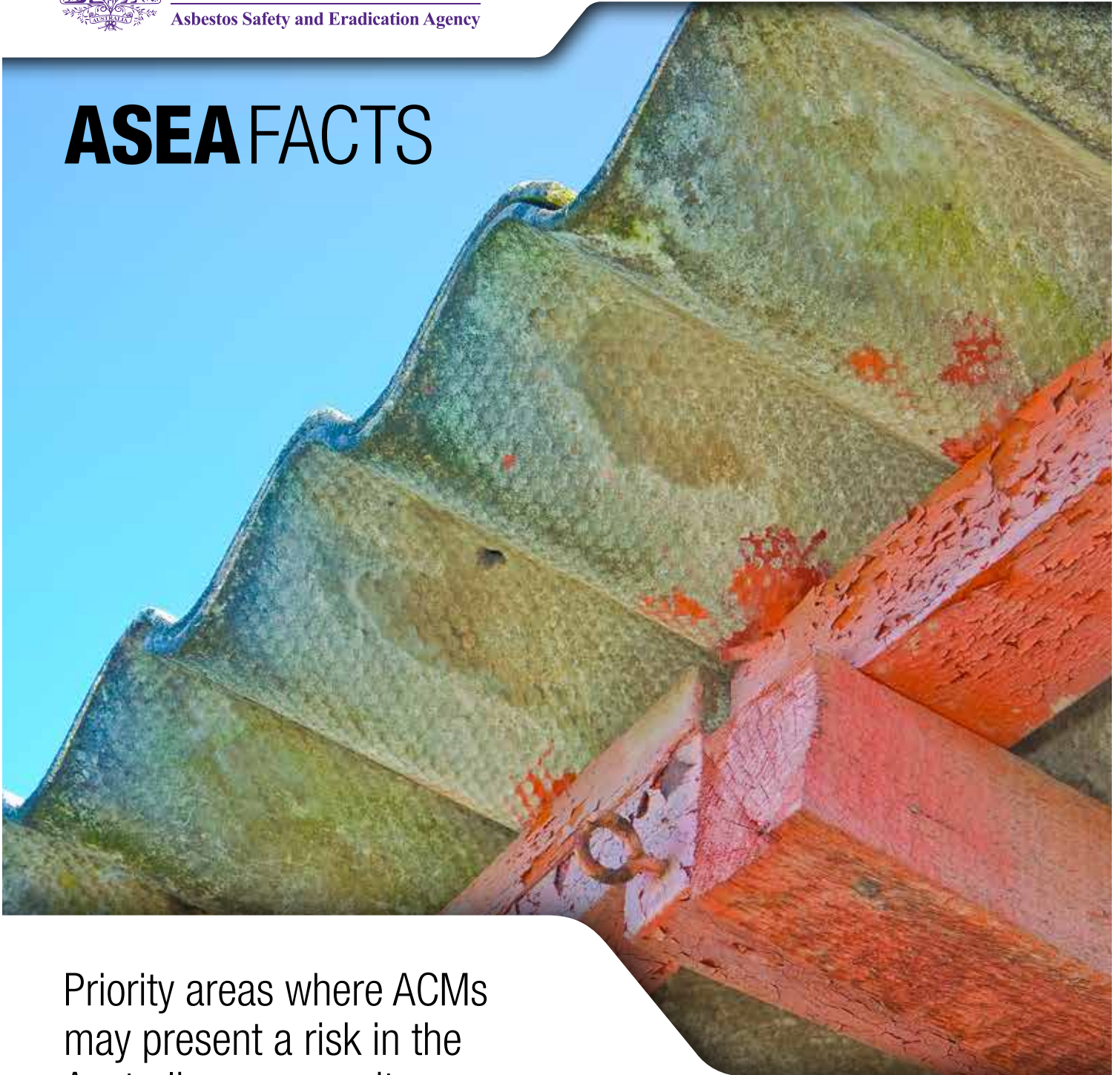




ASEA FACTS



Priority areas where ACMs
may present a risk in the
Australian community



> INTRODUCTION

This fact sheet identifies the priority areas where asbestos-containing materials (ACMs) may pose a risk in the Australian community, based on feedback from stakeholder research and consultations. A precautionary approach must be taken to limit potential exposure to airborne asbestos fibres in order to prevent further diagnoses of asbestos-related diseases.



Aim

This fact sheet identifies priority areas of risks posed by ageing ACMs based on evidence and frontline experience. Its aim is to influence prioritisation and removal action.

Background

Asbestos was used extensively in Australia until the mid-1980s and domestic bans were in place in all states and territories by 1990. Over 3000 products used in residential, commercial and industrial settings are known to have contained asbestos.

Australia now has a legacy of ageing ACMs and the degradation of asbestos creates exposure risks. This is why it is important to identify areas where asbestos is likely to be in poor condition or at risk of fibre release as priority risk areas.

In 2015-16 the Asbestos Safety and Eradication Agency (the agency) commissioned Curtin University's School of Public Health to undertake an evidence review and survey to identify the current and future priority risks of asbestos exposure in the Australian community. The results of this review have been tested and validated by over 65 different representatives from state, territory and Australian government, employer and employee groups, as well as industry and research experts. A summary of these key priority risk areas identified are outlined in this fact sheet.

> PRIORITY RISK AREAS

There is a significant legacy of non-friable¹ asbestos-containing materials in the commercial, government and residential sectors across Australia. Priority should be given to asbestos most at risk of becoming friable² and releasing fibres due to age, condition and location.

These priority risk areas are summarised below:

1	Asbestos in the community	<ul style="list-style-type: none">> bushfire and natural disaster zones> asbestos roofing (all types), particularly in coastal areas, or locations subject to extreme weather conditions> illegally dumped or inappropriately disposed ACMs> residential:<ul style="list-style-type: none">> home renovators – do-it-yourself (DIY)> loose-fill asbestos insulation (i.e. Mr Fluffy)> remote Indigenous community buildings
2	Asbestos in commercial and government buildings	<ul style="list-style-type: none">> schools> hospitals> prisons> disused industrial premises> warehouses containing flammable materials
3	Asbestos contaminated land	<ul style="list-style-type: none">> development sites> naturally occurring asbestos
4	Imported goods that contain asbestos	<ul style="list-style-type: none">> imported products and building materials> friction products for automotive servicing (brake shoes, gaskets)

¹ Non-friable asbestos – a product that contains asbestos fibres that have been mixed with other materials.

² Friable – a material that contains asbestos that can be easily crumbled or reduced to powder.

> 1. ASBESTOS IN THE COMMUNITY

Approximately one third of all homes in Australia contain asbestos products. If the house was built prior to 1990 it is likely to have some asbestos-containing materials.

Asbestos building materials such as asbestos cement sheeting and corrugated roofing were the most common form of ACM used throughout Australia. Weathering is a significant concern because it can alter the structural and physical properties of the material.

According to European studies, there is evidence that approximately 0.01 – 0.02mm of asbestos sheet thickness is lost per year due to weathering³.

Degradation of buildings leads to repair works and general DIY works which are a pathway to asbestos exposure.

The airing of popular DIY shows has encouraged people to undertake DIY home renovations at an increasing rate. These activities increase the risk of exposure to people who are unaware of asbestos and its dangers.

Bushfire and natural disaster zones

When asbestos materials are exposed to fire, the heat may cause the material to explode resulting in the release of fibres; sudden loss of moisture leads to cracking and degradation. The effects of these events may cause the release of asbestos fibres in the ash from burning materials.

Destructive forces such as cyclones and damaging wind events have the potential to cause fibre release and exposure due to their ability to distribute degraded asbestos-containing (AC) sheeting over large areas.

³ Australian Safety and Compensation Council. (now known as Safework Australia) A literature review of Australian and overseas studies on the release of airborne asbestos fibres from building materials as a result of weathering and/or corrosion. Canberra, ACT: Commonwealth of Australia, 2008.

When asbestos material is scattered in large areas, clean-up and remediation becomes difficult. Asbestos cement debris blown on to roadways is prone to further degradation as it can be broken down by passing vehicle traffic, generating the risk of further fibre release.

Asbestos roofing (all types)

Asbestos roofing materials are subject to the effects of constant weathering and are particularly vulnerable in coastal areas and places that experience extreme weather conditions. Eroded material often washes into the adjacent environment scattering asbestos fibres which when dry, become highly friable causing a high exposure risk to the local community.

Areas located close to the coast or areas subject to extreme weather are often prone to high winds and other weathering processes, such as salt spray which can damage the structural integrity of asbestos cement causing it to break down quicker.

Storm surge and flooding events are also common in coastal areas and can spread material through the community.

Illegally dumped asbestos-containing materials

Illegally dumped ACMs are common in both urban and regional areas. The removal and disposal of ACMs is regulated because of the potential health impacts from not managing it safely. It is a problem for local government and private landowners who bear the clean-up costs, for individuals exposed to it who may incur risks to their health, and for government in terms of potential costs to the health system. It is likely that 6,300 tonnes of ACMs are illegally dumped in Australia every year. The primary motivations for dumping ACMs illegally appear to be disposal cost and difficulties in accessing legal disposal options.⁴

⁴ Asbestos Safety and Eradication Agency 'Illegal asbestos dumping, Review of issues and initiatives', prepared by ACIL Allen Consulting, March 2016.

Residential

Home renovators – DIY

Asbestos is commonly found along the eaves, in wet areas such as around sinks and in bathrooms, and in flooring material like vinyl floor tiles and sheeting. Residential structures may contain asbestos roofing and cladding which is more prone to weathering, and therefore fibre release, than internal areas of structures.

Loose-fill asbestos insulation (Mr Fluffy or similar)

Loose-fill asbestos insulation refers to material made from raw crushed asbestos, commonly known as Mr Fluffy which was widely used in the 1960s and 1970s affecting a large number of properties in the ACT and over 140 properties in NSW. Mr Fluffy is composed of pure friable asbestos which means it is easily crushed by hand and travels long distances in the air. This is a significant health risk to home owners and the surrounding community as there is an increased risk for fibres to enter the breathing zone. An extensive remediation and demolition program has been established by the **ACT Asbestos Response Taskforce** and NSW Fair Trading (**Loose fill asbestos insulation**) to address affected homes.

Remote Indigenous community buildings

Large amounts of in situ asbestos exist in remote Indigenous community buildings particularly in WA, NSW and NT. There are challenges in removal and proper disposal due to the lack of trained asbestos professionals in remote areas and suitable disposal facilities close to Indigenous communities. For further information refer to the report '**Remote Australian Communities: The Asbestos Legacy**'.⁵

Key issues identified in the report focused on management practices relating to asbestos awareness, identification and removal. Other issues outlined in the report relate to extreme weather conditions such as extreme heat, bushfires and flooding in some Indigenous communities (NT) that may cause asbestos to deteriorate at a faster rate than in other areas where weather conditions are less extreme. (See Bushfire and natural disaster zones on previous page).

⁵ Asbestos Safety and Eradication Agency 'Remote Australian communities: The asbestos legacy', prepared by Matrix Consulting, March 2013.



> 2. COMMERCIAL AND GOVERNMENT BUILDINGS

Commercial buildings

Workplace Health and Safety legislation in each state and territory sets out clear responsibilities for the management of asbestos in the workplace. This includes maintaining asbestos registers and preparing asbestos management plans.

Pre-1990s commercial buildings were often constructed using ACMs. Warehouses which housed flammable materials often contain a high proportion of ACMs as asbestos was widely used as an insulating material against fire and heat. It was a material commonly used in fire doors and also as an insulating barrier around chemical storage cabinets and electrical boxes.

Disused industrial premises may not have an active asbestos management plan and the premises may contain degraded asbestos cement products, pipe networks and air ducting systems which are likely to contain friable gaskets/seals and insulation.

Government buildings

Government buildings throughout Australia contain considerable amounts of asbestos. Government buildings constructed prior to 1990 are most at risk of containing asbestos, although some buildings constructed up to December 2003 may contain some asbestos in their plant and equipment. Most of the asbestos in these buildings is often hidden or inaccessible therefore difficult to identify and quantify. This supports the argument that public buildings commonly have ACMs which need to be managed to prevent the risks of asbestos exposure.

Some jurisdictions have a level of centralised information available which is used to identify key areas of potential exposure risk due to ageing. Areas of high human traffic such as underground tunnels used as staff thoroughfares with deteriorating asbestos lagging, have been found in facilities such as hospitals. Facilities of particular concern include:

- > schools
- > hospitals
- > prison buildings.

If asbestos in these buildings is not managed appropriately there is a potential risk of exposure to members of the public who frequent these facilities as well as to staff.



> 3. CONTAMINATED LAND

Land can become contaminated with asbestos through illegal burial, incorrect demolition or removal procedures, fire damage, storm damage and contamination from former asbestos waste sites.

Common causes of asbestos contaminated land are:

- incomplete removal of asbestos from demolition projects
- contamination generated from former waste and dumping sites
- industrial sites, including rail and shipping yards and power stations
- landscapes that were made from contaminated fill
- disused AC services such as pipes, conduits and trenches
- residential property, where asbestos containing materials have been used to clad homes and as roofing.

Future development sites

Development in Australia has occurred in many brownfield sites (previously developed land not currently in use) with a legacy of asbestos. Development and construction on these sites may create an exposure risk when contaminated soils and buried asbestos are disturbed.

Naturally occurring asbestos

Areas with naturally occurring asbestos outcrops can be hazardous if disturbed. Naturally occurring asbestos is often friable creating the risk of airborne fibres.

Asbestos mining legacy leads to the exposure of outcrops as well as a legacy of asbestos tailings. Naturally occurring asbestos may be a risk to farmers/ graziers, mining personnel and people living in the vicinity of old mine sites.

SafeWork NSW has mapped naturally occurring asbestos in NSW shown in a report first published in July 2015.⁶

Crushed asbestos within road base was common before asbestos was banned. Contaminated material from buried waste may be uncovered and disturbed during road works. Road works may also uncover areas of naturally occurring asbestos.

⁶ Safework NSW "Mapping of naturally occurring asbestos in NSW – Known and potential for occurrence" Published by Heads of Asbestos Coordination Authorities, July 2015.



> 4. IMPORTED GOODS THAT CONTAIN ASBESTOS

As a result of the validation process, stakeholders also identified imported products as a national priority risk area to be aware of. Despite prohibition and work of various authorities and industry, asbestos-containing materials have been identified in a range of imported products including:

- > vehicle parts such as gaskets and brake linings
- > consumer products and novelties (i.e. crayons)
- > building materials.

The agency supports the Heads of Workplace Safety Authorities (HWSA) Imported Materials With Asbestos Working Group which deals with incidences of asbestos-containing materials being imported into Australia in contravention of the *Customs (Prohibited Imports) Regulations 1956*.

