

INQUIRY INTO LOOSE FILL ASBESTOS INSULATION

Organisation: NSW Head of Asbestos Coordination Authorities

Date received: 31/10/2014



Joint Select Committee on Loose Fill Asbestos Insulation

Inquiry into Loose Fill Asbestos Insulation

**Submission from the Heads of Asbestos
Coordination Authorities**

October 2014

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Introduction

This submission is made on behalf of the Heads of Asbestos Coordination Authorities (HACA). The HACA was established by the NSW Government in August 2011 to co-ordinate the activities of statutory authorities in relation to all aspects of asbestos information, assistance, compliance and enforcement. The HACA has developed the State-wide Asbestos Plan to secure the safe management of asbestos and to reduce the incidence of asbestos-related diseases in New South Wales.

The general information provided in this submission has been extracted from the plans, blueprint and resource documents developed by the HACA. The documents are available on the HACA website at:

<http://www.workcover.nsw.gov.au/newlegislation2012/asbestos/Pages/headsofasbestoscoordinationauthorities.aspx>

What is asbestos?

Asbestos is the generic term for a number of fibrous silicate minerals. There are two major groups of asbestos:

- the serpentine group contains chrysotile, commonly known as white asbestos
- the amphibole group contains amosite (brown asbestos) and crocidolite (blue asbestos), as well as some other less common types, such as tremolite, actinolite and anthophyllite.

Asbestos was commonly mixed with cement to form products such as fibro sheets, pipes and gutters, under floor packing and has been used in the manufacture of building and insulation materials, brake linings in motor vehicles, and gaskets for some appliances. It was also woven into fabric and used for pipe lagging, boiler insulation and loose roof insulation.

How can asbestos affect individual's health?

Breathing in asbestos fibres can cause asbestosis, lung cancer and mesothelioma. The risk of contracting these diseases increases with the number of fibres inhaled and the risk of lung cancer from inhaling asbestos fibres is also greater for smokers. People who get health problems from inhaling asbestos have usually been exposed to high levels of asbestos for a long time. The symptoms of these diseases do not usually appear until about 20 to 30 years after the first exposure to asbestos.

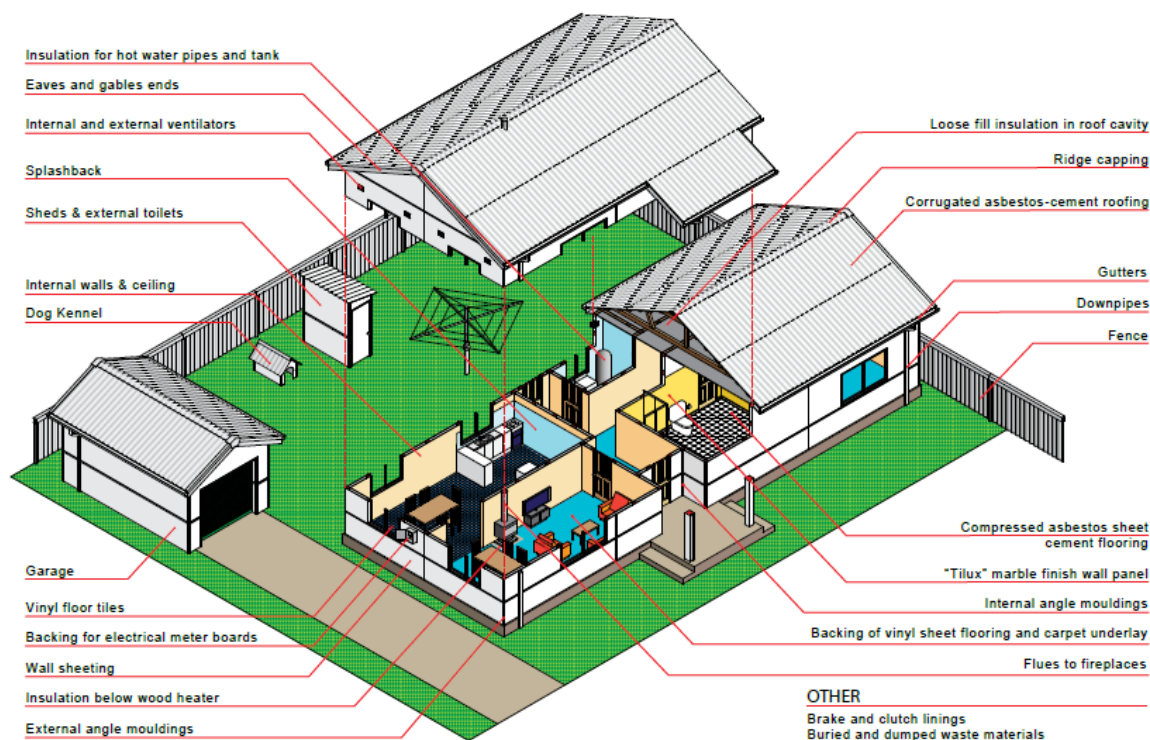
When does asbestos pose a risk to health?

Asbestos fibres can pose a risk to health if airborne, as inhalation is the main way that asbestos enters the body. Small quantities of asbestos fibres are present in the air at all times, and are being breathed by everyone without any ill effects. Most people are exposed to very small amounts of asbestos as they go about their daily lives and do not develop asbestos-related health problems. Finding that your home or workplace is made from fibro products does not mean your health is at risk. Studies have shown that these products, if in sound condition and left undisturbed, are not a significant health risk. If the asbestos fibres remain firmly bound in cement, generally you do not need to remove the fibro.

People who have suffered health effects from exposure to asbestos have generally worked in either the asbestos mining or milling industry, worked in industries involved in making or installing asbestos products, or are from the immediate families of these people. In all of these situations there was exposure to high levels of airborne dust, from either the processes involved or from the clothes of the workers.

When are householders likely to be exposed to asbestos?

Residential properties built or renovated before 1987 are likely to contain asbestos. The manufacture and supply of all asbestos-containing materials has been banned in Australia since 31 December 2003. The following diagram identifies the types of asbestos materials found in houses in New South Wales.



(Source: NSW State-wide Asbestos Plan)

The Commonwealth Enhealth¹ publication advises that:

We are all exposed to low levels of asbestos in the air we breathe every day. Ambient or background air usually contains between 10 and 200 asbestos fibres in every 1,000 litres (or cubic metre) of air (equivalent to 0.01 to 0.20 fibres per litre of air). However, most people do not become ill from this exposure, because the levels of asbestos present in the environment are very low.

Most people are also exposed to higher levels of asbestos at some time in their lives; for example, in their workplace, community or home. However, for most people, this kind of infrequent exposure is also unlikely to result in any ill effects.

¹ *Asbestos: A guide for householders and the general public*, Australian Health Protection Principal Committee, Environment Health Standing Committee, Commonwealth of Australia 2013.

Most people who develop asbestos-related diseases have worked on jobs where they frequently breathed in large amounts of asbestos fibres. For example, in the past, construction workers using unsafe practices may have frequently encountered asbestos fibre levels well above background levels.

The current regulated workplace limit (over an eight-hour period) is 100 fibres per litre of air (which is between 500 and 10,000 times background levels). In the past, workers in asbestos milling or mining often encountered fibre concentrations a million times higher than background levels.

The World Health Organisation (WHO) Air Quality Guidelines (Second Edition, Page 3)

identify the following typical exposure in different non-occupational settings:

- rural areas (remote from asbestos emission sources), below 100 F/m³ (fibres per cubic metre)
- Urban areas, general levels may vary from below 100 to 1,000 F/m³

Near various emission sources the following figures have been measured as yearly averages:

- at a street crossing with heavy traffic, 900 F/m³
- on an express-way, up to 3,300 F/m³
- in buildings without specific asbestos sources, concentrations are generally below 1,000 F/m³
- in buildings with friable² asbestos, concentrations vary irregularly; usually less than 1,000 F*/m³ are found, but in some cases exposure reaches 10,000 F*/m³, where F* = fibres counted with an optical microscope

The United States of America (USA) Agency for Toxic Substances and Disease Registry (ATSDR) – *Toxicological Profile for Asbestos* (2001, page 3) states:

Low levels of asbestos that present little, if any, risk to your health can be detected in almost any air sample. For example, 10 fibres are typically present in a cubic meter (fibres/m³) of outdoor air in rural areas. (A cubic meter is about the amount of air that you breathe in 1 hour), Health professionals often report the number of fibres in a milliliter (mL) (equivalent to a cubic centimeter [cm³]) of air rather than in a cubic meter of air. Since there are one million cm³ (or one million mL) in a cubic meter,

² The Work Health and Safety Regulation 2001 defines friable asbestos to mean material that is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry, and contains asbestos.

there typically would be 0.00001 fibres/mL of asbestos in air in rural areas. Typical levels found in cities are about 10-fold higher.

In indoor air, the concentration of asbestos depends on whether asbestos was used for insulation, ceiling or floor tiles, or other purposes, and whether these asbestos-containing materials are in good condition or are deteriorated and easily crumbled. Concentrations measured in homes, schools, and other buildings that contain asbestos range from about 30 to 6,000 fibres/m³ (0.00003–0.006 fibres/mL).

The ATSDR Report (page 159) quotes the Health Effects Institute³ estimate for non-occupational exposures in rural and urban levels at about 1×10^{-5} (0.00001) TEM f/mL (fibres per millilitre) 2×10^{-7} (0.0000002) PCM f/mL and 1×10^{-4} (0.0001) TEM f/mL (2×10^{-6} (0.000002) PCM f/mL), respectively. TEM (transmission electron microscopy) and PCM (phase contrast microscopy) are two different analytical techniques with PCM the standard technique used in Australia.

The testing of NSW homes with loose-fill asbestos insulation (The Queanbeyan Study⁴) in 1993 found one fibre in one sample, and one fibre in one sample from the control (non-loose fill insulation houses) and reported that the levels were below the level of practical detection.

Although we have used calculated values in the table, it is incorrect to report fibre counts below the practical detection limit of the method. For instance the reporting of one fibre in the analysis for the above sample would give approximately 0.0005 to 0.000007 fibres/mL [fibres per millilitre] of air based on the sample volume range. This calculated value is not a real value and is statistically no different to zero fibres in the analysis

The most recent report from the Australian Mesothelioma Registry identifies 137 cases of mesothelioma from non-occupational asbestos exposure and the potential source identified through a questionnaire and telephone interview. There are methodological problems in interpreting these data that greatly limit any interpretation that can be drawn from these data.

³ Health Effects Institute. Asbestos in public and commercial buildings: A literature review and synthesis of current knowledge. Report of the asbestos literature review panel. Cambridge, MA: Health Effects Institute, 1991.

⁴ Queanbeyan Study, Asbestos in Private Homes, South Eastern Public Health Unit, NSW Health Department, 1993. Available at: <http://www.workcover.nsw.gov.au/formspublications/publications/Documents/queanbeyan-study-NSW-health.pdf>

Non-occupational module section	Total	Probability of exposure		
		Unlikely	Possible	Probable
Ever lived in a house made mainly of fibro (built 1947–1987)	137	73	64	—
Ever lived near asbestos mine or asbestos products factory	137	130	5	2
Ever did major home renovations which involved asbestos products (excluding paid work)	137	86	51	—
Ever lived in a house during major renovations (where house was built and the work undertaken during relevant periods)	137	68	69	—
Ever serviced car brakes/clutch (excluding paid work)	137	115	22	—
Ever lived in same home as someone with asbestos-exposed job who came home dusty	137	114	14	9
Ever visited Wittenoom in Western Australia (excluding paid work)	137	125	12	—
Ever visited another Australian asbestos mining town (excluding paid work)	137	137	—	—
Other credible evidence of non-occupational exposure	137	125	12	—

Figure 1: Sources of non-occupational exposure amongst participants without occupational exposure

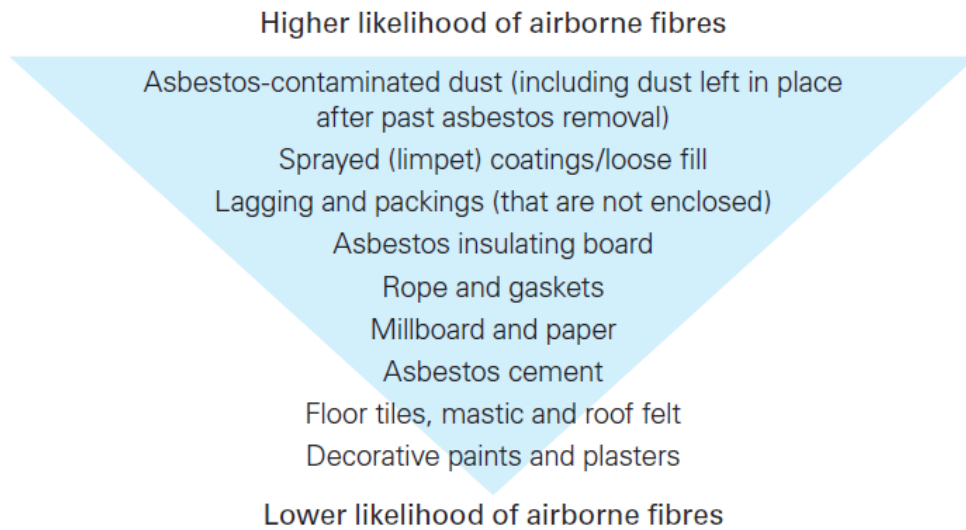
(source: 3rd Annual Report: Mesothelioma in Australian 2013, Australian Mesothelioma Registry)

Different forms of asbestos material, different risk levels

If asbestos fibres are in a stable material, such as bonded in asbestos-cement sheeting such as fibro and in good condition, they pose little health risk. However, where fibro or other bonded asbestos sheeting is broken, damaged or mishandled fibres can become loose and airborne posing a risk to health. Disturbing or removing it unsafely can create a hazard.

In materials such as pipe lagging and sprayed roof insulation asbestos fibres are not bound in a matrix. High concentrations of fibres are much more likely to be released into the atmosphere when these materials are disturbed or removed.

The following list ranks different types of asbestos according to the likelihood that airborne asbestos can be released into the air if it has deteriorated or been disturbed. The potential risk to health is greater for items higher up the list if people are exposed to airborne asbestos, but any of the materials listed can produce asbestos fibres if they are disturbed.



(Source: NSW State-wide Asbestos Plan)

What is loose fill asbestos insulation?

Loose fill asbestos insulation is raw asbestos (usually amosite asbestos but can be crocidolite asbestos) that has been crushed into a fine state and installed in the ceiling space. This means it is easy to disturb and fibres can become airborne and easily inhaled or ingested which can cause significant health risks.

Testing of homes with loose-fill asbestos insulation (The Queanbeyan Study⁵) indicates that exposure is likely to be very low if the asbestos is undisturbed and remains sealed off at all points where entry of asbestos into living areas can occur (including cornices, architraves, around vents, around light fittings, manholes and tops of cupboards).

The HACA advises that homeowners, living in residential premises with loose fill asbestos insulation, should not undertake any refurbishment work that requires:

- alteration to any walls, ceilings, wall sockets
- removal of cornices,
- cabling (unless surface mounted) or additional sockets/outlets recessed in walls
- accessing subfloor areas

until further assessment under controlled conditions can be conducted.

⁵ Queanbeyan Study, Asbestos in Private Homes, South Eastern Public Health Unit, NSW Health Department, 1993.

Management of loose fill asbestos insulation

The enHealth document⁶ (Management of asbestos in the non-occupational environment) provides information to help promote a nationally consistent approach to investigating and managing the risk of asbestos in the non-occupational environment. It is designed to assist environmental health agencies in effective and efficient management of asbestos issues in these environments. The publication states (page18):

Thermal and acoustic insulation materials were not routinely used in residential dwellings, although there have been some isolated cases⁷. If removal is required, it should be done in accordance with occupational health and safety legislation.

Public and commercial buildings may contain large quantities of loose, friable asbestos (e.g. insulation), which pose a significant risk of generating airborne fibres if disturbed. Products of most concern from a health viewpoint include:

- *sprayed-on fireproofing, soundproofing and/or thermal insulation*
- *acoustic plaster soundproofing*
- *insulation, e.g. of internal air-conditioning ducts, pipes, boilers, fire doors, heaters, oven doors*
- *sprayed-on fibre used to strengthen asbestos cement sheeting and decorative finishes.*

Exposure

Corn (1994)⁸ showed maximum airborne asbestos concentrations in United States schools up to 0.0023 f/mL (by transition electron microscopy, >5 µm in length).

There was no correlation between asbestos concentration in air and type and condition of asbestos-containing material present (materials containing asbestos included insulation, lagging, acoustic ceilings, tiles); whether the space was covered; whether sweeping was noted; type of school or year of construction; or air flow in the same area.

Risk management

Occupational health and safety legislation in each state and territory and the Code of Practice for the Safe Removal of Asbestos covers the management of asbestos-containing materials in public and commercial buildings. Non-occupational exposure can be minimised by ensuring compliance with these regulations.

⁶ EnHealth, Management of asbestos in the non-occupational environment, Australian Government, 2005

⁷ Ceiling insulation in approximately 1100 homes in the ACT, since removed, and another 100 or so homes in nearby NSW towns

⁸ Corn, M, *Airborne concentrations of asbestos in non-occupational environments*, Annals of Occupational Hygiene, 38(4):495–502, 1994.

The HACA has followed a risk management approach based on work health and safety legislation which requires assessment of the risks, putting in place controls to ensure that exposure to airborne asbestos fibre is prevented and removal where asbestos materials are likely to be disturbed during renovation, refurbishment or demolition work. HACA has provided the following advice:

Loose-fill asbestos was sold as ceiling insulation in the 1960s and 1970s, for residential and commercial premises mainly by one company trading in the ACT as Mr Fluffy. While most properties impacted are located in the ACT, a small number of properties in south east NSW have been identified as containing this type of insulation.

The insulation is raw asbestos that has been crushed into a fine state and installed in the ceiling space. This means it is easy to disturb and fibres can become airborne and easily inhaled or ingested which can cause significant health risks.

Testing of homes with loose-fill asbestos insulation has shown that exposure is likely to be very low if the asbestos is undisturbed and remains sealed off at all points where entry of asbestos into living areas can occur (including cornices, architraves, around vents, around light fittings, manholes and tops of cupboards).

Home owners should not undertake any refurbishment work that requires alteration to any walls, ceilings, wall sockets or removal of cornices, no cabling (unless surface mounted) or additional sockets/outlets recessed in walls and avoid accessing subfloor areas until a further assessment under controlled conditions can be conducted.

A licensed asbestos assessor or an occupational hygienist will be able to advise you whether your living spaces are well sealed and asbestos hazards are appropriately controlled. Only qualified tradespeople with asbestos awareness training can work on any areas identified with asbestos. Removal of loose-fill asbestos fibres may only be done by a Class A Licensed Asbestos Removalist.

We also recommend that an asbestos warning sticker be placed in the electrical meter box to alert any trades people who might attend your property.

(Source: <http://www.workcover.nsw.gov.au/formspublications/publications/Pages/loose-fill-asbestos-insulation.aspx>)

Actions taken by NSW government on loose fill asbestos insulation

The HACA has commissioned an Independent Investigation to help establish the scope and number of New South Wales properties with loose fill asbestos insulation. The investigation will review and assess relevant records including inspection reports, risk assessments and compliance and disposal records. The investigation will commence in October 2014.

A free testing service has been made available to residents in twenty four local government areas for any suspected loose-fill asbestos insulation in homes built prior to 1980. Samples are safely collected by WorkCover licensed asbestos assessors contracted through HACA. To date over 500 residents have taken up the offer of the free sampling service.

The HACA has conducted briefing sessions on loose fill insulation for council staff in all of the 26 affected local government areas. Local Government NSW has also conducted 14 workshops over the last 18 months with over 430 staff from 130 councils (85%) to provide asbestos awareness training and briefings on the HACA model asbestos policy for councils.

HACA is working with the following potentially affected councils to provide advice and guidance on loose-fill asbestos:

1. Albury City Council
2. Bankstown City Council
3. Bega Valley Shire Council
4. Berrigan Shire Council
5. Bombala Council
6. Boorowa Council
7. Cooma Monaro Shire Council
8. Eurobodalla Shire Council
9. Goulburn Mulwaree Council
10. Greater Hume Shire Council
11. Ku-ring-gai Shire Council
12. Lithgow City Council
13. Manly Council
14. North Sydney Council
15. Orange City Council
16. Palerang Council
17. Parramatta City Council
18. Queanbeyan City Council
19. Snowy River Shire Council
20. The Hills Shire Council

21. Tumbarumba Shire Council
22. Upper Lachlan Shire Council
23. Wagga Wagga City Council
24. Warringah Council
25. Yass Valley Shire Council
26. Young Shire Council

Homes identified as containing the material will be offered a free independent technical assessment to advise on and confirm the adequacy of risk controls in each of the identified homes. HACA members have met with Queanbeyan residents. Both the testing and technical assessment services will be available for a 12-month period. The testing protocol and study findings will be peer reviewed by the Chief Health Officer of NSW's Expert Advisory Committee, and informed by a review of the health risk assessment literature for asbestos.

HACA has funded the Asbestos Project Manager position with Local Government NSW for a further two year period.

HACA, through WorkCover NSW, has committed over \$700,000 to fund the above initiatives.

HACA has developed the following information which is available on the HACA webpage:

- Factsheet – Information for residents
- Frequently asked questions
- Information on the safe management of loose-fill asbestos insulation
- Queanbeyan study

The Queanbeyan City Council has run previous free home testing services in the past, in conjunction with the local area health service and is currently offering rate relief for residents where financial hardship can be established.

HACA is seeking advice on the methods for appropriately notifying future purchasers of homes identified as containing loose-fill asbestos insulation. The *Conveyancing Act 1919* requires certain documents to be attached to a contract of sale, including a planning certificate issued under s149 of the *Environmental Planning and Assessment Act 1979*.

A planning certificate is issued by a council and provides advice on certain matters relating to the land, such as planning restrictions and controls, hazards and other relevant matters affecting the land, which the council may be aware of.

Additionally, the provisions of the Conveyancing Act requires the vendor and their agent to disclose certain information during a property transaction, and HACA is seeking advice as to whether this duty to disclose also applies to disclosing the presence of loose-fill asbestos insulation where it has been positively identified.

WorkCover has been in contact with Fire and Rescue NSW and the State Emergency Service (SES) and provided information on dealing with loose fill asbestos including a list of affected properties. Fire and Rescue NSW and SES have both updated their emergency procedures and systems to ensure emergency services workers are aware when responding.

Number of homes with loose fill asbestos insulation

Asbestos insulation was used as a fire retardant and insulation material in buildings up until the late in 1970s. Many companies installed sprayed insulation onto structural steel work to achieve fire rating building requirements for commercial construction. Non-asbestos containing loose fill insulation was widely installed in homes during this period and continues with many contractors having similar names such as “insulfluff” or “aussie fluff insulation”, “magic fluff insulation” to name a few non-asbestos insulation providers.

This can create confusion amongst consumers about what material they have in their ceiling. Non-asbestos cellulose insulation can look very similar to loosefill asbestos insulation.

Loosefill asbestos was sold as residential ceiling insulation In the 1960s and 1970s, mainly by one Australian Capital Territory (ACT) contractor, Mr Jansen who traded as Asbestosfluff Insulation and J&H Insulations but also known as “Mr Fluffy”. While most properties are located in the ACT, to date only a small number of properties in south east NSW have been identified as containing this type of insulation.

Number of homes in NSW

The HACA is coordinating an independent Investigation into the number of houses in NSW and is offering a free testing service in 26 local government areas.

The government areas have been selected based on reference material from NSW Health records and information from the ACT Government that suggests “Mr Fluffy” may have worked or transported loose fill asbestos to these regions.

To date, 21 domestic premises including an apartment block of 38 units have been identified as containing loose fill asbestos insulation in New South Wales. One of the properties in Orange since demolished was recorded as having loose fill insulation removed prior to demolition.

- Queanbeyan City Council – 14 (2 remediated)
- Yass Valley Shire Council – 1

- Palerang Council - 1
- Orange Council – 1 (demolished)
- Lithgow Council – 1
- Bankstown Council – 1 (remediated / demolished)
- Parramatta Council – 1 (remediated)
- Manly Council – 1 (remediated)

As at 27 October 2014, there have been 502 requests for ceiling insulation testing as set out in the table below. Results from the testing were not available at the time of the preparation of this submission.

COUNCIL REGION	# of Request
1. Wagga Wagga City Council	96
2. Queanbeyan City Council	70
3. Ku-ring-gai Shire Council	61
4. Yass Valley Shire Council	44
5. Cooma Monaro Shire Council	32
6. The Hills Shire Council	32
7. North Sydney Council	22
8. Bega Valley Shire Council	16
9. Young Shire Council	16
10. Goulburn Mulwaree Council	16
11. Palerang Council	14
12. Snowy River Shire Council	13
13. Eurobodalla Shire Council	12
14. Warringah Council	12
15. Orange City Council	10
16. Bankstown City Council	10
17. Bombala Council	7
18. Boorowa Council	5
19. Upper Lachlan Shire Council	5
20. Berrigan Shire Council	4
21. Albury City Council	2
22. Greater Hume Shire Council	1
23. Lithgow City Council	1
24. Tumbarumba Shire Council	0
25. Manly Council	0
26. Parramatta City Council	0
Grand Total	502

Number of homes and action taken in other jurisdictions

Australian Capital Territory

The Commonwealth/ACT governments identified over 1,050 residences in the ACT which have been identified as having loose fill asbestos insulation.

The \$100 Million Commonwealth/ACT program to remove ceiling insulation from ACT houses between 1988 and 1993 was not successful. Although the ceiling spaces were remediated, asbestos material remained lodged in wall cavities, sub-floor spaces and underneath cornices. The removal of loose fill from ceiling cavities did not remove the hazard and may have given a false sense of security that the asbestos hazard had been eliminated.

The ACT Government has responded by establishing an Asbestos Response Taskforce, which is providing financial assistance to affected homeowners. Payments include:

- up to \$10,000 to families that are unable to live in their homes as a result of an asbestos assessment,
- plus an additional \$2,000 per dependent child
- reimbursement of the costs of asbestos assessments,
- up to \$1,000 for replacement of goods and clothing, and
- reimbursement of gap payment for doctor visits.

The assistance package also includes the bulk purchase of asbestos assessments for the affected homes. The ACT Government will also waive disposal fees where houses containing loose fill asbestos are renovated or demolished. A range of options are also available to assist those who may be experiencing distress⁹.

The ACT Government has agreed to accept a concessional loan of \$1 billion from the Commonwealth to pay for the voluntary purchase of up to 1,049 houses which will be remediated and demolished. The vacant land will be resold. The scheme will be run over 5 years and commences in 2015. The NSW government is liaising with the Commonwealth regarding assistance, which will be dependent on the outcomes of the current investigation into the number of affected homes in NSW.

United States of America

Tremolite asbestos contaminated vermiculite loose-fill insulation (approximately 1% contamination), sourced from Libby Montana, was used extensively in attics and walls in the

⁹ <http://www.act.gov.au/asbestos-response-taskforce#assistance>

USA up until the 1990's with reports that millions of homes are affected. The United States Environmental Protection Agency (EPA) advice is provided in **Attachment A**.

The EPA recommends the materials be left undisturbed in attics (ceiling spaces) and walls and does not fund asbestos testing or removal. The US Federal Government conducted a national consumer awareness campaign in 2003 advising homeowners of the hazards and risk control measures for loose-fill insulation provided in **Attachment B**.

There are no known financial support arrangements to householders by governments in the United States of America.

United Kingdom & Northern Ireland

The United Kingdom Health and Safety Executive (HSE) advises that loose-fill asbestos insulation can be found in lofts (ceiling spaces), walls and floor cavities of homes in the United Kingdom provided in **Attachment C**. The number of affected houses is not known.

The HSE focus is on the safety of workers and provides risk management advice on the safe management of asbestos materials for workers. Individual councils provide general asbestos information to householders and there are no known government funded schemes for testing or removal of asbestos from houses.

Canada

WorkSafe British Columbia advises on the use of loose-fill asbestos contaminated vermiculite insulation in Canadian homes provided in **Attachment D**. The number of affected houses is not known. There are no known government funded schemes for testing or removal of asbestos from houses.

Asbestos control framework – the role of state, local governments and property owners

The statutory framework for control of asbestos in New South Wales encompasses Commonwealth, State and Local Government legislation for work health and safety, planning, environmental protection, consumer safety, import/export controls and compensation for asbestos-related diseases.

Role of governments

The HACA has prepared the *Asbestos Blueprint* which maps out the roles and responsibilities of NSW government organisations at each stage of the asbestos lifecycle and provides background information, control frameworks, scenario maps and outcomes to address the identification and management of:

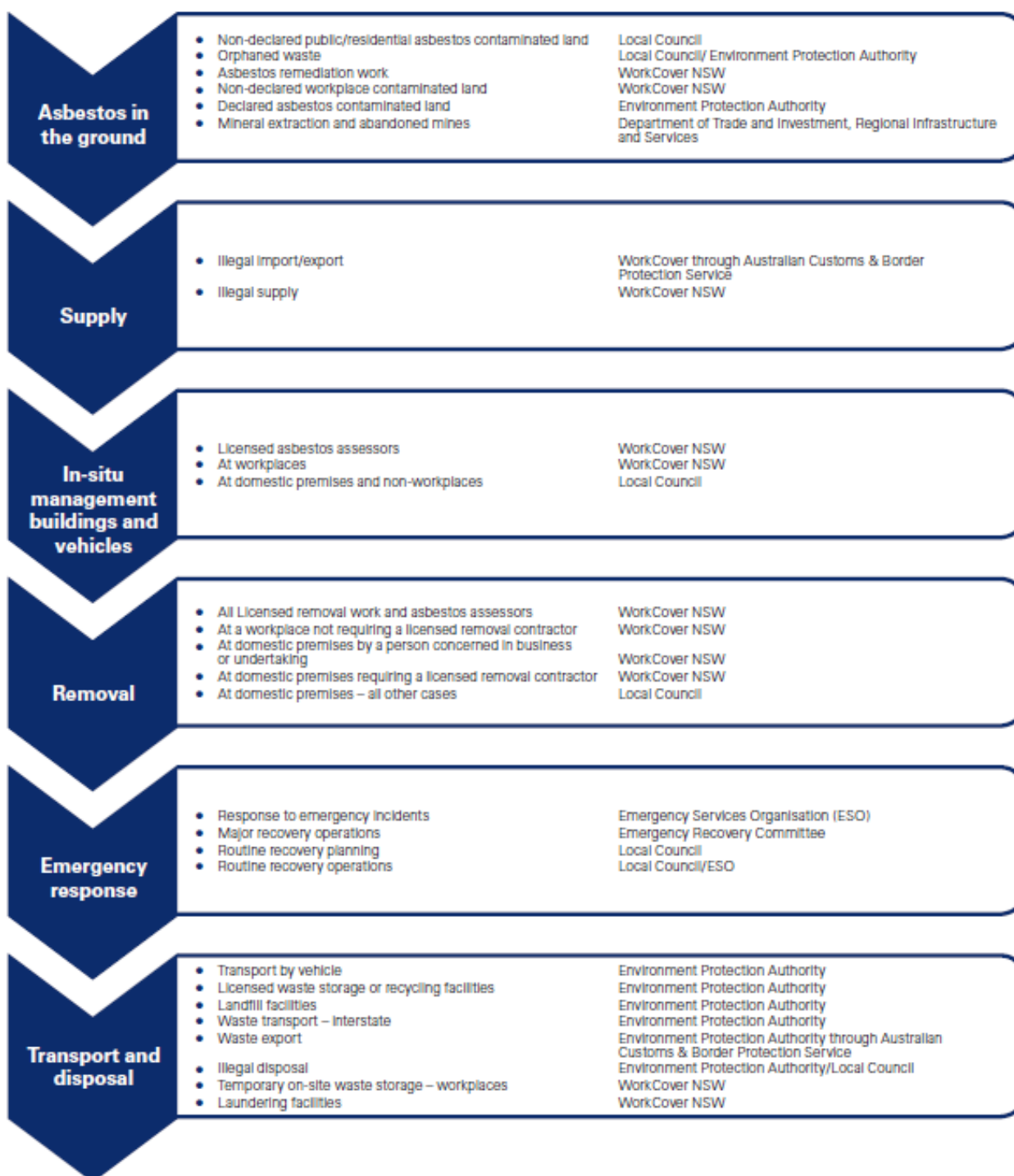
- asbestos in the workplace
- asbestos in residential settings
- transport and disposal of asbestos
- asbestos in the ground and site contamination
- emergency management
- prohibitions on the manufacture and supply of asbestos.

The Asbestos Blueprint can be found at

http://www.workcover.nsw.gov.au/formspublications/publications/Documents/heads_asbestos_coordination_authorities_asbestos_blueprint_3508.pdf

A summary of roles and responsibilities are provided in the table below.

Roles and responsibilities of government agencies and local councils



Asbestos prohibition

In 2001 the former body to Safe Work Australia declared a prohibition on all uses of chrysotile asbestos from 31 December 2003, subject to a very limited range of exemptions, and confirmed earlier prohibitions of the use of amosite and crocidolite asbestos. The prohibition of chrysotile was adopted simultaneously under regulations in each Australian work health and safety jurisdiction, as well as Australian Customs, on 31 December 2003. The prohibition does not extend to Asbestos Containing Materials *in situ* at the time prohibition took effect so does not prohibit the presence of material such as loose-fill asbestos.

Asbestos management requirements

If asbestos or asbestos containing material (ACM) is identified in a workplace (which may include a domestic residence) and demolition or refurbishment work is going to be carried out, the asbestos or ACM must be removed if it is likely to be disturbed before the work starts. If other maintenance or service work is to be carried out at the workplace, removal of asbestos should be considered as a control measure.

Under the national model work health and safety regulations workplaces are required to have an asbestos register and an asbestos management plan. This is not required for residential premises except where they become a place of work under the Work Health and Safety legislation.

The national model work health and safety legislation require the management of the risks associated with asbestos through:

- identifying asbestos and ACM at the workplace and recording this in the asbestos register
- assessing the risk of exposure to airborne asbestos
- eliminating or minimising the risks by implementing control measures
- reviewing control measures to ensure they are effective.

When choosing the most appropriate control measure, the following hierarchy of controls must be considered:

- eliminating the risk (for example, removing the asbestos)
- substituting the risk, isolating the risk or applying engineering controls (for example, enclosing, encapsulation, sealing or using certain tools)
- using administrative controls (for example, safe work practices)
- using PPE.

Where removal is not reasonably practicable, other control measures must be implemented to minimise exposure, including encapsulation or sealing. A combination of these controls may be required in order to adequately manage and control asbestos or ACM.

Airborne respirable fibre concentrations can be estimated using available data (for example, monitoring reports, data from scientific literature) or past experience (for example, monitoring reports) of the process in question. In cases of doubt, it may be necessary to confirm the estimates by measurement using the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]*.

Air monitoring is carried out if it is not certain whether or not the concentration of an airborne contaminant exceeds the relevant exposure standard or to determine whether there is a risk to health, air monitoring can also be used for a number of other reasons including:

- helping to choose the best exposure minimisation controls
- checking existing controls are working effectively.

Exposure measurement must not be used as an alternative to controlling exposure by putting in place hazard controls. Air monitoring is best done after control measures have been put in place. Compliance with the WHS legislation will require being able to demonstrate all reasonably practicable hazard controls are in place and effective and that attempts have been made to eliminate or minimise exposure, as well as not exceeding the relevant exposure standard.

Where the results show that respirable asbestos fibre levels exceed the action levels outlined in the table below, action must be taken immediately.

Action level	Control	Action
Less than 0.01 fibres/ml	No new control measures are necessary	Continue with control measures
At 0.01 fibres/ml or more than 0.01 fibres/ml but less than or equal to 0.02 fibres/ml	1. Review	Review control measures
	2. Investigate	Investigate the cause
	3. Implement	Implement controls to eliminate or minimise exposure and prevent further release
More than 0.02 fibres/ml	1. Stop removal work	Stop removal work
	2. Notify regulator	Notify the relevant regulator by phone followed by fax or written statement that work has ceased and the results of the air monitoring

Action level	Control	Action
	3. Investigate the cause	Conduct a thorough visual inspection of the enclosure (if used) and associated equipment in consultation with all workers involved with the removal work
	4. Implement controls to eliminate or minimise exposure and prevent further release	Extend the isolated/barricaded area around the removal area/enclosure as far as reasonably practicable (until fibre levels are at or below 0.01 fibres/ml, wet wipe and vacuum the surrounding area, seal any identified leaks (e.g. with expandable foam or tape) and smoke test the enclosure until it is satisfactorily sealed
	5. Do not recommence removal work until further air monitoring is conducted	Do not recommence until fibre levels are at or below 0.01 fibres/ml

When a person has been engaged to conduct demolition or refurbishment at a domestic premise, it becomes the workplace of that person. Consequently, that person must identify and, if necessary, remove asbestos before work commences. The Work Health and Safety Regulations place no duties on the homeowner.

- Demolition** – A person who is engaged to conduct demolition work at a house (which has become their workplace) must identify asbestos under their management or control that is likely to be disturbed by the demolition work. They must ensure, so far as is reasonably practicable, that the asbestos is removed before the work commences. If an emergency occurs, the person carrying out the demolition work at the domestic premise must ensure, so far as is reasonably practicable, that before the demolition work starts a procedure is developed that will explain how to minimise the risk of exposure of workers and persons in the vicinity of the demolition site and ensure the exposure standard is not exceeded, so far as is reasonably practicable. The person must also provide the regulator with written notice of the emergency immediately after they become aware of the emergency and before the demolition starts.
- Refurbishment** – A person who is engaged to conduct refurbishment work at a house (which has become their workplace) must identify asbestos under their management or control that is likely to be disturbed by the refurbishment work. They must ensure, so far as is reasonably practicable, that the asbestos is removed.

Asbestos removal requirements

Asbestos removal is regulated under the *Work Health and Safety Act 2011* and the *Environmental Planning and Assessment Act 1979* for friable asbestos removal, with some exemptions for Exempt Development. There are two types of licences: Class A and Class B.

Type of licence	What asbestos can be removed?
Class A	Can remove any amount or quantity of asbestos or asbestos containing material (ACM), including: <ul style="list-style-type: none">• any amount of friable asbestos or ACM• any amount of asbestos-contaminated dust or debris (ACD)• any amount of non-friable asbestos or ACM.
Class B	Can remove any amount of non-friable asbestos or ACM
No licence required	Can remove: <ul style="list-style-type: none">• up to 10 m² of non-friable asbestos or ACM• ACD that is:<ul style="list-style-type: none">○ associated with the removal of less than 10 m² of non-friable asbestos or ACM○ not associated with the removal of friable or non-friable asbestos and is only a minor contamination.

A person commissioning licensed asbestos removal work must ensure that, once the licensed asbestos removal work has been completed, a clearance inspection is carried out and a clearance certificate is issued before the workplace can be re-occupied by:

- an independent licensed asbestos assessor, for work that must be carried out by a Class A licensed asbestos removalist (for example, if the removal work involved friable asbestos)
- an independent competent person, for asbestos work that is not required to be carried out by a Class A licensed asbestos removalist (for example, if removal work involved more than 10 m² of non-friable asbestos).

This also includes where the work is being carried out at domestic premises.

The independent licensed assessor or competent person must not issue a clearance certificate unless they are satisfied that the asbestos removal area and the area immediately surrounding it are free from visible asbestos contamination. To do this, they can conduct a visual inspection for evidence of dust and debris. If air monitoring was also conducted, the results of that test must show that asbestos is below 0.01 fibres/ml.

If a clearance certificate has not been obtained, the asbestos removal area must not be re-occupied for normal use. A clearance certificate must be issued before the area can be re-occupied for demolition or other work.

Coordination arrangements

The Heads of Asbestos Coordination Authorities (HACA) is chaired by the Chief Executive Officer of Safety, Return to Work and Support of which WorkCover NSW is an agency with representatives from:

- Department of Trade and Investment Regional Infrastructure and Services
- Department of Planning and Environment
- Environment Protection Authority
- Local Government NSW
- Ministry of Health
- Ministry for Police and Emergency Services
- Office of Local Government
- Workers' Compensation Dust Diseases Board.

The Heads of Asbestos Coordination Authorities (HACA) Charter sets out the arrangements for the coordination of the activities of statutory authorities in relation to all aspects of asbestos information, assistance, compliance and enforcement.

The Charter aims to ensure that New South Wales Government agencies and councils effectively coordinate the safe management of asbestos at all stages of the asbestos lifecycle and across the policy areas of workplace health and safety, public health and environment protection.

The Charter objectives are to establish a practical overarching framework for liaison between Government agencies and councils concerned in the management of asbestos to:

- a) Ensure the effective coordination of strategies for the safe management of asbestos.
- b) Promote the identification, safe containment and safe disposal of asbestos materials to help prevent asbestos-related diseases by including a comprehensive public awareness and educational campaign.
- c) Ensure close cooperation to maximise effectiveness and minimise duplication of regulatory effort.
- d) Ensure that individuals, workers, organisations and statutory authorities have access to consistent and accurate information to provide a clear understanding of the roles and responsibilities of each Government organisation.
- e) Facilitate an open and collaborative approach that promotes prompt and effective action on asbestos issues and provides an environment for continuous learning and the application of those learning outcomes through improved public policy, disease prevention advice, and control strategies.

State-wide asbestos plan

The State-wide Asbestos Plan launched in April 2013 aims to secure the safe management of asbestos to reduce the incidence of asbestos-related diseases in NSW and targets actions around the four priority areas:

- Research – improved understanding of asbestos issues
- Risk communication – increased awareness and knowledge
- Prevention – protection of workers, the community and the environment
- Coordination – responsive planning, regulation and services

About the State-wide Asbestos Plan

AIM			
The State-wide Asbestos Plan aims to secure the safe management of asbestos to reduce the incidence of asbestos-related diseases in NSW.			
Four priority areas			
Research Outcome 1.1 Develop a greater understanding of asbestos issues and disease management through research and innovation that benefits the community. Outcome 1.2 Identify emerging asbestos-related hazards, the likely exposure levels associated with these activities and/or materials, and develop practical controls that can be applied to control those risks.	Risk communication Outcome 2 Raise public awareness and understanding through improved knowledge, skills, competencies and tools to effectively communicate asbestos exposure risks and control measures.	Prevention Outcome 3 Ensure the effective coordination of illness prevention strategies for the safe management of asbestos in all five phases of the asbestos lifecycle: <ul style="list-style-type: none">• asbestos in the ground and site contamination• manufacture and supply• management and removal of in-situ asbestos at work and at home• management of asbestos debris during an emergency response• transport and disposal.	Coordination Outcome 4.1 Ensure effective and coordinated planning, regulation and management of asbestos issues and emergency responses through strengthened partnerships with the NSW community and collaboration between government organisations. Outcome 4.2 Increase compliance with asbestos legislation through enhanced information, assistance and monitoring. Outcome 4.3 Provide clarity to regulatory roles and responsibilities.

The Implementation Plan has been developed for 62 initiatives in the four priority areas.

A table of key actions that were undertaken during 2013 is contained in the 2013 Annual Report available at www.workcover.nsw.gov.au.

Model policy for NSW councils

The HACA in partnership with Local Government NSW (LGNSW), has developed a Model Asbestos Policy for NSW Councils to provide councils with the basis for the preparation of a

comprehensive and compliant asbestos policy. It outlines important legislative obligations of councils and provides useful additional information.

The Model Asbestos Policy has been issued to all councils by the Division of Local Government under section 23A of the *Local Government Act 1993*.

LGNSW has held fourteen Asbestos Management Workshops across NSW to support councils in adopting the Model Asbestos Policy.

The workshops give participants the opportunity to explore the roles and responsibilities of councils in safely managing asbestos and features expert presenters, council case studies and group activities to help outline useful strategies.

Information on Loose fill asbestos is included in the Model Asbestos Policy and in the Local Government Fact Sheet. Councils are encouraged to update their policies with information about loose fill asbestos and over 75% of councils have a draft or final asbestos policy based on the model policy.

Asbestos awareness campaign

The HACA, in partnership with the Asbestos Education Committee (AEC) and the Asbestos Diseases Research Institute (ADRI), co-funds the annual Asbestos Awareness Campaign. The campaign aims to alert Australians about the dangers of working with asbestos during home renovations and maintenance and has included:

- campaign theme and slogan – Renovation Roulette (example below)
- update of the asbestosawareness.com.au website including a new site for mobile device use
- ‘Betty the ADRI House’ campaign tour to metropolitan, regional and rural NSW (further details below)
- funding of a safety awareness segment on the Better Homes and Gardens lifestyle program on national television which aired on 1 November 2013
- community and council engagement
- Blue Lamington morning teas for asbestos awareness
- securing support from Bunnings Warehouse for point of sale asbestos safety information
- media kit development, distribution and case study engagement
- development of promotional materials
- lighting of Opera House Sails and candlelight tribute for those people affected by asbestos-related disease
- Asbestos Ambassador engagement

The Asbestos Awareness Campaign has received the support of Bunnings Hardware Stores and Betty has made appearances at over 19 store locations including: Penrith, Warrawong, Shell Harbour, Mittagong, Rouse Hill, Bonnyrigg, Gosford, Lakehaven, Thornleigh, Narellan, Port Stephens, North Parramatta, Villawood, Seven Hills, Campbelltown, Minchinbury, Caringbah, Bankstown and Liverpool.

Betty has also attended a number of events including the Royal Easter Show (2013), Sydney HIA Home Show, AgQuip, National Asbestos Conference Sydney, Lighting of Sails at Circular Quay, ADFA Memorial Day at Darling Harbour, Ausgrid Learning and Development Centre and the Endeavour Energy Learning and Development Centre. Traffic to the asbestosawareness.com.au website increases when Betty is on tour.



Since the launch of Betty and the campaign, the number of visits to the website increased by 186.7% with total number of visits since launch reaching more than 85,000 and achieving more than 400,000 page views.

Asbestos Ambassador engagement

The Asbestos Awareness Campaign was once again fortunate to have the ongoing support of our Asbestos Ambassadors and home renovation media personalities: Don Burke, John Jarratt, Scott Cam, Scott McGregor, Cherie Barber and Lindsay Farris. Our Ambassadors attended events and conducted media interviews.

Blue Lamington morning teas for asbestos awareness

The Blue Lamington morning teas were offered during asbestos awareness month as an opportunity for workplaces to informally discuss issues about asbestos safety at work and in the home.

Print, radio and television community service announcements or publicity materials were distributed to radio, TV and media outlets. In NSW the advertisements were aired as community announcements on Channels 7, 9 and 10, and radio stations 2GB, 2CH and Koori Radio.

Renovation Roulette

The Renovation Roulette campaign for 2012 won the 2014 Global Alliance COMM PRIX Award of Distinction in Madrid, Spain on 22 September 2014. The Global Alliance COMM PRIX Awards are the only global awards which honour outstanding performance in public relations and communication management around the world.

Further information

The Heads of Asbestos Coordination Authorities will be pleased to provide additional information to the Committee as required.

ATTACHMENT A — United States Environmental Protection Agency – vermiculite insulation advice.

If You Have Vermiculite Insulation YOU SHOULD ASSUME THE VERMICULITE CONTAINS ASBESTOS AND DO NOT DISTURB IT!

Any disturbance could potentially release asbestos fibres into the air. If you absolutely have to go in your attic and it contains vermiculite insulation, you should limit the number of trips you make and shorten the length of those trips in order to help limit your potential exposure.

We recommend that you:

- Leave vermiculite insulation undisturbed in your attic or in your walls.
- Do not store boxes or other items in your attic if it contains vermiculite insulation.
- Do not allow children to play in an attic with vermiculite insulation.
- Do not attempt to remove the insulation yourself.
- Hire a professional asbestos contractor if you plan to remodel or conduct renovations that would disturb the vermiculite in your attic or walls to make sure the material is safely handled and/or removed.

Source: <http://www2.epa.gov/asbestos/protect-your-family-asbestos-contaminated-vermiculite-insulation#risk>

Does the EPA have money available for homeowners to pay for asbestos testing or asbestos removal?

The EPA does not have funding available to homeowners for asbestos testing or removal.

Source: <http://toxics.supportportal.com/link/portal/23002/23019/Article/33674/-Does-the-EPA-have-money-available-for-homeowners-to-pay-for-asbestos-testing-or-asbestos-removal>

ATTACHMENT B — United States Environmental Protection Agency Advice – vermiculite insulation campaign

Consumer Awareness Campaign Launched on Vermiculite Insulation Used in some Home Attics

Release Date: 05/21/2003

Contact Information:

CONTACT: David Deegan 202-564-7839

(05/21/03) The federal government today launched a national consumer awareness campaign to provide homeowners with important information on vermiculite attic insulation which may contain asbestos. This new campaign, coordinated by EPA and the Agency for Toxic Substances and Disease Registry (ATSDR), instructs homeowners on how to identify vermiculite attic insulation and recommends that people make every effort to not disturb it. Since some vermiculite attic insulation can contain very low levels of microscopic asbestos fibres, it is important that consumers are aware of the precautions they can take to protect against disturbing and inhaling the asbestos fibres.

“The government believes that people should be aware that some vermiculite attic insulation can contain microscopic asbestos fibres, and there are practical steps that homeowners can take to minimize exposure. People who have homes with vermiculite attic insulation should become informed, not alarmed,” said Stephen L. Johnson, EPA’s Assistant Administrator for the Office of Prevention, Pesticides, and Toxic Substances. “By using the information in this campaign, people can determine if their home contains vermiculite attic insulation and learn how to properly manage it. Well informed consumers can reduce the possibility for exposure to asbestos from vermiculite attic insulation and minimize potential risks.”

The key recommendations for homeowners to minimize exposure are:

- Homeowners should not disturb vermiculite attic insulation. Any disturbance has the potential to release asbestos fibres into the air.
- If homeowners must go into attic space with vermiculite insulation, they should make every effort to limit the number, duration, and activity level of those trips. Boxes or other items should not be stored in attics if retrieving them will disturb the insulation.
- Children should not be allowed to play in an attic with open areas of vermiculite insulation.

- Homeowners should never attempt to remove the vermiculite insulation. If removal is necessary, hire professionals trained and certified to safely remove the material.
- If you plan to remodel or conduct renovations that would disturb the vermiculite, hire professionals trained and certified to handle asbestos to safely remove the material.

Due to the scientific uncertainties associated with existing testing techniques, there is no easy way or dependable testing method to differentiate between vermiculite insulation that might have some asbestos fibres and vermiculite insulation that does not. Home testing vermiculite in attics is not currently practical.

Therefore, it is best to assume that the material may contain asbestos and take the appropriate precautions. That is why EPA and ATSDR are today going forward with this consumer awareness campaign for homeowners that will allow them to identify the presence of vermiculite insulation in their attics, and if they have it, how best to reduce their potential exposure to the asbestos it may contain.

The campaign includes the nationwide distribution of a joint EPA and ATSDR pamphlet that outlines how to identify and manage vermiculite. The pamphlet will be disseminated to the national news media and through major hardware store chains, and through prominent display on EPA's website: <http://www.epa.gov/asbestos/>. Information is also available to consumers at a special hotline: **1-800-471-7127**.

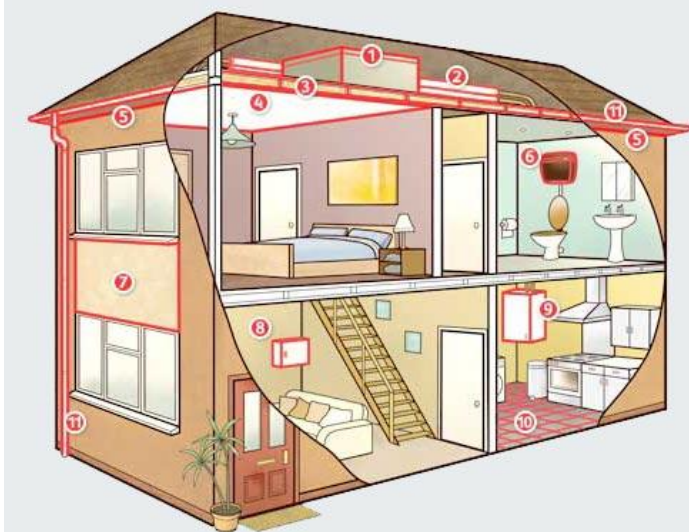
Source:

<http://yosemite.epa.gov/opa/admpress.nsf/177f410e8a398c0f85257021005643a7/6c0c8d7c7db067e085256d2d005d3efb!opendocument>

ATTACHMENT C — United Kingdom Health and Safety Executive Advice

Where is asbestos found?

Asbestos could be present in any building that was built or refurbished before the year 2000.



1. Water Tank:

Is usually made of asbestos cement and is often found in older properties (pre 1980).

2. Pipe Lagging:

Asbestos insulation on pipes. Used to keep heat in or cold out. Often painted over or protected by outer coating so not obviously asbestos.

3. Property Insulation:

Loose asbestos can be found as insulation in wall and floor cavities and in lofts.

4. Textured coating (eg artex):

Can be found throughout property on ceilings and sometimes walls.

5. Soffit Board (roof overhang):

Soffit board sits behind fascia at eaves level. Board can be made from asbestos cement or asbestos insulating board.

6. Toilet cistern:

Toilet cisterns can contain asbestos-reinforced resin composite materials.

7. Wall Panelling:

Asbestos can be found as external wall cladding and as internal wall panelling both particularly around windows.

8. Fuse box:

Often found in hall or under stairs. Each fuse wire has an individual asbestos flash guard. Panel behind fuse box can be asbestos.

9. Heater Cupboard:

Heater cupboard around domestic boiler often contains asbestos insulating board.

10. Floor tiles:

Vinyl and thermoplastic floor tiles can contain asbestos. The tile backing may also contain asbestos paper.

11. Rainwater items:

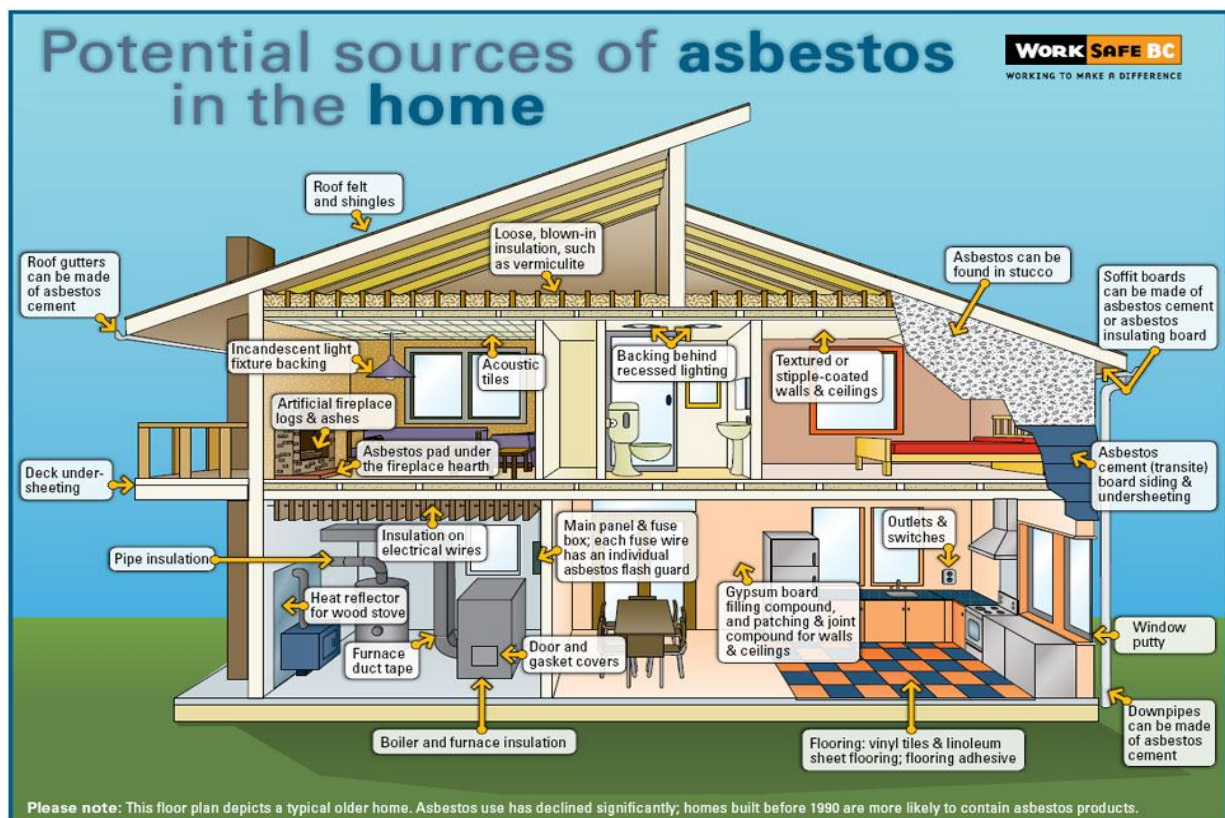
Roof gutters and down pipes can often be made of asbestos cement.

Source: <http://www.hse.gov.uk/asbestos/hiddenkiller/where-is-it-found.html>

ATTACHMENT D — WorkSafe British Columbia, Canada Advice

Until the early 1980s, many products containing asbestos were used in house construction. Some products, such as asbestos-containing vermiculite insulation, were used in homes right up until the late 1980s. The drawing in this pamphlet shows many possible sources of asbestos in older homes. When you are renovating or demolishing an older house, there is a high probability of encountering asbestos containing materials. If asbestos-containing materials are in good condition and left intact, they do not pose a significant danger of releasing asbestos fibres into the air you breathe. However, these materials are hazardous when they deteriorate or are disturbed, such as when they are handled, sanded, drilled into, or broken up so that they crumble. To avoid disturbing asbestos-containing materials, you must know where they are *before* you begin renovations.

The diagram below illustrates the use of loose, blown-in insulation in Canadian homes..



Source: http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/asbestos_hazards_homeowners.pdf