

# **THE ON-SITE MANAGEMENT OF ASBESTOS MATERIALS**

## **A Guide for Owners of Buildings**

Division of Workplace Health and Safety  
Department of Industrial Relations

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**Queensland Government**  
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## 1. What is the aim of Division 1 (On-site management of asbestos materials), Part 11 (Asbestos) of the *Workplace Health and Safety Regulation 1997*, and who is covered by the regulation?

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The aim of this Regulation is to prevent or minimise asbestos related disease among persons likely to be exposed to airborne asbestos in workplaces located in buildings, particularly where those persons are required to do work on the building, for example, tradespersons and maintenance workers.

Division 1 applies only to workplaces in buildings built or given building approval prior to 1 January 1990, as these buildings are most likely to contain asbestos materials, installed for a variety of functional uses such as fire protection and thermal and acoustic insulation. The *Workplace Health and Safety Regulation 1997* defines **asbestos materials** as “*installed thermal or acoustic insulation materials comprising or containing asbestos*”. These materials are often, but not always, friable. For example, there are many lagging materials that are not friable. The definition does not include asbestos products such as Asbestos-Cement (A-C) sheeting.

The regulation does not apply where workplaces were built after 1989. Further, an owner of a building occupied as a private dwelling house is not required to comply with the regulation unless a part of the dwelling is used as a workplace. The regulation will then apply to only that part of the dwelling that is a workplace.

The regulation requires owners of buildings, or their agents, to ensure that a process is undertaken to –

- (a) identify whether asbestos materials are present;
- (b) assess the risk of exposure of workers and other persons; and
- (c) control any risk of exposure.

For Division 1, the **owner of a building** means “*a person who holds title to the building and has effective management or control of the building and any essential plant*”. The owner is also taken to include “*a person who manages a building as an agent for the owner*”.

## 2. When must an owner comply with this regulation?

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Owners of buildings built or given building approval before 1 January 1980 have from 1 November 2000 until 31 October 2002 to comply with this regulation.

Owners of buildings built or given building approval between 1 January 1980 and 31 December 1989 have from 1 November 2002 until 31 October 2004 to comply with this regulation.

## 3. Consultation

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Where installed asbestos materials are present (or thought to be present) in workplaces located in buildings, consultation, involvement and information sharing should occur between the building owner (or agent), employers, workers and their representatives, at each step of the identification, assessment and control process.

## 4. What is asbestos material used for and where is it commonly found?

A range of asbestos materials may be found in buildings and plant. Asbestos-containing sprayed insulation materials may be encountered throughout buildings, especially those built in the 1950's to late 1970's. The use of asbestos materials in buildings was phased out over the 1970's and 1980's. Any building built after 1989 is unlikely to have asbestos materials fixed or installed. The types of asbestos materials that may be installed in a building which are of most concern from a health perspective include:

- *Sprayed on fireproofing/soundproofing/thermal insulation:* These vary from hard impervious and well-sealed materials to friable (easily crumbled or reduced to powder) materials applied by spraying or trowelling. The colour will normally vary from white to brown/grey to blue, although in some instances products may have been painted or dyed. These materials are often found on structural steel members and decks (as fire proofing), ceilings, fire plugging, fire doors and occasionally on walls (as fireproofing and/or soundproofing). They may be exposed or may be concealed by suspended ceilings or other decorative structures. It should be noted that where the materials have been used exclusively for fireproofing, they would probably be found to have been used for the same purpose throughout the building. In some instances, asbestos materials may have been removed from parts of buildings as a result of renovations or refurbishments over time.
- *Acoustic plaster soundproofing:* This is a firm, open pored, plaster like material, applied by a trowel. The soundproofing material is usually exposed and not usually painted.
- *Insulation:* Asbestos materials used in the insulation of air conditioning ducts, hot and cold water pipes, hot water reservoirs, pressure tanks, and boilers are generally covered with a fabric or metal jacket. Fire doors often contain laminates of asbestos material covered by wood or metal.

Thermal insulating boards, e.g. millboard, are lower density soft-surfaced materials intended primarily for thermal insulation purposes and are "asbestos materials" subject to the provisions of Division 1 of the regulation.

Asbestos-Cement products including A-C sheeting (flat, profiled or perforated) are higher density, hard-surfaced materials intended for structural and plumbing purposes. These are defined as "asbestos products" not "asbestos materials" and are therefore **not** subject to the requirements of Division 1 of the regulation.

It should be noted that not all spray-on fireproofing/soundproofing, acoustic plaster and insulation contains asbestos. Only laboratory analysis of samples of the particular material can conclusively identify the presence, type, and proportion of asbestos. If you are not sure whether particular material is asbestos or not, then you may either assume that it is asbestos and treat it as such, or you can have it analysed to determine whether it is asbestos. A list of asbestos materials and uses is provided in Appendix A.

## 5. Who is responsible for identifying asbestos materials in buildings?

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As the building owner, you have the responsibility to ensure that an “Appropriately Qualified Person” (AQP) takes reasonably necessary steps to find out whether there are any asbestos materials installed in the building, including in essential plant in or on the building. Essential plant includes, but is not limited to, *“air conditioning plant, boilers, cooling towers, escalators, lifts and piping”*. If your workplace was built in the late 1980’s then your assessment is likely to be very simple. For example, the reasonably necessary steps that the AQP may take to determine whether asbestos is present, may include checking building records and with the builder to make sure that asbestos materials were not re-used when the workplace was built. From a practical standpoint, you may also choose to have all asbestos products included in the AQP’s inspection and assessment. However, this is not a mandatory requirement under the regulation and is entirely at your discretion as the building owner.

An appropriately qualified person means, *“...the person possesses the qualifications and experience necessary to find asbestos materials in a building”*. The person you choose may be a builder, a building surveyor, an occupational hygienist, an architect or an asbestos specialist, among others. More than one person may be involved in the process. For example, at the building end, a person may conduct an inspection to find the asbestos materials or suspected materials, and another person (e.g. occupational hygienist) may then analyse a sample of the material to identify the type of asbestos fibre present.

There is no requirement under the regulation for the AQP to be approved by the Division of Workplace Health and Safety. However, you should be satisfied that the person conducting the inspection is familiar with building and construction practices, and is able to recognise suspect asbestos materials in the workplace.

If asbestos material is determined to be present in the workplace, you need to ensure that the AQP does an assessment to determine the potential exposure of people entering the building. It may be expeditious to have the assessment conducted at the same time as the inspection.

The AQP is required to give you an “asbestos materials report” about asbestos materials found in the building or plant within 3 months after the materials are found. The report must state –

- a. where the asbestos materials were found in the building or plant;
- b. the type of asbestos materials;
- c. the form of the asbestos materials;
- d. whether the asbestos material is friable or poorly bonded or in an unstable condition; and
- e. any potential health risks to occupants of the building because of the presence of the asbestos materials.

## **6. Conducting the assessment and reporting the outcomes**

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The assessment can be compared to carrying out a building survey or stock take. The condition of all asbestos materials installed in the building for thermal or sound insulation, should be visually assessed by the AQP to evaluate the potential of those products to release airborne asbestos fibres. If you requested the AQP to include all asbestos products in his or her inspection, in addition to asbestos materials, you may also decide to include these products in the assessment. Again, this is entirely at your discretion as the building owner.

Section 69E(3) of the asbestos regulation lists the things to be included in the asbestos materials report, which will guide the AQP in carrying out the assessment. There is no approved format for the report, but the following guidance may be useful.

### **(a) Identify/describe the workplace and the date of the assessment**

This section of the report may include –

- the name of the building owner(s);
- any companies/workplaces located in the building;
- the name of the building(s);
- address of the building(s);
- the date the assessment was carried out; and
- the date of the report.

### **(b) Finding and recording the location(s) where asbestos material is present**

To determine whether asbestos material is present, the AQP will need to conduct surveys of parts of the building and essential plant. Examples of the parts of the building that should be surveyed include –

- Plant rooms;
- Service risers, e.g. electrical, telecommunications, plumbing and fire;
- Air handling systems, e.g. car park exhausts, toilet exhausts, air plenums;
- Ceiling spaces; and
- Lift services.

The report must describe the location of asbestos materials sufficiently for persons' to easily locate it. Following are examples of the description of the location –

- Building A, Level 2, northeast corner of ceiling space, sprayed asbestos on protruding steel girder.
- Building B, basement plant room, asbestos lagging on boiler.
- Building C, plant room 1, asbestos lining on the air-conditioning duct.

Photographs will assist in clearly identifying locations where asbestos materials are found or suspected to be present.

### **(c) Type and form of asbestos materials**

The report must also set out the type and form of the asbestos materials found in the building, e.g. chrysotile asbestos in the form of lagging. This can only be established through laboratory analysis. This information may be more easily illustrated in a table where the type and form of asbestos material can be documented with the relevant location information.

To assist in determining potential health risks an estimate of the quantity and type of asbestos in the material, established through microscopic analysis, may be useful.

### **(d) Statement of the nature of the asbestos, description of its condition and potential health risks**

The risks associated with asbestos arise from inhaling airborne fibres. The nature of the asbestos materials identified and its condition will have a significant impact on the potential health risks. For example, friable asbestos, particularly when it is poorly bonded to substrate, readily releases fibres. Therefore, the risks associated with friable asbestos material are much greater than the risks associated with non-friable products like sealant or mastik on windows.

The report prepared by the AQP must set out if the asbestos material identified is friable or poorly bonded or in an unstable condition. It must also set out the potential health risks to the occupants of the building because of the presence of the asbestos materials. Again, photographs will complement the condition descriptions.

Air monitoring should be undertaken when asbestos materials are subjected to external conditions that are likely to result in the release of fibres. The results of the monitoring will assist in determining whether persons are likely to be exposed to air-borne asbestos, and if so, what controls should be implemented to remedy the situation.

In determining the potential health risks it will be necessary for the AQP to establish whether the type of work or location of the work is likely to cause a disturbance to the asbestos material. To undertake this task the AQP should consult with you as the building owner and/or the lessees and/or the business operators occupying the building, to ascertain the following things undertaken in the building –

- routine work;
- unusual and infrequent activities;
- maintenance work; and
- emergency activities.

On ascertaining these things, the AQP will need to take into account the proximity of the asbestos materials to the work and activities undertaken in the building to report on the potential health risks to occupants of the building because of the presence of the asbestos materials. The following scenarios outline situations where the proximity of work will affect the potential exposure to health risks -

**Scenario 1:** Plumbers who are working on a long pipe that does not directly have asbestos insulation where the work is being done may cause a disturbance to

asbestos insulation on the pipe some metres away, possibly generating airborne asbestos fibres in areas where workers or other persons are working.

Scenario 2: People who are laying down electrical wiring in a ceiling space containing extensive sprayed friable asbestos material are likely to be exposed to significant risk from airborne asbestos dust.

Scenario 3: If asbestos materials are found to be present in an air-conditioning system, there is a significant risk of asbestos fibres being widely dispersed throughout the building and urgent attention should be accorded.

In addition to establishing whether the type of work or location of the work is likely to cause a disturbance to the asbestos material, the AQP should also consider whether the asbestos materials are likely to suffer further damage or deterioration, thereby impacting on potential health risks. This consideration should include an examination of:

- the location of the material;
- any work on the asbestos material;
- whether the asbestos material is poorly bonded? (especially if exposed to the weather);
- whether the material's exposure to the weather is likely to affect its condition;
- whether the asbestos material is in machinery (such as gaskets); and
- whether the asbestos material is likely to deteriorate through wear in machinery use, e.g. gaskets.

Poorly bonded asbestos material may suffer further damage without being exposed to the weather, e.g. it can fall from ceilings and structures from its own weight.

You should also document any actions you have taken, in determining whether asbestos is present in the workplace. Where no asbestos material is found, a record of such a finding should be kept. Air-borne asbestos monitoring, if required as part of the assessment, should be performed by a competent analyst. Samples should be taken of all suspect material, unless the material is known or is assumed to contain asbestos. It is important that representative samples are taken. Any variation in the appearance, texture or colour of the material will necessitate additional samples being taken.

The AQP should detail in the asbestos materials report, any limitations because of circumstances existing at the time of the assessment, such as inaccessible areas of a building, or where the asbestos is encapsulated and the condition of it cannot be assessed.

## **7. Keeping a register for asbestos materials**

If asbestos materials have been found in the workplace, you must establish and maintain an asbestos materials register. The register must contain the information in the asbestos materials report and any changes necessary because the building or plant is dismantled or demolished.

The register must be made available to each occupant and anyone entering the building to perform work. A copy must be given to any employer, self-employed person or principal contractor who proposes to demolish or dismantle any part of the building where asbestos



materials are present. The register must be given to the new owner when a building is sold.

You must also display a notice in a prominent place in the building, stating that there is an asbestos materials register in the building, and when and where a person can inspect it. For example, the prominent place in a shopping centre may be outside the building/centre management office or building maintenance office, as this is often the first place tradespersons report to before beginning work in the building.

## **8. Controlling exposure to asbestos materials**

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You are required to ensure policies and procedures are established to prevent exposure or, if exposure cannot be prevented, to minimise the exposure of persons in the building to the asbestos materials. The policies must include –

- steps to be taken to restrict access to, and prevent disturbance of, the asbestos materials;
- work practices in the vicinity of the asbestos materials; and
- requirements for reassessment of the asbestos materials at regular intervals of at least 1 year and earlier if the nature or location of the work in the vicinity of the asbestos materials changes.

The method chosen to control exposure to asbestos materials will be dependent on the potential risks to occupants as stated in the asbestos materials report. These risks will be determined by the AQP's assessment of the –

- state of the asbestos material;
- potential disturbance to the asbestos material; and
- likelihood of further damage or deterioration.

As a general guide, asbestos materials, if stable and inaccessible, should be left in situ until demolition, partial demolition or renovation. Where in situ asbestos materials are in a stable condition, but accessible, they should be controlled appropriately through encapsulation, sealing, enclosure or removal. However, asbestos materials that are friable, poorly bonded or in an unstable condition, must be enclosed, sealed or removed. Please note that if asbestos materials are to be removed, removal must be done by an asbestos removalist certified by the Department of Employment, Training and Industrial Relations.

## **9. Acknowledgements**

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The Division of Workplace Health and Safety acknowledges the use of the following publications in the preparation of this guidance material:

- Victorian WorkCover Authority, *Guidance on Conducting a Risk Assessment Under Part 5 of the Occupational Health and Safety (Asbestos) Regulations 1992*; and
- Worksafe Australia, *Guide to the Control of Asbestos Hazards in Buildings and Structures [NOHSC: 3002 (1988)]*.

## 10. Further Information

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The following publications can be accessed from [www.detir.qld.gov.au](http://www.detir.qld.gov.au), click on health and safety:

- *New Workplace Asbestos Laws* (Brochure)
- *Workplace Health and Safety Regulation 1997* (also available from GoPrint)
- *Information Note on Workplace Health and Safety Amendment Regulation (No.1) 2000* (also available from GoPrint).

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For further information, contact your local **Workplace Health and Safety Office** on 1300 369 915.

## ALPHABETICAL LIST OF ASBESTOS MATERIALS AND USES

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Air conditioning duct – exterior or interior acoustic and thermal insulation	Lift shafts – asbestos packing around penetrations
Arc shields in lift motor rooms or large electrical cabinets	Limpet asbestos spray insulation
Asbestos felts	Millboard between heating unit and wall
Asbestos mattresses used for covering hot equipment in power stations	Millboard lining of switchboxes
Asbestos paper used variously for insulation, filtering and production of fire resistant laminates	Packing materials for gauges, valves, etc., may be square packing, rope or loose fibre
Asbestos textile gussets in air-conditioning ducting systems	Penetrations through concrete slabs in high rise buildings
Asbestos textiles	Pipe insulation including moulded sections, water-mix type, rope braid and sheet
Asbestos yarn	Pitch-based (eg. Zelemite) electrical switchboard
Autoclave / steriliser insulation	Refractory linings (eg. Used in lining furnaces)
Boiler gaskets	Refractory tiles
Boiler insulation, slabs and wet mix	Sealant between floor slab and wall, usually in boiler rooms, risers or lift shafts
Cable penetration insulation bags (Telecom)	Sealant or mastik on windows
Calorifier insulation	Sealants and mastics in air-conditioning ducting joints
Electric heat banks – block insulation	Spackle or plasterboard wall jointing compounds
Electric light fittings, high wattage, insulation around fitting (and bituminised)	Sprayed insulation – acoustic wall and ceiling
Fire blankets	Sprayed insulation – beams and ceiling slabs
Fire curtains	Sprayed insulation – fire retardant sprayed on nut internally, for bolts holding external building wall panels
Fire door insulation	Tape and rope – lagging and jointing
Fire-rated wall rendering containing asbestos with mortar	Tapered ends of pipe lagging, where lagging is not necessarily asbestos
Fire-resistant plasterboard	Valve, pump, etc., insulation
Fire-retardant material on steel work supporting reactors on columns in refineries in the chemical industry	Source: Victorian WorkCover Authority, <i>“Guidance on Conducting a Risk Assessment Under Part 5 of the Occupational Health and Safety (Asbestos) Regulations 1992”</i> .
Fuse blankets	
Header (manifold) insulation	
Insulation blocks	
Insulation in electric reheat units for air-conditioner systems	
Lagged exhaust pipes on emergency power generators	
Lagging in penetrations in fireproof walls	

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