

ASBESTOS INSPECTION REPORT

Address of Property Inspected:



Clients Name :

Clients Address :

Inspection Date : 28 AUGUST 2007

Report Number : 23896

Inspector Name : STEVE MAHER

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1.0 SUMMARY OF ASBESTOS CONTAINING MATERIALS LOCATED.

At the request of _____, Queensland Building & Pest Reports (QBPR) carried out an asbestos material inspection report of a building located at _____ on the 28TH AUGUST 2007.

Asbestos Containing Materials that were visually identified or found through sample analysis.

1.1 NOTES AND FURTHER RECOMMENDATIONS

- NO INSPECTION TO AIR-CONDITIONER, RECOMMEND THE SERVICE AGENT BE CONTACTED TO DETERMINE IF ASBESTOS IS PRESENT IN NON-ACCESSIBLE AREAS.
- THE PROPERTY HAS BEEN RENOVATED ON SEVERAL OCCASIONS WITH SOME ROOMS CONTAINING FLAT SHEET (SUSPECTED ASBESTOS) MASONITE, PLASTERBOARD AND PARTICLE BOARD IN ONE ROOM.
- THE ELECTRIC SWITCH BOX APPEARS TO HAVE BEEN UPGRADED AND DOES NOT APPEAR TO CONTAIN ASBESTOS. RECOMMEND TO SEEK FURTHER ADVICE FROM A LICENCED ELECTRICAL CONTRACTOR.

ASBESTOS REGISTRY AUDIT FORM

SITE: 40 DESHON STREET, WOOLLOONGABBA QLD **NAME:** KEVIN POWER **DATE:** 28 AUGUST 2007

| TYPES AND FORMS OF ASBESTOS PRODUCTS/MATERIAL | FRIABLE | BONDED | SAMPLE TAKEN | | | PHOTO No. | SUSPECTED | | ABESTOS TYPE | CONDITION | PRIORITY | APPROX QUANTITY AREA/LENGTH Eg (Sq. M) |
|---|---|--------|----------------|----|------------|-----------|-----------|----|--------------|-----------|----------|--|
| | | | YES SAMPLE No. | NO | SIMILAR TO | | YES | NO | | | | |
| FIBRE CEMENT FLAT SHEET | | ✓ | 23896-1 | | | 02 | ✓ | | CH | G | M | 15.0M SQUARE |
| LOCATION/NOTES | SOFFIT SHEET AND GABLE SHEET | | | | | | | | | | | |
| FLAT SHEET FIBRE CEMENT | | ✓ | 23896-2 | | | 03 | ✓ | | NAD | G | M | 12.0M SQUARE |
| LOCATION/NOTES | SUBFLOOR WALL SHEETING | | | | | | | | | | | |
| FIBRE CEMENT FLAT SHEET | | ✓ | 23896-3 | | | 04 | ✓ | | CH | F | H | 8.0M SQUARE |
| LOCATION/NOTES | GABLE END CENTRE OF BUILDING | | | | | | | | | | | |
| FLAT SHEET FIBRE CEMENT | | ✓ | 23896-4 | | | 05 | ✓ | | NAD | G | M | 65.0M SQUARE |
| LOCATION/NOTES | CONFERENCE ROOM / WAITING ROOM | | | | | | | | | | | |
| FIBRE CEMENT FLAT SHEET | | ✓ | 23896-5 | | | 06 | ✓ | | CH | G | M | 25.0M SQUARE |
| LOCATION/NOTES | REAR ROOMS WALL SHEETS (INCL BATHROOM / TOILET AND OFFICES) | | | | | | | | | | | |

PHOTOS

PHOTO 2



PHOTO 3



PHOTO 4



PHOTO 5



PHOTO 5



PHOTO 6



PHOTO 6



2.0 CONCLUSION

The inspection of the building and the subsequent sample analysis of materials suspected of containing Asbestos identified the following types of Asbestos Containing Materials.

If removal, maintenance or repair tasks need to be carried out upon any of these items please refer Section 8.6 “Maintenance Work Flow-Chart” - on how best to proceed. These products do not pose a risk from exposure to airborne fibres so long as the materials are not disturbed or have work carried out upon them. I.e. cut sanded, drilled etc. Attachment 8.6 contains a summary of health risks.

2.1 REMOVAL OF ASBESTOS

Asbestos Containing Materials were found during this inspection that warranted immediate removal.

2.2 POLICY DEVELOPMENT FOR ASBESTOS CONTAINING MATERIALS

We recommend that specific policies on different aspects of asbestos management be developed and documented in Workplace Health & Safety Plans and Quality Systems. We would suggest the following topics be covered,

- Asbestos product management: comprising care, maintenance, repairs & clean up of damaged areas
- Responsibilities of contractors and sub-contractors regarding asbestos on this site

2.3 SIGNAGE & LABELING

In accordance with the Workplace Health & Safety Regulations 1997 Part 11 Section 69F.2.b an asbestos materials register notification sign shall be affixed to “an appropriate prominent place”. This applies only to the buildings that contain “asbestos material”.

3.0 SCOPE OF THE INSPECTION

The purpose of the inspection report was to determine the presence of any *asbestos materials* in the building in accordance with Queensland's Workplace Health & Safety Amendment Regulation (No.1) 2000, Section 69.

This report specifically refers to a visual inspection on areas of the building that were safely accessible at the time of the inspection to identify Asbestos Containing Materials which may be in the building.

Reference may be made to other Asbestos Containing Materials that are not thermal or acoustic insulation and as such are not covered by the legislation.

Queensland's Workplace Health & Safety Amendment Regulation (No.1) 2000, Section 69 refers to "asbestos materials" installed in the building, including in essential plant in or on the building. The Workplace Health and Safety Regulations – 1997 defines "*asbestos materials*" as "*installed thermal or acoustic insulation materials comprising or containing asbestos*".

Examples of *installed thermal or acoustic insulation materials comprising or containing asbestos* would be:-

- Asbestos lagging on steam/hot water pipes
- Asbestos material sprayed on steel beams
- Asbestos millboard installed in air-conditioning ductwork where heater banks are present

This type of material may be referred to as friable asbestos products, which means that it is loosely bound and could quite easily liberate fibres to the air if disturbed.

The more common use of asbestos in Queensland is in the form of gaskets, brake shoes, and building products, e.g. fibro sheeting and pipe work and some vinyl floor tiles. The asbestos fibres in this type of material are bound into a matrix of cement, plastic or resin and as such are not likely to be liberated into the air if disturbed. These materials may be referred to as bonded asbestos products.

Bonded asbestos products are not covered by the new legislation.

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All Materials / Products located will be classified as suspected Asbestos Containing Materials unless samples are taken and tested.

4.0 METHODOLOGY OF THE INSPECTION

The inspection report survey involved visually inspecting each accessible area of the building for the purpose of *identifying Asbestos Containing Materials*, as defined under the Workplace Health and Safety Regulation 1997.

The process of identifying asbestos materials is as follows:

- Gathering information – age of building, type of building products used.
- Visual inspecting – gaining access to all areas available safely.
- Taking samples – samples are taken where possible of suspect materials and products, all samples are sent and tested at a competent & accredited laboratory.
- Report and summary – the report outlines findings, health risks and if asbestos is present.
- The presence of asbestos or asbestos containing materials installed in a building or plant & equipment can only be confirmed visually and backed by sample analysis in a certified laboratory. An appropriately qualified person will take samples of suspected materials and have them analysed in a laboratory to confirm the presence of asbestos. Therefore limiting samples taken will decrease the confidence in the Asbestos Audits findings and the Asbestos Materials Report generated from it.
- There is no device or instrument at the moment that can automatically detect asbestos.

5.0 LIMITATIONS OF THE INSPECTION

QBPR has made every effort to identify all *Asbestos Containing Materials* contained within the building, together with basic items of plant and equipment but no warranty, expressed or implied, is made to the completeness of this inspection and report. During the course of a visual non-destructive asbestos inspection it may not be possible to identify the presence of all asbestos materials. In many instances, asbestos materials may be present in areas that cannot be accessed without implementing destructive sampling techniques. Such areas may include:

- wall cavities & internal pipe work
- penetrations in solid walls and concrete floor slabs
- integral parts of machinery, plant and pipe work
- fire dampers and reheat units within air conditioning ducts, and
- inaccessible service ducts / risers,

Samples were not taken of suspect materials that may have placed the inspector at risk of injury or death at the time of the inspection. High-risk asbestos situations that may be identified during an inspection may include internals of electrical switchboards and substations. Generally it is impossible to locate all asbestos within a building in the course of an audit. This is due to factors such as,

- To avoid damage to the building-asbestos may be hidden behind walls or floors/floor coverings or above fixed ceilings
- Plant or equipment within the building which contains an asbestos component included by the manufacturer
- No plant or building plans available indicating hidden asbestos usage.
- Minimising the inconvenience or delay while an asbestos audit is underway
- No access to lifts, lift shafts and rooms, air conditioning ductwork, airways and other internal construction elements such as plumbing or electrical risers/conduits.
- Services located below wall surfaces “chased” in insulated material.

Relying on an asbestos inspection or audit

- An Asbestos materials report can only indicate such asbestos as was found in the course of the inspection. For the reasons outlined above it should ***never be relied upon solely*** to indicate the presence of ***all or no asbestos***. The findings must be considered together with the specific limitations and scope of the inspection which was undertaken, and all other documentation on the building. (Refer Maintenance Work Flow-Chart – 8.6)

6.0 LEGISLATIVE REQUIREMENTS

The current Queensland Workplace Health and Safety Regulations 1997 Part 11 require that the owner of a building or plant that contains any asbestos ensures that:

- Asbestos which is unstable or poses a significant health risk is removed as soon as reasonably practicable; and
- Policies and procedures are established to control the asbestos and prevent (or where not reasonably practicable to minimize) the exposure of any person to airborne asbestos fibres.

The policies must address the following;

- The steps that can be taken to restrict access to the place where the asbestos is situated.
- The steps that can be taken to prevent disturbance of the asbestos.
- Work practices in the vicinity of the asbestos materials.
- Notification of the existence of an asbestos register.
- Regular inspections by a competent person; of the asbestos (atleast annually) and earlier if the nature or location of work in the vicinity of the asbestos materials changes; and

Any asbestos removal work done is required to be carried out by an “asbestos removalist”. Any maintenance work done on, or in the vicinity of, materials which contain asbestos is required by legislation to be carried out in accordance with the Australian Code of Practice for Asbestos Work. It is necessary to ensure that all asbestos products are removed prior to any demolition, removal, maintenance, operational or construction work which may damage or disturb asbestos product/s.

7.0 TERMS USED IN ASBESTOS REGISTERS

CONDITION

- G. *Good*: Showing no, or very minor signs of damage and / or Deterioration of the material.
- F. *Fair* : Showing small amounts of damage and/or deterioration of the material.
- P. *Poor* : Showing large amounts of damage and/or deterioration of the material.

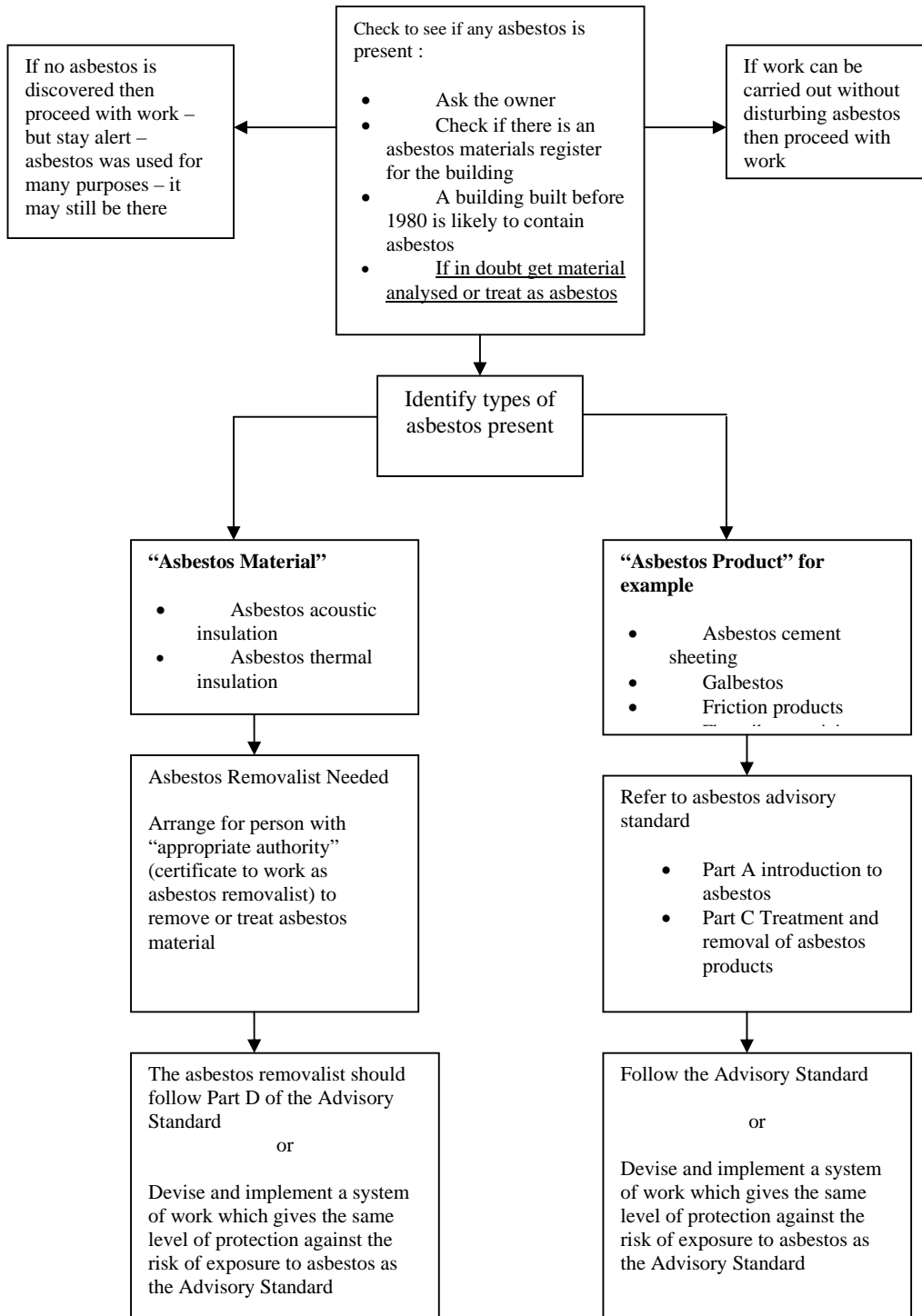
PRIORITY LEVELS

- I. **Immediate**: Materials deteriorated to an unserviceable condition and as such should be removed as soon as practical. Potential for exposure exists.
- H. **High**: Deterioration of material is evident. Stabilise the material, prevent further deterioration and review option to remove material (eg. Refurbishment etc).
- M. **Medium**: Minor deterioration of material is evident. (eg. Structural integrity affected; breakdown of castable legging etc.) Planned removal should be allowed for in Maintenance Budget.
- L. **Low**: Leave in situ and monitor condition. Should be reassessed in conjunction with future inspections and reports.

ASBESTOS LEGEND

- CH** CHRYBOTILE ASBESTOS.
- A** AMOSITE ASBESTOS.
- C** CROCIDOLITE ASBESTOS.
- NAD** NO ASBESTOS DETECTED.

Every time – before every job



9.0 HEALTH RISKS OF ASBESTOS – GENERAL HEALTH

Asbestosis, mesothelioma, pleural plaques and lung cancer are the recognised diseases caused by asbestos and are all as a result of inhalation of airborne asbestos fibres. Hence for asbestos containing materials or products to pose a health risk airborne fibres must be generated either through degradation or high energy mechanical action.

The degree of asbestos fibre release, and hence inhalation exposure, is in part dependent upon the matrix material binding the asbestos, general condition and product type. The highest health risk is associated with exposure to amphibole asbestos (amosite, crocidolite) with crocidolite being cited as the material of greatest concern. Chrysotile (a serpentine mineral) is considered to be of lesser but still significant concern.

Asbestos types:

- Chrysotile is commonly known as white asbestos.
- Amosite is commonly known as grey or brown asbestos.
- Crocidolite is commonly known as blue asbestos.

Asbestos Cement Products

Asbestos cement products were commonplace building materials prior to 1986. Many building product manufacturers in Australia didn't phase out the use of asbestos in their products until the early 1980's and then it was a gradual process.

Imported building products can still contain asbestos either through legislation that allows a certain percentage of asbestos in products in that country or no legislation at all in countries that still mine it.

These products consist of asbestos fibres bound in a cement matrix and the degree of fibre release depends on the condition of the material.

The main health risk with asbestos cement products is from maintenance or similar activity where the material is worked upon (mechanical energy applied) resulting in airborne dust.

It can also be prone to weather, storm damage and the cement matrix does react and break down in acidic or polluted atmospheric conditions (i.e.; industrial areas) over a period of time.

Vinyl Floor Coverings

With vinyl floor covering, asbestos may be present in any of the following:

- The vinyl body of the tile or sheet.
- A fibrous backing felt/insulation under the tile or sheet.
- A fibrous adhesive, putty or grout used to fix the tile.

Asbestos contained in the vinyl body of the tile or sheet is held in a stable matrix. The very low rate of wear does not normally give rise to fibre release considered to pose a significant health risk. A health risk may arise when asbestos fibres are released due to maintenance work or when the flooring is friable due to age.

Asbestos adhesive or putty is sometimes used to coat the back of vinyl tiles or sheet. This product does not pose a risk to exposure from airborne fibres, so long as it is not disturbed or worked upon.

Asbestos backing felt/insulation or asbestos adhesive is normally not exposed and does not represent a significant health risk. ***However, when exposed due to wear or damage to the overlying vinyl these materials upon further wear or abrasion may liberate fibres depending upon the amount of abrasion and the age and condition of the material.***

10.0 GLOSSARY OF TERMS

- Action Taken:** This section is provided for the building owner/manager to record any works carried out altering the status or condition of products, eg “sheeting removed May 2004”. This will make the annual update if required easier and more detailed.
- Amosite:** **Grey or brown asbestos:** This is a Amphibole mineral and has straight harsh grey to brown fibres and was often used in situations where additional strength was required such as high temperature asbestos pipe insulation as well as heat resistance such as fire rating.
- Asbestos:** Asbestos is a naturally occurring mineral which is fibrous in nature. Asbestos is found in veins surrounded by other rock. The vein consists of bundles of fibres held together reasonably firmly to form a solid rock, Mechanical milling breaks the fibres away from each other, leaving free fluffy fibres. Further mechanical action can break the fibres down into finer and finer fibres. This is because asbestos tends to break along the length of the fibre, not across the length of the fibre. Asbestos fibres can be extremely fine, with fibre diameters smaller than a micrometre (one one-thousandth of a millimetre) being fairly common.
- It differs from other minerals in its crystal development. The crystal formation of asbestos is in the form of long thin fibres. Asbestos is divided into two mineral groups – serpentine and amphibole. The division between the two types is based upon the crystalline structure. Serpentine has a sheet or layered structure whereas amphiboles have a chain like structure.
- These minerals do not have any detectable odour or taste. Asbestos can be found naturally in soil and rocks in some areas. Asbestos fibres are resistant to heat and most chemicals and have great tensile strength. Because of these properties asbestos has been mined for use in a very wide range of building materials, friction products and heat resistant fabrics.
- Asbestos removalist:** An employer whose business or undertaking includes asbestos removal Work; or a self employed person whose work includes asbestos removal work.
- Avoid damage and abrasion:** As far as practicable limit activities on or adjacent to material such that significant damage to the material that will release respirable fibres is avoided, eg; avoid drilling, cutting, sanding, etc. For softer or more friable materials this also means lighter or repeated impacts (such as opening or closing doors with asbestos door seals or heavy wear areas for asbestos felt backed vinyl).
- Chased:** Where pipe work (usually hot water pipes) has been fitted into channels carved out of brickwork or concrete walls and insulated using plaster type filler asbestos. (This is not common in the Northern states of Australia but is important in the Southern states where heat loss due to low temperatures meant that hot water piping needed to be insulated).
- Chrysotile:** **White asbestos:** This is a Serpentine mineral and considered to be of lesser but still significant concern than brown or blue asbestos. White asbestos has

“curly” fibres. This property allows it to be woven e.g. fire resistant suits or gloves

Crocidolite: **Blue asbestos:** This is a Amphibole mineral and has straight blue fibres and the fibres are very fine. Blue asbestos tends to have been used in situations where acid resistance was required as well as being a common material used for fire rating of steel structural beams.

Essential plant: includes –

- Air conditioning plant; and
- Boilers; and
- Cooling towers; and
- Escalators; and
- Lifts; and Piping.

Friability: The potential for a product containing asbestos to release breathable fibres depends on its degree of friability. Friable means that the material can be crumbled with hand pressure and is therefore likely to emit or release fibres. The fibrous or fluffy sprayed on materials used for fireproofing, insulation or sound proofing are considered to be friable and they readily release airborne fibres if disturbed. Materials such as asbestos containing vinyl floor tile or asbestos containing sealants are generally considered non friable and do not emit or release fibres unless subjected to mechanical energy operations such as sawing or sanding operations. Asbestos cement pipes or sheet can emit or release airborne fibres if the materials are cut or sawed or if broken up in demolition operations.

Friable: Non bonded asbestos fabric or material can be in a powder form or can be crumbled, pulverised or reduced to powder by hand pressure when dry.

Monitor Condition: Carry out regular general observation of the condition of the material to note any changes.

Non Friable: Material / Product which contains asbestos fibres are bonded by cement, vinyl, resin or other similar material.

Owner: of a building – means a person who –

- Holds title to the building
- Has effective management or control of the building and any essential plant in it and includes a person who manages a building as agent for a person mentioned above.

11.0 FURTHER INFORMATION

Web Sites

Queensland Government Dept. of Workplace Health & Safety
www.whs.qld.gov.au

Queensland Asbestos Industry association
www.asbestosindustry.asn.au

National Occupation Health and Safety Commission
www.nohsc.gov.au

Environmental Protection Agency Asbestos Home Page
www.epa.gov/opptintr/asbestos

Asbestos
www.pp.okstate.edu/ehs/LINKS/Asbestos.htm

A Trip to the Blue Sky Mine
www.deadheart.org.uk/discographies/blue_sky_mining/wittenoom.html

Or contact your local Queensland Workplace Health and Safety Office on 1300 369 915

Documents are also available from;

Federal Work safe Australia Code of Practice is available from -Work safe Australia, Sydney

- Work safe Australia Code of Practice [NOHSC: 2002(1988)] and Guidance Notes [NOHSC: 3002 (1988)], [NOHSC: 3003 (1988)]. August 1988
- Workplace Health and Safety Act (1995)
- Workplace Health and Safety Regulations (1997)
- Asbestos Advisory Standard 2004