area. Do not recommence work until air test results return readings of < 0.01 fibres/ml

*Air monitoring is mandatory during all friable asbestos removal (e.g. CAF Gaskets, Insulation).*

It is recommended by Coffey that air monitoring take place during all removal of >10m<sup>2</sup> bonded ACM (e.g. Cement Sheeting, Vinyl Floor Tiles), maintenance, refurbishment, or removal works involving known or suspect ACM in or next to a public location and following any removal works in an enclosed area (ie: Boiler Room). Following the inadvertent disturbance of ACM, reassurance asbestos air monitoring should also take place prior to any persons reoccupying the area without PPE&RPE.

## 12 EMERGENCY PROCEDURES

An emergency situation is most likely to entail such a scenario where hazardous materials present on site have been inadvertently disturbed through actions of Office of Communities employees, site users, maintenance personnel, contractors, visitors, or damaged by severe weather conditions (eg. hail or fire damage to a corrugated asbestos cement roof). Where such damage has occurred, Office of Communities, Health and Safety Representative shall be notified immediately.

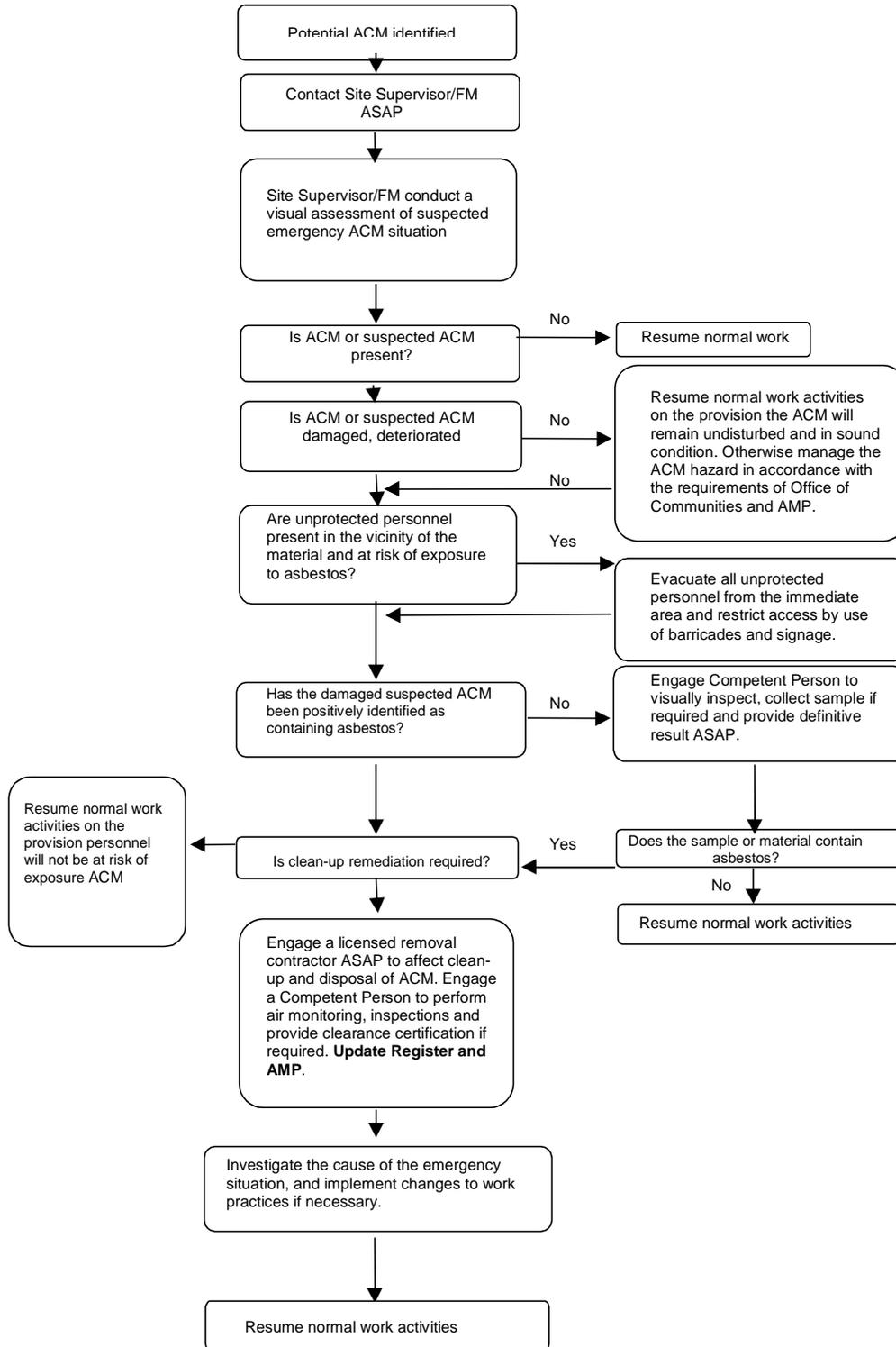
During any removal of any ACM an emergency within the building may necessitate the need to evacuate the building. The risks associated with any asbestos removal work should be assessed and include contingencies in the case of an emergency. Workers should be trained in the event of an emergency. Decontamination procedures can be temporarily waived in the event of an emergency and this is to be based on risk. The event likely to present in an emergency may include but not be limited to:

- Fire Evacuation;
- Chemical spill and contamination; and
- Gas leak/contaminated atmosphere hazardous to health.

In the case of the above situations requiring an emergency, Site supervisor, Office of Communities and the Health and Safety Representative(s) should be notified immediately and the area evacuated.

Other Emergency Response Procedures shall be initiated for non evacuation events and implemented in accordance with the flow chart diagram in Figure 1.

Figure 1: ACM Emergency Response Flow Chart



### 13 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.

Office of Communities personnel, 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 at The Subject Site;
- 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.

### 14 REMOVAL WORKS RECORD

DATE	LOCATION	WORK/TASK	COMPANY	NAME (PRINTED) & SIGNATURE





## 16 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.

In order to determine actual environmental conditions at specific intermediate points away from those observed/tested to date, those specific points would need to be inspected/tested.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Coffey will not update the report and has not taken into account events occurring after the time its assessment was conducted.

This inspection and report may not include the following areas:

- Beneath building;
- Roof of building; and
- Removal of fittings e.g. kitchen or bathroom cupboards

Internal building materials should be assumed to contain asbestos until otherwise assessed by a competent person and proved to be otherwise.

Subsurface drains and pipes may be constructed of asbestos cement but this could not be assessed. Any subsurface pipes, particularly those constructed of fibro-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

This report has been provided by Coffey for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

### Asbestos Compliance Survey

Assessments that are effectively Compliance Surveys are non-destructive and as such are not intended for use or referral for the purpose of demolition, refurbishment, renovations or structural alterations. In the event of future demolition, refurbishment, renovation, decommissioning or structural alterations further investigation, which may entail intrusive testing, shall be required.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation

to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

Coffey assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for future assessments.

Where no samples are taken the situation is considered "asbestos free". This assessment is based on the knowledge and experience of Coffey Assessors, or on research conducted by Coffey.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

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.

**COFFEY ENVIRONMENTS AUSTRALIA PTY LTD**

## 17 REFERENCES

- Work Health and Safety Act 2011 and Regulations (Commonwealth, NSW, ACT, NT & QLD)
- Occupational Health and Safety Act 2004 and Regulations 2003, 2007 (VIC),
- Occupational Health and Safety and Welfare Act 1986 and Regulations 2010 (SA)
- Workplace Health and Safety Act 1995 and Regulations 1998 (TAS)
- Occupational Health and Safety Act 1984 and Regulations 1996 (WA)
- Association of Fluorocarbon Consumers and Manufacturers, *The Australian Refrigeration and Air*
- 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
- National Code of Practice How to Manage and Control Asbestos in the Workplace (Safe Work Australia 2011)
- National Code of Practice How to Safely Remove Asbestos (Safe Work Australia 2011)
- National Occupational Health and Safety Commission (NOHSC), Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition, 3003 - 2005
- National Occupational Health and Safety Commission (NOHSC), *List of Designated Hazardous Substances*, 10005 - 1999
- Control and Safe Use of Inorganic Lead at Work, 2015 – 1994
- Health and Safety Laboratory UK – HSG 264 Asbestos The Survey Guide 2010
- Health and Safety Laboratory UK - Methods for the Determination of Hazardous Substances (MDHS) 100 Surveying, sampling and assessment of asbestos-containing materials 2001
- Health and Safety Laboratory UK - HSG 227 A Comprehensive Guide to Managing Asbestos in Premises 2002

# Appendix A Photographs

**Hazardous Materials Register and Management Plan  
Jindabyne Sports & Recreation Centre, Jindabyne NSW**

**Photograph 1:** Asbestos cement - External: adjacent to the main road through the site – telecommunication pit linings – **CH, AM**



**Photograph 2:** Bituminous (black) electrical backing board - External: West side of facility in mounted metal box - **CH**



**Photograph 3:** Asbestos cement wall cladding (painted) – Clinic, External: North side porch – **CH, AM, CR**



**Photograph 4:** Asbestos cement levelling chocks – TAFE, External: On top of Building footing – **CH, AM, CR**



**Photograph 5:** Textile (hessian) – Hydro hut, External: beneath building – insulation lining to pipe work



**Photograph 6:** Asbestos cement wall lining – Snow Gums Lodge, Basement 1; Boiler Room - CH



**Photograph 7:** Compressed asbestos cement floor slab – Snow Gums Lodge, Basement 1; Boiler Room and upper levels - CH



**Photograph 8:** Suspect asbestos insulation within old 'Rheem' hot water service – Staff Cottage 7, Internal: Ceiling space



**Photograph 9:** Asbestos cement walls, joinery and eaves lining (painted) – Staff Cottage 7, External: All elevations of cottage – CH, CR



**Photograph 10:** Asbestos cement walls, joinery and eaves lining (painted) – Staff Cottage 9, External: All elevations of cottage – CH, CR



**Photograph 11:** Bituminous (black) electrical backing board - External: South side of Staff Cottage 12, in mounted metal box - CH



**Photograph 12:** Asbestos cement walls, joinery and eaves lining (painted) – Staff Cottage 12, External: All elevations of cottage – CH, CR



**Photograph 13:** Asbestos cement walls, joinery and eaves lining ( painted) – Staff Cottage 13, External: All elevations of cottage (excluding rear extension) - **CH, CR**



**Photograph 14:** Bituminous (black) electrical backing board - External: North side of Cottage in mounted metal box - **CH**



**Photograph 15:** Asbestos cement infill panels (painted) – Staff Cottage 17, External: North, east and west sides – lower section (between footings) - **CH**



**Photograph 16:** Asbestos cement wall cladding (painted) – Staff Cottage 17, External: Garage facility to the rear of the cottage building - **CH**



**Photograph 17:** Asbestos cement wall lining (painted) - To the external shed, Staff Cottage 17: One sheet only - **CH**



**Photograph 18:** Asbestos cement wall and ceiling lining (older sheets only) – Lodge 5 Internal: Throughout Toilet block – **CH, AM, CR**



**Photograph 19:** Asbestos cement wall cladding and eaves lining – Lodge 6, Laundry, External: Various locations mixed with EP-126 (above) – **CH, AM, CR**



**Photograph 20:** Paint (pale green) – Lodge 6, External: toilet block – paint to external walls – **Pb**



**Photograph 21:** Paint (white) – Mattress and Salvage Store, External: perimeter of store – paint to walls and window frames - **Pb**



# Appendix B

## Asbestos Permit to Work

**Hazardous Materials Register and Management Plan  
Jindabyne Sports & Recreation Centre, Jindabyne NSW**

# ASBESTOS PERMIT TO WORK

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 Permit No: .....  
Date of issue: .....  
This Permit is issued to: .....  
This Permit is valid up to: .....  
Asbestos Licence Number: (if applicable).....  
Organisation/Company: .....  
Contact Telephone Number: .....  
Location & Duration of Works: .....  
Description of Works: .....  
.....

Asbestos-containing materials have been used in various locations throughout the building. Before approval is granted 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 outlined in the Asbestos Management Plan documented and understood? | YES - NO |
| 6. If YES to question 4 above, have you submitted a risk assessment for 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 |

Asbestos materials are not to be disturbed without the approval of Building Management. All works are to be performed in accordance with the special requirements or work procedures outlined in the Asbestos Management Plan. If any unknown materials, or materials suspected of containing asbestos are encountered, work is to cease immediately and Building Management notified.

I have read and understood the requirements and procedures described in the Asbestos Management Plan and this permit to work:

I hereby authorize the Building Management to engage an asbestos removal contractor to clean any asbestos debris/hazards that was created due to my/our Company activity and the removal cost will be payable by:

\_\_\_\_\_ [Company]  
\_\_\_\_\_  
Building Management Representative                      Company Representative

# Appendix C

## Legislative Requirements

**Hazardous Materials Register and Management Plan  
Jindabyne Sports & Recreation Centre, Jindabyne NSW**

## 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.

### 1. 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 2012. The new harmonised laws commenced in South Australia and Tasmania on the 1 January 2013.

For links to these legislation 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>

### 2. 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 [contact your regulator](#).

### 3. 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>

## 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	Management and Labelling/Signage Requirements	Other Requirements
<p><b>COMMONWEALTH</b> <b>NEW SOUTH WALES</b> <b>QUEENSLAND</b> <b>NORTHERN TERRITORY</b> <b>TASMANIA</b> <b>SOUTH AUSTRALIA</b></p> <p><i>Work Health and Safety Act 2011 (Cth, NSW, QLD, TAS, SA)</i></p> <p><i>Work Health and Safety Regulations 2011 (Cth, NSW, QLD, TAS, SA)</i></p> <p><i>Work Health and Safety (National Uniform Legislation) Act and Regulations 2011 (NT)</i></p> <p><i>Supported by:</i></p> <p><i>Code of Practice - How to Management and Control Asbestos in the Workplace (2011)</i></p> <p><i>Code of Practice - How to Safely Remove Asbestos (2011)</i></p>	<p>A person conducting a business or undertaking (PCBU) must, for work place buildings/ structures that are constructed prior to December 31, 2003;</p> <ul style="list-style-type: none"> <li>survey to identify and locate any Asbestos Containing Materials (ACM); and,</li> <li>compile and keep at the workplace a site specific Asbestos Register .</li> </ul> <p>If ACM is identified at the work place, an Asbestos Management Plan (AMP) is to be compiled for the management of the identified ACM.</p> <p>The Asbestos Register and the Asbestos Management Plan must be made available at the work place for workers, people intending to conduct business at the work place and to Health and Safety representatives.</p>	<p>Re-inspections of identified ACM is determined on a case-by-case basis depending on the risk situation and should be informed by and conducted in accordance with the site specific Asbestos Management Plan.</p>	<p>The site specific Asbestos Register needs to include the date, type, location, condition and ACM identified during the survey.</p> <p>The Asbestos Register must be maintained and also updated if:</p> <ul style="list-style-type: none"> <li>the AMP is under review,</li> <li>further ACM is identified and/or,</li> <li>ACM is removed, disturbed or encapsulated.</li> </ul> <p>The site specific AMP must include management actions and justifications, incident and emergency response plans and record details of works carried out that involves ACM at the work place.</p> <p>The AMP must be maintained and updated:</p> <ul style="list-style-type: none"> <li>when the Asbestos Register is under review,</li> <li>if asbestos is removed, disturbed or encapsulated,</li> <li>if the AMP is no longer adequate for managing the ACM,</li> <li>if a Health and Safety Officer requests a review and/or at least</li> <li>once every 5 years.</li> </ul>	<p>Generally, health monitoring is not required excepting for workers involved in asbestos removal works.</p> <p>Training is required for persons involved in asbestos removal work or carrying out asbestos related works.</p> <p>All identified ACM in a workplace has to be labelled to indicate clearly asbestos presence and location of the asbestos item.</p> <p>Before refurbishment or demolition:</p> <ul style="list-style-type: none"> <li>ensure Asbestos Register is current</li> <li>undertake necessary inspections</li> </ul> <p>A licenced asbestos removalist is required unless:</p> <p>ACM &lt; 10m2 and non-friable and then by a competent person</p>	<p>WHS Regulation 419 requires A person conducting a business or undertaking (PCBU) must not carry out, or direct or allow a worker to carry out, work involving asbestos; excepting as is applicable:</p> <ul style="list-style-type: none"> <li>managing risk;</li> <li>sampling, identification and analysis;</li> <li>maintenance</li> <li>removal/disposal</li> <li>other exemptions per s.419 (3)</li> </ul>

## 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/ Territory	OLD ACT	NEW ACT	OLD REGULATION	NEW REGULATION
<b>CMWLTH</b>	<i>Occupational Health and Safety Act 1991</i>	<i>Work Health and Safety Act 2011 (Cth)</i>	<i>Occupational Health and Safety (Safety Standards) Regulations 1994</i> <i>Occupational Health and Safety (Safety Arrangements) Regulations 1991</i>	<i>Work Health and Safety Regulations 2011 (Cth)</i>
<b>NT</b>	<i>Workplace Health and Safety Act 2008</i>	<i>Work Health and Safety Act 2011 (NT)</i>	<i>Workplace Health and Safety Regulations 2008</i>	<i>Work Health and Safety Regulation 2011 (NT)</i>
<b>QLD</b>	<i>Workplace Health and Safety Act 1995</i>	<i>Work Health and Safety Act 2011 (QLD)</i>	<i>Workplace Health and Safety Regulation 2008</i>	<i>Work Health and Safety Regulation 2011 (QLD)</i>
<b>NSW</b>	<i>Occupational Health and Safety Act 2000</i>	<i>Work Health and Safety Act 2011 (NSW)</i>	<i>Occupational Health and Safety Regulation 2001</i>	<i>Work Health and Safety Regulation 2011 (NSW)</i>
<b>ACT</b>	<i>Work Safety Act 2008</i>	<i>Work Health and Safety Act 2011 (ACT)</i>	<i>Work Safety Regulation 2009</i>	<i>Work Health and Safety Regulation 2011 (ACT)</i> <i>Dangerous Substances Regulations 2004 continue until review in 2012</i>
<b>VIC</b>	<i>Occupational Health and Safety Act 2004</i>	<i>Occupational Health and Safety Act 2004</i>	<i>Occupational Health and Safety Regulation 2007</i>	<i>Occupational Health and Safety Regulation 2007</i>
<b>SA</b>	<i>Occupational Health, Safety and Welfare Act 1986</i>	<i>Work Health and Safety Act 2011 (SA)</i>	<i>Occupational Health, Safety and Welfare Regulations 2010</i>	<i>Work Health and Safety Regulation 2011 (SA)</i>
<b>WA</b>	<i>Occupational Health and Safety Act 1984</i>	<i>Occupational Health and Safety Act 1984</i>	<i>Occupational Health and Safety Regulation 1996</i>	<i>Occupational Health and Safety Regulation 1996</i>
<b>TAS</b>	<i>Workplace Health and Safety Act 1995.</i>	<i>Work Health and Safety Act 2011 (TAS)</i>	<i>Workplace Health and Safety Regulations 1998</i> <i>[amendment 2006; Part 4: division 9 'Asbestos']</i>	<i>Work Health and Safety Regulation 2011 (TAS)</i>

# Appendix D

## Certificate(s) of Laboratory Analysis

**Hazardous Materials Register and Management Plan  
Jindabyne Sports & Recreation Centre, Jindabyne NSW**

## ASBESTOS IDENTIFICATION REPORT No. 74489

<b>CLIENT:</b>	Coffey Environmental	<b>YOUR REF:</b>	ENAU RHOD06240AA
<b>ATTENTION:</b>	Haysam Elhassan	<b>RECEIVED IN LAB:</b>	15 October 2013
<b>PROJECT NAME:</b>	Office of Communities	<b>REPORT DATE:</b>	17 October 2013
<b>SAMPLED BY:</b>	As-received		

Test Methods: In house method LOP-002 Asbestos Identification by Polarised Light Microscopy including Dispersion Staining (Based on AS4964-2004 Method for the qualitative identification of asbestos in bulk samples) and In house method LOP-005 Serpentine Detection and Chrysotile Non-detection by X-ray diffraction

Sample No	Dimensions	Description	Asbestos by PLM	Chrysotile by XRD	SMF	OF
AF473	10x10x9mm	Black resin board	Chrysotile			
AF474	10x10x9mm	Black resin board	Chrysotile			
AF475	10x5x5mm	Off-white cement sheet, painted white	No			Yes
AF476	10x5x5mm	Off-white cement sheet, painted white	No			Yes
AF478	10x5x5mm	Grey cement sheet, painted white	Chrysotile			
AF479	10x5x5mm	Off-white cement sheet, painted pale pink	No			Yes
AF480	50x10x5mm	Off-white putty strip, painted white	No			
AF481	30x30x5mm	White cement sheet	No			Yes
AF482	90x90x2mm	Green vinyl layer		No		
AF484	10x5x5mm	Pale pink cement sheet, painted white	No			Yes
AF485	10x5x5mm	Pale grey cement sheet, painted pale grey	No			Yes
AF486	10x5x5mm	Pale grey cement sheet, painted white	No			Yes
AF487	10x5x5mm	White micaceous fibrous layer, painted off-white	No			Yes
AF488	10x5x5mm	Black resin board	Chrysotile			
AF490	10x5x5mm	Pale pink cement sheet, painted white	No			Yes
AF492	10x2x2mm	White bundle of fibres	No		Yes	
AF494	10x5x5mm	Grey cement sheet	Chrysotile & Amosite			
AF495	10x10x9mm	Black resin board	Chrysotile			

Please note that the results contained in this report relate only to the sample(s) submitted for testing. Sample Dimensions and Descriptions are approximate only. PLM = Polarized Light Microscopy, XRD = X-ray diffraction.

Chrysotile is commonly known as white asbestos, Amosite is commonly known as brown asbestos and Crocidolite as blue asbestos. SMF (Synthetic Mineral Fibre) is commonly known as glass fibre. Organic Fibre includes natural fibres and synthetic organic fibre. A blank in the SMF or OF columns implies not detected. A blank in the PLM or XRD columns implies not tested by this method.

SOF062 NATA ID Report October 2011 Page 1 of 2

## ASBESTOS IDENTIFICATION REPORT No. 74489

**CLIENT:** Coffey Environmental  
**ATTENTION:** Haysam Elhassan  
**PROJECT NAME:** Office of Communities  
**SAMPLED BY:** As-received

**YOUR REF:** ENAURHOD06240AA  
**RECEIVED IN LAB:** 15 October 2013  
**REPORT DATE:** 17 October 2013

Sample No	Dimensions	Description	Asbestos by PLM	Chrysotile by XRD	SMF	OF
AF496	30x20x9mm	White cement board	Chrysotile			
AF497	40x40x5mm	Off-white cement sheet	No			Yes
CB4001	50x40x5mm	White cement sheet (curved)	Chrysotile & Crocidolite			
	40x40x5mm	White cement sheet (flat)	Chrysotile & Amosite			
CB4002	10x5x5mm	Grey cement sheet	Chrysotile & Amosite			
CB4003	10x5x5mm	Black resin board	Chrysotile			
CB4004	50x10x4mm	White putty strip	No			
CB4005	10x10x7mm	Black, slightly flexible lump	No			
CB4006	10x10x5mm	Grey cement sheet	Chrysotile & Amosite			
CB4007	0.5x0.5x0.2mm	White lump, painted blue	Chrysotile			
CB4008	10x5x5mm	Black resin board	Chrysotile			
CB4009	10x5x5mm	White cement sheet	Chrysotile			
CB4010	20x20x5mm	Off-white cement sheet, painted white	No			Yes

Approved Identifier (PLM) and Testing Officer (XRD) and Signatory (PLM/XRD)



Michael Till

Please note that the results contained in this report relate only to the sample(s) submitted for testing. Sample Dimensions and Descriptions are approximate only. PLM = Polarized Light Microscopy, XRD = X-ray diffraction.

Chrysotile is commonly known as white asbestos, Amosite is commonly known as brown asbestos and Crocidolite as blue asbestos. SMF (Synthetic Mineral Fibre) is commonly known as glass fibre. Organic Fibre includes natural fibres and synthetic organic fibre. A blank in the SMF or OF columns implies not detected. A blank in the PLM or XRD columns implies not tested by this method.

SOF062 NATA ID Report October 2011 Page 2 of 2

**AEC Environmental**  
**12 Greenhill Road**  
**Wayville**  
**SA 5034**

**Attention:** **Michael Till**

**Report** **396460-S**  
 Client Reference **OFFICE OF COMMUNITIES ENAURHOD06240AA**  
 Received Date **Oct 16, 2013**

## Certificate of Analysis



**NATA Accredited**  
**Accreditation Number 1261**  
**Site Number 1254**

Accredited for compliance with ISO/IEC 17025.  
 The results of the tests, calibrations and/or  
 measurements included in this document are traceable  
 to Australian/national standards.

Client Sample ID Sample Matrix Eurofins   mgt Sample No. Date Sampled Test/Reference	LOR	Unit	AF472 Paint M13-Oc12037 Not Provided	AF477 Paint M13-Oc12038 Not Provided	AF483 Paint M13-Oc12039 Not Provided	AF489 Paint M13-Oc12040 Not Provided
Lead (% w/w)	0.01	%	1.6	< 0.01	0.07	3.7

Client Sample ID Sample Matrix Eurofins   mgt Sample No. Date Sampled Test/Reference	LOR	Unit	AF491 Paint M13-Oc12041 Not Provided	AF493 Paint M13-Oc12042 Not Provided
Lead (% w/w)	0.01	%	31	35

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

<b>Description</b>	<b>Testing Site</b>	<b>Extracted</b>	<b>Holding Time</b>
Lead (% w/w) - Method: USEPA 6010B Heavy Metals	Melbourne	Oct 16, 2013	6 Month

<b>Company Name:</b> AEC Environmental <b>Address:</b> 12 Greenhill Road Wayville SA 5034  <b>Client Job No.:</b> OFFICE OF COMMUNITIES ENAURHOD06240AA	<b>Order No.:</b> LE224461 <b>Report #:</b> 396460 <b>Phone:</b> 08 8299 9955 <b>Fax:</b> 08 8299 9954	<b>Received:</b> Oct 16, 2013 1:06 PM <b>Due:</b> Oct 22, 2013 <b>Priority:</b> 4 Day <b>Contact Name:</b> Michael Till
<b>Eurofins   mgt Client Manager: Sarah Gould</b>		

Sample Detail					Lead (% w/w)
<b>Laboratory where analysis is conducted</b>					
Melbourne Laboratory - NATA Site # 1254 & 14271					X
Sydney Laboratory - NATA Site # 18217					
Brisbane Laboratory - NATA Site # 20794					
<b>External Laboratory</b>					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
AF472	Not Provided		Paint	M13-Oc12037	X
AF477	Not Provided		Paint	M13-Oc12038	X
AF483	Not Provided		Paint	M13-Oc12039	X
AF489	Not Provided		Paint	M13-Oc12040	X
AF491	Not Provided		Paint	M13-Oc12041	X
AF493	Not Provided		Paint	M13-Oc12042	X

## Eurofins | mgt Internal Quality Control Review and Glossary

### General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

### Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

**\*\*NOTE:** pH duplicates are reported as a range NOT as RPD

### UNITS

**mg/kg:** milligrams per Kilogram

**mg/l:** milligrams per litre

**ug/l:** micrograms per litre

**ppm:** Parts per million

**ppb:** Parts per billion

**%:** Percentage

**org/100ml:** Organisms per 100 millilitres

**NTU:** Units

**MPN/100mL:** Most Probable Number of organisms per 100 millilitres

### TERMS

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery
<b>CRM</b>	Certified Reference Material - reported as percent recovery
<b>Method Blank</b>	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>Batch Duplicate</b>	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>Batch SPIKE</b>	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>USEPA</b>	United States Environment Protection Authority
<b>APHA</b>	American Public Health Association
<b>ASLP</b>	Australian Standard Leaching Procedure (AS4439.3)
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>COC</b>	Chain of Custody
<b>SRA</b>	Sample Receipt Advice
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>NCP</b>	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within

### QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

### QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Lead (% w/w)	M13-Oc12037	CP	%	1.6	2.0	22	30%	Pass	

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

**Authorised By**

Sarah Gould	Client Services
Emily Rosenberg	Senior Analyst-Metal (VIC)


**Glenn Jackson**
**Laboratory Manager**

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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