









Sutherland Hospital Bldng A Level 04









Sutherland Hospital Bldng A Level 05











Photo No: TSH-2416 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 01 Room/Location: Between corridors (TSHA1T05 & TSHA1P14)-Feature/Material: Fire Door-Insulation



Photo No: TSH-1036 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 01 Room/Location: Exterior East Courtyard (TSHA1CY4)-Throughout Feature/Material: Awning-Flat Cement Sheeting





Photo No. TSH-1043 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 01 Room/Location: Corridor opposite QFS Kitchen 18 (TSHA1K33)-Feature/Material: Electrical Distribution Board-Bituminous Material



Photo No: TSH-2389 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 01 Room/Location: Fire Stairs (TSHA1ST3)-South East Feature/Material: Fire Door-Insulation





Photographs Sutherland Hospital - A - Main Building 14-11-2011











Photo No: TSH-1042 Result: Asbestos - Positive Building/Level: Main Building-Level 01 Room/Location: QFS Kitchen 15 (TSHA1K30)-Air Handling room Feature/Material: Air Conditioning Ductwork-Mastic Sealant



Photo No: TSH-2412 Result: Asbestos - Positive Building/Level: Main Building-Level 01 Room/Location: QFS Kitchen 9 (TSHA1K24)-Feature/Material: Fire Door-Insulation







Photo No: TSH-2415 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 01 Room/Location: West central corridor (TSHA1T02) & West office (TSHA1P30)-West Feature/Material: Fire Door-Insulation









Photo No: TSH-2417 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 01 Room/Location: West Corridor (TSHA1T03)-West Feature/Material: Electrical Distribution Board-Bituminous Material



Photo No: TSH-1034 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 02 Room/Location: South West Fire Stairs (TSHA2ST2)-North Feature/Material: Fire Door-Insulation







Photo No: TSH-1030 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 03 Room/Location: CSSD, Corridor (TSHA3JC2)-North Feature/Material: Electrical Distribution Board-Bituminous Material



Photo No: TSH-1025 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 03 Room/Location: Exterior Fire Stairs (TSHA3ST3)-South Plant Room Feature/Material: Roof Lining-Bituminous Membrane





Photo No: TSH-1013 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 03 Room/Location: Exterior Perimeter-West Feature/Material: Window louvers-Compressed Cement Sheeting









Photo No: TSH-2390 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 03 Room/Location: Plant Room (TSHA3PR6)-Feature/Material: Electrical Distribution Board-Bituminous Material







Photo No: TSH-1026 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 03 Room/Location: Platform (Level 2 Roof)-North West Feature/Material: Waterproof Membrane-Bituminous Membrane













Photo No: TSH-0064 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 04 Room/Location: Exterior Platform-Surrounding Feature/Material: Waterproof Membrane-Bituminous Material







Photo No: TSH-1013 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 04 Room/Location: Exterior Perimeter-West Feature/Material: Window louvers-Compressed Cement Sheeting



Photo No: TSH-1014 Result: Asbestos - Positive Building/Level: Main Building-Level 04 Room/Location: Exterior Roof (TSHA4R05)-North East Feature/Material: Eaves-Fibre Cement Sheeting













Photo No: TSH-1024 Result: Asbestos - Positive Building/Level: Main Building-Level 04 Boom/Location: Records Active Room (TSHA4C24)-Room/Location: Records Active Room (TSHA4C24)-Feature/Material: Suspended Ceiling-Compressed Ceiling Tiles







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Photo No: TSH-2381 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 05 Room/Location: North East Riser (TSHA5DU2)-Fan Room 2 Feature/Material: Fire Door-Insulation









Photo No: TSH-2385 Result: Asbestos - Positive Building/Level: Main Building-Level 05 Room/Location: South East Riser (TSHA5DU3)-Feature/Material: Air Conditioning Ductwork-Mastic Sealant









Photo No: TSH-2384 Result: Asbestos - Assumed Positive Building/Level: Main Building-Level 05 Room/Location: South East Riser (TSHA5DU3)-Fan Room 3 Feature/Material: Fire Door-Insulation - Fire Door



Photo No: TSH-0074 Result: Asbestos - Assumed Positive Building/Level: Main Building-Roof Level Room/Location: Roof (TSHARF07)-Feature/Material: Lining-Bituminous Membrane



Sutherland Hospital - A - Main Building 14-11-2011 Sample Analysis Results





Risk Management Services

Phone: (02) 9889 1800 Fax: (02) 9889 1811 Email: sydney@noel-arnold.com.au www.noel-arnold.com.au Level 2, 11 Khartoum Road, North Ryde, NSW 2113 Australia ACN. 006 318 010 ABM. 76 006 318 010

Tuesday, 07/02/2012

Our ref: SS0272:96100-A

Laurie Boyd SESIAHS **CARINGBAH NSW 2229** 430 Kingsway

Dear Laurie,

NSW 2219 Re: Asbestos Identification Analysis - Building A, Sutherland Hospital, 430 Kingsway, Caringbah

to be from Building A, Sutherland Hospital, 430 Kingsway, Caringbah NSW 2219. Scott McIlwain of Noel Arnold & Associates Pty Ltd on Monday, 14 November 2011. The samples were stated This letter presents the results of asbestos fibre identification analysis performed on 5 samples collected by

All sample analysis was performed using polarised light microscopy, including dispersion staining in Sydney Laboratory in accordance with Noel Arnold and Associates Pty Ltd Test Method NALAB "Asbestos Identification Analysis" and following the guidelines of Australian Standard AS4964-2004. 302 our

The samples will be kept for six months and then disposed of, unless otherwise directed

The results of the asbestos identification analysis are presented in the appended table

Should you require further information please contact Scott McIlwain

NOEL ARNOLD & ASSOCIATES PTY LTD Yours sincerely



Scott McIlwain : Approved Identifier



Simon Day : Approved Signatory



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Accredited for compliance with ISO/IEC 17020, Corporate Site No. 18349.





Tues	day, 07/02/2	Sydney Laboratory Sample Analysis Results	Our ref: SS0272:96100-A
Site	Elocation:	Building A, Sutherland Hospital, 430 Kingsway, Caringbah NSW 2219	
	Sample ID	Sample Location/Description/Weight or Size	Analysis Result
	96100-A	TSHA1M04, Suspended ceiling tile - Insulation	
<u> </u>	01	Off white-painted white-grey compressed fibre-cement sheet material	Chrysotile (White aspesios)
		~ 15 x 6 x 5 mm	
	96100-A	Store TSHA1N03, Plywood ceiling tile - Adhesive with compressed fibre cement sheet debris	
Ν	0)	A: Amber adhesive material and attached brown organic wood fibre material	A: No Asbestos Detected R: Chrysotile (white asbestos)
		A: ~ 30 x 10 x 1 mm B: ~ 10 x 10 x <1 mm	
	96100-A	Store TSHA1N03, Behind ceramic wall tiles - Rubbery adhesive	
ω	03	Black, grey rubbery mastic material	NO Aspesios Delecieu
		~ 30 x 18 x 4 mm	
	96100-A	Store TSHA1N03, Wall penetrations for pipes - Fibrous insulation	No Asbestos Detected
4	04	White loosely-formed vitreous fibre material	Synthetic Mineral Fibres
		~ 55 x 45 x 10 mm	
	96100-A	Store TSHA1N03, Wall penetrations adjacent soffit - Fibrous insulation	No Asbestos Detected
σ	05	White loosely-formed vitreous fibre material	Synthetic Mineral Fibres
		~ 35 x 22 x 10 mm	

* Shaded row with bolded text indicates sample contains a positive result for asbestos.

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SS0272:96100 Building A Sutherland Hospital ID 2011-11-14



Sutherland Hospital - A - Main Building 14-11-2011 Sample Analysis Results



Noel Arnold & Associates		
Services	Management	Risk

NOEL ARNOLD & ASSOCIATES PTY LTD A.B.A.76 006 318 010 Level 2, 11 (Kartoum Road, North Ryde, NSW 2113 Australia Phone: (02) 9889 1800 Fax: (02) 9889 1801 Email: sydney@noel-arnold.com.au www.noel-arnold.com.au

Thursday 07/10/2010

Our ref: SS0272:85241-A

South Eastern Sydney Illawarra Area Health Service CARINGBAH NSW 2229 430 Kingsway Laurie Boyd

Dear Laurie,

Hospital, 430 Kingsway, Caringbah NSW Re: Asbestos Identification Analysis - Building A, Main Building (South Wing) - The Sutherland

Main Building (South Wing) - The Sutherland Hospital, 430 Kingsway, Caringbah NSW Monday 20th to Wednesday 22nd September 2010. collected by Kimberley Femia and Charlotte Michonneau of Noel Arnold & Associates Pty Ltd on This letter presents the results of asbestos fibre identification analysis performed on 27 samples The samples were collected from Building A

All sample analysis was performed using polarised light microscopy, including dispersion staining in our Sydney Laboratory in accordance with Noel Arnold and Associates Pty Ltd Test Method NALAB 302 "Asbestos Identification Analysis" and following the guidelines of Australian Standard AS4964-2004.

The samples will be kept for six months and then disposed of, unless otherwise directed

The results of the asbestos identification analysis are presented in the appended table

Should you require further information please contact Kimberley Femia.

NOEL ARNOLD & ASSOCIATES PTY LTD Yours sincerely

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Kimberley Femia: Approved Identifier

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Kimberley Femia: Approved Signatory



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Practical Solutions

85241-A Sutherland Hsp KF 2010-09-20 Sampled Analysis Report

Melbourne

Sydney

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Canberra

Brisbane

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07/1	0/2010	Sydney Laboratory Sample Analysis Results	Neel Arrio n Associat
Site	e Location:	Building A, Main Building (South Wing) - The Sutherland Hospital, 430 Kings	/ay, Caringbah NSW
	Sample ID	Sample Location/Description/Weight or Size	Analysis Result
د	85241-A	Exterior, Level 5, Roof (TSHA5RF6), Waterproof Lining - Bituminous membrane (bottom layer)	Chrysotile (white asbesto
	01	Black-brown compressed bituminous, fibrous membrane material -22 x 20 x 1 mm	
	85241-A	Exterior, Level 5, Roof (TSHA5RF6), Waterproof Lining - Bituminous membrane (top layer)	No Asbestos Detected
2	02	Pebble coated black compressed bituminous, membrane material and associated black bituminous adhesive material	
	85241-A	-6 x 5 x 1 mm Level 5, Riser (TSHA5DU3), SWS3 Stair 5, Fan Room 3, A/C Ductwork -	Chrysotile (white asbestc
ω	03	Cream-beige painted beige soft, fibrous mastic material $\sim 32 \times 7 \times 1 \text{ mm}$	
.	85241-A	Level 5, Plant Room (TSHA5RP2), West Plant Room Entry Wall - Fibre cement sheeting	No Asbestos Detected
4	04	Grey painted pink-grey fibre-cement sheet material ~5 x 3 x <1 mm	
ப	85241-A 05	Level 5, Plant Room (TSHA5RP2), West Boiler - Flange gasket Tan soft resinous fibrous sheet material	No Asbestos Detected
6	85241-A 06	Level 5, Plant Room (TSHA5RP2), Fulton Boiler - Flange gasket Tan compressed resinous fibrous sheet material ~7 x 7 x 1 mm	No Asbestos Detected
	85241-A	Level 5, Plant Room (TSHA5RP2), West Side, Central Area, Debris on Floor - Millboard	No Asbestos Detected
7	07	Off-white compressed/formed powder, fibrous low densty board material ~65 x 56 x 5 mm	
œ	85241-A 08	Exterior, Level 5, Plant Room (TSHA5RP2), West Side, Adjacent Doorway, Debris on Floor - Fibre cement ragments Unpainted gold-brown compressed fibre-cement sheet material ~45 x 30 x 7 mm	No Asbestos Detected
Ŷ	85241-A 09	Exterior, Level 4, Roof (TSHA4R05), Doorway, Wall Panel - Fibre cement sheeting Unpainted gold-grey fibre-cement sheet material ~2 x 2 x <1 mm	No Asbestos Detected
10	85241-A 10	Exterior, Level 4, Roof (TSHA4R05), Eaves - Fibre cement sheeting White painted gold-grey fibre-cement sheet material ~5 x 3 x <1 mm	Chrysotile (white asbest
1	85241-A 11	Exterior, Level 4, Roof (TSHA4R05), Debris - Bituminous membrane fragment Black-brown compressed bituminous, fibrous sheet material ~72 x 50 x 2 mm	Chrysotile (white asbest
12	85241-A 12	Exterior, Level 4, North West Courtyard (TSHA4B08), Awning & Eaves - Fibre cement sheeting Beige painted gold-grey fibre-cement sheet material ~3 x 2 x <1 mm	Chrysotile (white asbest
13	85241-A 13	Level 4, Between South Central Corridors (TSHA4C32 & TSHA4C34), Fire Doors - Core insulation	Insufficient Sample

Sample Analysis Results Sutherland Hospital - A - Main Building 14-11-2011



		Sample Analysis Results	n Associ
Site	e Location:	Building A, Main Building (South Wing) - The Sutherland Hospital, 430 Kings	vay, Caringbah NSW
	Sample ID	Sample Location/Description/Weight or Size	Analysis Result
14	85241-A 14	Level 4, Staff Kitchen, Walls, Beneath Tiles - Bituminous adhesive Black rubbery mastic material ~28 x 4 x 1 mm	No Asbestos Detectec
15	85241-A 15	Level 1, Linen Store (TSHA1K15), A/C Ductwork, Sprayed Insulation - Vermiculite Off-white powder, mica vermiculite-type material -54 x 38 x 15 mm	No Asbestos Detectec
16	85241-A 16	Level 1, QFS Kitchen 9 (TSHA1K24), Sliding Fire Door - Core insulation White loosely-formed powder, fibrous material ~6 x 3 x <1 mm	Chrysotile (white asbeste Amosite (brown asbeste
17	85241-A 17	Level 1, QFS Kitchen 15 (TSHA1K30), Air Handling Room, A/C Unit - Mastic Cream-beige painted beige soft, fibrous mastic material ~5 x 3 x <1 mm	Chrysotile (white asbest
18	85241-A 18	Level 1, QFS Kitchen 24 (TSHA1K39), Floor covering - Blue vinyl tiles Light blue brittle vinyl material -60 x 35 x 3 mm	No Asbestos Detected
19	85241-A 19	Level 1, Exterior, West Courtyard (TSHA1CY6), Doorway, Ceiling - Fibre cement sheeting White painted gold-brown fibre-cement sheet material -21 x 5 x <1 mm	No Asbestos Detected
20	85241-A 20	Level 1, QFS Kitchen 21 (TSHA1K36), Compressed Ceiling Tiles - Fibre cement sheeting Off-white painted grey compressed fibre-cement sheet material -35 x 30 x 5 mm	Chrysotile (white asbest
21	85241-A 21	Level 1, Old Curtain Room, Ceiling, Horizontal Beam, Sprayed Insulation - Vermiculite Off-white fluffy powder, mica vermiculite-type material ~105 x 44 x 8 mm	No Asbestos Detectec
22	85241-A 22	Level 3, Plant Room (TSHA3PR6), A/C Ductwork - Joint mastic Yellow-cream painted tan sot, fibrous mastic material -25 x 14 x 1 mm	Chrysotile (white asbest
23	85241-A 23	Exterior, Level 4, East Courtyard (TSHA4D35), Awning - Fibre cement sheeting Yellow-ceam painted gold-brown compressed fibre-cement sheet material -25 x 19 x 2 mm	Chrysotile (white asbest
24	85241-A 24	Exterior, Level 4, South West Platform - Bituminous membrane Black-brown compressed bituminous, fibrous membrane material -29 x 20 x 3 mm	Chrysotile (white asbest
25	85241-A 25	Exterior, Level 2, South West Perimeter, Wall Threshold, Lining - Bituminous membrane Silver coated black-brown compressed bituminous, fibrous membrane material with attached woven, hessian backing and associated black bituminous adhesive material -80 x 22 x 2 mm	No Asbestos Detectec

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Sample Analysis Results Sutherland Hospital - A - Main Building 14-11-2011



* Shaded row with bolded text indicates a positive result for asbestos.

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85241-A Sutherland Hsp KF 2010-09-20 Sampled Analysis Report

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Methodology



Asbestos

works: This assessment was undertaken in accordance with the following documents and within the constraints of the scope of

Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)]

0 representative samples of suspected asbestos-containing material were collected and placed in plastic bags with clip-lock seals. These samples were analysed in Noel Arnold & Associates Pty Ltd's NATA-accredited laboratory for the NSW Occupational Health & Safety Regulation 2001

Rating System for detailed information on this system. Noel Arnold & Associates Pty Ltd's standard Risk Assessment and Priority Ranking System. Refer to section on Priority Where it was determined that asbestos was present, a risk and priority assessment was conducted in accordance with presence of asbestos by Polarised Light Microscopy.

and analysis of samples has been undertaken by an approved analyst. Inaccessible areas that are likely to contain asbestos have been assumed to contain asbestos until further inspection

Not Accessible' section of this report for further details. methodology, it is possible that not every area of the site have been accessed. Reference should be made to the 'Areas determining the likelihood of asbestos or other hazardous materials in these areas. Due to the nature of the survey Limited destructive sampling techniques have been used to gain access into restricted areas for the purpose of

requirements of AS 2601-2001 The Demolition of Structures. Subject to the limitations associated with the scope of works, this audit was conducted in accordance with the

1319-1994 - Safety Signs for the Occupational Enviroment during the site inspection. Placement of labels has been based on the judgement of the surveyor taking into account aspects such as the location (e.g. public area or plant room), accessibility and disturbance potential of the items and the longevity of the label. Details of the items that have been labelled are provided in the Asbestos Register. Suspected and/or confirmed asbestos containing materials were labelled in accordance with the requirements of AS

Conformity assessment - General criteria for the operation of various types of bodies performing inspections The survey methodology utilised in this assessment has been NATA-Accredited to meet the requirements of ISO 17020

Synthetic Mineral Fibre (SMF)

Accessible areas where insulation was visually confirmed as being present were noted to give a general indication to the presence of SMF materials throughout the building.

Polychlorinated Biphenyls (PCBs)

Representative light fittings containing capacitors were inspected where safely practicable and details noted for cross-referencing with the ANZECC Identification of PCB-Containing Capacitors - 1997. Where metal capacitors not listed on the database, these capacitors are noted as suspected to contain polychlorinated biphenyls. were

Lead Paint

Where possible, painted surfaces returning a positive result for lead using the LeadCheck paint swab method were sampled. 0 paint chip samples were collected in clip-lock plastic bags and sent to an external NATA-accredited laboratory for analysis of lead content (represented as a percentage) by ICP-AES methods. the presence of lead-based paints within the building, not to specifically quantify every source of lead-based paint. where lead based paints may have been used (Eg. Gloss paints on doors, railings, guttering and downpipes, columns, window and door architraves, skirting boards etc). The objective of lead paint identification in this survey is to highlight concentrations of 0.5% (5,000ppm) and above, and may indicate lead in some paint films as low as 0.2% (2,000ppm). method. This method can give an instantaneous qualitative result and reproducibly detect lead in paints at Representative painted surfaces were tested unobtrusively for the presence of lead using the LeadCheck paint swab The sampling program was representative of the various types of paints found within the site, concentrating on areas

Lead Dust

Sample Analysis Report 4874-2000 'Guide to the Investigation of Potentially Contaminated Soil and Deposited Dust as a Source of Lead Available to Humans' and analysed in an external NATA-accredited laboratory by ICP-AES methods. Refer to L The collection and analysis of 0 suspected lead containing dust samples were conducted in accordance with AS Refer to Lead



Information Sources



Information Sources

- The following documents were reviewed as part of this Assessment.
 Asbestos Register of Sutherland Hospital NAA July 1999
 Asbestos Materials Survey Report NAA October 2010

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Risk Assessment Factors -Asbestos

and (b) the disturbance potential. to individuals. The assessment of the exposure risk posed by ACMs assesses (a) the material condition and friability, the ACM is sufficiently disturbed to cause the release of airborne respirable fibres, then an exposure risk may be posed The presence of asbestos-containing materials (ACMs) does not necessarily constitute an exposure risk. However, if

Material Condition

The assessment factors for material condition include:

- Evidence of physical deterioration and/or water damage
- Degree of friability of the ACM.
- Likelihood to sustain damage or deterioration in its current location and state Surface treatment, lining or coating (if present).

Physical Condition and Damage

The condition of the ACM is rated as either being good, fair or poor.

teriorated

Friability and Surface Treatment

and takes into account surface treatment. The degree of friability of ACMs describes the ease of which the material can be crumbled, and hence to release fibres,

Friable asbestos

non-friable asbestos products. (e.g. sprayed asbestos beam insulation (limpet), pipe lagging) can be easily crumbled and is more hazardous than

Non-friable asbestos

also referred to as bonded asbestos, typically comprises asbestos fibres tightly bound in a stable non-asbestos matrix or impregnated with a coating. Examples of non-friable asbestos products include asbestos cement materials (sheeting, pipes etc), asbestos containing vinyl floor tiles, compressed gaskets and electrical backing boards

Disturbance Potential

In order to assess the disturbance potential, the following factors are considered:

- Requirement for access for either building work or maintenance operations.
- Likelihood and frequency of disturbance of the ACM.
- Accessibility of the ACM.
- Proximity of the ACM to air plenums and direct air stream.
- Quantity and exposed surface areas of ACM.

Normal use and activity in area, and numbers of persons in vicinity of ACM.

These factors are used to determine (i) the potential for fibre generation, and (ii) the potential for exposure to person/s, as a rating of low, medium or high disturbance potential:

Risk Status

The risk factors described previously are used to rank the asbestos exposure risk posed by the presence of the ACM

- accessibility. providing they stay in a stable condition, for example asbestos materials that are in good condition and have low A low risk rating describes ACMs that pose a low exposure risk to personnel, employees and the general public
- A medium risk rating applies to ACMs that pose an increased exposure risk to people in the area.
- . . material due to their condition or disturbance potential. A high risk rating applies to ACMs that pose a higher exposure risk to personnel or the public in the vicinity of the





Priority Actions

The following priority rating system is adopted to assist in the programming and budgeting for the control of asbestos risk identified in the assessment.

Manage any remaining materials as part of an AMP	
Action: Organise Abatement Works as soon as practicable &	Priority 1 (P1)
Restrict Access to Area &	

As an interim, restrict access. use of the area. Representative asbestos fibre monitoring should be conducted in the area during normal building operation where recommended. Prompt abatement of the asbestos hazard is recommended. **icted** ร

Priority 2 (P2)	
Action:	
Manage any remaining materials as part of an AMP	Organise Remedial Works in the next few months &

Area has ACMs with a potential for disturbance due to the following conditions:

- <u>.</u> unstable. Material has been disturbed or damaged and its current condition, while not posing an immediate hazard, is
- ωN The material is accessible and when disturbed, can present a short-term exposure risk.
- Demolition, renovation, refurbishment, maintenance, modification or new installations, involving air-handling

remain under the control of an Asbestos Management Plan (AMP). Appropriate abatement measures should be taken as soon as practicable. A negligible exposure risk exists if materials systems, ceilings, lighting, fire safety systems or floor layout.

Priority 3 (P3)	
Action:	
Review periodically and Manage as part of an AMP	No Short-Term Remedial Works Required

Area has ACMs, where:

- <u>.</u> The condition of friable ACMs is currently stable and has low potential of being disturbed.
- 2 The ACM is currently in a non-friable form, may have slight damage, but does not present an exposure risk unless

refurbishment or demolition operations. This presents a low risk of exposure where the materials are left undisturbed under the control of an Asbestos Management Plan (AMP). Defer any major action unless materials are to be disturbed as a result of maintenance. cut, drilled, sanded or otherwise abraded.

Priority 4 (P4)
No Short-Term Remedial Works Required Action: Review periodically and Manage as part of an AMP

Area has ACMs in a non-friable form and in good condition. It is unlikely that the material can be disturbed under normal circumstances and can be safely subjected to normal traffic. Even if it were subjected to minor disturbance the material poses a negligible health risk. These materials should be maintained in good condition and their condition monitored may impact on the materials during subsequent reviews. As with any asbestos materials, these materials must be removed prior to renovations that





The Occupational Health and Safety Regulations of most Australian states refer to a Code of Practice for guidance on identification and management of asbestos materials (ACMs) in workplaces. The requirements are summarised below.

Asbestos Management Plan (AMP)

detailing the following information: An AMP should be developed for the site as per the Code of Practice. The AMP should be a broad ranging document

- The site's asbestos material register.
- Responsibilities for relevant persons in the management of ACMs
- Mechanisms for communicating the location, type and condition of ACMs, the risks measures adopted to minimise these risks. posed by these and the control
- Training arrangements for workers and contractors.
- A Procedure for reviewing and updating the AMP and the register. Air Monitoring and clearance inspection arrangements.
- Timetable for action to review risk assessments and undertake asbestos management activities.
- Items Records of any maintenance or service work conducted on ACMs, including clearance certificates for removed

Updates to Register, AMP and Risk Assessments

The asbestos register and the AMP should be reviewed (via visual inspection by a competent person) and updated least every 5 years or earlier where a risk assessment indicates the need for a re-assessment or if any ACMs have removed or updated as per the requirements of the Code of Practice. have been at

a change in ACM condition or ACMs have since been enclosed, encapsulated or removed significant change planned for the workplace or work practices or procedures relevant to the risk assessment; or there is evidence that the risk assessment is no longer valid, control measures are shown to be ineffective or there is a Risk assessments should be reviewed regularly and as specified by the Code of Practice, particularly when there is

Labelling

Code of Practice or presumed asbestos-containing and to warn that the items should not be disturbed as per the requirements of the All confirmed or presumed ACMs (or their enclosures) should be labelled to identify the material as asbestos-containing

Training

Staff and site personnel must be provided with Asbestos Awareness training in accordance with the Code Training should inform staff how to work safely alongside asbestos by instructing them of: of Practice

- <u>.</u> The health risks associated with asbestos.
- Their roles and responsibilities under the AMP.
- Procedures for managing asbestos on-site.
- $\alpha \omega 4$ The correct use of control measures and safe work methods to minimise the risks from asbestos.

Refurbishment / Demolition Requirements

This audit is limited by the Scope of Works and Methodology outlined within this report.

Generally, a new audit or revised audit is required prior to any planned refurbishment, alteration, demotion or upgrade works that may disturb ACMs at the site in accordance with Australia Standard AS 2601: The Demolition of Structures and Demolition Work Code of Practice (Safe Work Australia 2013).

Removal of Asbestos Materials

undertaken safely. asbestos fibre air monitoring during/after works, and issue a Clearance Certificate to validate the works have been In addition, an appropriately qualified independent Asbestos Consultant / Occupational Hygienist should undertake Any works involving the removal of ACMs should be undertaken by a Licensed Asbestos Removal Contractor (LARC).

document 'How to Safely Remove All works should be conducted in accordance with legislative requirements and following the requirements of the Asbestos: Code of Practice (Safe Work Australia, 2011)'





The Occupational Health and Safety Regulations of most Australian states have requirements for the identification and control of risks within workplaces. These broad requirements extends to the hazardous materials that may be present within buildings at the workplace. The requirements for management of hazardous materials is summarised below.

Synthetic Mineral Fibre (SMF)

Synthetic Mineral Fibre (SMF) is a man-made insulation material used extensively in industrial, commercial and SMF materials include fibreglass, rockwool, ceramic fibres and continuous glass filaments. residential sites as fire rating, reinforcement in construction materials and as acoustic and thermal insulators. Types of

- There are two basic forms of Synthetic Mineral Fibre (SMF) insulation, bonded and un-bonded.
- Bonded SMF is where adhesives, binders or cements have been applied to the SMF before delivery and the SMF
- Exposure to SMF can result in short-term skin, eye and respiratory irritation. SMF is also classified as a possible human carcinogen with a possible increase in risk in lung cancer from long-term exposure. product has a specific shape. Un-bonded SMF has no adhesives, binders or cements and the SMF is loose material packed into a package.

The use of and the safe removal of SMF materials should be conducted in accordance with the National Code of Practice for the safe use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].

Polychlorinated Biphenyls (PCBs)

1970s transformers, capacitors and fluorescent light ballasts that were largely banned from importation in Australia in the Polychlorinated Biphenyls (PCBs) are a toxic organochlorine used as insulating fluids in electrical equipment such as

accordance with applicable state and commonwealth environmental protection laws as scheduled PCB waste PCBs are listed as a probable human carcinogen and should be managed in accordance with the ANZECC Polychlorinated Biphenyls Management Plan, 2003. The handling and disposal of PCBs must be performed Б

capacitors from light fittings in case PCBs leak from the capacitor housing. contain PCBs - nitrile gloves, eye protection, and disposable overalls. The PPE should be worn when removing The following Personal Protective Equipment (PPE) should be worn when handling items containing or suspected to

Lead Paint

Residential and Commercial Buildings", is that which contains in excess of 1% Lead by weight. Lead paint, as defined by the Australian Standard "AS4361.2: 1998 Guide to Lead Paint Management; Part 2:

Uniform Paint Standard was amended to restrict lead content in domestic paint. pigment was manufactured up until the late 1960's, and in 1969 the National Health and Medical Research Council's Lead carbonate (white lead) was once the main white pigment in paints for houses and public buildings. Paint with lead

Lead in any form is toxic to humans when ingested or inhaled, with repeated transmission of particles cumulating in lead poisoning. Lead paint is assessed based on two potential routes of exposure. Firstly by the likelihood of inhalation or ingestion by people working in the vicinity of the paint and secondly by the condition of the paint. Paint that is flaking or in poor condition is more likely to be ingested than paint that is in a good, stable condition.

Any work relating to lead paint should be conducted in accordance with the 'National Code of Practice for the Control and Safe Use of Inorganic Lead at Work [NOHSC: 2015 (1994)]'.

Lead in Dust

There is currently no specific criteria for "lead in dust" in Australia, however a criteria for lead in soil in residential settings of 300mg/kg is established. The use of this criteria for lead in dust is supported by a number of government agencies and papers, including the WA Department of Health 'Report on Lead Dust Monitoring in residences undertaken in the EnHealth document 'Health-based Soil Investigation Levels' (March 2001). Esperance Between 1 July and 8 August 2007' (December 2007), the NSW EPA document 'Managing Lead Contamination in Home Maintenance, Renovation and Demolition Practices: A Guide for Councils' (February 2003) and dust, particularly in areas not frequently cleaned (such as ceiling spaces, plant rooms, etc) in older buildings. by-product from the combustion of leaded petrol and other sources. Lead can accumulate as a constituent of settled Lead is ubiquitous in the urban environment, resulting from industrial processes, lead containing paint and as മ

Settled dust in ceilings, etc. is generally more finely divided than soils, and the disturbance or removal of dust with elevated lead content has the potential to exceed exposure standards for inspirable dust and lead.

health surveillance and biological monitoring should be given. Since it is difficult to use engineering controls to control airborne dust levels for some dust removal work situations (e.g. enclosed ceiling spaces), there is a greater reliance on Prior to undertaking any removal work, the risk for potential exposure must be assessed and consideration to conducting



Hazardous Material Management Requirements

greencap

personal respiratory protection to provide a safe working environment for the workers carrying out this task. Hence, any workers undertaking such tasks should have adequate training in correct work procedures, including the selection, use and maintenance of personal protective equipment and good personal hygiene practices.



NSW NSW
Health

Statement Of Limitations



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and consulting practice. No other warranty, expressed or implied, is made. in accordance with generally accepted practices, using a degree of skill and care ordinarily exercised by members of its profession Within the limitations of the agreed upon scope of services, this work has been undertaken and performed in a professional manner,

provided by Noel Arnold & Associates. may not be used to support any other objective than those set out in the report, except where written approval with comments are may not contain sufficient information for purposes of other parties or for other uses. This report shall only be This report is solely for the use of NSW Health and any reliance on this report by third parties shall be at such party's sole risk and presented in full and

the building or plant. include the identification of dangerous goods or hazardous substances in the form of chemicals used, stored or manufactured within This report relates only to the identification of asbestos containing materials used in the construction of the building and does not

The following should also be noted:

are assumed to have a similar content. Representative samples of suspect asbestos materials were collected for analysis. Other asbestos materials of similar appearance visual inspection and a limited sampling program was conducted and/or the analysis results of the previous report were used. While the survey has attempted to locate the asbestos containing materials within the site it should be noted that the review was മ

have been located during the audit. Such inaccessible areas fall into a number of categories and identified. Therefore it is possible that asbestos materials, which may be concealed within inaccessible areas/voids, may not Not all suspected asbestos materials were sampled. Only those asbestos materials that were physically accessible could be located

- (a) Locations behind locked doors;
- (b) Inset ceilings or wall cavities;
- <u></u> Those areas accessible only by dismantling equipment or performing minor localised demolition works;
- (d) Service shafts, ducts etc., concealed within the building structure;
- (e) Energised services, gas, electrical, pressurised vessel and chemical lines;
- (f) Voids or internal areas of machinery, plant, equipment, air-conditioning ducts etc;
- voids are only accessible during major demolition works; (g) Totally inaccessible areas such as voids and cavities created and intimately concealed within the building structure. These
- (h) Height restricted areas
- Ξ Areas deemed unsafe or hazardous at time of audit.

because it was not considered practicable as: In addition to areas that were not accessible, the possible presence of hazardous building materials may not have been assessed

- It would require unnecessary dismantling of equipment; and/or
- N It was considered disruptive to the normal operations of the building; and/or
- ω
- It may have caused unnecessary damage to equipment, furnishings or surfaces; and/or The hazardous material was not considered to represent a significant exposure risk; and
- 4. rù The time taken to determine the presence of the hazardous building material was considered prohibitive.

source of hazardous material has been detected. Only minor destructive auditing and sampling techniques were employed to gain access to those areas documented in the Hazardous Materials Register. Consequently, without substantial demolition of the building, it is not possible to guarantee that every

carpeted floors may be required should any suspect material be observed in previously inaccessible areas or areas not fully inspected previously, i.e. unknown materials are encountered. Therefore during any refurbishment or demolition works, further investigations and assessment mentioned above and it is imperative that work cease pending further sampling if materials suspected of containing asbestos or During the course of normal site works care should be exercised when entering any previously inaccessible areas or areas

must be read in its entirety and should not be copied, distributed or referred to in part only works unless used in conjunction with a specification detailing the extent of the works. To ensure its contextual integrity, the report This report is not intended to be used for the purposes of tendering, programming of works, refurbishment works or demolition