Environmental health notes No. 2
Guidelines for local government on asbestos

Victoria
The Place To Be

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Department of Human Service
Environmental Health Unit
Health Risk Assessment and Management Program

June 2005

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WorkSafe Victoria

City of Moreland

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Country Fire Authority (CFA)/Metropolitan Fire and Emergency Services Board (MFB)

Victorian Building Commission (BC).

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Preface

The Environmental Health Unit, Department of Human Services is developing a series of publications for environmental health practitioners working in local government and other interested stakeholders.

Each *Environmental health note* describes a specific health hazard occurring in and around residential properties. It will provide information and guidance on ways hazards can be managed to protect public health. The first two publications in this series look at asbestos as an environmental health hazard. Note No 1, *Asbestos—roles and responsibilities for government agencies,* provides an overview on how state and local agencies work together to manage asbestos-related issues and/or emergency incidents involving asbestos.

Note No 2, *Guidelines for local government on asbestos,* examines local government's role in managing asbestos issues in residential or public settings.

Contents

Introduction

In Victoria, a range of legislation covers how asbestos should be safely managed to protect both occupational and community health. Local government has specific duties and functions under the *Health Act 1958.* One important function of councils under this Act is to prevent diseases in municipalities by prevention and control of environmental health hazards, including asbestos.

The environmental health section of council is responsible for advising on, investigating and undertaking enforcement action to public health hazards (or nuisances) arising in the municipality.

Legislative powers exist in the 'nuisances provisions' of the *Health Act 1958* to assist local government in resolving nuisances. In this context, a nuisance could result from an activity leading to the release of dust off-site, where people passing by or living next door could be potentially exposed to asbestos dust.

This document provides environmental health practitioners in local government with:

- guidance and resources for investigating and resolving community concerns and questions about asbestos hazards
- an introduction to the principles of health risk assessment and risk management
- practical examples of how asbestos risks can be managed in different circumstances
- advice on when to conduct a site visit as part of an investigation of potential health risk and ways to manage asbestos hazards after an emergency such as a fire.

It is intended to encourage a consistent approach across municipalities when dealing with asbestos issues.

Procedures for handling asbestos complaints or enquiries

Overview

Asbestos fibres are a health hazard. When fibres enter a person's lungs, their presence can increase that person's risk of developing an asbestos-related respiratory condition. The risks are cumulative—the higher the number of asbestos fibres breathed in, the higher the risk of developing an asbestos-related lung disease in the future[1].

Local government environmental health practitioners answer enquiries and investigate complaints relating to sites that are not defined as 'workplaces' under the *Occupational Health and Safety Act 2004.* Most issues dealt with by local government environmental health practitioners relate to a nuisance investigation involving the maintenance or removal of asbestos-cement sheeting from residential settings. It usually relates specifically to work done by the homeowner/householder.

The environmental health practitioner's role in responding to questions or complaints is to:

- investigate the nature of the complaint, to determine if a nuisance exists, as defined by the *Health Act 1958*
- raise awareness in the municipality about how to safely manage asbestos in non-workplace environments
- assess the likelihood of an asbestos-related public health risk
- provide pragmatic advice on managing asbestos fibre health risks, to protect public health
- work collaboratively with other government agencies (as required) to resolve the issue.

Carrying out a public health risk assessment for asbestos

Undertaking a health risk assessment procedure will assist an environmental health practitioner to determine if a risk to health exists and to take the appropriate action.

Health risk assessment[2] is formally defined as:

'The process of estimating the impact of a chemical, biological, physical or social agent on a specified human population system under a specific set of conditions and for a certain timeframe'.

More generally, a risk assessment involves four steps:

1. **identifying the issues** [What is the situation or circumstance of the complaint?]
2. **hazard assessment** [Is asbestos involved and are fibres being generated?]
3. **exposure assessment** [Is it likely members of the public are being exposed?]
4. **risk characterisation** [Is a risk to health likely or unlikely in this situation?].

An assessment of human health risk may require a site visit as part of the investigation, especially if asbestos is likely to be involved and members of the public are likely to be exposed.

The next section outlines steps for performing a public health risk assessment for asbestos, likely issues when undertaking a site visit and management strategies for dealing with risks in specific situations. A key point to remember is that other government agencies may also be involved, depending on the circumstances.

1 Refer to Appendix 5 and the *Other resources* listing for more detail about the health risks associated with asbestos exposure.

2 enHealth (2002) 'Environmental Health Risk Assessment—Guidelines for Assessing Human Health Risks from Environmental Hazards' (pg 26).

Identifying the issues

Identify the problem that needs addressing by asking the caller or complainant:

- What are their specific concerns?
  - Is the presence of a garden shed or garage made from asbestos cement sheeting going to affect their children's health?
  - Will they develop mesothelioma because of their neighbour's renovation works?
- Why does the caller think asbestos-containing material is involved?
- What is the relationship between the complainant and those carrying out the activity?
- Has the caller spoken to any other agencies about this matter?
- What type of activity is occurring?
- What structures are involved (for example, roof, fence, walls, electricity box, eaves or household areas, such as the kitchen, laundry, bathroom)?
- Is the householder doing the work themselves?
- Is a contractor or tradesperson undertaking the work? (If the caller is not sure, it may be helpful to ask whether they have noticed a trades vehicle or signage at the place in question.)
- Clearly inform the person that the matter will require further investigation, before determining whether a public health risk exists or not.

A template checklist for documenting key pieces of information to assist your investigation is in Appendix 2.

Hazard assessment

Hazard assessment involves identifying the health hazard and then estimating what health impacts are likely to occur after people have been exposed.

'Hazard' is a substance's capacity to cause harm (adverse health effects). Harm is only possible if a person has been exposed to the substance (such as inhaled asbestos fibres) in concentrations that can increase the likelihood of that person experiencing adverse health effects (in this case, lung conditions) in the future.

Estimating the health risk of inhaling asbestos fibres is difficult, due to a range of factors. Whether one person develops an asbestos-related lung condition and another person does not depends on the type, size or shape of asbestos fibre, whether it has been inhaled, the amount taken into the lungs over time, whether the person smokes or not and their genetic make-up. These uncertainties are again compounded by a delay of decades before it is known whether that person will develop a lung condition at all.

Unfortunately, medical science is not yet able to identify the minimum number of inhaled fibres that can cause an asbestos-related lung condition such as mesothelioma. Therefore, from a public health perspective, it is *always* important to prevent a human exposure to airborne asbestos fibres.

Hazard identification can be addressed by asking questions such as these:

- Is asbestos cement sheeting being broken up or crushed?
- Are power tools being used on the asbestos cement sheeting?
- Has anyone cut open an old water heater or oven door (that may have asbestos fibres sealed inside)?

It is also useful to determine what precautionary measures are in place to reduce public exposure (such as limiting generation of fibres or dust):

- Is the asbestos being gently wetted down to prevent dust creation (versus use of high pressure sprays)?
- How is the asbestos-containing material being removed and disposed of?
  - Is it being wrapped in plastic? Is it out in the open? Is it being broken up?

Exposure assessment

Exposure assessment is about predicting whether a person is likely to have been, or is currently being, exposed to asbestos fibres and/or asbestos-containing dust. This includes determining whether airborne fibres or dust are present and the possibility of breathing them into the lungs.

Questions that can assist include:

- Are dust or fibres leaving the site?
- Do people (including children) have access to the asbestos material?
- Is there a residence directly next door?
- Is anyone walking past the works?
- What is the scale of the event?
- Is this a once-off event or is the exposure continuing?

At this stage of assessing the public health risk, it may be necessary to advise the caller or complainant that a site visit is necessary.

As a 'rule of thumb', the environmental health practitioner should carry out a site visit if:

- the site in question is not classified as a workplace under the *Occupational Health and Safety Act 2004*
- asbestos-containing material is likely to be involved
- visible dust and/or fibres are potentially travelling off-site into neighbouring properties, or out onto public spaces such as footpaths or nature strips.

Consider whether the building area of council, or even another government agency, should also attend the site visit.

For more detailed explanation of the roles and responsibilities of various government agencies in dealing with asbestos-related issues or emergency incidents, refer to *Environmental health note No. 1* at www.dhs.vic.gov/environmentalhealth.

Appendix 1 contains different asbestos scenarios, showing which agencies become involved.

Risk characterisation

Risk characterisation involves considering all steps of your investigation so far—issues identification, agency responsibilities, hazard assessment, exposure assessment and possibly even a site visit—to fine tune your conclusions about whether a public health risk exists or not.

Risk management

Once a public health risk is confirmed, it must be managed to limit any further possibility of public exposure.

Applying remedial measures to manage potential health risks is known as risk management.

Ultimately, the range of remedial options will be determined by each council's enforcement procedures but can range from providing advice and educational materials to the householder/homeowner, to issuing a nuisance abatement notice. Clearly, the type and degree of remedial measures depend on how serious the problem is in relation to public health. For example:

- If after doing a risk assessment, it is unlikely neighbours or passers-by have been exposed to any asbestos fibres, then the caller/complainant can be reassured that the public health risk is negligible. Public awareness information could also be sent out (*Asbestos in the home booklet,* or refer them to the DHS website).
- If the risk assessment suggests that incorrect work practices are being carried out and/or a nuisance is being created, remedial action should be taken, for instance, the serving of a Health Act Nuisance Notice.

Risk communication

Risk management also extends to communicating to people about the health risks and how they are safely managed. This is known as 'risk communication'. It is important to provide detailed information to the general public, regardless of the hazard. Even though the risk assessment may indicate that the risk to public health is small, the community may perceive the risk to be great. Public health information provided to the community regardless of the risk must clearly define what the hazard is to the community.

If the public concerns are not addressed, this may lead to an asbestos issue escalating. For instance, a few pieces of AC sheeting are found on a nature strip outside a playground. The public health hazard may be small, however community outrage may be great if not managed correctly.

Information that can be useful in communicating about the health risks of asbestos fibres includes:

1) *Asbestos in the home* (2003) produced by the Department of Human Services to educate householders about precautions to take when dealing with asbestos cement sheeting in the home.
2) The enHealth document *Guidelines for the management of asbestos in the non-occupational environment.*
3) EPA *Transport and disposal of waste asbestos* No. 364 (as amended).

Agency contact details and other references are located on page 11 of this document.

Conducting a site assessment of a non-occupational setting

Preliminary information

Apply the desktop assessment, record the name and contact details of the complainant, the site address, date, time, nature of the incident and whether it is currently occurring or not.

On-site

1. Assess personal risk (Refer to Appendix 3).
2. Determine who is responsible for the nuisance and record name and contact details.
3. Is the incident liable to be dangerous to health or offensive to people?
   - Is the material asbestos? (If unsure, the material is to be treated as asbestos until proven otherwise)
   - How much asbestos material is being handled?
   - Where is it being removed?
   - Are samples of the material required?
   - Are work practices being carried out in accordance with the Department of Human Services document *Asbestos in the home?*
   - Is the material being stored on site and for how long before being disposed?
   - How is it being stored?
   - Is it wrapped in plastic?
4. Do people live next door to the incident?
5. Does the general public have access to the asbestos material?
6. How is it being transported and where is it being disposed?
7. Is dust visible from the boundary of the property?
8. Record details of the investigation, observations and sampling information.
9. Consider whether you require assistance or advice from another agency.

Evaluate the information/action

1. If unsure that the material contains asbestos, inform the person in charge of the activity that until otherwise proven, the material is to be treated as asbestos.
2. Provide verbal and/or written information concerning the correct handling and disposal of asbestos material.
3. If necessary, direct the cessation of work until the correct practices can be implemented.
4. Assess sample results and review actions implemented.
5. Notify person committing the offence of the sample results.
6. Re-inspect to determine compliance.
7. Notify complainant of outcome.

Refer to Appendix 2 for *pro forma* desktop and on-site checklists.

Managing a site after an emergency to protect public health

An emergency is broadly defined as 'an incident, which endangers, threatens to endanger the safety or health of any person or destroys any property or endangers or threatens to endanger the environment'[3].

An asbestos-related emergency could be due to a fire, explosion, storm, accident or demolition activities, resulting in a building being declared unsound or in danger of collapse. Asbestos dust or fibres may potentially endanger the health and safety of the community after such emergencies, if not properly managed.

Asbestos materials exposed to high temperatures cause the fibres to denature into a less hazardous form. It is therefore unlikely that significant amounts of airborne asbestos fibres would be released into the local neighbourhood during an emergency, or during post incident clean-up activities.

Air monitoring measures the amount of asbestos fibres in the air. It is more commonly applied to measuring the levels of fibres on-site when clean-up activities are underway. Workers engaged in the clean-up works are more likely to be exposed than people off-site in the local neighbourhood. This is why community-based air monitoring is not automatically done during or after an emergency involving asbestos. Ultimately, the decision to take samples is made by the agencies attending the incident.

The following precautionary measures are recommended to prevent the off-site discharge of asbestos during clean-up:

- An occupational hygienist or environmental consultant should preferably undertake the site assessment. [Asbestos was commonly used in buildings from the 1940s to 1980s; all building waste from structures of this era should be regarded as containing asbestos, unless otherwise confirmed].
- Licensed asbestos removalists should ideally undertake the removal and transportation of friable (loosely bound) or non-friable asbestos.
- Restrict site access to those wearing appropriate personal protective equipment. This includes: a half-face filter respirator fitted with a class P1 or P2 filter cartridge, or a class P1 or P2 disposable respirator complying with Australian Standard 1716; disposable coveralls, footwear, hat and gloves.
- Ensure the site is kept damp at all times (including whilst removing the debris). This helps to prevent fibres becoming airborne. High-pressure hoses should not be used, as the spray can aerosolise the fibres.
- Wrap waste securely in two layers of plastic sheeting, at least 0.2mm thick (for example, heavy duty builders' plastic), and seal with adhesive tape. Dispose of waste at a landfill site approved by the EPA to accept asbestos.

The environmental health practitioner is responsible for providing factual information to surrounding neighbours who may be concerned about asbestos health risks.

The possibility that a neighbour is exposed to asbestos fibres is generally very low and this is the key message to be conveyed. As a precautionary measure, neighbours can be advised to:

- Close external doors and windows.
- Remove toys from outside and remove clothing from the clothesline.
- Avoid unnecessary outdoor activity for the duration of the activity.
- Wipe dusty surfaces with a damp cloth, and use a low-pressure hose to remove visible dust from pathways—avoid brooms or vacuum cleaners.

A contractor engaged to clean-up of a site following an emergency must comply with the *Occupational Health and Safety Act 2004* and the Occupational Health and Safety (Asbestos) Regulations 2003.

3 Emergency Management Act 1986

Clean-up of the surrounding area, including neighbouring residential properties, is to be determined by the appropriate agencies. Any clean-up costs should be referred to the person or organisation responsible for the incident. Do not delay clean-up (or advice on same) if no person/organisation can be deemed the responsible body. Protection of public health is a priority. The specific powers to direct clean-up include the nuisance provisions of the *Health Act 1958* (local government), a Pollution Infringement Notice under the *Environment Protection Act 1970* (Victorian EPA), or powers under the *Occupational Health and Safety Act 2004* and the Occupational Health and Safety (Asbestos) Regulations 2003.

Summary

The *Environmental health notes* are to be used as a guide and resource by environmental health practitioners in local government, to provide a consistent approach when investigating asbestos nuisance complaints. The notes introduce the principles of health risk assessment and management as a method for handling asbestos nuisance complaints.

The presence of asbestos material does not pose a health risk or nuisance, unless the material is broken or disturbed in such a way that asbestos dust is released into the atmosphere and inhaled. To help an officer determine whether a complaint is a nuisance or public health risk, the series of questions provide a guide during each stage of the risk assessment. The risk assessment determines the existence and severity of the public health risk or nuisance.

The risk management process incorporates the conclusion reached in the risk assessment. This assessment determines a range of remedial strategies that can be undertaken to handle asbestos complaints, ensuring that the public health risk or nuisance is minimised. The course of action may range from providing educational material, to serving a nuisance abatement notice.

Other resources

Health effects of exposure to asbestos

Doll, R. and Peto, J., 1985, Health Effects of Exposure to Asbestos, Her Majesty's Stationery Office, London.

Agency for Toxic Substances and Disease Registry

Toxicological Profile for Asbestos, U.S. Department of Health and Human Services, Public Health Services, Atlanta, Georgia (2001)

Also available at www.atsdr.cdc.gov/

World Health Organisation

International Programme on Chemical Safety (IPCS) Environmental Health Criteria 53 (Asbestos), 1986.

enHealth Council

National body with state, federal and local government membership in the area of environmental health. This is a health partnership for discussing environmental health issues, focusing on impacts the environment can have on health.

http://enhealth.nphp.gov.au

- Guidelines for the management of asbestos in the non- occupational environment, Department of Health Western Australia (enHealth 2004).
- Community Involvement in Responding to Environmental Health Incidents [enHealth Council—draft].

Sampling

National Occupational Health and Safety Commission (NOHSC) 1988, Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust, NOHSC, Sydney.

Also available at www.nohsc.gov.au

Public health information

Rural and Regional Health and Aged Care Services, Department of Human Services Victoria, publications:

- Environmental health note No. 1 Asbestos—roles and responsibilities for government [May 2005].
- Asbestos in the home (June 2003). Also available at: http://www.health.vic.gov.au/environment/

Victorian Environment Protection Authority publication:

- Transport and disposal of waste asbestos, publication 364 (as amended). http://www.epa.vic.gov.au/

Legislation (Acts, Regulations)

Visit the Department of Justice website for specific pieces of legislation.

Click on Law Today
http://dms003.dpc.vic.gov.au/l2d/lthome.html

Relevant contacts

WorkSafe Victoria

General enquiries (toll free) 1800 136 089

Emergency Response Service (24 hours) 13 23 60

Regional offices

Ballarat	(03) 5338 4444
Bendigo	(03) 5443 8866
Dandenong	(03) 8792 9000
Geelong	(03) 5226 1200
Melbourne	(03) 9941 0558
Mildura	(03) 5021 4001
Mulgrave	(03) 9565 9444
Preston	(03) 9485 4555
Shepparton	(03) 5831 8260
Traralgon	(03) 5174 8900
Wangaratta	(03) 5721 8588
Warrnambool	(03) 5562 5600

www.workcover.vic.gov.au/

Environment Protection Authority

General enquiries (03) 9695 2722

Pollution Watch (24 hours)

Metro area	(03) 9695 2777
Regional Victoria	1800 444 004

Regional offices

Dandenong	(03) 8710 5555
Bendigo	(03) 5442 4393
Geelong	(03) 5226 4825
Gippsland	(03) 5176 1744
Wangaratta	(03) 5721 7277

www.epa.vic.gov.au/

Department of Human Services

Environmental Health Unit

General enquiries 1300 761 874

Emergency Response Coordinator (24 hours) 1300 790 733

Regional offices

Barwon/SW Victoria	(03) 5226 4540
Grampians/Western Vic	(03) 5333 6669
Gippsland	(03) 5177 2500
Hume/NE Victoria	(03) 5722 0555
Loddon Mallee/NW Victoria	(03) 5434 5555
North West Metropolitan	(03) 9412 5333
	(03) 9275 7000
Eastern Metropolitan	(03) 9843 6000
Southern Metropolitan	(03) 9213 2111

www.dhs.vic.gov.au/

Appendix 1 Scenarios illustrating which agencies lead an investigation and likely actions taken

Scenario	Responsibility/Response	Support Agencies
Works carried out on an industrial site containing asbestos material.	**Responsible agency: WorkSafe Victoria** As this is a workplace under the *Occupational Health & Safety Act 1985,* refer the caller to WorkSafe Victoria.	
Derelict industrial site (eg warehouse) being converted into a residential development by site owner.	**Responsible agency: Local government** The matter is a local government issue, because the site's owner is converting the site into residential premises. Response: • Refer matter to Town Planning, to determine if a planning permit exists for the works. This includes the change of land use, to determine that the land is suitable for residential use (Has asbestos been considered in the environmental audit report?). • An on-site joint inspection involving a town planning practitioner and environment health practitioner may be undertaken to determine compliance with the planning permit. • If no environmental audit was undertaken, the matter is to be managed by the Town Planning, in accordance with the *Environmental Protection Act 1970,* State Environment Protection Policy (Contaminated Land) and the *Planning and Environment Act.* • Public health matters: – Nuisance Notice in accordance with the nuisance provisions of the *Health Act 1958,* if an immediate health risk is identified. – Educational information is provided. • Directive to remove and dispose of asbestos material.	If necessary, assistance may be obtained from the: • Environment Protection Authority (EPA), concerning the undertaking of an environmental audit on the property • EPA, concerning the transportation and disposal of asbestos. Reference can be made to Environment Protection Authority Transport & Disposal of Waste Information Bulletin 364C (as amended).

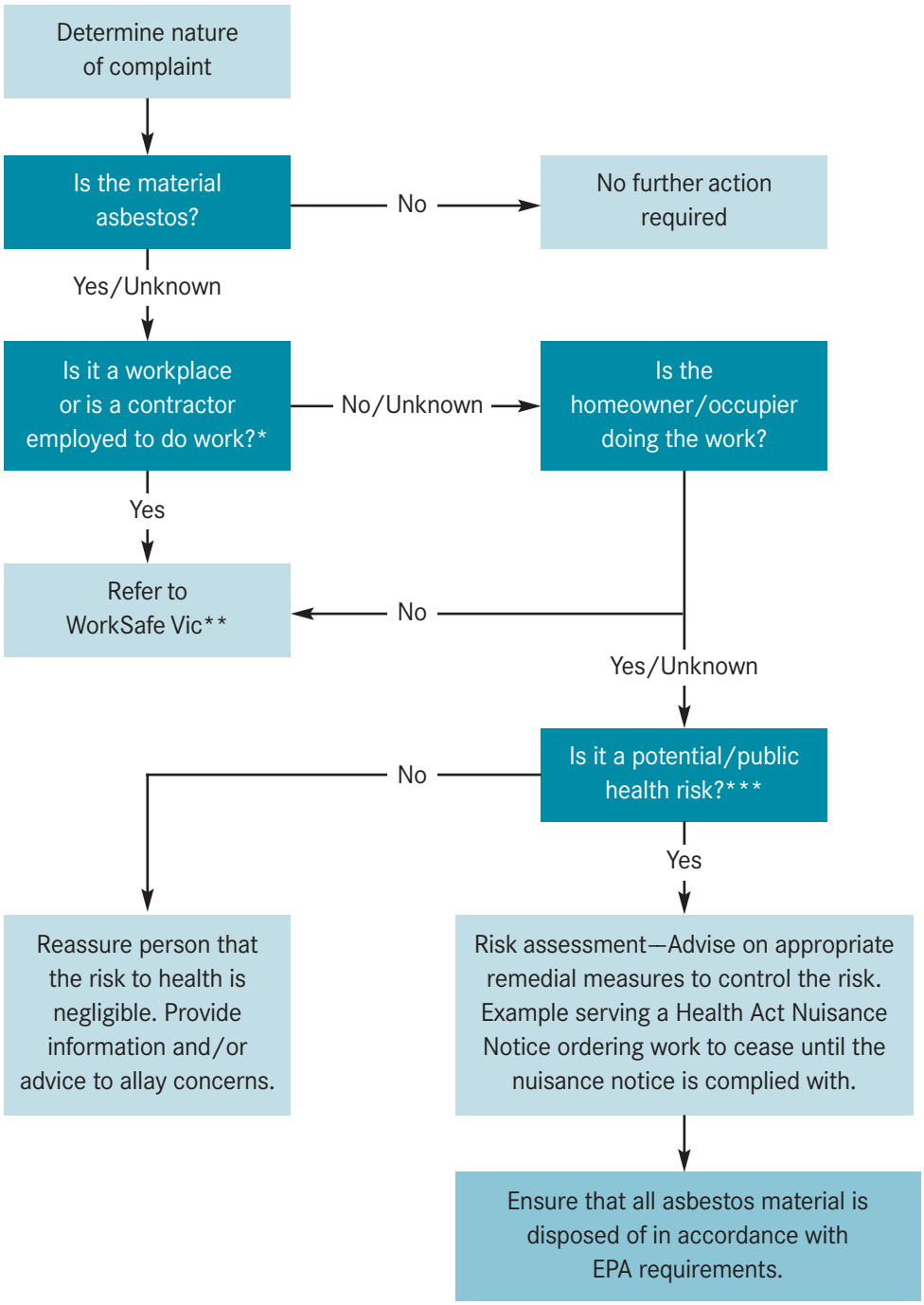
Scenario	Responsibility/Response	Support Agencies
Derelict industrial site (eg warehouse) being converted into a residential development by a contractor.	**Responsible agency: WorkSafe Victoria** As this is a workplace under the *Occupational Health & Safety Act 1985,* refer the caller to WorkSafe Victoria.	If necessary, assistance may be obtained from: • Town Planning department, to determine if a planning permit exists for the works. This includes the change of land use, to determine that the land is suitable for residential use (Has asbestos been considered in the environmental audit report?).
Owner demolishing/ renovating a house. Material may contain asbestos. Work undertaken by owner.	**Responsible agency: Local government** The matter is a local government issue, as the complaint originates from a residential premises and the homeowner is undertaking the work. Response: • Site inspection and assessment to determine compliance with the *Building Act 1973* and that a public health risk does not exist. A non-compliance issue with the *Building Act* is to be managed by the Building department. Is dust visible and is the material being mishandled? If yes, then: • Serve nuisance notice in accordance with the nuisance provisions of the *Health Act 1958,* directing that work cease until the nuisance issues are managed. – This may require an assessment to be undertaken by the owner/s of the property to identify the asbestos material and to ensure that it is removed separately before continuing to demolish. • Issue directive to remove and dispose of asbestos material safely, in accordance with the EPA Transport & Disposal of Waste Information Bulletin 364C.	If necessary, assistance may be obtained from the: • Environment Protection Authority, concerning the transportation and disposal of asbestos or Reference can be made to Environment Protection Authority Transport & Disposal of Waste Information Bulletin 364C. • DHS in regards to public health matters.

Scenario	Responsibility/Response	Support Agencies
Owner demolishing a house. Material may contain asbestos. Work being undertaken by contractor.	**Responsible agency: WorkSafe Victoria** The matter is to be referred to WorkSafe Victoria as a contractor has been employed, even though the complaint originates from a residential premises. No further action is required by local government, unless assistance is required from WorkSafe with the distribution of public health information.	
Demolition of a commercial/ industrial building after a fire. Premises may contain asbestos.	**Responsible agencies: Fire Brigade and Police or Work Safe Victoria** The Fire Brigade is the lead agency responsible for extinguishing the fire and determining if the incident was arson. If the incident is the result of arson, the matter is referred to the Police, as the lead agency for further investigation. Council will determine structural stability of the building and determine the necessary corrective action to ensure the physical safety of the building, which may result in the building being demolished. If the fire was as a result of an accident, the matter is referred to WorkSafe Victoria as the lead agency responsible for the investigation, clean-up of site and any off-site public health concerns about potential release of asbestos fibres from a workplace. As a precautionary measure, WorkSafe Victoria may require an occupational hygienist to undertake air monitoring during demolition and clean-up works.	In the event of arson, the Police may ask for assistance from WorkSafe Victoria, local government and DHS. In the event that the fire was an accident, WorkSafe Victoria may ask for assistance from local government and DHS to address public health concerns of residents.
Storage of asbestos material in a non-occupational environment.	**Responsible agency: Local government** Initial response: Local government. If a local dispute escalates, local government may ask for assistance from WorkSafe Victoria. Regulation 308 of the Occupational Health and Safety (Asbestos) Regulations 2003 is applicable to a person storing asbestos material in a non-occupational environment.	WorkSafe Victoria, in accordance with Regulation 308 of the Occupational Health Safety (Asbestos) Regulations 2003.

Scenario	Responsibility/Response	Support Agencies
Dumped asbestos waste.	**Responsible agency: Local government** Response: • Local government (under the nuisance provisions of the Health Act 1958).	
Non-commercial transportation of asbestos for the purpose of disposal (eg resident disposing of domestic waste).	**Responsible agency: Local government** Response: Matter to be managed under the nuisance provisions of the *Health Act 1958.*	If necessary, assistance may be obtained from the: • Environment Protection Authority, concerning the disposal of asbestos. Reference can be made to Environment Protection Authority Transport & Disposal of Waste Information Bulletin 364C.
Commercial transportation of asbestos waste by a contractor for the purpose of disposal.	**Responsible agency: Environment Protection Authority** EPA Information Bulletin, *Transport and Disposal of Waste Asbestos* EPA Publication 364C, or the latest version of this document.	
Living next door to a house with an asbestos roof.	**Responsible agency: Local government** Response: EHO to assess the situation. Regardless of the structural condition of the roof, reassure the person that non- friable asbestos material is unlikely to cause any health issue, unless the material has been incorrectly handled during repairs or removal. However, if the roof is structurally unsound, the matter should be referred to the Building department for follow-up action.	If unable to reassure the person of the minimal health risk, ask for assistance from DHS.

Appendix 2 Administering asbestos issues

Flow chart: Management of asbestos issues



* A workplace is defined as 'any place, whether or not in a building or structure, where employees or self-employed persons work'.

** However if there is an immediate public health risk the environmental health practitioner may instigate enforcement action in accordance with the Nuisance provision of the Health Act 1958. The action instigated is to be communicated to WorkSafe Vic.

*** Refer to pages 2, 3 and 4 to determine health risk.

Desk top assessment (checklist) for an asbestos issue

1 a) Name and contact details of person making the enquiry.

b) Date and time of the enquiry.

2 a) Address of the incident.

b) Details of the responsible person/owner of the property.

3 What action/information is the caller seeking?

4 Type of premises involved: residential, industrial, commercial or public place (such as a laneway or nature-strip).

5 Has the appropriate agency being contacted (residential, non-workplace = local government; workplace = WorkSafe Vic)?

6 Type of incident: fire, explosion, demolition, vandalism, incorrect work practices, dumping of asbestos and so on.

7 a) Is the incident occurring now?

b) Are any other agencies present?

8 Confirm the presence of asbestos.

a) Were the premises (or area of premises being worked on) built between the 1940s and 1980s?

b) Is cement sheeting visible?

9 a) Is dust visible?

b) How close to the activity or the event are residents or passers-by?

a) Adjoining. ☐ Yes ☐ No

b) Surrounding neighbourhood. ☐ Yes ☐ No

c) Industrial/commercial area no residence nearby. ☐ Yes ☐ No

10 Is the site secured to limit public access?

11 Are other residents concerned about the issue?

13 Inspection required: ☐ Yes ☐ No

14 Referred to:

15 Details recorded by:

Date:

On site assessment (checklist)

Officer/s details:

Date/time of investigation:

Site address:

Name and contact details of owner/occupier/contractor:

Address of complainant:

Description of issue:

Assessment of personal risk undertaken (as per Appendix 3) ☐ Yes ☐ No

Assessment for the presence of asbestos

Has the owner assessed the work area for the presence of asbestos material?
Note: This is not a requirement in a non-occupational environment.

If YES, who undertook it and ask to view the documentation of the assessment?

Has the document clearly identified the location of the asbestos material in the work area?

Has the asbestos material been removed or sealed before work commenced?
Note: This is not a requirement in a non-occupational environment.

If YES, determine if the asbestos was removed or sealed prior to the work commencing. If YES, the hazard of asbestos fibres being released should have been removed and no further action is required.

Comments:

If NO, the following assessment is to be undertaken.

Were the premises built between the 1940s and 1980s?

☐ YES ☐ NO ☐ UNKNOWN

If YES or UNKNOWN, the material is to be treated as asbestos.

Comments:

Preliminary assessment of material

(Please note this is not a full list of asbestos material used in residential buildings, only the most common).

In some instances, this material may not be clearly visible.

If the asbestos is loosely bound, it is deemed to be friable. An example of friable asbestos is insulation used in domestic heaters/stoves and in commercial ceiling insulation. It is advised to leave the premises if friable asbestos is present and a Health Act Nuisance Notice should be served, stating that work ceases until correct practices are implemented. Recommend that a licensed asbestos removalist remove friable asbestos material.

Material containing asbestos

Material	Present YES/NO/UNSURE	Disturbed YES/NO/UNSURE
• AC sheeting		
• Corrugated AC roofing		
• Water or flue pipes		
• Roof shingles		
• Imitation brick cladding		
• Vinyl floor tiles		
• Plaster patching compounds		
• Backing of linoleum floor coverings		
• Other		

Refer to Appendix 6 for a detail list of materials containing asbestos.

If YES or UNSURE, the material is to be treated as asbestos, until otherwise proven by analysis.

Hazard assessment

- How is the work been undertaken?
- What precautions are being taken to minimise dust emissions?
  - Are power tools being used?
  - Is the material being wetted down?
  - Is breaking and cutting of asbestos material being minimised?
  - Has the material been packed in plastic awaiting disposal?

If NO or UNSURE to one or more of the above, there is a potential for dust to be emitted.

Comments:

Exposure assessment

- Do people live next door or is the property adjoining public spaces where people undertake recreational activities?
- Do people have access to the asbestos material?
- Is dust visible from the boundary of the property?

A nuisance is created when dust from asbestos material has been emitted and people have been or may be exposed to it, in which case a Health Act Nuisance Notice can be served on the owner/occupier. The notice should state work is to cease until correct work practices are implemented.

If no nuisance has occurred, provide health education material concerning the correct handling of asbestos material if required.

Comments:

Risk characterisation

High	Medium	Low
Asbestos material present Dust visible Potential for people to be exposed to asbestos material	Asbestos material is present Work practices and precautions are poor Potential for dust emissions and people are present	Asbestos material present Good work practices and precautions taken People unlikely to be exposed to dust

Risk management

High	Medium	Low
Cease work Serve Health Act Nuisance Notice	Work to cease until correct work practices are being implemented. Educational material presented. Consider serving a Health Act Nuisance Notice.	No action required. May present educational material.

Comments:

Handling asbestos material for disposal

- Is the material being packaged for disposal correctly, as described in the *Asbestos in the home* pamphlet?
- Is the material being disposed of at a licensed asbestos landfill?

If NO to the first, serve a Health Act Nuisance Notice. Material must be handled in a manner where dust is unlikely to be created.

If NO to the second point, inform the person verbally and in writing that all asbestos material must be disposed at a licensed facility. Provide a copy of the EPA publication *Transport and Disposal of Waste Asbestos* publication 364 (as amended by the EPA). Also instruct the person that the material must be covered to prevent access to the general public and to contain dust being emitted.

Comments:

Do you require assistance or advice from another agency?

WorkSafe Victoria Workplace issues

Environment Protection Authority Disposal of asbestos waste and transport of commercial/industrial waste.

Department of Human Services Public health information

Name of person contacted:

Time:

What assistance was provided:

Sampling

If sampling is necessary, it is recommended to wear P1/P2 mask, disposable gloves and overalls and eye protection, if removing sample/s from a fixed surface. If picking up loose asbestos sheeting material, no personal protective equipment is required.

Decide what is to be sampled.

Is the sample a representative of the type of material as a whole? (That is, similar in appearance, texture or colour?)

Place sample/s in plastic bag and seal.

Label each sample bag with the officer's details, date/time of sample, location of sample.

Provide a chain of custody for the sample/s. That is:

Sample identification number and location	**Name of collector/ delivery**	**Collection/Delivery/Storage (C/D/S)** C/D/S	Date	Time	**Collection/ Delivery/Storage address**	**Relinquishing/ accepting signature**
eg. Sample No. 1 Roof	Smith	C	1/1/06	12.00pm	1 Smith St X suburb	
	Smith	S	1/1/06	1.00pm	Council office (locked filing cupboard)	
	Dick	D	2/1/06	10.00am	Address of laboratory	

Laboratory information

Number of containers/description	Photo	☐ Yes	☐ No	Reference
Accepted by (staff member)	Date			Time
Assess sample results and action implemented.				
Date of re-inspection	☐ Yes	☐ No		
Notification to all parties involved.	☐ Yes	☐ No		Date:

Appendix 3 Health and safety information for environmental health practitioners investigating asbestos-related incidents

During the course of an investigation, local government environmental health practitioners may be required to attend a site where asbestos material may be present.

It is unlikely that they will be exposed to levels above the occupational exposure standards of 0.1 f/mL (fibres per millilitre)[4] during a complaint investigation. However, this cannot be ascertained at the time of the initial investigation. For this reason, appropriate training and education by an accredited person must be provided to environmental health practitioners and other council practitioners. Councils are also required to establish procedures that ensure that investigations into asbestos complaints are conducted safely.

It is the responsibility of the council as an employer, to provide and maintain so far as is practicable for employees a working environment that is safe and without risks to health. It is also the responsibility of the employee to take reasonable care for their own health and safety and for the health and safety of others who may be affected by his or her acts or omissions at the workplace. This may be achieved by council (as an employer) providing training and council officers (as employees) undertaking the investigation, as per council procedures.

This procedure may involve performing a risk assessment, before undertaking an investigation to identify and manage the risks associated with employee exposure to asbestos fibres. The results of this risk assessment must be communicated to any employee engaged to do work that potentially exposes them to hazardous materials.

For further information relating to conducting an occupational risk assessments, visit the WorkSafe Victoria website, at www.workcover.vic.gov.au.

Education and training

Environmental health practitioners and council officers are to be informed about:

- potential health risks of asbestos
- history of asbestos and its use
- legislative requirements
- guidelines for government agencies on areas of responsibility
- handling an asbestos complaint (including when to enter a premises and when to leave)
- use, maintenance and storage of personal protective equipment (PPE) and clothing
- correct procedures for handling and disposing of asbestos-containing material
- disposal of contaminated clothing.

Procedures

Councils must develop procedures to determine:

- designated officers permitted to investigate asbestos complaints
- sampling methodology
- appropriate equipment and clothing to be worn
- appropriate action to be undertaken (refer to appropriate agency>inspect site>provide verbal advice and information>joint investigation with another agency).

Also vital are effective communication networks with regional WorkSafe, Environment Protection Authority and Department of Human Services offices.

4 National Occupational Health and Safety Commission,' Exposure Standards for Atmospheric Contaminants in the Occupational Environment' May 1990.

Interim OHS guidelines

These guidelines are designed to be instigated as an interim measure, to enable each council time to provide appropriate training and education to council staff when investigating asbestos issues. The following procedures should be implemented to assist officers assess their personal risk to asbestos fibres at the time of undertaking a site inspection.

On arrival, the officer is to undertake a visual assessment of the hazards and the risk controls in place, before commencing the investigation. The following procedures need to be undertaken to determine if it is safe to investigate the complaint or if precautionary measures need to be taken before entering the premises.

When assessing the risk, the officer must determine if there is a hazard and the likelihood of exposure to asbestos fibres.

1. **Hazard** Is there a likelihood of asbestos material being present?
   i. Is asbestos material likely to be present? (If the building has been built between 1940s and 1980s, asbestos material is likely to be present.)
2. **Exposure** Is there a likelihood of inhaling asbestos dust?
   i. Is the material being disturbed?
   ii. Is dust visible?
   iii. Has the owner/occupier undertaken incorrect action, which may result in asbestos dust being generated? Such as:
      - The material has not been wetted down?
      - Power tools being used?
      - Unnecessary breakage or cutting occurring?
      - Material been incorrectly package for disposal?
3. Is there a risk of exposure to airborne asbestos fibres? This is determined by answering YES or UNSURE to the above questions.

   If the answer is YES or UNSURE, precautionary action must be taken to control the risk to the staff member attending the site. That is, request that work ceases or wear personal protective equipment/clothing before entering the premises.

   If answering NO, precautions are not required. However, general precautions should always be taken if entering a premises, to negate or reduce risks associated with other hazards.

Wearing a face mask

A suitable facemask for providing a greater degree of protection from inhaling asbestos dust must be labelled as either a P1 or P2 and compliant with the AS 1716 Respiratory Protective Devices. Dust (or nuisance) masks and surgical masks do not filter out asbestos fibres, therefore are not suitable. Both types of masks are available in disposable form or a rubber half-mask with replaceable filter cartridge.

The seal of a facemask should be used, maintained and tested in accordance with AS/NZS 1715: 1994 Selection, Use and Maintenance of Respiratory Protective Devices. The facemask must provide a good seal around the face and be comfortable to wear knowing the effects of breathing will be increased (therefore masks may not be suitable for many sensitive individuals). The mask is much less effective if a good seal cannot be obtained. Facial hair or glasses may affect the facial fit of the facemask. Following the instructions provided with the mask can test the adequacy of the seal of a rubber half-mask. Ask the supplier of the mask to provide a practical demonstration on how to correctly use, test and maintain the facemask.

Disposable coveralls

Disposable coveralls with fitted hood and cuffs should be worn, to prevent contamination of any clothing. Fitted hoods should always be worn over the straps of respirators and loose cuffs should be sealed with tape.

Prevent asbestos fibres being transported outside the premises. On completion of the inspection, the overalls are to be removed and disposed of by placing in double polythene bags and sealed. Coveralls should be disposed of as asbestos waste at the completion of the inspection.

Footwear

Boots without laces are preferred, as asbestos dust cannot gather in the laces and eyelets and are easily cleaned after use. Safety footwear must be washed down at the completion of the inspection or upon leaving the asbestos work area, or sealed in double polythene bags for use only on the next asbestos maintenance task. Alternatively, work boots that cannot be effectively decontaminated must be disposed of as asbestos waste, at the completion of the job.

Appendix 4 Actions councils can take to proactively manage asbestos issues

These guidelines are designed to assist local councils to manage asbestos-related complaints and are not a preventive measure to reduce the number of asbestos-related incidents.

In a workplace situation, precautionary measures for the assessment, handling and removal of asbestos are defined under the Occupational Health and Safety (Asbestos) Regulations 2003 and the Environment Protection (Prescribed Waste) Regulations 1998. The legislation requires all workplaces to undertake a risk assessment for the presence of asbestos in the workplace before work commences and for it to be removed and transported by licensed removalists. No such requirements exist for homeowners.

To assist local government in the development of precautionary measures, the following initiatives may be instigated:

1. Raise community awareness about the importance and practicalities of appropriate precautions during renovations where asbestos may be present. This could involve:
   - general forums conducted by environmental health practitioners
   - partnerships with local hardware stores to disseminate information about asbestos to appropriate customers
   - providing individualised information when a town planning or building permit application is received from homeowners.
2. Ensure all building surveyors request an assessment to be undertaken for the presence of asbestos material when a building permit application is received. (Similar to that required under section 504 of the Occupational Health and Safety (Asbestos) Regulations 2003). If the assessment is not received, the building permit should not be issued.
3. Increase the number of facilities available to residents to dispose of asbestos material safely and legally. At present, some householders dump asbestos material due to costs associated with legal disposal at licensed facilities and the limited number of facilities available in certain areas.

   The EPA manages all licensed facilities for the disposal of asbestos material. Unfortunately, there are a limited number of these facilities for residents to dispose of asbestos material. This results in the possibility of:
   - local government bearing the extra cost for collecting dumped asbestos waste material from public land
   - the handling of illegally-disposed asbestos material in the general waste stream
   - asbestos exposure at a workplace as a result of the asbestos material being illegally disposed of in the general waste stream.

Question: Do local government facilities (transfer stations/tip sites) that accept domestic asbestos waste from homeowners require licensing by the EPA?

Answer: Facilities provided by the local government for the collection of domestically- sourced asbestos material require no regulatory controls for the storage/consolidation of asbestos bins at municipal depots. However, there would need to be discussions with the EPA on how the material is to be collected, the type of bins that are acceptable and the siting of the bins.

Appendix 5 Advice on health effects of asbestos

The following information is provided on the health effects of asbestos fibres:

- Asbestos is made up of many small fibres, and can cause health problems when the fibres are breathed in. Most fibres that are breathed in will be removed by the body, but some may become trapped and cause serious lung disease (asbestosis, lung cancer or mesothelioma) many years later.
- Asbestos-related disease is generally associated with breathing in asbestos over a long time. However, a small but increasing number of people are developing mesothelioma after a short time exposed to asbestos. The reason why this occurs is not known, so it is always important to keep exposure to asbestos fibres as low as possible.
- Most cases of asbestos-related diseases are people who worked with it or had some other form of continual exposure (eg husband's overalls have been contaminated with asbestos fibres and the house wife shakes it before washing).
- The people at risk of asbestos-related disease are those who worked with asbestos material or have mishandled it. Asbestos fibres are most likely to be released if asbestos-containing material is mishandled (such as during home renovations or repairs where the material is drilled, cut or sawn and there is a potential for a large amount of dust to be generated and inhaled). Ways to work safely with asbestos are described in the booklet *Asbestos in the home.*
- If materials such as asbestos cement sheeting used for walls and roofs are in good order, they pose no risk. Even if damaged or weathered, the number of fibres released is very small. As the asbestos fibres are tightly bound and cannot escape into the air, there is little risk of the asbestos causing health problems. However, to reduce the exposure to asbestos fibres if the material is damaged, it should be replaced or repaired.
- There is little evidence that swallowing asbestos fibres causes health problems. The health risk from asbestos in drinking water is believed to be very small.

Appendix 6 Asbestos-containing materials

(This is not an exhaustive list)

A

Airconditioning duct, in the exterior or interior acoustic and thermal insulation
Arc shields in lift motor rooms or large electrical cabinets
Asbestos-based plastics products—as electrical insulates and acid resistant compositions or aircraft seats
Asbestos ceiling tiles
Asbestos cement conduit
Asbestos cement electrical fuse boards
Asbestos cement external roofs and walls
Asbestos cement in the use of form work for pouring concrete
Asbestos cement internal flues and downpipes
Asbestos cement moulded products such as gutters,ridge capping, gas meter covers, cable troughs and covers
Asbestos cement pieces for packing spaces between floor joists and piers
Asbestos cement (underground) pit as used for traffic control wiring, telecommunications cabling etc
Asbestos cement render, plaster, mortar and coursework
Asbestos cement sheet
Asbestos cement sheet behind ceramic tiles
Asbestos cement sheet over exhaust canopies such as ovens and fume cupboards
Asbestos cement sheet internal walls and ceilings
Asbestos cement sheet underlay for vinyl
Asbestos cement storm drain pipes
Asbestos cement water pipes (usually underground)
Asbestos-containing laminates, (such as Formica) used where heat resistance is required
Asbestos-containing pegboard
Asbestos felts
Asbestos marine board, e.g. marinate
Asbestos mattresses used for covering hot equipment in power stations
Asbestos paper used variously for insulation, filtering and production of fire resistant laminates
Asbestos roof tiles
Asbestos textiles
Asbestos textile gussets in airconditioning ducting systems
Asbestos yarn
Autoclave/steriliser insulation

B

Bitumen-based water proofing such as malthoid (roofs and floors, also in brickwork)
Bituminous adhesives and sealants
Boiler gaskets
Boiler insulation, slabs and wet mix
Brake disc pads
Brake linings

C

Cable penetration insulation bags (typically Telecom)
Calorifier insulation
Car body filters (uncommon)
Caulking compounds, sealant and adhesives
Cement render
Chrysotile wicks in kerosene heaters
Clutch faces
Compressed asbestos cement panels for flooring, typically verandas, bathrooms and steps for demountable buildings
Compressed asbestos fibres (CAF) used in brakes and gaskets for plant and automobiles

D

Door seals on ovens

E

Electric heat banks—block insulation
Electric hot water services (normally no asbestos, but some millboard could be present)
Electric light fittings, high wattage, insulation around fitting (and bituminised)
Electrical switchboards see *Pitch-based*
Exhausts on vehicles

F

Filler in acetylene gas cylinders
Filters: beverage wine filtration
Fire blankets
Fire curtains
Fire door insulation
Fire-rated wall rendering containing asbestos with mortar
Fire-resistant plaster board, typically on ships
Fire-retardant material on steel work supporting reactors on columns in refineries in the chemical industry
Flexible hoses
Floor vinyl sheets
Floor vinyl tiles
Fuse blankets and ceramic fuses in switchboards

G

Galbestos™ roofing materials (decorative coating on metal roof for sound proofing)
Gaskets: chemicals, refineries
Gaskets: general
Gauze mats in laboratories/chemical refineries
Gloves: asbestos

H

Hairdryers: insulation around heating elements
Header (manifold) insulation

I

Insulation blocks
Insulation in electric reheat units for airconditioner systems

L

Laboratory bench tops
Laboratory fume cupboard panels
Laboratory ovens: wall insulation
Lagged exhaust pipes on emergency power generators
Lagging in penetrations in fireproof walls
Lift shafts: asbestos cement panels lining the shaft at the opening of each floor and asbestos packing around penetrations
Limpet asbestos spray insulation
Locomotives: steam, lagging on boilers, steam lines, steam dome and gaskets

M

Mastik
Millboard between heating unit and wall
Millboard lining of switchboxes
Mortar

P

Packing materials for gauges, valves, etc., can be square packing, rope or loose fibre
Packing material on window anchorage points in high-rise buildings
Paint, typically industrial epoxy paints
Penetrations through concrete slabs in high rise buildings
Pipe insulation including moulded sections, water-mix type, rope braid and sheet
Plaster and plaster cornice adhesives
Pipe insulation: moulded sections, water-mix type, rope braid and sheet
Pitch-based (zelemite, ausbestos, lebah) electrical switchboard

R

Refractory linings
Refractory tiles
Rubber articles: extent of usage unknown

S

Sealant between floor slab and wall, usually in boiler rooms, risers or lift shafts
Sealant or mastik on windows
Sealants and mastik in airconditioning ducting joints
Spackle or plasterboard wall jointing compounds
Sprayed insulation: acoustic wall and ceiling
Sprayed insulation: beams and ceiling slabs
Sprayed insulation: fire retardant sprayed on nut internally, for bolts holding external building wall panels
Stoves: old domestic type; wall insulation

T

Tape and rope: lagging and jointing
Tapered ends of pipe lagging, where lagging is not necessarily asbestos
Tilux sheeting in place of ceramic tiles in bathrooms
Trailing cable under lift cabins
Trains: country—guards vans—millboard between heater and wall
Trains—Harris cars—sprayed asbestos between steel shell and laminex

V

Valve and pump insulation

W

Welding rods
Woven asbestos cable sheath

Notes


State Government
Victoria
Department of
Human Services