



HEGGIES

HAZARDOUS MATERIALS SURVEY REPORT

REPORT 10-6184

Revision 0

HAZARDOUS MATERIALS SURVEY REPORT Justinian House 30 Rocklands Road, Wollstonecraft, NSW 2065

PREPARED FOR

St Vincents and Mater Health Sydney
230 Barcom Avenue
Darlinghurst NSW 2010

22 OCTOBER 2007

HEGGIES PTY LTD
ABN 29 001 584 612

Incorporating

New Environment

Graeme E. Harding & Associates

Eric Taylor Acoustics



HAZARDOUS MATERIALS SURVEY REPORT

Justinian House

30 Rocklands Road, Wollstonecraft, NSW 2065

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DOCUMENT CONTROL

Reference	Status	Date	Prepared	Checked	Authorised
10-6184	Revision 0	22 October 2007	Breffni Pringle*	Takashi Itakura	Takashi Itakura

* The author of the original New Environment Report 8097/01/HMR (see Section 1 of this report).



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1 REPORT OWNERSHIP TRANSFER

New Environment (formerly a Division of Heggie's Australia Pty Ltd) submitted to Catholic Healthcare Limited a hazardous materials survey report (Report No.: 8097/01/HMR dated 29 August 2006). The survey was conducted on 19 and 20 July 2007 at Justinian House, 30 Rocklands Road, Wollstonecraft NSW 2065.

Following request from Mr Lawson Katiza of Savills (Aust) Pty Ltd acting on behalf of St Vincents & Mater Health Sydney on 19 October 2007 by phone, Heggie's contacted Catholic Healthcare Limited and received an authorisation letter to permit the report ownership to be transferred from Catholic Healthcare Limited to St Vincents & Mater Health Sydney. This authorisation letter is presented in **Appendix A**.

Report contents associated with survey results remain identical to those presented in the original report excepting the following:

- Description of Site Location: 30 Rocklands Road, Wollstonecraft, NSW 2065 (previously described as 30 Rocklands Road, Crows Nest, NSW 2065).

No additional information associated with hazardous materials at the site has been presented to Heggie's since 29 August 2006.

Heggie's advises that it is the responsibility of third parties including St Vincents & Mater Health Sydney and Savills (Aust) Pty Ltd to investigate fully to their satisfaction if any information and/or report(s) presented in this report is suitable for a specific objective.

2 SCOPE

New Environment was requested by Mr Fred Herft of Catholic Healthcare Limited to undertake an inspection of Justinian House, 30 Rocklands Road, Wollstonecraft NSW 2065 to ascertain the extent, type and condition of hazardous building materials such as lead, asbestos and polychlorinated biphenyls (PCBs). Synthetic Mineral Fibre (SMF) is generally not included as it is not a designated hazardous material.



3 LIMITATIONS

Surveys are conducted in a conscientious and professional manner. The nature of the task however, and the likely disproportion between any damage or loss which might arise from the work or reports prepared as a result, and the cost of our services, is such that Heggies cannot guarantee that all hazardous building materials have been identified and/or addressed.

Due to the possibility of renovations and additions to the buildings over time, hazardous building materials may have been hidden behind new walls and ceiling, such areas were inaccessible during the inspection. If any suspect materials are found during further renovation of the buildings, the material should be sent for identification and expert advice sought.

Thus while we carry out the work to the best of our ability, we totally exclude any loss or damages which may arise from services we have provided to St Vincents & Mater Health Sydney, Savills (Aust) Pty Ltd and/or any other associated parties.

Unless specifically noted, the survey did not cover:

- Hidden and/or inaccessible locations such as in or under concrete slabs, wall cavities, hidden storage areas and the like.
- Lift wells and inaccessible/unidentified shafts, cavities and the like.
- Air conditioning, heating, mechanical, electrical or other equipment.
- General exterior ground surfaces and subsurface areas eg asbestos in fill/soil.
- Materials dumped, hidden, or otherwise placed in locations which one could not reasonably anticipate.
- Materials other than normal building fabric, materials in laboratories or special purpose facilities and building materials that cannot be reasonably and safely assessed without assistance.

Materials other than lead, asbestos and PCBs are generally outside the scope as identification can require very specialised analysis/inspection techniques. Settled dust is generally not sampled or commented on. Settled dust may contain hazardous materials, particularly if it is/was once in the vicinity of hazardous materials (such as asbestos containing materials or lead paint). It may contain hazards originating from outside the building, eg lead from petrol combustion.

Where potentially hazardous materials are identified these are normally reported on to the best of the consultant's ability. Analysis is not normally included and there is no guarantee that all such materials have been identified and/or addressed.

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4 INSPECTION DETAILS

4.1 Site Description

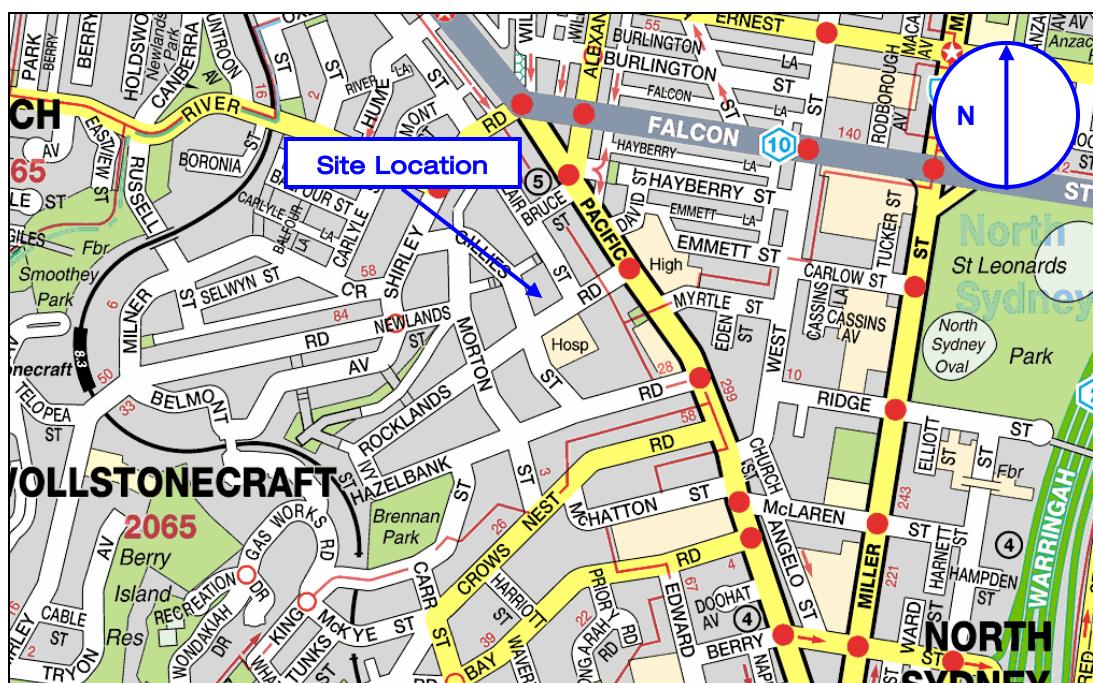
The survey was conducted at Justinian House, 30 Rocklands Road, Wollstonecraft on 19 and 20 July 2006. The site is located on the northern side of Rocklands Road, between Gillies Street and Sinclair Street. A locality map is presented in **Figure 1** on the following page. For the purpose of this report, Rocklands Road is taken to run east to west directly adjacent the site.

The building is a brick built multi-level quadrangle hostel. There are 77 units, each containing a bedroom, living room/kitchenette and bathroom. For the purpose of this report, building and level numbering was as per the Site/Evacuation Plan on site.

- Building 1 – located in the south east corner of the quadrangle and is on Levels 2 – 6.
- Building 2 – located on the south side of the quadrangle and is on Levels 1 – 4.
- Building 3 – located in the west side of the quadrangle and is on Levels 1 – 4.
- Building 4 – located in the north side of the quadrangle and is on Levels 2 – 5.
- Building 5 – located in the northeast corner of the quadrangle and is on Levels 2 – 6.

Relevant photographs taken during the inspection are provided in **Appendix C**.

No access was available to some areas at the time of the inspection. Inaccessible areas are outlined in **Section 4.3** of this report.



Map reproduced with permission of UBD.

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Figure 1 Site Location



4.2 Methods

The survey consisted of a visual inspection with limited sampling/analysis of materials.

Where multiple rooms of similar type existed in the same building a representative selection of these rooms were inspected in detail and a limited walkthrough conducted in the remaining rooms, rather than detailed inspection of all the rooms.

Samples that may contain asbestos are generally analysed in a NATA accredited laboratory for asbestos by stereo microscope and polarised light microscope with dispersion staining technique. Some samples such as vinyl tiles may be analysed for asbestos by other methods including X-ray diffraction.

Paint samples were collected for laboratory analysis for lead content. Flakes of paint were removed from non intrusive areas to minimise disturbance. Paint flake samples included all layers of paint on a particular surface and are considered representative of paints in the location sampled. Samples were analysed in a laboratory for lead content by ICP - AES (Inductively Coupled Plasma - Atomic Emission Spectroscopy).

Lead paint spot tests are conducted using 5% Sodium Sulphide solution to detect lead in paint. A positive result by a spot test indicates a lead level greater than (>) 1%. The results of spot tests are generally only applicable to the layer of paint tested.

Settled dust was sampled and analysed for lead. Sampling and analysis was conducted in accordance with AS 4361.2-1998 *Guide to lead paint management Part 2: Residential and Commercial Buildings*. Briefly, this involved the collection of settled dust from a known surface area by wet wipe. The collected dust is then analysed in a laboratory by ICP-AES for total lead content. The total lead content and area sampled is then used to calculate a lead in dust loading value in mg/m².

Capacitors in old fluorescent light fittings are presumed to contain Polychlorinated Biphenyls (PCBs) unless a more detailed inspection and/or laboratory analysis confirms otherwise. A more detailed inspection and/or laboratory analysis would require a qualified electrician to isolate and de-energise the light fittings.



4.3 Summary of Hazardous Materials

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/Friable	Potential for Disturbance	Relative Risk of Exposure
Building Interior								
FCS ceiling, Kitchen Loading Dock, Building 4, Level 2	Contains chrysotile asbestos	8097/4	1	15 m ²	Intact	Bonded	Low	Low
FCS north and west walls, Kitchen Loading Dock, Building 4, Level 2	Contain asbestos	-	-	5 m ²	Generally intact, some areas of damage	Bonded	Low - Moderate	Low - Moderate
Light Green Vinyl Floor Tiles and Black Adhesive, Fire Hose Reel Cupboard between DDOC Office and DOC Office, Building 4, Level 2	Contain chrysotile asbestos	8097/5	2	< 1 m ²	Generally intact, damaged edges	Bonded	Low	Low
Old fluorescent light fittings in communal areas	May house capacitors containing PCBs	-	3	N/A	No leakage identified	N/A	Low	Low

Refer to related notes on Page 7



Summary of Hazardous Materials (Continued)

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/Friable	Potential for Disturbance	Relative Risk of Exposure
Building Exterior								
FCS eaves to pitched roofs, perimeter of buildings, Levels 3-6	Assumed to contain asbestos	-	4	> 200 m ²	Intact	Bonded	Low	Low
FCS west wall, Kitchen Loading Dock, Building 4, Level 2	Contains chrysotile asbestos	8097/10	5	5 m ²	Generally intact, one panel poor	Bonded	Moderate - High	Moderate - High
Accumulated dust in ceiling void, Southwest of Stairwell 6, Building 1, Level 5	Elevated levels of lead	8097/11 (43 mg/m ²)	6	N/A	Poor	N/A	Low - Moderate	Low - Moderate
Accumulated dust in ceiling void, Stairwell 7, Building 3, Level 4	Elevated levels of lead	8097/12 (16 mg/m ²)	-	N/A	Poor	N/A	Low - Moderate	Low - Moderate
Accumulated dust in ceiling void, Stairwell 4, Building 4, Level 5	Elevated levels of lead	8097/13 (8.9 mg/m ²)	-	N/A	Poor	N/A	Low - Moderate	Low - Moderate

Refer to related notes on Page 7



NOTES:

- AC = Asbestos Cement; FCS = Fibre Cement Sheeting; PCBs = Polychlorinated Biphenyls; BEBB Black Electrical Backing Board; N/A = Not Applicable.
- This Summary of Hazardous Materials should be read in conjunction with all sections of this report.
- Sample analysis/test results are detailed in **Section 6** of this report.
- All other similar occurrences of the asbestos containing materials identified in the summary table above should be presumed to contain asbestos, and treated accordingly, unless sampling and analysis confirms otherwise.
- All other similar occurrences of the paints listed in the above summary table should be presumed to contain corresponding levels of lead.
- Most of the fluorescent light fittings sighted are of an older style which may house capacitors that contain Polychlorinated Biphenyls (PCBs), unless a more detailed inspection and/or sample analysis confirms otherwise. A more detailed inspection and/or sample analysis requires a qualified electrician to isolate and de-energise the lights.
- No access was available to the following locked areas:
- Limited access to the service passageways (constructed of concrete and brick) due to confined space.
- Any action taken to control the identified hazardous materials subsequent to this report is to be recorded in the Hazardous Materials Control Log attached in **Appendix B**.
- Refer to the General Information attached in **Appendix D**.



5 COMMENTS/RECOMMENDATIONS

5.1 Asbestos

There are detailed site/work-specific requirements and precautions that must be taken in the management, control and removal of asbestos containing materials (ACM). The following are some general recommendations and precautions that should be considered. Detailed documents, which may include Management Plans, Scope of Works, Safe Work Method Statements and Risk Assessments, should be prepared to appropriately address health and safety issues associated with specific work and site conditions.

- This document should be held as an Asbestos Register of the areas inspected and updated every 12 months or earlier where ACM has been disturbed or a risk assessment indicates the need for re-assessment. All occupiers of the workplace are to be provided with a copy of this register and all updates to it.
- In order to comply with Chapter 4 Clause 44 of the *NSW Occupational Health and Safety Regulation 2001*, any action taken to control asbestos and ACM in the place of work, or in plant at the place of work, is to be recorded in this register. These details are to be recorded in the Hazardous Materials Control Log attached in **Appendix B**.
- As a precautionary measure, all materials, which may or are likely to contain asbestos should be assumed to contain asbestos and treated appropriately unless sampling and analysis confirms otherwise.
- All damaged asbestos cement (AC) sheeting should be removed as soon as practicable. Removal and decontamination should be undertaken by a licensed, experienced Asbestos Removal Contractor.
- As a precautionary measure, any exposed broken edges of ACM remaining in place should be sealed with an appropriate sealant, such as Emerclad paint, to minimise the generation of airborne asbestos fibres if/when these materials are disturbed.
- If asbestos materials become significantly damaged, weathered and/or produce visible dust or significant debris, then health and safety management works are likely to be required. A suitably qualified and experienced consultant such as New Environment can advise and assist in carrying out such works.
- All bonded ACM in intact condition may remain in place provided they are not drilled, ground or otherwise disturbed. If generated, broken pieces are to be removed as soon as practicable. As a part of good ongoing management we recommend regular inspections of asbestos materials left in-situ to check the condition of these materials.
- Any areas of a workplace that contain ACM including plant, equipment and components should be signposted with appropriate warning signs to ensure that asbestos is not unknowingly disturbed without the correct precautions being taken. These signs should be placed at all of the main entrances to the work areas where asbestos is present and should conform with Australian Standard 1319-1994 *Safety Signs for the Occupational Environment*.
- Prior to renovation or demolition any equipment that may be excluded under the limitations of this survey (eg air conditioning, air handling, heating, mechanical, electrical or other equipment) should be inspected and assessed for asbestos by a suitably qualified and experienced consultant such as New Environment. Such assessment may require other qualified personnel, eg an electrician or Heating Ventilation & Air Conditioning (HVAC) specialist to provide adequate/safe access.



- All asbestos-containing materials are to be removed prior to refurbishment or demolition.
- A technical Scope of Works (Work Plan) for asbestos removal should be prepared by a suitably qualified and experienced consultant, such as New Environment, detailing the procedures and precautions for asbestos works/removal.
- All removal and/or decontamination should be undertaken by a licensed, experienced Asbestos Removal Contractor working in accordance with the above-mentioned Scope of Works.
- Each contractor must have approved 'Safe Work Method Statements' and 'Risk Assessments' prior to commencement of work.
- According to the *Code of Practice for the Safe Removal of Asbestos 2nd Edition, [NOHSC:2002(2005)]* (p31) "Air monitoring should be performed whenever ACM (asbestos containing materials) are being removed, to ensure the control measures are effective."
- Once removal is complete the area should be inspected by a suitably qualified and experienced consultant, such as New Environment, and a clearance certificate issued.
- The consultant conducting the air monitoring and clearance inspection should report directly to the client/principal contractor and be independent of the Asbestos Removal Contractor.
- Refer to the General Information attached in **Appendix D** of this report.

5.2 Lead

5.2.1 Lead in Paint

Paints of 1% or more lead content are generally considered to be lead containing, however the dry sanding of paints with even 0.25% lead can result in the release of unacceptable levels of lead containing dust.

Within the scope and limitations of the investigation undertaken, no paints containing lead greater than (>) 1% were identified during the survey. Refer to Section 5 of this report.

Refer to the General Information in **Appendix D** of this report.

5.2.2 Lead in Dust

Australian Standard AS 4361.2 1998 *Guide to lead paint management Part 2: Residential and Commercial Buildings* does not offer any general guidance on lead levels in dust but it does have surface dust lead loading values as acceptance levels after lead paint management activities. The acceptance levels for surface dust are:

• Interior floors	1 mg/m ² (as lead)
• Interior window sills	5 mg/m ² (as lead)
• Exterior surfaces	8 mg/m ² (as lead)



New Environment used the Australian Standard levels above as a guide in assessing lead dust risks. These figures can also be used to assess the risk of exposure from other lead sources.

The acceptance level of lead in dust for exterior surfaces is considered the most appropriate guideline for comparison for lead in ceiling dust.

The lead content in the following dust samples were above the guideline level (8 mg/m²):

- Sample No. 8097/11 – **43 mg/m²** (Ceiling Void, Southwest of Stairwell 6, Building 1, Level 5, Interior)
- Sample No. 8097/12 – **16 mg/m²** (Ceiling Void, Stairwell 7, Building 3, Level 4, Interior)
- Sample No. 8097/13 – **8.9 mg/m²** (Ceiling Void, Stairwell 4, Building 4, Level 5, Interior)

In consideration of the age of the building, past experience and the sample analysis results, all dust within ceiling cavities throughout the buildings is considered to contain potentially hazardous levels of lead.

The ceiling dust containing elevated levels of lead may remain in place provided that:

- Access is restricted to ceiling spaces where elevated levels of lead in dust are likely to occur and a management plan is implemented to control the risk of human exposure to lead in ceiling dust. Ceiling manholes should be labelled to indicate the presence of lead in the ceiling dust.
- Any persons accessing ceiling cavities containing elevated levels of dust are to wear appropriate Personal Protective Equipment (PPE) such as disposable/washable coveralls and respiratory protection.

Appropriate procedures and precautions should be taken during refurbishment/demolition works involving ceiling spaces containing elevated levels of lead in dust. Procedures and precautions should control human exposure to lead in ceiling dust to an acceptable level and contain contamination to prevent spreading to surrounding areas. Depending on the nature and extent of refurbishment/demolition works, procedures and precautions may include:

- Workers to wear appropriate PPE.
- Ceiling dust to be sprayed with a dilute polyvinyl acetate (PVA) emulsion to restrict the ability of the dust to become airborne.
- Vacuuming the ceiling free of dust before the application of a dilute PVA spray.

All interior or ceiling space decontamination work is to be undertaken by an experienced contractor with appropriate approved equipment including disposable coveralls, respiratory protection and vacuum cleaners fitted with a HEPA filter. A written site-specific occupational health and safety plan and work method statement should be prepared by the contractor prior to the commencement of the removal works.

All lead removal works should be supervised by a suitably experienced and competent person, such as New Environment, who will issue a clearance report on satisfactory completion of the work.

Airborne lead monitoring is recommended during all lead removal/decontamination works.

Refer to General Information in **Appendix D** of this report.



5.3 PCBs

PCBs are presumed to be present in capacitors in older fluorescent light fittings unless a more detailed inspection and/or sample analysis indicates otherwise. Sampling or a more detailed inspection would require the presence of a qualified electrician to electrically isolate and de-energise the light fittings.

Older fluorescent light fittings which are presumed to contain Polychlorinated Biphenyls (PCBs) were identified during the survey.

PCBs are a scheduled waste with strict guidelines regarding transport and handling. PCB work is to be conducted in accordance with the *Environmental Protection & Heritage Council's Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*. This includes:

- Prior to demolition when the power is disconnected, inspect the light fittings.
- Metal PCB containing capacitors are to be removed, placed in plastic lined 200 litre drums and disposed of as PCB Scheduled Waste. Any light fitting that shows signs of oil staining from capacitors is to be disposed of as PCB contaminated.
- Protective clothing including eye protection, PCB resistant gloves and overalls are to be worn.
- Contaminated gloves and disposable coveralls are to be disposed of as PCB contaminated waste.
- Contractors licensed to transport and handle PCBs must be used for transport and disposal. PCB are a scheduled waste with strict guidelines regarding transport and handling.

Refer to General Information in **Appendix D** of this report.



6 SAMPLE ANALYSIS/TEST RESULTS

6.1 Sample Analysis Results

Sample Number	Sample Type	Sample Location	Analysis Result
8097/1	Spray Coating	Structural beams and pipes, Locker room, Building 2, Level 1, Interior	No asbestos detected
8097/2	Cream Paint Flakes	Walls, Hot water units room, Building 2, Level 1, Interior	< 0.1% Lead
8097/3	Cream Paint Flakes	Walls and Ceiling, Laundry, Building 3, Level 1	< 0.1% Lead
8097/4	FCS	Ceiling, Kitchen Loading Dock, Building 4, Level 2, Interior	Chrysotile asbestos detected
8097/5	Light Green Vinyl Floor Tiles and Black Adhesive	Fire Hose Reel Cupboard between DDOC Office and DOC Office, Building 4, Level 2, Interior	Chrysotile asbestos detected
8097/6	FCS	Ceiling, Bathroom, Unit 5, Building 1, Level 2, Interior	No asbestos detected
8097/7	FCS	Brown painted walls and roof, Extractor Air Filter Room, Building 4, Level 2, Exterior	No asbestos detected
8097/8	Brown Paint Flakes	Walls and roof, Cool Room Motor Room and Extractor Air Filter Room, Building 4, Level 2, Exterior	< 0.1% Lead
8097/9	FCS	Soffits, Both sides of East door , North wall, West Courtyard, Building 4, Level 2	No asbestos detected
8097/10	FCS	West wall, Kitchen Loading Dock, Building 4, Level 2, Exterior	Chrysotile asbestos detected
8097/11	Dust	Ceiling Void, Southwest of Stairwell 6, Building 1, Level 5, Interior	43 mg/m ² Lead



Sample Number	Sample Type	Sample Location	Analysis Result
8097/12	Dust	Ceiling Void, Stairwell 7, Building 3, Level 4, Interior	16 mg/m ² Lead
8097/13	Dust	Ceiling Void, Stairwell 4, Building 4, Level 5, Interior	8.9 mg/m ² Lead
8097/14	Dust	Ceiling Void, Stairwell 6, Building 1, Level 6, Interior	6.1 mg/m ² Lead

6.2 Lead Paint Spot Test Results

TEST NUMBER	TEST LOCATION	TEST RESULT
1	Green paint, walls, Stairwell 7, Building 3, Level 1, Interior	Negative (< 1% Lead)
2	Cream paint, Corridor between Housekeeper and Staffroom, Building 3, Level 1, Interior	Negative (< 1% Lead)
3	Grey paint, external side of fire exit door adjacent Laundry, Building 3, Level 1, Exterior	Negative (< 1% Lead)
4	White paint, vertical structural pillars, southeast of Chapel, Exterior	Negative (< 1% Lead)



7 NSW AND NATIONAL LEGISLATION, GUIDELINES, REGULATIONS

The NSW Occupational Health and Safety Act 2000

The act lays down general requirements which must be met at work places in NSW. Some important elements are:

- Responsibility on employers (and others) to ensure health, safety and welfare of their employees.
- Persons in control of workplaces that are used by non-employees to ensure health and safety.
- Responsibility of employers to consult with employees on OH&S matters and establish OH&S Committees or have alternative arrangements in place.

The NSW Occupational Health and Safety Regulation 2001 and WorkCover Code of Practice “Control of Workplace Hazardous Substances” 2006.

Provide specific instruction on a range of hazards. General obligations include:

- Assessment and control - asbestos registers required for places of work, assessment of the hazard by a competent person, airborne concentrations not to exceed exposure standards, control measures, monitoring, and health surveillance.
- Provision of information - consultation, training, labelling etc
- Miscellaneous - licensing/permits for works and relevant authorities.

The NSW Occupational Health and Safety Regulation 2001, the National Occupational Health & Safety Commission (NOHSC) Asbestos: Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC:2002(2005)], the Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)] and the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC: 3003(2005)].

Set out requirements for asbestos registers, information sharing, procedures for asbestos materials and substances management and control, asbestos removal and disposal, air monitoring and supervision. These documents set the industry standard for asbestos management, control and safe removal methods for asbestos materials.

Appendix A

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AUTHORISATION LETTER FROM CATHOLIC HEALTHCARE LIMITED



22 October 2007

Margaret Ogston
Capital Works & Facilities Manager
St Vincents & Mater Health Sydney
230 Barcom Street
DARLINGHURST NSW 2010

Dear Ms Ogston,

**Re: Hazardous Material Survey Report
Justin House 30 Rocklands Road, Wollstonecraft**

Catholic Healthcare gives consent to transfer the ownership of the Justinian House Hazardous Report dated 29 August 2006 to St Vincents & Mater Health.

In regard to the Catholic Healthcare's responsibilities to the recommendations contained in the report, your letter of the 15th October 2007 to Mr Chris Rigby remains binding.

Yours faithfully,

Chris Rigby
Chris Rigby
Managing Director

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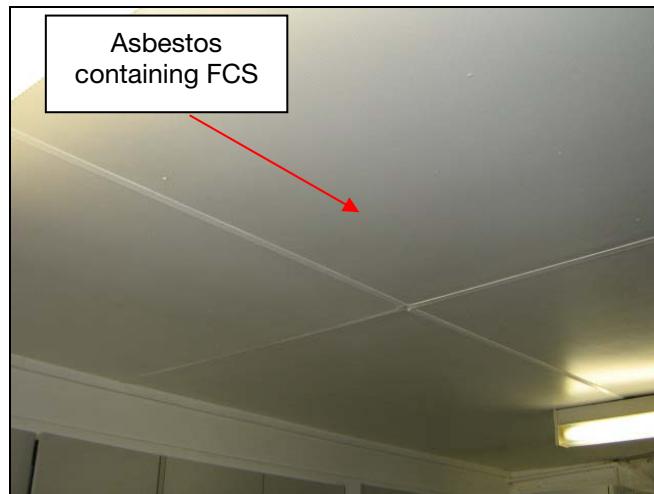
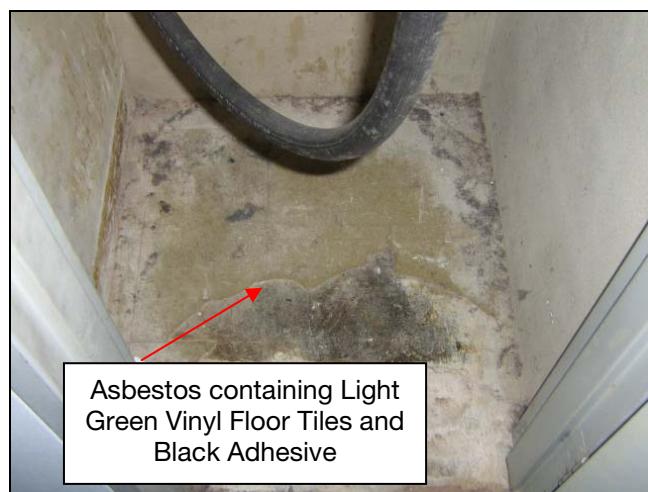


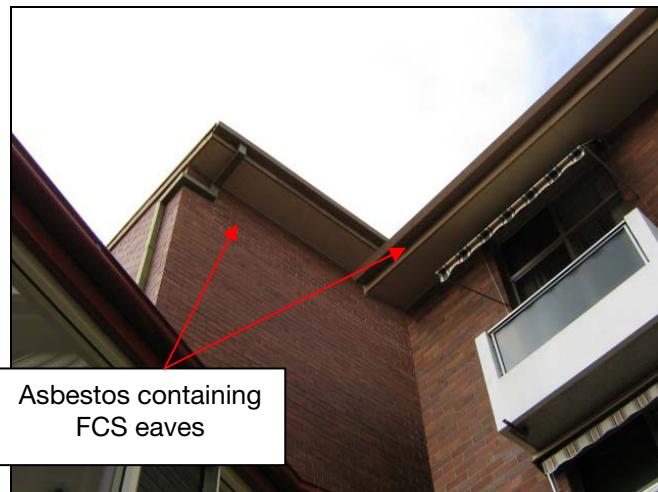
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HAZARDOUS MATERIALS CONTROL LOG

To comply with Clause 44 of the *NSW Occupational Health and Safety Regulation 2001*, all actions taken to control asbestos and asbestos containing materials are to be recorded in the table below. It is recommended that similar details also be recorded for any other hazardous materials identified.

NAME	COMPANY	DATE	HAZARDOUS MATERIAL RELATED WORK UNDERTAKEN (Include any assessment concerning asbestos that took place before the work was carried out)	REFERENCE NUMBER (Include sample numbers, report numbers, quote number and/or purchase order number etc)
Breffeni Pringle	New Environment	19 & 20 July 2006	Hazardous Materials Survey	New Environment Report No.: 8097/01/HMR (Heggies Report No 10-6184sax01-hmr)

PHOTOGRAPHS**Photograph 1: Ceiling, Kitchen Loading Dock, Building 4, Level 2, Interior****Photograph 2: Fire Hose Reel Cupboard between DDOC Office and DOC Office, Building 4, Level 2, Interior****Photograph 3: Locker Room, Building 2, Level 1, Interior**

PHOTOGRAPHS**Photograph 4: Northern wall, Building 5, Levels 5 and 6****Photograph 5: Kitchen Loading Dock, Building 4, Level 2, Exterior****Photograph 6: Ceiling Void, Southwest of Stairwell 6, Building 1, Level 5, Interior**

GENERAL INFORMATION**ASBESTOS - GENERAL INFORMATION****1 Asbestos: Description, Properties and Uses**

Asbestos is the generic term given to a group of naturally occurring fibrous minerals, based on hydrated silicates, which are found in various rock formations. Differing ratios of oxygen, hydrogen, sodium, iron, magnesium and calcium elements account for several different types of asbestos minerals, the most common varieties being Amosite (brown asbestos), Chrysotile (white asbestos), Crocidolite (blue asbestos), Anthophyllite, Actinolite and Tremolite.

The immense popularity of asbestos as a building material is attributed to its near unique properties of fire resistance, high abrasion resistance and superb acoustical characteristics coupled with its relatively low cost. Prior to 1973, asbestos was the material of choice for fire proofing, thermal insulation, sound insulation and abrasion resistance. It was used as a spray-on insulation of ceilings and steel girders; as a thermal insulation of boilers, pipes, ducts, air conditioning units, etc; as an abrasion resistant filler in floor tiles, vinyl sheet floor coverings, roofing and siding shingles; as a flexible, though resistant joining compound and filler of textured paints and gaskets; as the bulking material with the best wear characteristics for automobile brake shoes and in countless domestic appliances such as toasters, grills, dishwashers, refrigerators, ovens, clothes dryers, electric blankets, hair dryers, etc.

2 Asbestos: Health Effects

Many asbestos bearing materials or products are of no significant health risk whatsoever when used in the normal course of events. A health risk exists when asbestos fibres are released into the air and when that air is inhaled into the lungs. Even then, it appears that most people exposed to relatively small amounts of asbestos do not develop any related health problems. There is however no "safe" level of asbestos exposure since the risk is dependent on numerous factors including the attributes of the particular individual, time since exposure, exposure duration and concentration, asbestos type and environmental factors such as exposure to cigarette smoke and other airborne pollutants.

There are three main diseases associated with airborne asbestos fibres:

Asbestosis - A fibrosis (or scarring) of the lung associated with relatively massive exposure to asbestos.

Lung Cancer - Indistinguishable from that caused by smoking and a common cause of death. The risk of lung cancer is much higher when there is exposure to both cigarette smoking and to airborne asbestos.

Mesothelioma - A cancer of the chest and abdominal lining, it is specific to asbestos exposure.

A feature of these diseases is that symptoms take a long time to appear, generally 5 to 40 years. Once symptoms are evident the disease progresses rapidly.

There is some evidence that Chrysotile asbestos is less carcinogenic than Amosite, and that Amosite is less carcinogenic than Crocidolite in causing mesothelioma, but the evidence is less clear for lung cancer.

3 Measurement of Airborne Asbestos Fibres

The NSW Occupational Health and Safety Regulation 2001 and National Occupational Health and Safety Commission (NOHSC) Asbestos Codes of Practice & Guidance Note set the maximum allowable time weighted average for all forms of asbestos at 0.1 fibre/mL of air.

Air monitoring is used to determine airborne fibre levels. Heggies is NATA certified for Asbestos Fibre Counting and Volume Measurement to carry out such monitoring.

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The NOHSC *Code of Practice for the Safe Removal of Asbestos 2nd Edition* [NOHSC:2002(2005)] states that “Air monitoring should be performed whenever ACM (asbestos containing materials) are being removed, to ensure the control measures are effective”.

The onus to provide a safe environment rests with persons responsible for the premises (ie the controller(s) of the site). To meet these obligations it is recommended that Heggies be engaged by the site controller, or their representative, and not an asbestos removal contractor as there could be a conflict of interest in the latter arrangement.

4 Asbestos Survey

Asbestos surveys are undertaken to identify any asbestos materials/hazards and assess the risk associated with the material/hazard.

Surveys are conducted through visual inspection by experienced personnel. During the inspection material samples are taken as appropriate for analysis.

Limitations

Due to the nature of the task all asbestos surveys are limited. Since asbestos can occur in so many forms and in so many locations, and as there is no instrument to detect asbestos, it is never possible to guarantee all asbestos has been identified. Access is usually restricted, and there may be asbestos hidden behind walls or other structures. Building plans are of great assistance to consultants undertaking surveys.

5 Asbestos Register

An asbestos register is a record of all asbestos containing products identified in a building and their condition. Under the NOHSC Codes of Practice and *NSW Occupational Health and Safety Regulation 2001* (Chapter 4, Clause 44) any place of work must have an Asbestos Register. A Heggies Asbestos Survey Report constitutes an asbestos register.

Registers must be maintained and changes in the condition or extent of any asbestos present should be recorded. Registers also have a “use-by” date since the condition of asbestos materials, legislation, guidelines and standards change.

6 Management Plan

An asbestos management plan is required where asbestos materials have been identified and are to remain on site. The plan would normally be a component in the overall Hazard Management Plan for the site.

Control Options

Asbestos judged to constitute a health risk should be enclosed, encapsulated, or removed by an approved asbestos contractor.

Enclosure

This involves the installation of a permanent, solid, non-porous, impervious barrier between the asbestos material and the surrounding environment. Examples include building boxes around steam pipes, etc. A suspended ceiling is not permanent and since occasional access is necessary above a suspended ceiling, enclosure is negated. Furthermore, many suspended ceilings act as return air plenums so enclosure is impossible.

GENERAL INFORMATION***Encapsulation***

Encapsulation involves coating the material with a sealant. Good sealants penetrate through the asbestos material to the substrate. The encapsulating sealant then hardens and binds all the asbestos fibres into a solid matrix. This is usually a short to medium term option.

Removal

Removal is not without hazards to the occupants of the building. If not strictly controlled, the removal process can result in increased fibre counts in other areas. Technical competence, experience and integrity are of prime importance in evaluating asbestos removal plans.

We advise clients to work within the usual practised time frames of the experienced asbestos removal companies under strict supervision by a qualified person. Pressing for quicker turnaround times may result in low quality workmanship and unnecessary asbestos risk. Building owners may be in part responsible for risks created by the removal Contractor due to carelessness or negligence.

An independent consultant such as Heggies, experienced in the supervision of asbestos removal, should be retained to act on the client's behalf.

7 Clearance Inspection

Clearance air monitoring, a visual clearance inspection and report should be completed by a suitably qualified and experienced consultant, such as Heggies, at the completion of asbestos removal works.

GENERAL INFORMATION**ASBESTOS CEMENT SHEETING**

A large number of building products used in the building and construction industry have been made with asbestos and cement. Products include:

- Flat or corrugated, compressed sheeting.
- Pipes for water, drainage, flues.
- Roof shingles.
- Building boards eg. Villaboard, Hardiflex, Wundaboard, Flexiboard.
- Cable trays for electrical wiring.
- Numerous preformed items such as cisterns, protective housings, etc.

Provided these products are maintained in good order, they present no health risk, however, precautions must be observed during demolition, refurbishment etc.

Licensing Requirements

Asbestos-containing products are classified as **bonded or friable**. **Asbestos cement (AC)** is classified as **bonded asbestos** however once it is significantly broken, crushed or otherwise damaged WorkCover may consider it to be **friable** asbestos. The rules governing friable asbestos are far more stringent.

Anyone wishing to carry out over 200 m² bonded asbestos removal work must apply to WorkCover and must be registered as a bonded asbestos removal contractor.

Anyone wishing to carry out friable asbestos removal must obtain a friable asbestos removal licence from WorkCover. A friable asbestos removal permit must be obtained for all friable asbestos jobs.

Removal Procedures

The following procedures are recommended for demolition work involving bonded asbestos cement flat or corrugated sheet, in order to reduce any possible health risk to workers and to building occupants where applicable, from the asbestos in the asbestos cement sheet.

All asbestos removal and/or decontamination should be undertaken by a competent person under statutory requirements as specified in the Code of Practice, WorkCover guidelines and the *NSW Occupational Health and Safety Regulation 2001*. A licensed, experienced asbestos removal contractor is required to remove friable asbestos.

1. Prior to commencement of asbestos removal works, suitable warning signs must be erected. All windows and doors in the occupied areas of these buildings should be closed.
2. All asbestos removal operatives to wear half-face particulate filter (cartridge) respirators and approved disposable coveralls.
3. The bolts fixing the asbestos cement sheets to the main frame must be cut out and removed. Abrasive cutting or sanding discs shall not be used on asbestos cement products. Only approved power tools may be used.
4. The asbestos cement sheets should be wetted or PVA coated (polyvinyl acetate). **High water pressures should not be used.**
5. All asbestos cement sheets should be removed with minimal breakage and be **lowered** to ground level, not dropped.
6. All asbestos cement dust and residues should be cleaned from the site and from the roof space where applicable, using an approved vacuum cleaner.

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7. All asbestos containing waste must be removed from the site as soon as possible. The bins should be plastic lined, covered and taped secure prior to removal.
8. The asbestos waste shall be disposed of in accordance with the existing regulations.
9. Prior to engagement in the work, all asbestos operatives must be trained in safe working practices. These training aspects include:
 - Health hazards of asbestos.
 - Safe working procedures.
 - Wearing and maintenance of protective clothing and equipment.

GENERAL INFORMATION**ASBESTOS CONTAINING VINYL TILES**

Vinyl tiles which contain asbestos are considered to be of minimal risk whilst undisturbed and in good condition. The asbestos contained within vinyl tiles is well bound in the parent matrix and fibre release is virtually impossible provided the tiles are not ground, drilled, or otherwise abraded. Normal floor cleaning operations will not release asbestos fibres.

If the tiles are intact and not abraded or drilled etc it is safe to leave them in situ. However, prior to demolition and/or refurbishment all asbestos containing vinyl tiles in the work area must be removed by a licensed removalist in accordance with the relevant codes and regulations set out by the National Occupational Health and Safety Commission (NOHSC).

Removal Procedures

The following procedures are recommended for the removal of asbestos containing vinyl tiles in order to avoid potential asbestos health risks to workers and building occupants.

If 200 m² or more of vinyl tiles are to be removed the work should be completed by a licensed, experienced asbestos removal contractor.

1. Prior to commencement of removal works, suitable warning signs must be erected. All windows, doors and vents etc in the occupied areas of the buildings should be closed to reduce the potential for cross-contamination/exposure.
2. All vinyl tile removal operatives are to wear appropriate personal protective equipment (PPE) including respiratory protection, safety glasses/goggles, disposable coveralls, hearing protection and gloves. Steel capped boots, hi-visibility vests and hard hats should also be worn as per the normal requirements for work on construction sites.
3. The tiles can be removed by heating the surface to loosen them or by use of a mechanical chisel to wedge them up. Care should be taken when heating tiles and the glues holding them in place to avoid the generation of toxic fumes. Do not grind, drill or otherwise abrade the tiles in any fashion that generates unnecessary dust/debris.
4. All waste is to be double bagged or placed in lined bins, sealed, and disposed of as asbestos waste in accordance with the Asbestos Codes of Practice and existing guidelines and regulations.
5. The removal area should be detailed clean using an approved vacuum cleaner fitted with a High Energy Particulate (HEPA) filter, and by wet wiping. A detergent should be used when wet wiping as this improves cleaning efficiency.
6. Obtain a clearance inspection and report from an independent, suitably qualified and experienced consultant such as Heggies.
7. Upon satisfactory clearance inspection spray the area with a dilute PVA emulsion at low pressure. Multiple applications may be required to provide adequate coverage.
8. Prior to engagement in the work, all asbestos operatives must be trained in safe working practices. These training aspects include:
 - Health hazards of asbestos.
 - Safe working procedures.
 - Wearing and maintenance of protective clothing and equipment.

GENERAL INFORMATION**Air Monitoring**

According to the Code of Practice for the Safe Removal of Asbestos 2nd Edition, [NOHSC: 2002 (2005)] (p31) "Air monitoring should be performed whenever ACM (asbestos containing materials) are being removed, to ensure the control measures are effective."

All air monitoring must be completed by a NATA accredited organisation as specified in the NSW Occupational Health and Safety Regulation 2001.

Asbestos fibres are generally well bound in the vinyl matrix and fibre release is unlikely provided the tiles are not ground, drilled or similarly disturbed.

Note:

These are general recommendations. In all cases the asbestos removalist should be familiar with, and comply with, the relevant Codes of Practice and the *NSW Occupational Health and Safety Regulation 2001*. There may also be site specific requirements which should be complied with.

GENERAL INFORMATION**CORRUGATED ASBESTOS CEMENT (AC) ROOFING****Deterioration Mechanisms**

Asbestos cement (AC) roofs deteriorate slowly over time. The upper surface exposed to the elements slowly loses cement binder and asbestos fibres become increasingly exposed. This can result in excessive fibre loss and a general weakening of the roof which will eventually become porous.

Hail and other storm activity can cause significant problems including:

- Cracks and/or penetrations in asbestos cement panels, and resultant generation of asbestos cement dust and debris.
- Shedding of asbestos fibres which contaminate runoff and enter gutters and drains etc.
- Blocking of gutters with hail and other debris resulting in overflow and asbestos contamination of surrounding areas.

In most situations the underside of AC roofs exhibit very little deterioration over time however asbestos containing dust can accumulate on the roof support structure and other exposed locations below/around the roof. Exposure to steam, acid fumes and other such agents can accelerate deterioration of the roof.

If an asbestos cement roof becomes significantly damaged, weathered and or produces visible dust or significant debris it is likely that health and safety management works will be required. A suitably qualified and experienced consultant, such as Heggies, can advise and assist in carrying out such works.

Life Expectancy & Maintenance

AC roofs in good condition may remain in place indefinitely providing certain precautions are taken.

- On no account may high pressure water be used to clean AC roofs. This is forbidden under the asbestos code of practice as it can result in widespread contamination.
- AC roofs may not be drilled, ground, cut or otherwise damaged as this may result in the release of airborne asbestos fibres.
- In general, roofs are best left undisturbed if in good condition. There are however several sealing compounds which may be used on AC roofs. The underside of AC roofs may be shielded with sarking or enclosed with a fixed ceiling or other materials. Enclosures are fixed, permanent, non-porous barriers that prevent fibre penetration. All barriers need to be maintained.
- The roof including internal support structure should be inspected regularly (eg once a year) by a suitably qualified and experienced consultant such as Heggies to assess the condition and extent of the asbestos materials present.
- Gutters and down pipes should be kept clean and in good condition. Some gutters may accumulate a build up of debris which contains asbestos, this is best removed by an experienced licensed asbestos removal contractor.
- Down pipes etc should be protected from damage by fork lifts and other vehicles via the installation of appropriate barriers.
- Damaged sections of asbestos containing material should be removed as soon as possible by an experienced licensed asbestos removal contractor. It is illegal to re-use asbestos containing materials.
- As a precautionary measure any exposed broken edges of asbestos material temporarily remaining in place should be sealed with an appropriate sealant such as Emerclad paint.

GENERAL INFORMATION**Demolition**

- Demolition of AC roofs should only be undertaken by an experienced licensed Asbestos Removal Contractor.
- It is recommended that asbestos removal supervision, air-monitoring and clearance inspections be undertaken by an independent, suitably qualified and experienced asbestos consultant such as Heggies.

GENERAL INFORMATION**ASBESTOS CONTAINING FIRE DOORS**

The cores of older fire doors frequently contain asbestos materials. Such doors may remain in place provided certain precautions are taken. These include:

- Labelling the doors with appropriate warning signs that advise of the asbestos risk.
- Not drilling or otherwise disturbing the doors so as to release airborne asbestos fibres.
- Recording the location, extent and condition of the doors in the site Asbestos Register and addressing them in the site Asbestos Management Plan. A copy of the Asbestos Register and Management Plan should be held by the Building Manager who is to ensure that no work is carried out on the doors without their prior knowledge and the implementation of adequate health and safety precautions.
- Regular inspection and reporting of the condition of the doors.

If the fire doors are damaged then access to the area is to appropriately restricted and advice sought from a suitably qualified and experienced consultant such as Heggies.

Any asbestos removal and/or remediation/decontamination work should be undertaken by a licensed Asbestos Removal Contractor.

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ASBESTOS REFERENCES

- NSW Occupational Health and Safety Act 2000
- NSW Occupational Health and Safety Regulation 2001
- Code of Practice for the Safe Removal of Asbestos 2nd Edition
- [National Occupational Health and Safety Commission: 2002 (2005)]
- Code of Practice for the Management and Control of Asbestos in Workplaces
- [National Occupational Health and Safety Commission: 2018 (2005)]
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [National Occupational Health and Safety Commission: 3003 (2005)]
- AS/NZS 1716-2003 - Respiratory Protective Devices
- AS/NZS 1715-1994 - Selection, Use and Maintenance of Respiratory Protective Devices
- National Code of Practice for the Control of Workplace Hazardous Substances [National Occupational Health and Safety Commission: 2007 (1994)]
- AS 2601-2001 - The Demolition of Structures
- Protection of the Environment Operations Act 1997
- Waste Avoidance and Resource Recovery Act 2001
- The special conditions applicable to the Transport of Asbestos Waste (Categories 1 and 2) as laid down by the Waste Recycling and Processing Service
- Current WorkCover Asbestos Removal Contractor's Licence and current regulations
- Any other relevant Standards or Codes published by the responsible Authorities or the Standards Association of Australia

GENERAL INFORMATION**LEAD - GENERAL INFORMATION**

Lead contamination comes from numerous different sources. Common sources include lead-containing paint, putties, leaded petrol and lead flashing.

Lead is absorbed by ingestion, inhalation and directly through the skin. The finer the particle size the more readily it is absorbed. As a result, some lead compounds are more readily absorbed than others. High lead exposure can cause death, however far lower exposures can also cause a number of adverse consequences, including a reduction in IQ, particularly in children.

Lead containing materials should be managed in accordance with the NSW Occupational Health and Safety Regulation 2001, the National Standard for the Control of Inorganic Lead at Work [NOHSC:1012(1994)], the National Code of Practice for the Control and Safe Use of Inorganic Lead at Work [NOHSC:2015(1994)] and other relevant standards and guidelines as outlined below.

Acceptable Levels

There are numerous standards but application to particular situations is not always clear.

Paint

In 1969 the National Health and Medical Research Council (NH&MRC) introduced the Uniform Paint Standard which banned the use of white lead for domestic buildings and placed a limit on other forms of lead (usually in the form of dryers) in such paints of 1% (by weight on the dry weight). In March 1992 this limit was lowered to 0.25% and has more recently been reduced even further in domestic paints as outlined in Appendix 1 (the letter not the number) of Standard for the Uniform Scheduling of Drugs and Poisons No 20, 2005 published by Australian Therapeutic Goods Administration under the Therapeutic Goods Act 1989. It is therefore common to find up to 1% lead in paint especially in glossy paints. There is no limit on the lead content of old paint finishes.

Moderate lead levels (less than 4%) are generally not considered an immediate health risk if the paint is in good condition and not likely to be damaged or accessible to children who might chew the paint etc. Removal of such paint however poses a health risk if it is not adequately controlled.

Paints of 1% or more lead content are generally considered to be lead containing, however the dry sanding of paints with even 0.25% lead can result in the release of unacceptable levels of lead containing dust.

Australian Standards AS 4361.1-1995 Guide to lead paint management Part 1: Industrial Applications and AS 4361.2-1998 Guide to lead paint management Part 2: Residential and Commercial Buildings provide guidance for the management of lead paint, information on lead paint testing and selection of an appropriate management strategy.

There is a duty of care to ensure that workers and building occupants are not exposed to excessive lead levels. Young children are particularly at risk.

GENERAL INFORMATION**Dust**

Lead in dust is of particular concern because it is easily disturbed and frequently in the form of very fine particles which are more readily absorbed by the human body.

The NH&MRC (National Health & Medical Research Council) has not set guidance concentration levels for lead in dust. Australian Standard AS 4361.2-1998 *Guide to lead paint management Part 2: Residential and Commercial Buildings*, does not offer any general guidance on lead levels in dust but it does provide acceptable surface-dust lead concentrations after lead paint management activities. The acceptance levels for surface dust are:

- Interior floors 1 mg/m² (as lead)
- Interior window sills 5 mg/m² (as lead)
- Exterior surfaces 8 mg/m² (as lead)

The National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 *Guideline on the Investigation Levels for Soil and Groundwater* sets a limit of 300 ppm lead in soils for "standard" residential land-use. This limit is based on both Human Health and Environmental considerations.

Air

The NOHSC (National Occupational Health & Safety Commission) maximum allowable TWA (Time Weighted Average) concentration for airborne lead (inorganic dusts and fumes) is 0.15 mg/m³, however some lead compounds have lower levels. The ACGIH (American Conference of Governmental Industrial Hygienists) have adopted a Threshold Limit Value (Time Weighted Average) of 0.05 mg/m³ for lead and inorganic lead compounds as lead.

Metallic Lead

Metallic lead or solder containing lead should not be ground, scraped, sanded, melted or otherwise disturbed to produce lead dust or vapours without undertaking appropriate procedures and precautions. Procedures and precautions may include the use of appropriate personal protective equipment (PPE) and control measures to ensure that personnel are not exposed to lead and there is no contamination of surrounding areas.

Control Measures

When high lead levels are encountered control measures should be put in place which are appropriate to the particular situation, in many cases this may consist of a few simple low cost precautions, in some cases removal by experienced contractors working to detailed procedures with air monitoring and independent supervision is required.

The disposal of lead contaminated material should be in accordance with the Department of Environment and Conservation (DEC - formerly known as the NSW EPA) regulations.

Heggies can provide expert advice, air monitoring, sampling and project management on lead related issues.

GENERAL INFORMATION**PCBs (POLYCHLORINATED BIPHENYLS)****1 Description, Properties and Uses**

PCBs is an abbreviation for Polychlorinated Biphenyls, a group of synthetic chlorinated organic compounds commonly used as non-flammable oils in electrical equipment.

PCBs were commonly used as insulators in electrical capacitors and transformers but were also used in a wide range of other products that took advantage of their stability. Normally the PCBs are held in a metal container carrying no label signifying PCB content.

Small PCB filled capacitors were fitted to electric motors, welders, and fluorescent lights. Typically they are small metal containers holding about 50 millilitres of PCB. Large oil cooled transformers may contain many litres of PCBs.

2 Health Hazard of PCBs

PCBs are suspected human carcinogens and are a serious health problem due to their persistence in the environment, their potential for chronic or delayed toxicity and their accumulation in human and animal tissues. They can enter the body in three ways; by absorption through the skin, by inhalation of the vapour of heated PCBs (not a problem at room temperature), and by swallowing contaminated food or drink. Once PCBs are in the body they tend to lodge in the body fat and stay there for a considerable time.

Exposure to PCBs can cause a range of health problems whose effects increase with the duration of exposure and concentration levels.

PCBs are proven animal carcinogens and suspected human carcinogens. The results of exposure may include liver damage, respiratory disorders, chloracne (a severe skin rash), eczema and skin discolouration. PCBs have also been associated with thyroid gland disorders, muscle and joint pain, headaches, nausea, loss of appetite, abdominal pain, and are potentially related to reproductive problems in humans. Pregnant women should avoid PCB polluted areas.

PCB liquid and vapour is moderately irritating to the eyes.

3 Collection, Transport and Disposal

PCBs must be handled with care. They are very penetrating and will pass through some types of plastic gloves. When collecting PCBs appropriate personal protective equipment (PPE) must be worn.

PCBs are presumed to be present in fluorescent light fittings unless inspection indicates otherwise. Removal requires the following:

- Prior to demolition when the power is disconnected inspect the light fittings.
- Metal PCB containing capacitors are to be removed, placed in plastic lined 200 Litre drums, sealed and disposed of as PCB Scheduled Waste. Any light fittings that show signs of oil staining from capacitors are to be disposed of as PCB contaminated waste.
- Protective clothing including PCB resistant gloves to be worn.
- Contaminated gloves and disposable coveralls to be disposed of as PCB contaminated waste.
- PCBs are covered by a Chemical Control Order under the *Environmentally Hazardous Chemicals Act 1985*. The labelling, storage, transport and disposal of PCBs is highly regulated, and professional advice should be sought on how to deal with these materials.
- Contractors licensed to transport and handle PCBs must be used for transport and disposal.

GENERAL INFORMATION**4 Register and Management Plan**

The Environment Protection & Heritage Council's *Polychlorinated Biphenyls Management Plan, Revised Edition April 2003* requires that a risk-based strategy for equipment containing PCBs be adopted. The elements of this strategy are surveying, testing and removal of identified high risk equipment. **There is a timetable by which surveys are to be completed.**

Property owners and managers should have a PCB register. This could form part of their Hazardous Materials Register for the site. Where PCBs are identified a PCB Hazard Management Plan should be in place. This could be a part of the Hazardous Materials Management Plan for the site.