



Ref:1581sur.doc

**Survey to Determine the Extent
and Condition of Hazardous
Building Materials at:**

**Temporary Remand Centre
Symonston
ACT**

6 May 2002

Client: Manteena
84 Barrier St,
Fyshwick
ACT 2609

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EXECUTIVE SUMMARY

Robson Laboratories undertook a visual inspection of the Temporary Remand Centre, Symonston to determine the extent and location of hazardous materials (asbestos building/insulation materials, synthetic mineral fibre and PCB-containing capacitors). This was a non-destructive survey, and representative only. The findings are as follows:

Asbestos

A significant amount of asbestos material was located during the survey. These materials are in a fair to good condition and would not present a hazard unless abraded, damaged or disturbed. Asbestos materials have been located in the following areas (as per plans):

- ground floor eaves soffit from detention rooms 1-5, North wing
- ground floor eaves soffit from shower room to detention room 4, South wing
- laundry ceiling sheet
- spandrel panel above window near rear stairwell, ground floor

Exclusions

It should be noted that due to the age of the buildings it is extremely likely that asbestos materials have been used below ground level as formwork, expansion joints or as pipe ducting to electrical cables, or as packers to timber framework. Any excavation work especially in areas where signs indicate electrical cables underground (several locations) and adjacent buildings should be undertaken with caution. Additionally asbestos packing to hot water pipes may be concealed within mortar walls. Care must be taken in these areas during demolition or refurbishment. Should suspect materials be located works must cease until determination of the composition of the material has been made by an Occupational Hygienist or asbestos removalist.

Synthetic Mineral Fibre

Fibreglass insulation bats were found in the ceiling space of the administrative section, and the North wing detention block.

PCB's

One fluorescent light fitting located in the laundry has a PCB-positive capacitor. Indications are that other fluorescent lights in the Remand Centre are PCB-negative, however individual assessment of all light fittings would be necessary determine this.

HAZARDOUS MATERIALS SURVEY

SCOPE

At the request of [REDACTED] of Manteena Pty Ltd, Robson Laboratories undertook to visually inspect the Temporary Remand Centre at the Periodic Detention Centre Project, Symonston ACT to determine the extent and condition of asbestos building and insulation materials, and PCBs to fluorescent light capacitors and to provide appropriate removal or handling procedures. Materials visually consistent with that which is positively identified as being asbestos, SMF or PCBs in similar locations was to be considered as being identical. It has been assumed that all asbestos materials, including those in good condition and not currently assessed as a hazard are to be removed as part of the refurbishment.

METHOD

The premises were visually inspected on Monday 6 May 2002. Samples suspected of containing asbestos were taken for NATA accredited analysis. Capacitors were compared to a list of capacitors known to contain PCB's. It has been assumed that capacitors known to contain PCBs in one location *may* reoccur in other similar locations. Although all reasonable care and attention was taken in compiling this report no guarantee as to its accuracy or completeness can be given. This can be a result of the normal construction practice of 'building in' some of the works, from the random application of asbestos materials or due to other physical or applied constraints on our investigation. Prior to demolition the contractor(s) carrying out the work must fully acquaint themselves with the extent of the hazardous material, particularly in those areas which may require full or partial demolition in order to determine the exact extent and location of such material.

CODE COMPLIANCE DETERMINATION

All recommendations and Code Compliance are determined with reference to:-

Worksafe Australia, Sydney 1988, *Asbestos: Code of Practice and Guidance Notes ACT WorkCover*
ACT BEPCON Requirements & Regulations

and are referred to in this report as The Code.

ANZECC 1997, *Identification of PCB-Containing Capacitors; An information Booklet for Electricians and Electrical Contractors.*

EXCLUSIONS

No determination can be made regarding the possibility of concealed asbestos in the following areas without gaining access to allow for inspections:

Mortar walls to wet areas	asbestos packing to hot water pipes
Sub floor	asbestos cement sheet formwork
	asbestos cement electrical cable/water pipe duct

It is possible that asbestos cement sheet formwork, electrical cable or water pipe duct may be present as part or under the floor slab and below ground in open areas, or as packers to framework. Additionally asbestos packing to hot water pipes may be concealed within mortar walls. Care must be taken in these areas during demolition or refurbishment. Should suspect materials be located works must cease until determination of the composition of the material has been made by an Occupational Hygienist or asbestos removalist.

Care should be taken when demolishing or excavating in these areas to determine the existence or otherwise of asbestos. If asbestos is located all demolition or excavation work must cease and a licensed asbestos removalist contacted immediately to remove this material prior to completion of the demolition.

Asbestos Removal

All asbestos removal works and disposal are to be carried out in accordance with *Worksafe Australia: Asbestos Code of Practice and Guidance Notes 1988* and the requirements of ACT WorkCover & Planning and Land Management ACT Government, PALM Note 1 March 2000.

An ACT licensed asbestos removalist is required to remove all asbestos contaminated materials including asbestos cement sheeting but excluding vinyl floor tiles. The location of asbestos materials is shown on the attached drawing. A licensed asbestos removalist is not required to removal vinyl floor tiles. However as all requirements of The Code must be observed it may be cost effective for the works to be undertaken by an asbestos removalist who is conversant with the requirements of The Code and possesses the necessary equipment and expertise.

Only suitably licensed and experienced personnel shall undertake asbestos removal works. All personnel shall be trained as per the *Worksafe Australia: Asbestos Code of Practice 1988*, Section 1.4 as a minimum. An asbestos removal contractor shall ensure that an experienced supervisor as described in the *Worksafe Australia: Asbestos Code of Practice 1988*, Section 1.5 is on hand in each removal area at all times.

Demolition or any other works within areas where asbestos is located is not to take place until the asbestos removalist has completed the asbestos removal works and the Occupational Hygienist has issued Clearance Certification.

RESULTS: ASBESTOS**MINERALOGICAL ANALYSIS**

Sample	Location	Composition
1581 - 01	room 1 vinyl floor tiles	chrysotile asbestos
1581 - 02	room 2 ceiling sheet North Wing	chrysotile asbestos
1581 - 03	room 2 vinyl floor tiles	no asbestos detected
1581 - 04	room 4 ceiling sheet	no asbestos detected
1581 - 05	room 8 ceiling sheet	no asbestos detected
1581 - 06	room 10 outside eaves to walkway	no asbestos detected
1581 - 07	WC partitions	no asbestos detected
1581 - 08	spandrel panel above window	chrysotile asbestos
1581 - 09	spandrel panel beneath window	no asbestos detected
1581 - 10	1 st floor female WC	no asbestos detected
1581 - 11	laundry ceiling	chrysotile asbestos amosite asbestos crocidolite asbestos
1581 - 12	eaves south-west aspect	chrysotile asbestos amosite asbestos crocidolite asbestos

- It should be noted that the above samples were a representative selection of materials suspected of containing asbestos.
- Materials were not sampled from all areas due to the consistency of the materials used throughout the building.
- The asbestos summary on this page must be read in order to assess the extent of asbestos materials used in the building.

Chrysotile	=	white asbestos
Amosite	=	grey or brown asbestos
Crocidolite	=	blue asbestos

ASBESTOS REMOVAL LOCATIONS AND PROCEDURES**ELEMENT: Asbestos Cement Sheeting****Location (refer to drawing):**

- ground floor eaves soffit from detention rooms 1-5, North wing
- ground floor eaves soffit from shower room to detention room 4, South wing
- laundry ceiling sheet
- spandrel panel above window near rear stairwell, ground floor

Method for Removal

- i. Obtain approval to begin asbestos removal works by a registered building certifier authorised by ACT BEPCON. The name of the licensed ACT builder who is to carry out the work must be notified to the certifier.
- ii. Place appropriate signage at perimeter of removal area.
- iii. Isolate airconditioning if removal works are internal.
- iv. Place a layer of plastic sheeting on floor and adjacent surfaces.
- v. Seal all doors and windows to the removal area and rope off the area adjacent to the removal area.
- vi. Sheets to be sprayed with a fine water mist to reduce dust. Do not use water mist if a risk of electrocution exists.
- vii. Using protective clothing and a half face particulate filter (cartridge) respirator conforming to AS/NZS 1716:1994 remove securing bolts or screws or punch nails through the sheets. Asbestos debris must be cleaned from and fixing which remain.
- viii. Power tools which come into contact with the asbestos materials must not be used as excessive dust may be created.
- ix. Asbestos cement sheets and to be removed with a minimum of breakage and should be lowered to the ground - not dropped.
- x. Removed asbestos cement sheet and contaminated materials to be packed into disposal crates or wrapped in plastic sheeting.
- xi. Asbestos cement sheets may not be re-used.
- xii. All surfaces within the removal area to be thoroughly vacuumed to remove all asbestos residue.

Temporary Remand Centre Symonston ACT

- xiii. Remove all asbestos containing material and all asbestos contaminated material from site for disposal in the approved manner.
- xiv. All surfaces to be sprayed with pva to seal any microscopic asbestos fibres.
- xv. Obtain visual Clearance from Occupational Hygienist.

ELEMENT: VINYL FLOOR TILES**Location (refer to drawing):**

- room 1, ground floor (North wing)

Method for Removal:

- Obtain approval to begin asbestos removal works by a registered building certifier authorised by ACT BEPCON. The name of the licensed ACT builder who is to carry out the work must be notified to the certifier.
- Place appropriate signage at perimeter of removal area.
- Using protective clothing and a half face particulate filter (cartridge) respirator conforming to AS/NZS 1716:1994 remove vinyl floor tiles and place in an asbestos disposal bag.
- Vacuum all adjacent surfaces and nearby floor with an approved vacuum cleaner conforming to AS 3544 - 1988.
- Place plastic asbestos disposal bag, contaminated plastic and protective clothing in container and remove all asbestos containing and asbestos contaminated materials from site for disposal in the approved manner.
- Vacuum all adjacent surfaces to remove all visible dust.
- Obtain visual Clearances from the Occupational Hygienist.
- Obtain approval at completion of works from a licensed building certifier authorised by ACT BEPCON.

SYNTHETIC MINERAL FIBRE (SMF) SURVEY**Location (refer to drawing):**

- ceiling space of the Administrative section of the Detention Centre, and the North wing detention rooms

A visual inspection was used to determine the extent and location of SMF material throughout the building. Loose fibreglass is present within the ceiling space of the administrative section of the Detention Centre, and the North wing detention rooms. All SMF must be removed prior to demolition using the procedure outlined below.

Erect scaffold, mechanical platform and/or wear suitable harness to prevent fall injuries when working on elevated or roof areas.

Method for Removal

- Place appropriate signage at perimeter of removal area.
- Care should be taken to ensure that no egress of fibreglass or nuisance dust from the removal area occurs during the removal process.
- isolate airconditioning from the removal area.
- Using protective clothing and a half face particulate filter (cartridge) respirator conforming to AS/NZS 1716:1994 remove all loose SMF and place in an asbestos disposal bag. A large extraction unit with suitable filter attached may be used to remove the insulation material.
- Ensure all fixtures, fittings and surfaces remaining within the removal area are free of fibreglass.
- Remove all fibreglass materials from site and dispose of in the approved manner.
- Obtain visual Clearances from the Occupational Hygienist.

PCB SURVEY

Introduction

Robson Laboratories undertook to visually inspect the Periodic Detention Centre Symonston ACT to determine the extent of fluorescent lights containing PCB (Polychlorinated Biphenyls) capacitors. It should be stressed that not every fluorescent light was checked during the survey however numerous representative examples of each type were accessed.

Polychlorinated Biphenyls (PCBs) are very stable compounds which are fire resistant and very good insulators. They are used in capacitors in a range of electrical equipment, including fluorescent lights, to provide increased efficiency of electrical energy.

Health effects: Prolonged exposure to PCBs may cause serious health effects. Workers manufacturing PCBs or assembling components containing PCBs are most at risk. PCBs enter the body through the skin, ingested via contaminated food or drink or inhaling the vapour. However at room temperature vapour concentrations are insignificant and minor skin contact is not likely to cause health problems.

Method

Representative fluorescent light fittings were accessed to determine the type of capacitor used in each type. Capacitor types were compared with a known list of PCB containing capacitors. References used to determine whether certain capacitor make and types contained PCBs are;

- Robson Laboratories list of previously analysed capacitor types
- 1997 ANZECC Publication, 'Identification of PCB-Containing Capacitors'

PCB SURVEY - Results

Capacitor Type: DUCON PD232AC 3.5 μ F (**PCB positive**) Laundry, fluorescent ceiling light. All other capacitors inspected were assessed as being PCB negative. However any other capacitors similar in size and shape to that in the laundry should be considered potentially positive.

Removal procedure

- Use PCB resistant gloves to prevent skin contact to handle possible leaking capacitors.
-
- Wear suitable protective clothing.
-
- Wear a face shield when working with overhead lights.
- Wash down non-disposable equipment with kerosene.

- Wear a suitable respirator if PCB vapours are suspected (eg. leaking on to a hot surface). Suitable respirator - chlorinated vapour twin cartridge type.
- All PCB capacitors, contaminated equipment, including gloves and rags must be placed in a suitable plastic container and disposed of by a licensed waste contractor.

Occupational Hygiene

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Ref.1581amp

Asbestos Management Plan

**Temporary Remand Centre
Symonston
ACT**

July 2002

Client: Manteena
84 Barrier St,
Fyshwick
ACT 2609

PREFACE

Manteena Pty Ltd has commissioned the development of an Asbestos Management Plan in order to best assure the occupants of the premises of the highest standards of occupational health and safety. This Asbestos Management Plan contains sections covering the identification, evaluation and control of asbestos hazards with reference to the asbestos inspection conducted of the premises in May 2002, ref:1581sur. The inspection determined the general location of asbestos materials within the premises and lists the appropriate hazard control recommendations.

1. Background and General Information page 4

Gives an overview from an historical perspective on the uses of asbestos and the resultant health problems as well as providing current requirements, exposure standards, airborne fibre sampling and definition of terms.

2. Hazard Control Register page 11

Informs occupants and Building Manager of the premises of their obligations and responsibilities and provides general background information. Details Hazard Control procedures.

3. Review of In-situ Asbestos page 18

Update of in-situ materials to be undertaken on a 3-yearly basis and incorporated into the Asbestos Survey.

4. Asbestos Survey Amendments page 19

Shows the progressive removal and/or treatment of in situ asbestos materials.

5. Asbestos Removal Procedures page 20

Gives a general overview of the method required to remove or treat the asbestos materials encountered on this particular site. This description of procedures should not be used as a specification but only as a general guide to inform persons whose premises require the removal of asbestos. Each asbestos removal contract will require a detailed specification relevant to that particular site.

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EXECUTIVE SUMMARY

A significant amount of asbestos material was located during the survey. The Worksafe Australia Asbestos Code of Practice recommends removal where asbestos is liable to further damage or deterioration.

All identified materials except for the 1st floor eave soffit sheeting were removed as part of the current refurbishment. The remaining asbestos sheeting is in good condition and would not present a hazard under normal circumstances. This material is non-friable and as such ACT WorkCover & ACT BEPCON does not require the removal of this material unless it is in poor condition or likely to be disturbed during refurbishment or demolition.

Asbestos materials are present in the following area:

Asbestos cement sheet

Double storey building eave soffit sheet

1. BACKGROUND AND GENERAL INFORMATION

1.1 INTRODUCTION

The following is intended to provide an historical perspective on the uses of asbestos and the resultant health problems. It must be stressed that current epidemiological evidence strongly suggests that asbestos related disease is, with very rare exceptions, the result of prolonged and high exposure to asbestos as experienced during mining, milling and industrial application. Non-friable asbestos materials in situ in a building which remain undisturbed would not, under normal circumstances, release significant fibre into the air.

Asbestos is the fibrous form of mineral silicates from the serpentine and amphibole group of minerals and includes, amongst others, amosite, chrysotile, crocidolite, fibrous anthophyllite, tremolite, and actinolite. As a naturally occurring rock found worldwide asbestos has been mined for thousands of years as a strengthening and reinforcing agent in fired pottery and in textiles. The increase in industrialization from the late nineteenth century brought about a dramatic increase in both the amount of asbestos used in industry and the variety of uses to which it was put. As asbestos is incombustible it has been used in over 3,000 products - including insulation on heat generating engines, woven into textiles to provide heat resistance, as pipe and boiler thermal insulation, clutch plates, brake linings, and as sprayed or trowelled insulation to buildings and ships. It has also been used in floor tiles, paints and protective papers and incorporated into cement products such as pipes, roofing and wall sheets.

Asbestos related disease has been reported from as early as the time of Pliny the Younger (A.D. 61 -114) who commented on the illness of slaves who worked with asbestos. Paracelsus (1493 -1541) and Agricola (1494 -1556) commented on similar illnesses observed in miners. Medical opinion as to the harmful effects of asbestos exposure increased dramatically in the first half of the 20th century as significantly more people became industrially exposed to the mineral, medical technology improved dramatically, and occupational health and safety gained a foothold in industry.

The causal relationship between exposure to asbestos and certain types of cancer has been established from early studies upon persons who received high exposure from asbestos processing operations such as mining, processing and industrial application of the mineral. Exposure to high doses of asbestos over a long period of time may result in asbestosis or scarring of the lungs, which may continue long after the exposure has ceased. The risk of cancer also increases with increased exposure to asbestos, the two most common forms of which are mesothelioma and lung cancer. While we know that exposure to asbestos increases the risk of cancer and that asbestos related cancers appear to be dose related, *we do not know at which level of asbestos exposure this risk begins to increase*. As no safe level of asbestos exposure has been determined (as opposed to the incorrect view that *any* exposure to asbestos is dangerous)

it is vital to ensure that hazard control procedures are designed to ensure that persons are not exposed to asbestos to a degree likely to endanger their health. This may require removal of the asbestos material, instigating engineering controls to decrease airborne fibre to levels of Background or environmental air monitoring to detect any elevation of airborne fibre levels.

A long latency period of between ten to fifty years exists from asbestos exposure to the onset of cancer or mesothelioma. As asbestos usage increased dramatically in Australia from the 1940's until the late 1970's an increase in the amount of asbestos related disease will continue well into the next century.

It should be stressed that the asbestos materials at the Temporary Remand Centre are non-friable. Elevated airborne fibre levels are not anticipated under normal usage.

1.2 CURRENT REQUIREMENTS

Worksafe Australia, Sydney 1988, "Asbestos: Code of Practice and Guidance Notes" Section 3.1 summarizes the current requirements which have been adopted in the ACT:-

- . The ultimate goal is for Australian workplaces to be free of asbestos.
- . Asbestos removal may not be immediately necessary, but must be completed before a structure or part of a structure is demolished.
- . Removal of such asbestos should be subject to priority setting, determined by the condition and location of asbestos.
- . Asbestos presents a risk only when it is airborne. The risk to health increases as the number of fibres inhaled increases.
- . Wherever practicable, substitutes shall be found for asbestos products. Such substitutes for asbestos products should be thoroughly evaluated before use, to ensure that they do not constitute a health hazard. Ultimately, all asbestos products should be eliminated.
- . Asbestos which has been incorporated into a stable matrix can be found in many working environments. Provided the matrix remains stable and no airborne dust is produced, it presents no health risk.
- . The presence of asbestos should be identified.
- . No person shall be exposed to risk of inhalation of asbestos in the course of employment without being provided with full information of the occupational health and safety consequences of exposure and appropriate control strategies.
- . At present it is not possible to assess whether there is a level of exposure in humans below which an increased risk of cancer would not occur. Accordingly, exposure should always be limited to the minimum level feasible.
- . Asbestos removalists and maintenance workers in an asbestos environment must be suitably protected.
- . The recognised occupational exposure standard is that adopted by the National Occupational Health and Safety Commission. The method used to measure exposure is the Membrane Filter Method as endorsed by the National Commission.
- . Products containing asbestos shall be labelled accordingly.
- . The spraying of asbestos shall be prohibited. All future use of asbestos for insulation shall be prohibited.

1.3 EXPOSURE STANDARDS

1.3.1 Occupational exposure

Occupational air monitoring is carried out by means of a sampling pump located within the workers' breathing zone during asbestos processes such as mining, milling, and manufacture to determine asbestos exposure relative to an occupational exposure standard which, if exceeded would require the implementation of dust control measures, including the use of approved respirators.

The National Occupational Health and Safety Commission has specified the exposure standards listed below as the time weighted average (TWA) fibre concentration of the air breathed by an asbestos worker (ie. during asbestos removal) during a sampling period of not less than 4 hours as determined by the Membrane Filter Method for Estimating Airborne Asbestos Dust. The TWA concentrations shall not exceed:

<u>type of asbestos</u>	<u>concentration - fibres per millilitre of air</u>
chrysotile	0.5
crocidolite	0.1
amosite	0.1
other forms	0.1
any mixture or when composition is unknown	0.1

1.3.2 Paraoccupational exposure

Paraoccupational air sampling is carried out within buildings known to contain asbestos materials to determine the ambient airborne fibre level, or during asbestos removal operations where the removal area is isolated and the operatives are using approved respirators and protective clothing. Static samples are taken at fixed locations at the perimeter of the asbestos removal area as an indicator of the effectiveness of the control techniques.

Paraoccupational air sampling would be the type undertaken at the Temporary Remand Centre during any future asbestos removal or for Background sampling.

No statutory paraoccupational standard currently exists in Australia. Informal agreement has been established in the ACT between asbestos removalists, building owners and managers, ACT WorkCover, BEPCON and Unions for the adoption of maximum acceptable airborne fibre levels. (Refer to Clause 1.4.1, Airborne Fibre Levels, page 9).

1.4 AIR SAMPLING

All air monitoring laboratories operating in the ACT are required to be registered by NATA :

National Association of Testing Authorities, Australia
7 Leeds Street
Rhodes
NSW 2138
telephone 02 9736 8222

All air sampling is required to be NATA endorsed to ensure it is carried out only by persons fully experienced and accredited in Airborne Fibre Counting as per the Membrane Filter Method.

A sample of air is drawn over a membrane filter by means of a sampling pump. The filter is cleared in the laboratory with acetone vapour leaving a transparent specimen upon a microscope slide. Using phase contrast microscopy each fibre conforming to defined geometric criteria is counted and the result is expressed as fibres per millilitre of air calculated according to the following formula:

$$C = \frac{A \cdot N \cdot 1 \cdot 1}{a \cdot n \cdot r \cdot t}$$

where

- C = concentration (fibres/mL)
- A = effective filter area (mm sq.)
- a = eyepiece graticule area (mm sq.)
- N = total number of fibres counted
- n = number of graticule areas counted
- r = flowrate of air through filter (mL/min)
- t = single sample duration (minutes)

If the total fibre count yields less than 10 fibres per 100 graticule areas counted the count is not significantly above that of Background. The minimum practical detection limit of 10 fibres per 100 graticule areas should be used in the calculation and the result reported as being "less than" (<) the calculated value expressed to 1 significant figure and no more than the second decimal place.

The NOHSC Membrane Filter Method requires that "in the absence of other technically convincing information, all particles complying with the defined geometric conditions are to be considered as asbestos fibres and counted as such, thereby ensuring that under-estimates of asbestos exposure are minimised".

1.4.1 Airborne Fibre Levels

It is the asbestos removalists responsibility to ensure that the maximum fibre levels throughout asbestos works does not exceed 0.01 f/mL. The consequences of airborne fibre levels observed at or exceeding those specified below will result in the Occupational Hygienist instructing the contractor in taking the appropriate 'Action' as listed below;

Activity and Location	Level	Action
Occupied area prior to asbestos removal - Background samples	0.02 f/mL	determine source of fibre
Occupied area prior to asbestos removal - Background samples	≥ 0.03 f/mL	evacuate premises determine source of fibre instigate appropriate control measures
Occupied area during asbestos removal	0.02 f/mL	stop work determine source of fibre egress clean up re-monitor until level is < 0.01 f/ml re-commence removal
Occupied area during asbestos removal	≥ 0.03 f/mL	stop work evacuate general public determine source of fibre egress clean up re-monitor until level is < 0.01 f/ml re-occupy re-commence removal
Work area during asbestos removal	≥ 0.05 f/mL	stop work determine source of fibre egress clean up re-monitor until level is < 0.01 f/ml re-commence removal
Removal area during asbestos removal	≤ 0.01 f/mL	clearances gained
negative air exhaust during asbestos removal	fibre observed on membrane filter	shut down unit determine source of fibre egress re-monitor re-commence removal

1.5 GLOSSARY

Background samples	air monitoring undertaken in a building known to contain asbestos-based materials, prior to an asbestos removal programme to establish ambient airborne fibre levels
Work area	that area restricted from the general public adjacent to the Removal area but in which protective clothing and respirators are not generally required
Removal area	that area which is subject to asbestos removal and in which protective clothing and respirators are required at all times
Occupied area	that area in the vicinity of a Work or Removal area to which the general public have unrestricted access
Proposed Work or Removal	those areas being established as the site of future area Work or Removal areas
Building Manager	refers to the person who will implement and oversee all aspects of Asbestos Hazard Control within the premises.

2. HAZARD CONTROL REGISTER

2.1 Asbestos Location Summary

Asbestos cement sheet

Double storey building eave soffit sheet

2.2 ASBESTOS REMOVAL LICENSING

Worksafe Australia 1988 describes the minimum requirements to be observed during any asbestos removal operation. All asbestos removalists in the ACT are licensed by:

BEPCON (Building, Electrical and Plumbing Control) Offices

Ground floor	Ground floor north
Mitchell Business Centre	Dame Pattie Menzies House
160 Lysaght Street	16 Challis Street
Mitchell	Dickson
ACT 2911	ACT 2602

Telephone: 02 - 6207 6309
 fax: 02 - 6207 6324
 Internet: <http://www.palm.act.gov.au/bepcon>

The holder of an ACT Asbestos Licence is required to possess a full and complete understanding of the requirements of, amongst others:

Worksafe Australia, Sydney 1988, *Asbestos: Code of Practice and Guidance Notes*
ACT WorkCover
ACT BEPCON Requirements & Regulations

and be able to demonstrate practical experience in the industry for at least three years. The ACT Government Planning and Land Management PALM NOTE 1 covers ACT BEPCON's requirements for authorising certifiers and builders as well as the respective requirements of ACT WorkCover and ACT Waste for the removal and transport of asbestos materials.

ACT BEPCON licenses all removal companies operating in the ACT. Any interstate company undertaking works would be required to obtain an ACT licence. Time should be allowed for obtaining a license if interstate tenders are called.

Removal of Asbestos-Cement Sheet

The Department of the Environment Land and Planning has recently amended the licensing requirements for handling or removing asbestos cement sheet. Building Note 16 of February 1994 now allows for builders holding a Class A, B or C licence to remove stable, unweathered asbestos cement sheet from a single domestic building. A holder of a Class D licence is required to remove unstable or weathered asbestos cement sheeting, and all sheeting in commercial premises. **A Class D licence holder is required to perform all asbestos cement sheet removal at the Temporary Remand Centre.**

2.3 ASBESTOS REMOVAL PROCEDURES

The complexity of asbestos removal procedures increases according to the friability of the material to be removed and the expected airborne dust generated. Limpet sprayed asbestos as found on structural beams, or pipe lagging insulation produce dense asbestos dust clouds during their removal. This type of asbestos removal is required to be undertaken using full enclosure and isolation of the removal area, under negative air pressure, with asbestos removal workers wearing full face respirators, compressed air, and full wet decontamination procedures via a series of showers and airlocks.

Non-friable asbestos is firmly bound into a stable matrix with other material such as cellulose or cement ie. asbestos cement sheet (commonly known as a/c sheet, or fibro), gasket and membrane materials. Asbestos fibre is only significantly released from these products if they are severely damaged by impact, cutting, drilling, sanding etc.

2.4 APPROVAL TO BEGIN ASBESTOS REMOVAL WORKS

ACT BEPCON requires all asbestos removal in the ACT to be undertaken by a licensed ACT asbestos removalist for all works except those within Commonwealth owned premises. Any asbestos removal works undertaken at the Temporary Remand centre therefore would be required to be undertaken by the holder of an ACT Asbestos Removal licence. All removal methods and procedures are required to be approved by a licensed building certifier authorised by ACT BEPCON. ACT BEPCON can be contacted to provide a list of building certifiers who can issue a Clearance at the successful completion of asbestos removal.

2.5 ACCESS TO AREAS CONTAINING ASBESTOS - ROUTINE

For emergency access - refer 2.5.1

From time to time it may be necessary for the building occupants, maintenance personnel, other trades etc. to gain access to areas suspected to contain asbestos materials to upgrade or carry out maintenance work. In areas which may be contaminated with asbestos programmed maintenance or upgrading should wherever possible be performed out side normal working hours with the air-conditioning non-operational so as not to introduce any asbestos fibres into the air-conditioning system. **PRIOR TO ACCESS THE FOLLOWING PROCEDURES MUST BE OBSERVED:**

i. Refer to this Asbestos Management Plan [including Amendments] to determine if asbestos materials are likely to be encountered in the general area. If no asbestos is located in the area intended to be accessed the area may be entered by all relevant personnel on an unrestricted basis. **If asbestos is indicated in the general area to which access is required refer to 2.5 ii. and 2.5 iii.**

ii. **WORK MUST NOT PROCEED UNDER ANY CIRCUMSTANCE WITHOUT THE WRITTEN PERMISSION OF BUILDING MANAGER**

Mr/Ms

Address
.....
.....

iii. **ACCESS TO ANY KNOWN OR SUSPECTED AREAS CONTAINING ASBESTOS IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE BUILDING MANAGER.**

iv. Access to areas known or suspected of contain asbestos will only be given by the Building Manager. Access will only be given to persons authorized by ACT BEPCON and all access and works will be undertaken in accordance with the requirements of Worksafe Australia 1988. This document states:

"Property owners in conjunction with agents or employers shall establish procedures to ensure that persons entering an area where asbestos is present shall, unless an assessment of the risk indicates that this is unnecessary, wear appropriate protective equipment and, in all cases, minimise disturbance of the asbestos product". Worksafe Australia, Sydney 1988 *Asbestos: Code of Practice and Guidance Notes* Section 3.6.

and

"The general condition of all asbestos products contained in the workplace shall be visually assessed by a person who is competent to assess the associated risk (that is the potential of such asbestos products to release airborne dust." Section 6.

For the purposes of this document persons defined as being competent to assess the risk of asbestos products to release airborne dust are ACT BEPCON, an Occupational Hygienist or a licensed asbestos removalist.

2.5.1 EMERGENCY ACCESS TO AREAS CONTAINING ASBESTOS

If emergency access is required contact the Building Manager, as stated in 2.5ii., by telephone. If the Building Manager determines that access is warranted all works must be undertaken or supervised by a licensed asbestos removalist who will be required to isolate the area and proceed as per Worksafe Australia: Asbestos Code of Practice 1988. Refer 2.6.1.

2.6 PROCEDURES TO BE FOLLOWED BY THE BUILDING MANAGER

Upon receipt of written request for access to suspected asbestos containing areas the Building Manager should:

- i. refer to the Asbestos Management Plan and Amendments to determine the risk of encountering asbestos materials during the planned works.
- ii. if the area to be accessed is shown to be clear of asbestos works may proceed.
- iii. If the area to be accessed is suspected of containing asbestos access may only be given to persons holding an ACT Asbestos removal licence. All access to this area and works undertaken must be in accordance with ACT BEPCON, ACT WorkCover and Worksafe Australia 1988 requirements.

NOTE: NO ACCESS MAY BE GIVEN TO AREAS SUSPECTED OF CONTAINING ASBESTOS EXCEPT IN AN EMERGENCY (refer 2.6.1).

2.6.1 EMERGENCY WORKS IN AREAS CONTAINING ASBESTOS

If emergency access is required to areas containing asbestos the Building Manager should observe the following recommendations:

- i. Ensure that the tenant does not access the area(s) suspected of containing asbestos.
- ii. In consultation with ACT BEPCON, the Occupational Hygienist and/or a licensed asbestos removalist determine the type and extent of the emergency works required. Consultation with other trades, services or disciplines may be necessary at this stage.

- i. Ensure that the tenant does not access the area(s) suspected of containing asbestos.
- ii. In consultation with ACT BEPCON, the Occupational Hygienist and/or a licensed asbestos removalist determine the type and extent of the emergency works required. Consultation with other trades, services or disciplines may be necessary at this stage.
- iii. All access to, and works undertaken in an area known to contain or suspected of containing asbestos must be executed in accordance with the requirements of, ACT BEPCON, ACT WorkCover & Worksafe Australia 1988. Any other trades or disciplines which require access into asbestos contaminated environments must:
 - a. be supervised by a licensed asbestos removalist to ensure that they do not create an airborne asbestos fibre risk.
 - b. wear an appropriate respirator and protective clothing.
 - c. be conversant with the associated risk of working in an environment which contains asbestos.

2.7 SUSPECTED ASBESTOS MATERIALS LOCATED

materials suspected of containing asbestos are located during the normal occupancy of the premises or during demolition, refurbishment or other works the following procedures are to be immediately instigated:

- i. the materials are to be left as found - do not handle the material.
- ii. for each area/building inform the Building Manager immediately -

(normal hours) Contact: Telephone:

(after hours) Contact: Telephone:

- iii. restrict access to the area for a radius of 2 metres.

The Building Manager or Assistant Manager shall immediately:

- iv. ensure the area is isolated for a radius of 2 metres.
- v. arrange for identification of the material by either an Occupational Hygienist, a licensed asbestos removalist or private certifier.
- vi. in the event of the material being shown by laboratory analysis to be asbestos positive, or in the interim suspected to be by the Building Manager instigate appropriate control measures or asbestos removal procedures.
- vii. mark the presence of asbestos materials in the appropriate section in an Asbestos Audit and document the control measures or asbestos removal procedures undertaken.
- viii. notify an Occupational Hygienist, a licensed asbestos removalist or private certifier to determine the likelihood of further asbestos materials being located in similar locations.

3. REVIEW OF IN SITU ASBESTOS

All asbestos remaining in situ should be inspected by the Occupational Hygienist on a 3-year basis to document any deterioration in the material which may result in a change to the hazard control requirements.

The results of these reviews should be inserted at the beginning of each relevant section in the Asbestos Survey.

ASBESTOS AUDIT

Temporary Remand Centre
Symonston
ACT

LOCATION: All accessible areas

Findings:

Asbestos cement sheet - Double storey building eave soffit sheet

A review Audit was undertaken in the above area on 11 July 2002 to determine the extent of deterioration of the asbestos materials.

strike out if inapplicable

The following deterioration was noted:

No deterioration – all materials removed except the above sheeting.

which will require the following alteration to Recommendations

or

No deterioration was noted. No alterations are required to Recommendations

The next Asbestos Audit is due in July 2005

Signed

4. ASBESTOS SURVEY AMENDMENTS

Temporary Remand Centre
Symonston
ACT

LOCATION: All areas

MATERIALS REMOVED - DATE

- ground floor eaves soffit from detention rooms 1-5, North wing
- ground floor eaves soffit from shower room to detention room 4, South wing
- laundry ceiling sheet
- spandrel panel above window near rear stairwell, ground floor
- vinyl floor tiles room 1, ground floor (North wing)
- vinyl floor tiles ground floor central office areas

All of the above materials were removed in May/June 2002

MATERIALS REMAINING IN SITU

Asbestos cement sheet - Double storey building eave soffit sheet

5. ASBESTOS REMOVAL PROCEDURES

5.1 Asbestos cement sheet

- i. Obtain approval to begin asbestos removal works by a registered building certifier authorised by ACT BEPCON. The name of the licensed ACT builder who is to carry out the work must be notified to the certifier. (refer 2.4).
- ii. Inform occupants of intended asbestos removal works.
- iii. Re-locate all occupants in immediate area and adjacent areas.
- iv. Place appropriate signage at perimeter of removal area.
- v. Place 2 layers of plastic sheeting on floor and adjacent surfaces.
- vi. Seal all doors and windows to the removal area and rope off the area adjacent to the removal area.
- vii. Sheets to be sprayed with a fine water mist to reduce dust. Do not use water mist if a risk of electrocution exists.
- viii. Using protective clothing and a half face particulate filter (cartridge) respirator conforming to AS/NZS 1716:1994 remove securing screws, or punch nails through the sheets.
- ix. Power tools which come into contact with the asbestos materials must not be used as excessive dust may be created.
- x. Asbestos cement sheets and to be removed with a minimum of breakage and should be lowered to the ground - not dropped.
- xi. Removed asbestos cement sheet and contaminated materials to be packed into disposal crates or wrapped in plastic sheeting.
- xii. Asbestos cement sheets may not be re-used.
- xiii. All surfaces within the removal area to be thoroughly vacuumed to remove all asbestos residue.
- xiv. Remove all asbestos containing material and all asbestos contaminated material from site for disposal in the approved manner.
- xv. All surfaces to be sprayed with pva to seal any microscopic asbestos fibres.
- xvi. Obtain visual and air Clearance from Occupational Hygienist.
- xvii. Obtain approval at completion of works from a licensed building certifier authorised by ACT BEPCON.