



**Australian Government**  
**Asbestos Management Review**

**ASBESTOS  
MANAGEMENT REVIEW**  
REPORT – JUNE 2012

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# Introduction

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Asbestos is a naturally occurring substance that has been mined and processed for thousands of years. It came into widespread industrial use in Australia during the second half of the 20th century, largely due its extraordinary tensile strength, low heat conduction and its chemical and termite resistance. Asbestos was widely used for insulation and as the key ingredient in products such as asbestos cement (AC or 'fibro') sheeting and roofing, water pipes, fire blankets, fillers and packing, as well as in items like motor vehicle clutches and brake linings, gaskets and pads.

Asbestos-related diseases (such as mesothelioma) can be contracted by breathing in tiny airborne particles when asbestos containing material is disturbed. Mesothelioma is fatal and incurable. The mortality rates associated with other asbestos-related diseases, such as lung cancer and asbestosis, are also very high.

The World Health Organization has stated that there is no minimum safe exposure level for any form of asbestos fibres.<sup>1</sup> The National Health and Medical Research Council likewise has noted that '*... asbestos is ... a highly toxic, insidious and environmentally persistent material that has killed thousands of Australians, and will kill thousands more this century.*'<sup>2</sup>

Australia was one of the highest users of asbestos in the world prior to the mid-1980s. Use of asbestos-containing materials (ACMs) was banned in this country from 31 December 2003. Not surprisingly, Australia has the highest reported per capita incidence of asbestos-related disease in the world. Due to extensive asbestos use throughout the nation, and incubation periods of up to 50 years or more between exposure and the manifestation of disease, the sad reality is that Australians will continue to contract and die from asbestos-related diseases for many years to come.

Of particular concern are recent studies that indicate the incidence of mesothelioma is increasing. Asbestos-related diseases have traditionally been linked to workers who have had direct contact with the material, either through mining or working with asbestos in manufacturing processes. A developing demographic whom asbestos-related diseases affect is appearing in the population, and includes 'do-it-yourself' (DIY) home renovators and their families.<sup>3</sup> In the absence of timely and decisive intervention, many more people for generations to come will continue to contract these avoidable incurable fatal illnesses.

With this background, the Australian Government established the Asbestos Management Review '*... to make recommendations for the development of a national strategic plan to improve asbestos awareness and management.*'<sup>4</sup> Following many months of consultations, and detailed analysis of the submissions received, this report documents the observations, conclusions and recommendations of the review.

By preventing exposure to airborne asbestos fibres, we could substantially reduce, if not ultimately eliminate, the tragedy of asbestos-related disease and death. We owe it to those future generations to now finally come to grips with the blight of asbestos in Australia. The Australian Government has an opportunity to demonstrate national and international leadership on the issue. We could become the first nation to commit to the objective of the ultimate elimination of asbestos-related disease.

To experience the quiet dignity and hope of those suffering from asbestos-related diseases, to hear the voices and bear witness to the ongoing grief and devastation of those who have lost their loved ones, is to have reinforced the critical importance of the nation getting right our response to this most difficult and complex challenge.

**GEOFF FARY**

Chairman

June 2012

# ASBESTOS MANAGEMENT REVIEW – TERMS OF REFERENCE

Asbestos management in Australia is regulated in a range of different ways by various government agencies at the local, state, territory and Commonwealth level. These management approaches cover asbestos management in workplace, environmental and public health contexts. The Australian Government is working together with states and territories to develop harmonised workplace health and safety laws that include regulations and codes of practice relating to asbestos management and removal.

The Australian Government has tasked Mr Geoff Fary to make recommendations for the development of a national strategic plan to improve asbestos awareness and management. Mr Fary will report on the following matters related to asbestos awareness and management:

- the enhancement of education and public awareness;
- the efficacy of asbestos import and export controls;
- asbestos removal, handling, storage and disposal;
- mandatory reporting and disclosure where asbestos is detected; and
- mandatory collection of data and reporting on associated health issues.

In undertaking the review, Mr Fary should consider:

- current policy and legislation relating to ACMs in occupational, environmental and public health contexts;
- local and international asbestos management research and methods of best practice;
- the levels and condition of ACMs in public and private buildings, facilities or equipment to inform a prioritised approach to the removal process;
- anticipated trends in the incidence of asbestos-related diseases over the coming decade; and
- any other relevant associated matters that may be requested by the government.

The review will complement existing work already underway at the Commonwealth and state and territory levels such as the Tasmanian Government's response to the 2010 report: *Improving Asbestos Management in Tasmania*.

The government has asked Mr Fary to provide his report by 30 June 2012.

## SCOPE OF THE ASBESTOS MANAGEMENT REVIEW

The primary aim of the Asbestos Management Review was to make recommendations for the development of a national strategic plan to improve asbestos awareness and management within Australia.

The review's terms of reference had a broad scope and encompassed asbestos management issues beyond work health and safety (WHS), including environmental and public health issues. The review also looked at relevant local and international initiatives that could be considered best practice.

The terms of reference acknowledged existing work already underway at both the Commonwealth and state or territory levels, and asked the review to complement this work. This included the work to harmonise workplace health and safety laws.

In accordance with its terms of reference, this report highlights the major asbestos issues for the Australian community and makes a series of recommendations to address these issues.

## THE REVIEW PROCESS

The Asbestos Management Review was conducted in three phases:

- **Planning** – The first phase of the review consisted of research, data gathering and a consultative process with key stakeholders, including representatives from government, unions and business, research and support organisations and asbestos disease sufferers, to identify major issues and to refine the scope of the review.
- **Development** – The second phase of the review involved the preparation of an issues paper that posed a series of questions for response by stakeholders and interested persons. The *Issues Paper* was released for

public comment on 14 July 2011. Written submissions were invited for an eight-week period, which closed on 9 September 2011. The review received 57 written submissions (See Appendix A – List of Review Submissions) from government representatives, unions, community organisations, business enterprises, industry representatives, academics and individuals. A small number of late submissions were also received.

- **Refinement and finalisation** – The third phase of the review concentrated on drafting and refining this report and recommendations.

Meetings were held with the Advisory Group during each stage of the review to seek their advice and assistance. The individual input of members was also sought and obtained at various other times throughout the course of the review. Mr Fary also met with some 80 stakeholder organisations, who assisted with the identification of issues and provided valuable information on matters falling within the scope of the review (See Appendix B – List of Review Consultations).

## ACKNOWLEDGEMENTS

Throughout the review, Mr Fary has been assisted by an expert Advisory Group that has provided advice in order to assist with the formulation of the recommendations and the development of this report. The members of the Advisory Group were:

- Mr Jim Barrett – Executive Director of the Australian Constructors Association
- Mr Paul Bastian – National President of the Australian Manufacturing Workers Union
- Mr Lindsay Fraser AM – Assistant Secretary of the Construction, Forestry, Mining and Energy Union
- Dr Robert Guthrie – Adjunct Professor of Workers' Compensation and Workplace Laws at Curtin University
- Mr Tim Hammond – Barrister at Francis Burt Chambers, Perth
- Ms Sylvia Kidziak AM – Managing Director of SL Engineering
- Professor Bruce Robinson – Director of the National Centre for Asbestos Related Diseases
- Ms Tanya Segelov – Partner, Turner Freeman Lawyers
- Professor Nico van Zandwijk – Director of the Asbestos Diseases Research Institute.

Further details on individual Advisory Group members can be found at Appendix C – Chairman and Advisory Group biographies.

Mr Fary acknowledges the support and guidance from members of the Advisory Group, along with the assistance of all those who were consulted or made submissions in the formulation of this report. While all contributions and input were gratefully received and of considerable assistance, Mr Fary accepts sole responsibility for the conclusions and recommendations contained herein, and does not purport to attribute any or all of them to members of the Advisory Group, the organisations they represent, or any other contributors.

Mr Fary was also assisted by a secretariat located within the Department of Education, Employment and Workplace Relations. Mr Fary places on record his appreciation for their sterling contributions to the work of the review. Their work was invaluable and assisted the conduct of the process immeasurably. Comcare also assisted by contributing some personnel towards staffing of the review secretariat, and this support is gratefully acknowledged.

# Executive Summary

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Asbestos was widely utilised throughout Australia for much of the 20th century. The nation has one of the highest levels of asbestos-related disease and death in the world, with the incidence continuing to rise and involve broader segments of the population.

Management of asbestos is regulated in different ways and with varying levels of success across all levels of government. The Australian Government appointed Mr Geoff Fary as the Chairman of the Asbestos Management Review (the review), and asked him to make recommendations for the development of a national strategic plan to improve asbestos management and awareness.

The terms of reference for the review instructed Mr Fary to report on issues such as education and public awareness, removal, transport and disposal of asbestos, mandatory collection of data and reporting on associated health issues. The terms of reference were broad in scope and went beyond existing work health and safety arrangements to encompass environmental and public health issues.

The chairman was supported by the expert Advisory Group that met six times during the course of the review. Consultations were conducted throughout to inform the scope of the review, seek responses to an issues paper and assist with the final report and recommendations.

The review's report is presented in 12 chapters covering issues such as the need for a national strategic plan, the collection and accessibility of asbestos-related data and the creation of a new national body to oversee all aspects of the recommendations included in the report. The review makes 12 substantive recommendations.

In Chapter 1, the review examines the context of a national strategic plan. The historical use of asbestos both in Australia and globally and the continuing rise in asbestos-related diseases in the Australian community make a compelling case for a national strategic plan.

Having recommended the plan, in Chapter 2 the aim and priority areas for that plan are addressed. The aim of the proposed National Strategic Plan accords with the view of a number of stakeholders that it should aspire for the ultimate elimination of asbestos-related disease in Australia. The chapter also nominates a number of priority areas.

Chapter 3 discusses the importance of identifying the location of ACMs. It notes that the identification of the location and condition of asbestos in the built environment in Australia will be critical to the success of any management program. The review proposes specific activities for identifying ACMs in government, commercial and residential structures and properties.

Chapter 4 looks at the development of systems and processes to enable the safe removal of ACMs from government and commercial structures by a target date of 2030, and it examines the feasibility of extending that approach to other structures. The chapter also discusses the importance of consistent policies and procedures covering the safe handling, removal, storage and disposal of asbestos.

Chapter 5 highlights the need for appropriate infrastructure to support the safe handling, removal, storage and transport of asbestos, with the aim of reducing illegal dumping and inappropriate disposal. The review concludes that an evaluation of this infrastructure should be conducted, and measures introduced to address any issues identified.

The review considered evidence suggesting there is a need for improved public awareness and attitudes about the dangers of asbestos. Chapter 6 proposes measures for comprehensive persistent, targeted and evidence-based campaigns.

Chapter 7 looks at ways that asbestos education and training could be improved for those who work with asbestos. This chapter discusses the needs of workers, such as asbestos removalists and tradespeople who may encounter and handle ACMs at work.

Chapter 8 discusses measures to improve asbestos management by sharing information through a central and accessible database of the known locations of asbestos in Australia. This chapter also highlights the need to ensure that data about the incidence of asbestos-related disease in Australia is adequately captured and measured.

Chapter 9 proposes the creation of a new national body to administer the National Strategic Plan and activities flowing from it, including implementation and review. It recommends that the new agency involve the participation of all Australian governments and other key stakeholders.

The review was presented with evidence that the incidence of asbestos-related disease is increasing in Australia. Chapter 10 discusses the need for medical research into these diseases to be supported by an increased and coordinated funding effort.

Australia is one of a number of countries that have implemented a comprehensive ban on asbestos and asbestos-containing products. Chapter 11 briefly examines regulation of asbestos in the international community, including the influence of organisations such as the International Labour Organization and the World Health Organization. While the dangers of asbestos have been widely accepted for years, there remain some countries that continue to mine and use asbestos, and the asbestos trade in parts of the developing world continues to expand.

The review was informed of a situation where land that was compulsorily acquired by a government organisation in the 1940s was subsequently returned to the original owner with structures that contained asbestos. Chapter 12 discusses this type of situation and suggests a limited and specific range of circumstances where responsibility for remediating property may rest with government.

# RECOMMENDATIONS

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## **Context for a National Strategic Plan (Chapter 1)**

1. The review recommends that the Australian Government lead and advocate for all jurisdictions to agree to the development of a National Strategic Plan for Asbestos Awareness and Management in Australia (the National Strategic Plan), based as a minimum on the principles and recommendations outlined in this report.

## **Aim and Priority Areas (Chapter 2)**

2. The review recommends that:
  - (a) The aim of the National Strategic Plan be: *'To prevent exposure to asbestos fibres in order to eliminate asbestos-related disease in Australia'*.
  - (b) The priority areas of the National Strategic Plan be to improve asbestos:
    - Identification;
    - Management;
    - Transport, storage and disposal;
    - Awareness;
    - Education; and
    - Information sharing.

## **Improving Asbestos Identification (Chapter 3)**

3. The review recommends that the National Strategic Plan provide for:
  - (a) The establishment of centrally operated processes and systems to identify the location, and assess the condition, of asbestos-containing materials (ACMs) in government and commercial property constructed prior to 31 December 2003, and at disposal sites.
  - (b) A requirement that an asbestos content report (ACR) be undertaken by a competent assessor to determine and disclose the existence of ACMs in residential properties constructed prior to 1987 at the point of sale or lease, and prior to renovation, together with a property labelling system to alert workers and potential purchasers and tenants to the presence of asbestos.
  - (c) The asbestos identification measures above should be administered by the relevant local council (or its equivalent), with each municipality being responsible for maintaining a database for their area or locality.

## **Improving Asbestos Management (Chapter 4)**

4. The review recommends that the National Strategic Plan provide for:
  - (a) The development of systems and processes which would result in the staged removal of all ACMs from government and commercial buildings and structures by a target date of 2030, with:
    - (i) Limited ability for a renewable certificate of exemption where the ACM is not deemed to be a health hazard and where its removal by 2030 is regarded to be impractical.
  - (b) An investigation to inform the development and implementation of a systematic and staged prioritised asbestos removal program that will:
    - (i) Develop systems and guidelines for application by government and commercial building owners in order to assist with removal of ACM from their properties by 2030; and
    - (ii) Examine the feasibility of a future prioritised removal program for residential properties.
  - (c) The development of nationally consistent asbestos management laws, policies, licensing regimes and procedures, with:
    - (i) Standards that mandate that only licensed operators undertake handling, removal, storage, transport and disposal of asbestos – such standards to allow an exemption for specified occupations to undertake removal of ACM where these activities are incidental to their primary work and are undertaken in accordance with the relevant safety requirements; and

- (ii) The provision of appropriate incentives to property owners to enable and encourage safe asbestos removal and disposal in compliance with the new requirements.

#### ***Improving Transport, Storage and Disposal (Chapter 5)***

- 5. The review recommends that the National Strategic Plan provide for development of guidelines and principles to improve transport, storage and disposal of asbestos, including:
  - (a) Reviewing the adequacy of existing infrastructure and systems to cater for existing and future demand;
  - (b) Initiatives to encourage safe storage and disposal at licensed facilities; and
  - (c) Support and incentives for reporting of illegal disposal sites.

#### ***Improving Asbestos Awareness (Chapter 6)***

- 6. The review recommends that the National Strategic Plan provide for a program to improve asbestos awareness, which will include:
  - (a) A comprehensive study into community awareness of, and attitudes towards, the hazards of asbestos;
  - (b) The development and implementation of multi-tiered, targeted and sustained asbestos awareness campaigns;
  - (c) Systematic, impartial and timely evaluation of awareness campaigns;
  - (d) The development of specialised asbestos awareness materials for use in situations such as natural disaster recovery operations; and
  - (e) The consolidation of and enhancement of the provision of information to the public in relation to asbestos and safe asbestos removal.

#### ***Improving Asbestos Education (Chapter 7)***

- 7. The review recommends that the National Strategic Plan provide for a program of education campaigns to improve knowledge for those working with asbestos, which will include:
  - (a) Identification of education needs for licensed operators as well as high-risk and specified exemption occupation workers referred to in recommendation 4(c);
  - (b) Encouragement and support for the training of adequate numbers of qualified assessors and removalists;
  - (c) Mandatory asbestos education for new workers appropriate to their trade, including the development of industry-specific asbestos education modules for inclusion in trade training packages;
  - (d) Practical asbestos safety training for existing workers likely to come into contact with ACMs in the course of their ordinary duties;
  - (e) Education and information for those with responsibility to advise regarding the new requirements; and
  - (f) Systematic, impartial and timely evaluation of the education campaigns.

#### ***Improving Data and Information Sharing (Chapter 8)***

- 8. The review recommends that the National Strategic Plan provide for:
  - (a) Better utilisation of knowledge regarding the locations of asbestos in Australia to obtain an accurate indication of ACM density via a national database and thus assist with civic planning and the development of asbestos abatement policies and management of responses to natural or other disasters.
  - (b) Improved capture and use of epidemiological data by:
    - (i) Supporting the Australian Mesothelioma Registry to continue activities beyond the current contractual period; and
    - (ii) Creating a more comprehensive registry by investigation of the opportunities to extend the Australian Mesothelioma Registry to include asbestos exposure information relating to lung cancer patients and other asbestos-related diseases.

- (c) Improving opportunities for sharing information and data relating to asbestos which would include:
  - (i) Sharing of all relevant information and research including health-related data, between jurisdictions, social partners and all appropriate stakeholders; and
  - (ii) Monitoring of developments in asbestos research and management, locally, nationally, and internationally, to identify innovations that could be considered for application under the National Strategic Plan.

#### ***Administration of the National Strategic Plan (Chapter 9)***

- 9. The review recommends that the Australian Government support and legislate for the establishment of a new national agency to have responsibility for the implementation, review, refinement and further development of the plan in accordance with the principles and recommendations outlined in this report. The Australian Asbestos Awareness and Management Agency (AAAMA) should:
  - (a) Have the expertise and authority to coordinate activities across all tiers of government, affecting multiple portfolios such as health, safety, environment, and education;
  - (b) Engage with the asbestos regulatory coordination frameworks established within state and territory jurisdictions;
  - (c) Be overseen by a governing board with high-level tripartite membership, including an independent chairperson, a medical expert, representation of all Australian governments including local government and national peak bodies;
  - (d) Be supported by input and technical expertise from an appointed advisory committee consisting of appropriate community representatives and professionals; and
  - (e) Have appropriate staffing and resources to implement, monitor and review its activities under the direction of a chief executive officer.

#### ***Medical Research (Chapter 10)***

- 10. The Review recommends that there be sufficient funding for a coordinated national research effort into ways of preventing or curing asbestos-related disease, particularly mesothelioma.

#### ***International Obligations (Chapter 11)***

- 11. The review recommends that the Australian Government continue to play a leadership role in a global campaign aimed at securing a total worldwide ban in the production and trade of asbestos and asbestos-containing products so as to contribute towards the worldwide elimination of asbestos-related diseases, and to more effectively control the entry of ACMs into this country.

#### ***Former Compulsorily Acquired Property (Chapter 12)***

- 12. The review recommends that where ACMs were introduced onto previously privately owned land during a period of compulsory government acquisition, and such land has reverted to its original ownership and remains so, the relevant government agency should remediate the property.

# Chapter 1 – Context for a National Strategic Plan

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## WHAT IS ASBESTOS?

The term asbestos refers to six types of naturally occurring mineral fibres belonging to two groups. These are the:

- Serpentine Group – comprised of only chrysotile ('white' asbestos); and
- Amphibole Group – comprised of anthophyllite, amosite ('brown' or 'grey' asbestos), crocidolite ('blue' asbestos), tremolite and actinolite.<sup>5</sup>

Although utilised since ancient times, increased asbestos use occurred among manufacturers and builders in the late 19th century because of its sound absorption; high tensile strength; resistance to fire, heat, electrical current and chemical damage; and its affordability. Because of these characteristics, the use of asbestos in the building construction and manufacturing industries became particularly popular after the end of World War II.

State, territory and federal work health and safety laws provide that ACMs are usually categorised into two types:

- Bonded asbestos, which is usually asbestos fibres mixed with a bonding compound such as cement; and
- Friable asbestos, which when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.<sup>6</sup>

Friable asbestos is considered to pose the greater health risk because loose fibres from it are more likely to become airborne when disturbed. These fibres can be 50 to 200 times thinner than a human hair, can float in the air for a long time, and are generally invisible to the naked eye and can consequently be breathed into the lungs.<sup>7</sup> Asbestos is a carcinogen, and exposure to asbestos fibres is associated with increased incidences of a range of diseases, including asbestosis, lung cancer and mesothelioma, which prior to the increased usage of asbestos was an unknown form of cancer.

## ASBESTOS USAGE IN AUSTRALIA

Asbestos, predominantly chrysotile (white) and crocidolite (blue), was mined in Australia until late 1984, when the practice was banned. Up until this time, approximately 750,000 tonnes of asbestos was mined in Australia.<sup>8</sup> Approximately 150,000 tonnes of crocidolite asbestos was mined at Wittenoom in Western Australia between 1943 and 1966,<sup>9</sup> and at Woodsreef in New South Wales approximately 500,000 tonnes of chrysotile asbestos was produced between 1970 and 1983.<sup>10</sup>

Additionally, records show that from the period just prior to 1930 until 1983 approximately 1.5 million tonnes of all forms of asbestos was imported into Australia.<sup>11</sup>

Asbestos was widely used in the building construction and manufacturing industries in a significant number and variety of products. It was used extensively in a wide variety of applications during the 1950s to the 1980s, ranging from basic building materials such as asbestos cement (AC) sheeting (fibro) and thermal insulation, to gaskets and brake pads for vehicles and machinery.

Examples of some products that may contain asbestos include:

- Fire blankets and curtains, and insulation in heaters and stoves;
- Shingles or tiles (external or ceiling), corrugated asbestos cement roofing sheets and ceiling insulation products;
- Pipes, tubes or fittings (e.g. flue pipes) and lagging or jointing materials (including on pipes);
- Asbestos tape or rope, electrical cloths and tapes, mastics, sealants, putties, adhesives, and heat-resistant sealing and caulking compounds;
- Textured paints/coatings and asbestos bitumen damp-proofing products;
- Compressed, rubberised or polymerised asbestos fibre gaskets and seals;
- Floor coverings (e.g. vinyl asbestos tiles) and the backings of linoleum floor coverings;
- Compressed asbestos cement sheeting;
- Brake pads and clutch facings; and

- Electrical panel partitioning.<sup>12</sup>

The use of asbestos in building and construction materials declined in the 1980s and had virtually ceased by the early 1990s. However, the importation of raw chrysotile asbestos and chrysotile asbestos products continued. Raw chrysotile was predominantly used in making friction products (e.g. brake pads and linings) and for the manufacture of gaskets. The majority of imported chrysotile-containing products were brake pads and linings and clutch facings.

## PHASED BAN OF ASBESTOS IN AUSTRALIA

Following increasing public awareness of the carcinogenic nature of inhaled asbestos fibres, Australian jurisdictions introduced bans on asbestos use over a period of time, initially in building and construction materials.

Most jurisdictions introduced a ban on the mining of raw asbestos and the manufacture, import and installation of products containing crocidolite (blue) and amosite (brown or grey) asbestos from 31 December 1984. In New South Wales, for example, asbestos was banned from being used in fibro or sheet asbestos cement products made after 1982, corrugated products (mainly roofing materials) in 1984 and all other products by 1986. In Western Australia, the use of crocidolite and amosite asbestos was heavily restricted by their occupational safety and health regulations. In 2001, the National Occupational Health and Safety Commission declared a prohibition on all uses of chrysotile asbestos to take effect from 31 December 2003.<sup>13</sup> The ban also extends to the import and export of asbestos products. The Customs (Prohibited Exports) Regulations 1958 and Customs (Prohibited Imports) Regulations 1956 specify that products containing asbestos may not be imported into, or exported out of, Australia.

There were a few permitted exemptions:

- Bona fide research (including analysis and display);
- Handling and storage prior to removal or disposal;
- Disturbance of naturally occurring asbestos that is incidental to operations not related to the extraction or processing of asbestos; and
- Use of asbestos-containing products that are in situ where that use does not disturb the asbestos.

As the prohibition does not extend to ACMs in place (in situ) at the time the prohibition took effect, many products containing asbestos are still present in the community. It is commonly accepted that in situ non-friable asbestos does not pose a significant risk to safety and health until the asbestos part or component is disturbed. Accordingly, the Customs (Prohibited Exports) Regulations 1958 and Customs (Prohibited Imports) Regulations 1956 provide that when an asbestos part or component is disturbed it must be replaced with non-asbestos alternatives.

The use of asbestos has been banned for health and safety reasons in many other developed countries or regions, including Hong Kong, Japan and New Zealand. A number of state and federal laws in the USA have also placed restrictions on the use of asbestos.<sup>14</sup> In the European Union, asbestos is banned in all member countries except Montenegro and Iceland.

Notwithstanding the national ban on the use of asbestos in Australia, the continued existence of the substance in existing buildings and structures means that the health effects of asbestos exposure will continue to be felt for years to come due to continued exposures and the long latency periods between exposure and the onset of asbestos-related diseases.

## LOCATION AND CONDITION OF ASBESTOS IN AUSTRALIA

The review's terms of reference required that it consider '*... the levels and condition of asbestos-containing materials in public and private buildings, facilities or equipment to inform a prioritised approach to the removal process*'. The assistance of appropriately qualified and experienced research organisations was sought to estimate the levels and common locations of ACMs in the Australian built environment. All the organisations contacted advised that they did not have the capacity to conduct this work within the timeframe of the review. It would therefore seem that, at the time of the review, accurate and reliable information on the levels and condition of ACMs in Australia was not readily available. This highlights a major knowledge gap and will need to be addressed.

A small number of studies have either sought to estimate or have collected data that may indicate the level and condition of ACMs in residential properties, with varying levels of success. For example, the Australian Bureau of

Statistics (ABS) periodically conducts the Australian Housing Survey, which may provide some insight into the level of ACMs in Australian residential properties. The survey seeks information such as the materials used in construction, and their relative condition.<sup>15</sup>

The peak years for use of ACMs in the construction of domestic dwellings in Australia were between 1945 and 1987. Based on the 1994 survey data, the ABS estimated that approximately 5.5 million occupied dwellings in Australia were built prior to 1987. The survey also showed that, of these, over 820,000 dwellings had ACMs/fibro as a main construction material in one or more of the wet areas, roof and outside walls. This represents approximately 15 per cent of dwellings constructed prior to 1987. This result, however, may be understated given the survey relied on the occupant having a general awareness of ACMs.

In 2005, the ACT Asbestos Management Review Taskforce released a report into asbestos management in residential and commercial properties, and the building trades and asbestos industry in the Australian Capital Territory (ACT). The report estimated that three in every four residential properties would have ACMs.<sup>16</sup> The report also presented the results of a survey of 500 residential properties and noted that ACMs were generally in 'good condition'. However, education measures were needed to ensure home owners did not try to remove ACMs themselves, regardless of the condition.

## ASBESTOS-RELATED DISEASES

In the early 1900s, researchers began to notice a large number of early-age deaths and lung problems in asbestos mining communities. The first modern documented death resulting from asbestos was recorded in the United Kingdom in 1906.\* The first diagnosis of asbestosis was also made in the United Kingdom in 1924.

Inhaled asbestos fibres are capable of inducing chronic inflammation of the lung tissue around them, and may cause a number of diseases:

- **Pleural disease** – Asbestos may cause inflammation of the membranes (pleura) that line the lungs and chest cavities. The pleura may stiffen and thicken widely (diffuse thickening) or in patches (plaques), and the space between the pleura may fill with fluid. These conditions can restrict breathing.
- **Asbestosis** – This is scarring of the lungs. The airways and lung tissue become so inflamed and scarred that it becomes hard for oxygen to pass from the lungs into the blood. The lungs become stiff and inelastic, making breathing progressively more difficult. Symptoms include tightness in the chest, dry cough, and in the later stages, a bluish tinge to the skin caused by lack of oxygen. Death from asbestosis is usually associated with heart failure. The disease is usually seen in former asbestos miners, asbestos manufacturing workers and insulation workers, and may take a decade or more to develop.
- **Lung cancer** – Exposure to asbestos fibres greatly increases a person's risk of developing lung cancer, particularly if they are also a smoker.
- **Mesothelioma** – This disease is incurable and invariably fatal. It is a cancer originating in the mesothelium, and found in the chest and abdominal cavities. It typically grows quickly and spreads widely before symptoms appear, making its early diagnosis and effective treatment very difficult.<sup>17</sup>

The average life expectancy of a person diagnosed with mesothelioma is between 10 and 12 months. While only a small percentage of people exposed to asbestos will develop mesothelioma, a small exposure can be enough to trigger the cancer. Mesothelioma has a latency period of between 20 to 50 or more years after exposure before symptoms appear.

The International Agency for Research on Cancer (IARC) is an agency within the World Health Organization that coordinates and conducts research on the causes of human cancer, and the mechanisms of carcinogenesis, and develops scientific strategies for cancer prevention and control. The IARC notes that asbestos may also be a contributing factor in other cancers, such as cancer of the pharynx, stomach, colon, rectum and larynx.

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\* On 21 December 1906, Mr Montague Murray MD. presented evidence before the Departmental Committee on Compensation for Industrial Diseases in the United Kingdom, that a patient had died from fibrosis in the lungs produced by asbestos dust. The Committee released its report in 1907.

Over time it has become accepted that even limited and short-term exposure to asbestos fibres may be sufficient to cause an individual to contract an asbestos-related disease. The risk of developing an asbestos-related disease increases where an individual is exposed to larger numbers of asbestos fibres over longer periods. Exposure to asbestos fibres most often occurs when existing ACMs are disturbed or deteriorate. Disturbance may arise when materials are cut, or where there is abrasion or breakage of products or where maintenance or renovation-type work is undertaken (such as drilling and surface preparation). Because asbestos fibres are minute, those affected by the disturbance of ACMs will include those workers directly involved in the contact with the ACMs and others in the vicinity.<sup>18</sup>

Historically, people working with ACMs have been at higher risk due to their potentially longer and more frequent exposure. To manage that risk, comprehensive laws have been developed to govern such work. As home owners or tenants sometimes carry out similar tasks with ACMs (e.g. DIY home renovations or maintenance), they are also at risk, although the same risk mitigation measures are not generally mandated. Consequently the potential for the contraction of asbestos-related disease extends beyond the workplace and is a public health issue.

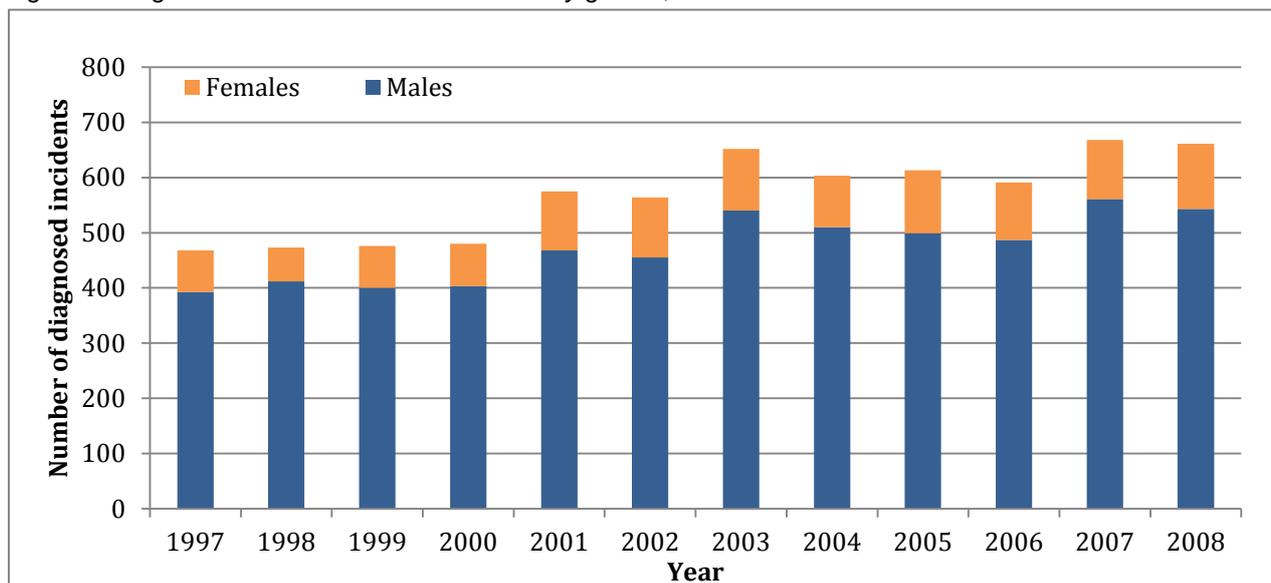
## DIAGNOSIS RATES IN AUSTRALIA

Australia has one of the highest incidences of mesothelioma in the world. A total of 8,191 cases of mesothelioma had been reported in Australia during the period 1945 to 30 June 2004.

Data on the number of new cases of mesothelioma are collected nationally by the Australian Institute of Health and Welfare (AIHW).<sup>19</sup> This information is sourced from the state and territory cancer registries via the National Cancer Statistics Clearing House. Information on deaths from mesothelioma is also collected by the AIHW as part of the National Mortality Database. These statistics show that there were 661 new cases of mesothelioma diagnosed in Australia in 2008.<sup>20</sup>

Figure 1 shows the distribution by gender and year of new cases of mesothelioma diagnosed between 1997 and 2008. In 2008, there were 543 men and 118 women diagnosed with mesothelioma.

Figure 1: Diagnosed incidents of mesothelioma: by gender, 1997–2008



The AIHW's data also shows that men and women diagnosed with mesothelioma were both predominantly of older age: of those diagnosed in 2008, 427 men and 87 women were aged 65 years or more, which is consistent with the long latency period referred to above.<sup>21</sup>

Some care needs to be exercised in the interpretation of this data because in some previous years mesothelioma diagnosis rates were retrospectively adjusted as additional data came to hand. Hence the figure for 2008 is similarly likely to be revised.

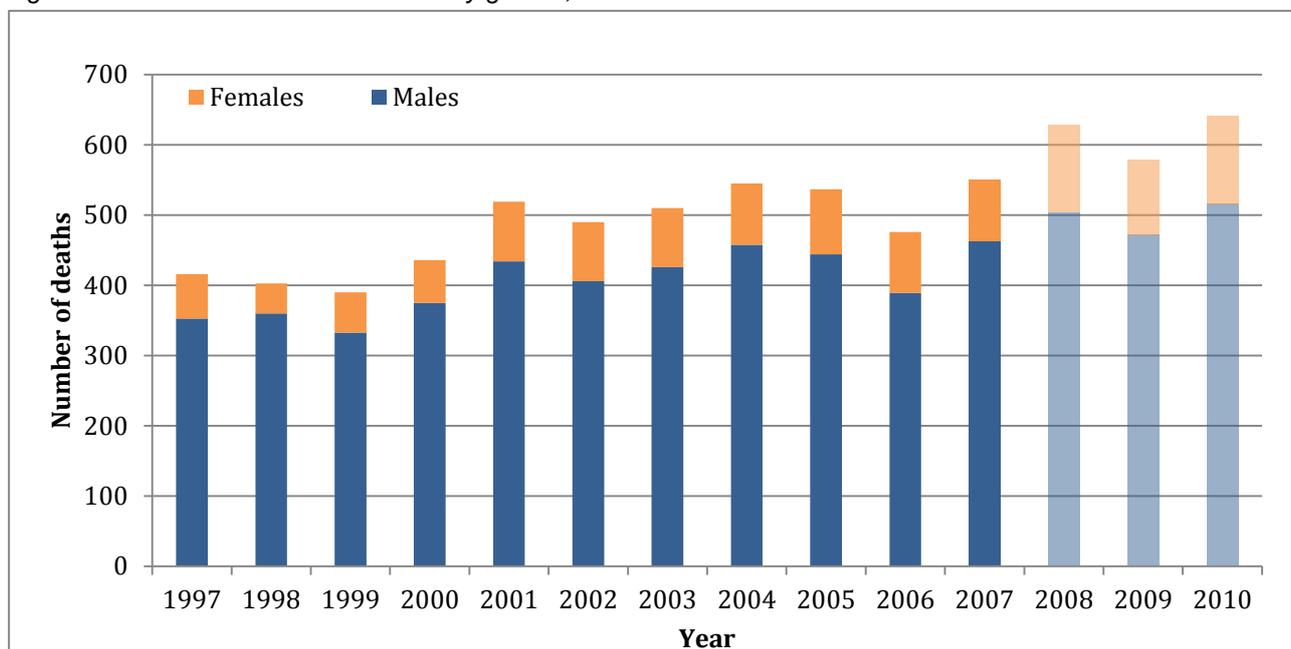
Most state and territory jurisdictions have improved the regulatory regime for asbestos removal, by placing limits on the type and amount of asbestos that may be removed by licensed persons. These regulations generally address employment-related issues. However, there is growing concern that there is an increased incidence of

mesothelioma due to domestic exposures. A study of Western Australian residents noted that approximately 1,631 people were diagnosed with mesothelioma between 1960 and 2008. From 1981 to 2008, there were 87 cases of malignant mesothelioma attributed to asbestos exposure that occurred through home maintenance and/or renovation. In the last four years of this study (2005–2008), home renovators accounted for 8.4 per cent of all men and 35.7 per cent of all women diagnosed with malignant mesothelioma.<sup>22</sup> This research suggests that mesothelioma rates will continue to increase with increasing fatalities attributed to non-employment-related asbestos exposures.

## MORTALITY RATES IN AUSTRALIA

Safe Work Australia has published data relating to deaths due to mesothelioma from 1997 to 2007.<sup>23</sup> This data reports the fatality as at the date of registration rather than the date of death. Over this time period, the number of deaths per year has ranged from 390 in 1999 to 551 in 2007. The data from 2008 to 2010 that is contained in Figure 2 is taken from Australian Bureau of Statistics information and based on deaths as at the year of registration.<sup>24</sup> While year of death and registration usually coincide, some deaths occurring at the end of a calendar year may be held over until the following year, as will deaths with causes requiring further examination by a coroner.

Figure 2: Deaths due to mesothelioma: by gender, 1997–2010



Deaths among young adults were rare: in 2007 the youngest deaths were in the 25–29 year age group. Deaths due to mesothelioma in 2007 tended to be clustered towards the older age groups: 75 per cent of the deceased males recorded were aged over 65 years. The comparable figure for females was 70 per cent.<sup>25</sup>

Mesothelioma accounted for 0.6 per cent of all cancers diagnosed in Australia in 2007 (the total diagnosed cases of cancer was 108,368). However, the mortality rate for mesothelioma patients is one of the largest and the life expectancy quite short.

## ANTICIPATED TRENDS IN AUSTRALIA

Due to the long latency between asbestos exposure and symptoms of the disease appearing, it is expected that the numbers of cases of diagnosis and death from mesothelioma will continue to rise. There have been different studies conducted which attempt to predict when a peak might occur, using a variety of existing data and known population trends into the future. These studies used different methodologies, which resulted in varying predicted times for the peak occurrence of mesothelioma.

A study conducted by Clements et al. predicted that the number of cases would peak in 2017, totalling 21,700 cases between 2006 and 2060.<sup>26</sup> This study, which was conducted on males only, utilised a methodology taking into consideration the epidemiology of mesothelioma, population trends and known incidence rates.

KPMG utilised a similar methodology but predicted the peak would occur in 2014, totalling 15,045 cases between 2006 and 2060. The KPMG methodology took into consideration the consumption of asbestos in Australia up until 2006 as well as factors related to asbestos claims at the former James Hardie entities. They noted the average claim at James Hardie did not occur until 16 years after asbestos exposure.<sup>27</sup>

In 2002, James Leigh et al. published a report entitled *Malignant Mesothelioma in Australia 1945–2000*. The report indicated that ‘... the expected number of mesothelioma cases in Australia from 1945 to 2020 is estimated to be about 18,000’. The report also looked at other asbestos-related diseases and concluded that ‘... with asbestos-related lung cancer estimated to occur at a ratio of 2:1 to mesothelioma the future case load of asbestos-related cancer can be expected to be in the order of 30,000 – 40,000 by 2020’.<sup>28</sup>

While estimates concerning the likely peak vary, it follows that an increase in the incidence of mesothelioma and other asbestos-related diseases will result in more deaths for many years to come. The National Health and Medical Research Council reports that there have been at least 4,700 deaths from mesothelioma in Australia since records began in the early 1980s; and further, estimates that more than 25,000 Australians will die from this disease over the next 40 years.<sup>29</sup>

## AUSTRALIAN REGULATORY FRAMEWORK FOR ASBESTOS

Arguably one of the primary responsibilities of government is to protect its citizens from known and potential hazards; especially where those hazards result from the previous implementation of government programs and policy.

Current responsibility for the management of asbestos in Australia is shared between all levels of government. Despite ostensible divisions of responsibility, functions often overlap. Because of their links with building and construction regulation, local councils often bear much of the responsibility for the day-to-day management of asbestos and responding to concerns from members of the public.

### COMPARISON OF JURISDICTIONAL FRAMEWORKS

Some aspects of the legislative framework for the management of asbestos vary significantly between jurisdictions. The area where there is most uniformity is work health and safety laws and regulations. These laws apply to the management of asbestos in workplaces, and to residential premises where ‘work’ is being undertaken.<sup>30</sup> The work health and safety laws aim to protect broadly defined workers and bystanders. Given their experience with asbestos-related matters, work health and safety regulators in a number of jurisdictions have led intra-jurisdictional coordination efforts on broader asbestos issues, and have developed and provided advice to home owners.

Asbestos outside of the built environment is generally the responsibility of the relevant environmental protection agencies. In a number of jurisdictions, this includes the maintenance of asbestos contamination registers and enforcing legislation that requires responsible parties to undertake remediation of contaminated sites. Public health asbestos issues are generally dealt with separately to the environmental issues, and usually fall within the remit of state and territory government health departments. Western Australia and Queensland in particular, have taken a comprehensive approach to managing the risks posed by asbestos in the broader community under their public health legislation.

Local councils also have significant responsibilities in relation to asbestos through their environmental and planning functions. Council environmental health officers have an important role in identifying and managing potential asbestos risks, although resource constraints faced by local councils were widely noted. The planning and building approval process represents another facet of asbestos management that is primarily dealt with by local councils under the broader legislative framework of their state or territory. For example, the Holroyd City Council’s asbestos cement policy mandates special conditions of development for certain work on buildings erected prior to 1987 which may involve asbestos. This policy has been cited as an example of best practice in this area.

In light of the complexity and inter-connectedness of the issues posed by the regulation of asbestos, several jurisdictions have taken steps to facilitate cooperation and coordination between regulators. In New South Wales, for example, the Heads of Asbestos Coordination Authorities was established in August 2011 to improve

cross-agency coordination. In South Australia, coordination takes place under the auspices of the Asbestos Safety Action Plan. This is supported by the Asbestos Advisory Committee, which contains representatives from government and the community.

Further information on the legislative framework in each jurisdiction can be found at Appendix D.

## INTER-JURISDICTIONAL COORDINATION

Inter-jurisdictional coordination on a range of asbestos-related matters takes place through a number of forums. The Council of Australian Governments (COAG) was established to provide a framework for cooperatively dealing with matters that relate to the three levels of Australian government; and where a need for change and improvement has been identified. The review's *Issues Paper* noted examples of COAG forums that had been successfully used for the development of relevant national plans. These include the National Environmental Protection Council and the National Emergency Management Committee.

Reflecting the division of responsibility for asbestos issues across government (e.g. health, workplace safety, environment), some coordination of asbestos management at the national level has been occurring, albeit on an ad hoc basis. For example, the Standing Council on Environment and Water oversees the Movement of Controlled Waste National Environment Protection Measure (Controlled Waste NEPM) which regulates the cross-border movement of waste materials containing asbestos. Safe Work Australia is also overseeing the initiative to harmonise work health and safety laws, one intended result of which should be improved consistency in asbestos management and licensing regimes across Australia. enHealth and Safe Work Australia also administer national plans for COAG.

## OHS HARMONISATION

Management of asbestos at work is one of the few areas where asbestos regulation is relatively more consistent and coordinated due to the national adoption of codes of practice promulgated by Safe Work Australia and its predecessors. Differences between jurisdictions are being sought to be addressed through the national occupational health and safety harmonisation process.

For asbestos, the *How to Safely Remove Asbestos Code of Practice* was approved by Safe Work Australia in 2011 and is intended to form the basis for asbestos management and removal practices in workplaces throughout Australia. Work is still progressing in this area.

The review's terms of reference required it to complement existing work already underway. Therefore, while noting the work done in this area, recommendations have not been made on specific matters already the subject of the work health and safety harmonisation process.

## INTERNATIONAL COMPARISONS

In 2007, the then Australian Safety and Compensation Council conducted a literature review to assess the information on current work practices and exposures in relation to asbestos. The resulting report noted that Australia, the UK, the United States and the European Union are the most advanced in terms of their management processes, particularly on in situ asbestos. The report also acknowledged that more work needed to be undertaken globally in relation to assessing the barriers to effective management, and eradication of asbestos and asbestos-related disease.<sup>31</sup>

As a consequence of experiences with the Wittenoom blue asbestos mine in Western Australia, Australia was one of the first countries in which there were moves to regulate the extraction and processing of asbestos. The review's endeavours to identify international methods of best practice have indicated that the Australian asbestos regulatory system currently in place is, overall, regarded by international observers as being relatively mature and robust.

The review's terms of reference required recommendations for a national strategic plan to improve asbestos awareness and management. There was a very high level of agreement among all stakeholders that Australia's history of high asbestos use and the lethal risks associated with exposure to asbestos fibres, combined with a federal structure of government in Australia all operate to make a compelling case for such a national strategic plan.

## CONCLUSION

Although the mining and use of asbestos has all but ceased in Australia, there is a continuing health risk of asbestos exposure due to the considerable quantities present in commercial and domestic structures and disposal sites. There is a growing body of research revealing that death arising from asbestos exposure will continue to increase, and that such increases will often be due to exposures in the domestic environment. Current work health and safety laws provide some framework for the management of asbestos issues within the workplace but there is no coordinated framework in place in relation to non-employment-related exposure. This needs to be addressed at a national level.

Dealing with Australia's asbestos legacy requires urgent nationwide action undertaken in a systematic way. A national strategic plan would be an appropriate tool to better drive, focus and coordinate efforts to address asbestos-related issues across Australia's diverse communities. There is a widely accepted format for such plans that has been tested and proven over many years across a wide range of issues. The structure of the National Strategic Plan proposed in the review's *Issues Paper* follows this accepted standard, and provides a robust framework for implementation.

The National Strategic Plan referred to in the recommendation below should have a clear aim, identified priority areas, practical and achievable targets against which progress can be measured; and a mechanism for periodically reviewing the efficacy of the plan. It should identify specific activities to be undertaken under the priority areas. The plan should be supported by an implementation program covering a three-year period, and include provisions to track and report progress annually; and be subject to annual review.

## RECOMMENDATION

1. The review recommends that the Australian Government lead and advocate for all jurisdictions to agree to the development of a National Strategic Plan for Asbestos Awareness and Management in Australia (the National Strategic Plan), based as a minimum on the principles and recommendations outlined in this report.

# Chapter 2 – Aim and Priority Areas

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The National Strategic Plan will play a crucial role in providing a framework to direct and coordinate asbestos management and awareness efforts in Australia over the coming years and decades. It is therefore important that the contents of the National Strategic Plan be designed to inspire action and provide direction, while also remaining flexible enough to respond to changed circumstances and evolve over the medium to long term.

## AIM

### ISSUES

The necessity of an aim for the National Strategic Plan was highlighted in the *Issues Paper*. It noted that the proposed aim could give direction for the National Strategic Plan, as well as providing a compass point for the priority areas and targets. The aim of the National Strategic Plan could be used as an ambition against which the success of the plan is ultimately assessed.

A range of documents that relate to asbestos management and awareness have been produced by governments around Australia. Not all have explicit aims, but almost all note their intended outcomes to provide a context for the document as a whole. Examples include:

- ‘... reduce illness and disease caused by exposure to asbestos fibres’<sup>32</sup>
- ‘... reduce the risk of illness and disease caused by work associated exposure to asbestos fibres’<sup>33</sup>
- ‘... ensure the safe management of asbestos in NSW which will contribute to the prevention of asbestos-related diseases’.<sup>34</sup>

A suggested aim was articulated in the review’s *Issues Paper*, namely ‘... to eliminate or minimise asbestos-related diseases in Australia’.<sup>35</sup>

Selection of an appropriate aim is fundamental to the National Strategic Plan. It will require balancing the tensions between aspirational and pragmatic approaches to clearly yet succinctly provide a reference point and purpose for the plan and its associated activities.

### STAKEHOLDER COMMENTS

The proposed aim for the National Strategic Plan has been the subject of extensive consultation and consideration in many of the submissions received by the review. A number of submissions from a variety of stakeholder groups including community organisations, industry and government representatives were strongly of the view that the nation should aim for no less than the total elimination of asbestos-related disease.

Other stakeholders argued that it would be unrealistic to aim for the total elimination of asbestos-related disease in the foreseeable future. In support of this position, they variously cited the volume of asbestos present in the environment, the fact that most Australians inevitably already carry some fibres within their lungs, and the current limitations of medical science.

Some of the submissions received from union representatives and other stakeholder groups proposed an alternative aim focused on ACMs rather than disease. These submissions called for the total removal of all ACMs in the built environment on the basis that this would eliminate the risk of asbestos exposure – and hence asbestos-related diseases.

Alternatively, submissions received from a number of industry representatives and individuals raised concerns that workers and the general public could potentially and unnecessarily be exposed to asbestos fibres through the accelerated or unnecessary removal of ACMs.

## CONCLUSION

Careful consideration has been given to all the viewpoints presented in relation to the proposed aim of the National Strategic Plan. The review has concluded that it is acceptable in far-sighted strategic plans, such as the one now proposed, for a long-term aspirational aim to be different from shorter-term practical targets, provided there is a common alignment of intent. A good aim needs to be memorable, inspirational and succinct; and provide a reference point for the rest of the plan.

Accordingly, the aspirational position for an overarching aim for the National Strategic Plan for Asbestos Management and Awareness is supported because:

- Asbestos-related diseases are preventable, by preventing exposure.
- Unlike the situation with some other cancers, exposure to asbestos is almost always an unwitting act, and in many situations the victim did not have control over the risks that led to their exposure.
- Aiming for anything less than the ultimate long-term elimination of asbestos-related diseases could be regarded as being akin to the nation acquiescing to a level of preventable disease and death.

## PRIORITY AREAS

With the aim providing the ultimate reference point for the National Strategic Plan, the next step is to identify the appropriate priority areas directed at its realisation. These need to be the critical areas that must be addressed in order to improve asbestos awareness and management in Australia. The recommended aspirational aim does not constitute an immediately measurable target for the plan. It is the priority areas of action that should be practical and achievable.

## ISSUES

As noted above, several jurisdictions have published plans or documents relating to asbestos management. Although different terminology is used, these often contain equivalents to 'priority areas'. For example, South Australia's *Asbestos Safety Action Plan* identifies five 'strategic actions' designed to reduce illness and disease caused by exposure to asbestos fibres. These are:

- Communication (raising the awareness of all South Australians);
- Education (developing knowledge, understanding and skills; and fostering quality education and training);
- Partnership (strengthening partnerships with the South Australian community through a whole-of-government approach);
- Intervention (monitoring and assisting compliance); and
- Research (identifying methods for improving collaborative research).

The main priority areas raised by the Steering Committee responsible for Tasmania's *Improving Asbestos Management in Tasmania* include:

- Prioritised removal;
- Disposal;
- Compensation;
- Compliance;
- Data and information collection;
- Increasing public awareness; and
- Improving education.

Drawing on the review's terms of reference, potential priority areas were identified in the *Issues Paper*. These were:

- Education and raising public awareness;
- Identification, removal, handling, storage and disposal practices;
- Reporting and disclosure of where asbestos is located; and
- Information (data) management and reporting on associated health issues.<sup>36</sup>

Of the state examples noted above, several areas fall outside the terms of reference of the review (e.g. compensation).

Those issues that relate to the asbestos life cycle, (i.e. identification, management, removal and disposal) are highly interlinked but are each of sufficient significance to warrant separate priority areas.

Identification of ACMs within the built environment is essential to addressing avoidable exposure to asbestos fibres and will underpin other initiatives in the National Strategic Plan. The current approach to asbestos management in situ and its removal should be examined to ensure enough is being done to protect citizens. There must also be adequate infrastructure to support management activities, particularly disposal, to ensure that there is safe and efficient management of ACMs so as not to create future problems.

Awareness of the risks posed by ACMs and the ability to identify those risks before disturbance, have consistently been identified as important elements in ensuring that people are not inadvertently exposed to airborne asbestos fibres. Identifying ways to improve awareness will be an important function of the National Strategic Plan.

Education of those who are likely to be exposed to asbestos through their work, to provide them with the knowledge and skills to ensure that working with ACMs is done in the safest possible manner, is considered separately from 'awareness'. This reflects the different audiences and messages involved.

Finally, cooperation between the various players involved in asbestos management will be crucial to ensuring the success of the plan. Many parties will be involved in carrying out the activities that support the plan, and utilising their skills and knowledge effectively will be an important aspect of its implementation. It follows that establishing a framework through which information and knowledge will become part of an ongoing feedback loop will be an important benefit that the plan can bring to these organisations.

## STAKEHOLDER COMMENTS

The majority of the submissions were in broad support of the priority areas suggested in the *Issues Paper*. Some also proposed amendments seeking to expand on these. For example, the Victorian Trades Hall Council supported priorities listed under South Australia's and Tasmania's asbestos plans such as strengthening community partnerships.<sup>37</sup>

Many of the comments provided in the submissions touched briefly on the priority areas identified in the *Issues Paper*, then discussed in more detail activities that could be initiated in relation to the priority areas.

A number of submissions also proposed priority areas such as compensation for consideration, which, though important, were outside the scope of the review's terms of reference.

## CONCLUSION

A starting point for any effective management plan must be to identify the problem. It became apparent during the course of the review that there is an absence of reliable and up-to-date data in relation to the precise location and condition of substantial quantities of asbestos; both emanating from materials that were used in buildings and structures and placed in dump sites for much of the second half of the 20th century. Therefore the effective identification of the location and condition of asbestos-contaminated materials in Australia must be a priority for the plan.

Current policies and procedures for the handling, removal, transport, storage and disposal of asbestos vary considerably between and within jurisdictions. In order to deal with the nation's asbestos legacy with the urgency and best available approaches that it deserves, there is a pressing need for the establishment of a nationally consistent regime for the safe management of asbestos.

There is considerable evidence that many Australians who may be at risk of exposure do not have sufficient awareness of the broad range of products that may contain asbestos, nor of the sorts of activities that could lead to the release and inhalation of airborne fibres. Similarly, studies have shown that greater effort is needed to provide those workers who are required to handle ACMs with the knowledge and skills to do so safely. The National Strategic Plan should therefore also focus on the need for improvement in asbestos awareness and education.

Information sharing will be vital to ensuring best-practice measures are applied across all facets of asbestos management. By sharing research results and program evaluations, management practices can be improved on a practical level, and can be refined to better align with desired outcomes.

Practical and achievable targets need to be developed, including interim goals to focus activities and to allow measurement of progress with the National Strategic Plan.

## **RECOMMENDATION**

2. The review recommends that:

- (a) The aim of the National Strategic Plan be: *'To prevent exposure to asbestos fibres in order to eliminate asbestos-related disease in Australia'*.
- (b) The priority areas of the National Strategic Plan be to improve asbestos:
  - Identification;
  - Management;
  - Transport, storage and disposal;
  - Awareness;
  - Education; and
  - Information sharing.

# Chapter 3 – Improving Asbestos Identification

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There are many facets of the management of the risks posed by asbestos. Management of asbestos encompasses the entire asbestos life cycle, and it is only through a holistic, nationally consistent approach that the interlinked risks can be appropriately dealt with. Given the complexity of the issues, the report addresses each major phase of management separately. In this chapter, issues associated with identification of asbestos are examined.

To reduce the possibility of inadvertent exposure and improve asbestos management, the National Strategic Plan should address identification of the location of ACMs in the built environment and at asbestos disposal sites.

## COMMERCIAL AND GOVERNMENT PROPERTIES AND WORKPLACES

### ISSUES

The identification of ACMs in workplaces is an established requirement under work health and safety laws in all jurisdictions. Harmonised work health and safety laws require that, once the location of ACMs has been established, a warning label is placed on the material<sup>38</sup> and an ‘asbestos register’ is created for the workplace.<sup>39</sup> The register records the location, type and condition of the ACMs that have been identified, and the date on which it was identified.<sup>40</sup>

The requirement to keep a register does not apply if no asbestos has been identified at the workplace or, if the workplace was built after 31 December 2003, the date from which all forms of asbestos were banned in Australia.<sup>41</sup>

Asbestos registers are intended to ensure the protection of workers at the site, and are stored and maintained at the workplace level. Potential buyers of property are also generally regarded as having a genuine need to access any information on the presence and location of ACMs in it. However, requirements for disclosure at the point of sale vary between jurisdictions.

Work health and safety laws require that the workplace’s asbestos register be transferred to any new person assuming control of the workplace. In South Australia, sellers of land or a small business must also disclose whether there are any buildings (other than domestic premises) that consist of or contain asbestos.<sup>42</sup> If asbestos is present, the seller must confirm if there is an asbestos register and policies in place to control any associated risks.<sup>43</sup>

The reporting requirements placed on waste disposal facilities vary according to jurisdiction. Asbestos is, however, generally deemed to be a prescribed waste, which attracts additional record-keeping requirements. In the Northern Territory, for example, disposal facilities that accept asbestos are required to have a designated area that only accepts asbestos-containing waste. The GPS coordinates and the volume of disposed asbestos-containing waste must also be recorded.<sup>44</sup>

### STAKEHOLDER COMMENTS

Both union and industry representatives provided submissions with comments on the identification of asbestos within workplaces and commercial buildings.

The majority of these submissions indicated support for the measures to identify asbestos in workplaces and commercial buildings that are proposed or in place under the harmonised work health and safety regulations and codes. This includes the requirement for workplaces to establish and maintain an asbestos register.

Some submissions, including that from the State School Teachers’ Union WA, suggested that information from the asbestos registers should be consolidated by state or territory governments and collected nationally in a publicly accessible asbestos register.

## CONCLUSION

Identification of the location and condition of asbestos in Australia will be critical to the success of any management and awareness program. While it has been established that Australia was the world's highest per capita user of asbestos, consolidated reliable and accurate data regarding its location and condition is not readily available. An early priority for the National Strategic Plan should be to obtain and, where appropriate, make available, information regarding asbestos at disposal sites, and on government and commercial property. Accordingly, owners or controllers of the properties concerned should be required to submit information within an initial time period of two years; and thereafter when it is required to be updated (such as before major building works are undertaken), or every five years; whichever is shorter.

Different approaches will suit different circumstances. Where possible, existing information should be used. For example, information for government properties and places of employment can be drawn from existing registers required as part of work health and safety laws. This information should be collated centrally, checked for quality assurance and accessibly published, possibly on suitable websites, at a municipality, state or territory, or national level.

Submissions to the review expressed differing views regarding the accuracy and currency of some currently available information – including the content of some workplace asbestos registers. Nonetheless, and subject to the introduction of national standards regarding data collection and quality control, much of this already held information could provide the basis for an invaluable resource for future asbestos management and research initiatives.

As with a number of other areas within the National Strategic Plan, the most accessible and appropriate level of government to have responsibility for initially receiving and recording data in relation to the location of asbestos in dump sites, government and commercial properties, may be the municipality concerned. Given local councils have responsibility for the issuance of planning and building permits and are often the 'first port of call' for those with concerns about the disturbance of asbestos, they are a logical first repository and custodian for such data.

In planning the implementation of the National Strategic Plan, jurisdictions will need to be mindful that local councils are equipped with the necessary authority and resources for such a scheme. In relation to those parts of the nation such as the ACT where there are no local councils, this function should default to the level of government that exercises local planning responsibility.

## DOMESTIC PREMISES

### ISSUES

As discussed in Chapter 1, there is no complete or reliable data on the current level of ACMs in Australian residential properties. However, the review was informed that there is widespread asbestos present in private homes and associated structures throughout the nation, particularly in those constructed or substantially renovated during the period from immediately after World War II to 1987.

At present no jurisdiction has generally applicable asbestos identification requirements for domestic premises.

The lack of an identification register or process for residential premises presents a major safety risk for both occupiers of those premises and the tradespeople who undertake work on domestic structures given the extent of ACMs in Australian residential premises. Accordingly, it is important for the National Strategic Plan to address this issue given the clear danger to public health in the current situation that tacitly allows for work to be carried out where there are known or unknown quantities of ACMs.

Under the harmonised work health and safety legislation, domestic premises may be considered a workplace if work is being carried out therein by a contractor. In relation to demolition or refurbishment work undertaken by an employee or contractor at domestic premises, the model code of practice for asbestos management states that:

*'... if an asbestos register is not available, ensure the structure ... to be demolished or refurbished has been inspected by a competent person to determine if any asbestos or ACM is fixed to or installed (or assume its presence) ... [and] where asbestos is determined to be fixed to or installed, tell the occupier, owner (if at a domestic premises)'*<sup>45</sup>

The ACT, where it is estimated that three in every four residential properties will have ACMs,<sup>46</sup> currently has a limited disclosure requirement for domestic premises. If home owners have an asbestos assessment report prepared by a Class A asbestos assessor, then they are obliged to provide a copy of the report to persons engaged to undertake construction work on the property, and on sale or lease.<sup>47</sup> However, commissioning such a report is not mandated.

Both the ACT and South Australia require that a standard information leaflet be provided by residential property vendors to purchasers. The leaflet, among other things, recommends the purchaser examine whether asbestos is present in the building and provides information on its usual locations. These schemes do not require the identification of asbestos, or the specific disclosure of its known presence by a vendor.

In considering the possibility of inspections of domestic residences to identify the location and condition of any ACMs, cost will be a consideration. The review was informed of an enterprise undertaking such activities for as little as \$100 on a kerbside inspection basis. This is where an assessment of whether a property contains asbestos is undertaken simply through an external visual inspection and without any actual testing or sampling. Established industry sources advised that cost to a home owner for a more rigorous process involving the taking and analysis of up to five samples (including from the roof cavity) and the generation of a written report would normally commence at \$350 for an average single-storey-residence. The cost for a double-storey home would be \$525. Obviously factors involving the nature and size of the dwelling and its location could impact upon the cost. Taking these factors into consideration, the highest estimated cost was \$770 for a single-storey home and \$1,155 for a double-storey home.

## STAKEHOLDER COMMENTS

Some three-quarters of the submissions received by the review called for a more comprehensive identification process of asbestos in the built environment. Submissions across all stakeholder groups indicated support for a requirement for private property or home owners to identify the presence of asbestos on their property.

Many of these submissions included suggestions for an assessment of potential ACMs be undertaken by a qualified asbestos assessor at key acquisition or occupation milestones, such as when the property is sold or leased or when it is to be renovated or demolished. The submissions further suggested that the asbestos assessment report be made available to potential purchasers, lessees and tradespeople who are performing work on the property, and that a labelling system could be used to note the presence and condition of any identified ACMs on the property.

Alternatively, other submissions, including some of those that support the proposal for private property and home owners to identify and disclose the presence of asbestos on their properties, raised concerns at the regulatory burden involved in the obtaining an asbestos assessment report. These submissions also included concerns regarding the costs if the property owner were to be required to remove asbestos identified during the process.

## CONCLUSION

Having regard for the likely presence of large quantities of ACMs that present a significant public health hazard, it is appropriate for there to be implemented a simple, practical and robust scheme that would identify and label the existence of asbestos in private homes. At least one jurisdiction has introduced a requirement for disclosure of a report of known ACMs at the time of sale or lease, and the review has concluded that this type of approach should apply nationwide. Therefore, initially owners of those private properties constructed prior to 1987\* should be required to identify the location and condition of any known ACMs before sale or lease of the property, or when the

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\* While the production of asbestos-containing building materials such as AC sheeting and roofing became illegal as of 1987, the review was presented with information that suggested stockpiled materials continued to be used after that date. The WHS asbestos requirements state that buildings built before 31 December 2003 must have workplace asbestos registers.

property is subject to renovation of sufficient scale that would require local council building approval. This would involve obtaining an asbestos content report (ACR) from a licensed assessor. The scheme would also apply to government housing. The ACR would remain valid for a reasonable period of time, assuming there is no deterioration in the condition of the ACMs in the property. This would mean a new ACR would not have to be obtained each time a property is sold or let. Instead a valid ACR could be reused until such time as the ACR expires or another trigger, such as renovation, occurs.

The threshold date of 1987 could be reviewed once the scheme matures with a view to assessing the feasibility of extending it to 31 December 2003. This assessment could also look at the feasibility of requiring owners of all residential property constructed before the specified date to obtain an ACR within seven years from the commencement of the plan where they do not already have one. Selection of the final trigger dates should be balanced to maximise the chance of capturing properties with the highest probability of having ACMs while avoiding placing unnecessary regulatory burden on owners of property with a low likelihood of ACMs.

Further, a simple labelling system – similar to that which identifies the existence of solar power panels or hazardous chemicals, should be introduced. A durable ACR information label that advises of the presence of ACMs at a property should be affixed to an appropriate, easily accessible position on the property, such as the meter box. The label could indicate the location of ACMs in the property. To provide clarity for home owners, the ACR could use a traffic-light-type system to identify the risk posed by the location or condition of the ACMs, such as:

- Red, indicating material that should be addressed as a high priority;
- Amber, alerting occupiers to suspected hidden or deteriorating ACMs requiring future attention; and
- Green, indicating the ACMs are in good condition.

Consideration could also be given to including a code on the label that would enable access to more detailed information via a 'smart phone' or similar device. Qualified assessors should be responsible for completing and affixing the label.

Property owners and occupants in possession of an ACR would have an obligation to notify potential purchasers, lessees and any person who is to undertake work that may disturb ACMs on the property, by providing a copy of the ACR or directing them to the ACR label.

Local government (or the equivalent) should be resourced for and be responsible for implementing and administering the ACR scheme, including compliance and enforcement, as this level of government is closest to on-the-ground activities and it would align with many of their existing activities.

For landlords, the cost of obtaining an ACR should be a legitimate tax deductible expense. To assist in the take-up of the scheme, the federal government should be encouraged to also extend tax deductibility to all property owners concerned. To assist eligible aged pensioners and social security recipients, a means-tested rebate scheme should be considered. Where the property has not been subsequently wholly or substantially demolished, state and territory governments should be encouraged to offer, subject to a means test, a subsidy for the provision of an ACR on previously owned government housing constructed prior to 1987.

The implementation of the above steps could result in the establishment of a comprehensive database of the location of ACMs in domestic premises in Australia – on a municipality-by-municipality basis. As with government and commercial properties mentioned in the previous section, information in the database should only be accessible when there is a genuine need, such as tradespeople undertaking work at the property, on application for building works approval, or by prospective purchasers or lessees.

As with government and commercial properties, to ensure consistency, the information to be collected and its format should be agreed by the new national agency described in Chapter 9, and mechanisms should be developed to ensure quality and integrity of the data being collected and held.

The domestic residential and workplace, government and commercial property and dump site identification measures should be administered by the relevant local council (or equivalent). Each municipality would also be responsible for maintaining a database with the location of ACMs for their area, and for making regular input to the maintenance of current and accurate national databases that would be maintained by the new national agency.

## **RECOMMENDATION**

3. The review recommends that the National Strategic Plan provide for:
  - (a) The establishment of centrally operated processes and systems to identify the location, and assess the condition, of asbestos-containing materials (ACMs) in government and commercial property constructed prior to 31 December 2003, and at disposal sites.
  - (b) A requirement that an asbestos content report (ACR) be undertaken by a competent assessor to determine and disclose the existence of ACMs in residential properties constructed prior to 1987 at the point of sale or lease, and prior to renovation, together with a property labelling system to alert workers and potential purchasers and tenants to the presence of asbestos.
  - (c) The asbestos identification measures above should be administered by the relevant local council (or its equivalent), with each municipality being responsible for maintaining a database for their area or locality.

# Chapter 4 – Improving Asbestos Management

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Given the scale of asbestos use in Australia, arrangements to safely manage asbestos will be required for decades to come. This chapter examines the current underpinning principles for the management of asbestos, and activities that would be required to implement a new approach. The consistency of current policies and procedures is also explored.

## MANAGEMENT PRINCIPLES

### ISSUES

Currently, management of asbestos is governed by a conventional hierarchy of control based on one of the underlying principles of work health and safety legislation. This approach involves assessing the risk to health and safety and then selecting an appropriate action (or control) based on the severity of the risk and the practicability of the actions. The ideal action in all cases is to eliminate the risk. In the case of asbestos, depending on the balance of risk and other factors, this approach may also encompass options such as encapsulation, or use of personal protective equipment. This 'risk management' approach also encourages opportunistic removal (e.g. removal of ACMs during renovation or other building works).

An alternative school of thought is that all asbestos poses a health risk and, as such, should be removed in an orderly prioritised manner according to the severity of the risk posed. This 'prioritised removal' approach holds that all ACMs eventually degrade, so even material that is ostensibly safe (i.e. bonded and stable) may become unsafe over time. Degradation can be the result of weathering over the course of years, or an unexpected event or impact that results in the sudden release of airborne asbestos fibres, such as that which occurs in natural disasters.

Although sometimes portrayed as opposite approaches, the review considers that in practice they are part of the same risk management continuum and not mutually exclusive. The risk management approach certainly envisages ACMs remaining in the built environment for the short to medium term, but ultimately all would be removed as it becomes unsafe – or through opportunistic removal. The prioritised removal approach, while targeted on the removal of all ACMs by a predetermined set date, encompasses controlling the risks it poses until removal can be undertaken. Given the sheer scope of the problem in Australia, a total removal program would ultimately take many years, if not decades.

### STAKEHOLDER COMMENTS

Different views as to which management approach is most appropriate were presented to the review. Unions and community groups predominantly preferred the prioritised removal of asbestos over the risk management approach. Most suggested that the National Strategic Plan include activities aimed at ensuring Australia is asbestos-free by 2030. However, details on how this would be achieved were generally not provided.

Other stakeholder groups were divided more equally between the two views. Some suggested a combination of the approaches could be applied based on an assessment of the condition and location of the ACMs. A number also suggested that a cost-benefit analysis be undertaken as part of the National Strategic Plan to determine the most appropriate way forward.

### CONCLUSION

Prioritised removal and risk management are not mutually exclusive. A program should be considered that would build on the current risk management approach by mandating that, depending on the level of risk it poses, all in situ ACMs be progressively removed within defined periods. It could also encourage and support ongoing opportunistic removal of ACMs, such as during major renovations.

Accordingly, the National Strategic Plan should also include an activity to investigate, assess and evaluate the costs and benefits of extending current asbestos risk management principles and practices to require the staged, systematic safe removal of ACMs that are deemed to pose a risk within defined timeframes. This analysis should include financial, environmental and human costs and benefits as well as taking into account any technological

developments such as those that may facilitate the proven detoxification of asbestos. It should also consider the current and potential uses of buildings and structures; including the possible impact of any exposure to airborne asbestos fibres of users, occupants or neighbours. This investigation should develop a risk matrix to determine priorities for removal based on the types of ACMs, their location and condition. In addition to forming the basis for dealing with all in situ ACMs, including those in residential properties, the outcome could inform the approach to be taken to the target of the safe removal from commercial and government structures by the year 2030.

## ASBESTOS REGULATION

### ISSUES

Oversight of the management of asbestos in Australia takes place at all levels of government. Within each level, various parties operate under an array of legislative instruments that are broadly consistent in the outcomes they are seeking to achieve. This division of responsibility has resulted in a variety of approaches to dealing with the many facets of asbestos management. Details on the different legislation, policies and procedures adopted in each jurisdiction are provided in Chapter 1 and Appendix D.

### COMMERCIAL AND GOVERNMENT PROPERTIES AND WORKPLACES

The requirements for management of ACMs in the workplace are relatively uniform across Australia. Increased consistency will hopefully be achieved by the ongoing efforts to harmonise work health and safety laws and compliance regimes.

Under work health and safety laws, removal of ACMs may only be undertaken by licensed removalists. This requirement does not apply if the asbestos being removed is non-friable and less than 10 square metres.<sup>48</sup> If workers, other than licensed removalists, are likely to be required to undertake work involving asbestos, employers must provide appropriate training in the identification and safe handling of asbestos.<sup>49</sup>

The ACT has created a limited exemption under which workers in a range of approved occupations who have undertaken appropriate training are able to handle (but not remove or dispose of) less than 10 square metres of bonded asbestos as long as they do so in accordance with the handling provisions in the *Asbestos Removal Code*.

The increasing demand for Australian resources has led to the expansion of mining activities into more asbestiform-rich ore bodies. Mining safety laws across Australia are currently in the process of being harmonised through the National Mine Safety Framework, which is part of the COAG National Reform Agenda. Under this arrangement, a 'core' body of common regulations on agreed subjects will be adopted by all jurisdictions as part of their model work health and safety regulations. The major mining states (Western Australia, Queensland and New South Wales) will develop additional 'non-core' provisions that they consider necessary to address high-risk mining activities such as underground coal mining. These regulations and codes of practice will seek to ensure that harmonised work health and safety duties relating to asbestos apply in mining environments.

### DOMESTIC PREMISES

The management of ACMs in domestic premises presents a different range of issues than management in the workplace. The most significant of these is that, to date, no jurisdiction has laws obliging home owners to manage asbestos in a systematic way. Management and removal of ACMs from domestic premises by home owners is lightly regulated throughout Australia.

In relation to removal, Queensland is one of the few jurisdictions to tackle this problem directly through public health regulations. Under this approach, only a person who holds an asbestos removal licence may remove friable asbestos, or more than 10 square metres of bonded material.<sup>50</sup>

Laws governing individuals transporting asbestos-containing waste vary significantly between jurisdictions. In Queensland, for example, home owners generating more than 250 kilograms of asbestos-containing waste must comply with waste transportation laws.<sup>51</sup> Home owners in Victoria and South Australia, however, are not obligated to comply with the safe asbestos transportation requirements for commercial transporters.<sup>52</sup> Individuals looking to transport bonded asbestos waste in New South Wales must package the waste in accordance with the requirements of the Dangerous Goods Code (as implemented through the Protection of the Environment (Waste) Regulations 2005).

## ENVIRONMENT AND PUBLIC HEALTH

The environmental and public health risks posed by asbestos are significant. These can arise in a range of circumstances, including as a result of inappropriate removal and disposal, illegal dumping and natural disasters. Activities that have the potential to result in environmental harm, such as waste disposal facilities accepting asbestos, usually require a licence that imposes strict management requirements.

Asbestos contamination is generally dealt with by the relevant jurisdiction's environmental protection legislation. Contaminated sites are managed by environmental protection agencies. This involves recording the site of the contamination and determining whether remediation is required. Western Australia, for example, has two separate registers: one for confirmed contamination (that is available to the public), and another for suspected contamination (that is only available upon application to the Department of Environment and Conservation).

Some coordination on environmental issues associated with asbestos is already occurring. One example is the Environmental Health Committee (enHealth), a subcommittee of the Australian Health Protection Committee. This body has produced guidance material on the management of asbestos in non-occupational environments that has been widely adopted throughout Australia. Similarly, the National Environment Protection Council is currently working on updating a measure that provides guidance on the assessment of asbestos contamination in soil. This update is largely based on the Western Australian approach, which has been adopted by other jurisdictions.

## STAKEHOLDER COMMENTS

Submissions from all stakeholder groups indicated support for improved practices for the safe removal, handling, storage, transport and disposal of asbestos. Union and community groups in particular called for nationally consistent legislation to address the jurisdictional differences in the management of asbestos, and suggested that this be a priority under the National Strategic Plan.

One of the major issues identified was the inadequate asbestos management standards within the housing sector. However, views were divided as to whether or not home owners should be permitted to remove asbestos.

Those who supported allowing home owners to remove bonded asbestos from their property were of the opinion that activity would occur regardless of any ban. They suggested that home owners be provided with education and equipment to safely remove asbestos to reduce their risk of asbestos exposure.

Alternatively, others suggested all work involving asbestos removal should only be performed by trained and licensed removalists. It was also recommended that local government have greater control over the regulation of asbestos removal.

Submissions also highlighted the need to improve air-monitoring techniques. According to one submission:

*'... the conventional air sampling and fibre counting methodology for assessing inhalational exposure in Australia is inadequate for assessing long-term risk, and risks for the public. The assessment and reporting of exposure to asbestos needs to be based upon quantitative asbestos in air measurement at a detection limit and using sampling methods that are adequate for an assessment of whether the exposure represents an acceptable level of risk.'*<sup>53</sup>

## CONCLUSION

Existing jurisdictional policies and procedures relating to asbestos management, in the workplace and domestically, are broadly consistent in their aim but vary considerably in the approaches taken. Work should therefore be undertaken on the development of nationally consistent laws, policies, licensing regimes and procedures for dealing with asbestos. This would complement the work that has been done with asbestos regulations and codes as part of the national harmonisation work health and safety laws currently underway.

Increasing consistency would allow for the widespread adoption of best-practice solutions, and benefit regulators by facilitating better cross-jurisdictional coordination. For example, it was noted that the Australian Standard on air monitoring had not been reviewed for a number of years, and that the testing techniques and equipment may not be giving an accurate indication of the presence of smaller volumes of airborne fibres. This data is needed for more accurate risk estimation.<sup>54</sup> Revisiting this Standard could assist to ensure uniform best-practice approaches.

National consistency would mean that companies involved in asbestos management would also have an increased ability to operate nationally, which would reduce compliance issues across jurisdictions. This would reduce the range of information and thus confusion faced by individuals when assessing their options for managing asbestos in their homes.

## COMMERCIAL AND GOVERNMENT PROPERTIES AND WORKPLACES

The review considers it is not practically achievable to remove all ACMs from all Australian properties and structures by 2030. However, there would be value in extending the current 'risk management' approach by setting a target date for removing ACMs from all government and commercial buildings and structures. A national approach for the staged, systematic removal of ACMs from all such government and commercial structures by no later than 2030 could be developed. This would be appropriate given the larger numbers of people who visit or work in such buildings and structures, resulting in a proportionally higher risk posed to the public. If a target date is not set, there will be a temptation to postpone asbestos removal indefinitely. It is reasonable for the community to expect that the owners and controllers of high-use publicly assessable buildings and structures should plan to have removed all ACMs. The target year of 2030 is considered sufficient time to allow for necessary planning and budgeting.

While the intention of this program would be to capture the majority of government and commercial buildings, in some instances its application could result in premature demolition in order to remove otherwise encapsulated or bonded asbestos behind or beneath structures. To cater for these circumstances, there should be a limited ability to obtain a nationally consistent certificate of exemption, renewable every five years and administered by the relevant agency within each jurisdiction in accordance with protocols established and agreed under the National Strategic Plan. An early task for the new national agency will be to establish agreed standardised approaches for such exemptions.

This program would inevitably entail cost implications for the businesses and government entities concerned, albeit over a period of almost two decades. Therefore its structure and implementation should be designed to minimise and spread costs wherever possible.

Some state governments have already taken a proactive approach in embracing the long-term goal of ensuring that their structures are asbestos-free. The Western Australian *Information Guide for Agencies*, for example, confirms that '*It is the government's position that the ultimate goal is for all assets owned or controlled by government to be asbestos-free*' and provides advice on strategies for ensuring that properties in the government's asset portfolio are asbestos-free.<sup>55</sup> This includes undertaking opportunistic removal during maintenance, renovation or demolition work.<sup>56</sup> The review was advised of many companies, both private and public, taking a similarly proactive approach to the removal of asbestos.

## DOMESTIC PREMISES

There were two main schools of thought as to how to minimise the risks asbestos removal posed to home owners:

- The provision of information and equipment to facilitate the safe DIY handling of asbestos; or
- A prohibition on the handling of asbestos by anyone other than appropriately trained and licensed operators.

After careful consideration, and having regard to the statistics and research indicating increasing incidences of asbestos-related disease among DIY home renovators and their families, the review has concluded that the provision of information and protective equipment is not a sufficient safeguard against the risk of exposure to potentially lethal airborne fibres. Accordingly, nationally consistent laws should require that only licensed operators undertake handling, removal, storage, transport and disposal of asbestos. An exemption should be available for specified occupations who in the course of their usual work may incidentally disturb ACMs, and where they have successfully completed appropriate training. This exemption could allow those tradespeople to safely handle, remove, transport, store or dispose of non-friable asbestos, where such activity is essential or necessary to their primary work task at the location concerned.

Several jurisdictions allow for up to 10 square metres of bonded asbestos to be disturbed without requiring a licence, but some stakeholders have pointed out that this figure may be unnecessarily rigid. Ultimately the specifics of this exemption should be determined through research and consultation. This could be implemented through a scheme involving the provision of an endorsement to existing trade licences where applicable.

While a wholesale systematic removal program from domestic premises is not feasible within the foreseeable future, consideration could be given to extending the ACR scheme described in Chapter 3 to determine the periods within which ACMs identified as being a risk should be removed. The new national agency should be given the resources and ability to examine the feasibility of extending various removal options to address situations such as the presence of friable ACMs within dwellings – and in other circumstances and situations that it deems appropriate following rigorous scientifically based analysis.

As with the ACR requirement, consideration should be given to providing appropriate incentives to property owners such as tax incentives, entitlement rebates or interest-free loans to enable and encourage safe asbestos removal and disposal in compliance with the new requirements. Appropriately designing and targeting these incentives will be important in ensuring that activities under the National Strategic Plan are undertaken in an effective and safe manner.

## **RECOMMENDATION**

4. The review recommends that the National Strategic Plan provide for:
  - (a) The development of systems and processes which would result in the staged removal of all ACMs from government and commercial buildings and structures by a target date of 2030, with:
    - (i) Limited ability for a renewable certificate of exemption where the ACM is not deemed to be a health hazard and where its removal by 2030 is regarded to be impractical.
  - (b) An investigation to inform the development and implementation of a systematic and staged prioritised asbestos removal program that will:
    - (i) Develop systems and guidelines for application by government and commercial building owners in order to assist with removal of ACM from their properties by 2030; and
    - (ii) Examine the feasibility of a future prioritised removal program for residential properties.
  - (c) The development of nationally consistent asbestos management laws, policies, licensing regimes and procedures, with:
    - (i) Standards that mandate that only licensed operators undertake handling, removal, storage, transport and disposal of asbestos – such standards to allow an exemption for specified occupations to undertake removal of ACM where these activities are incidental to their primary work and are undertaken in accordance with the relevant safety requirements; and
    - (ii) The provision of appropriate incentives to property owners to enable and encourage safe asbestos removal and disposal in compliance with the new requirements.

# Chapter 5 – Improving Transport, Storage and Disposal

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A key element of the National Strategic Plan will be the development of incentives to safely remove ACMs from the built environment on an expedited time scale. Consistent with these objectives, the National Strategic Plan should also ensure that appropriate infrastructure is in place to support these activities. Failure to provide for the potential increase in demand for asbestos-related services may hamper the implementation of the plan and potentially create new exposure risks. The National Strategic Plan should therefore provide for the review and enhancement of infrastructure and systems to support the safe removal, transport and disposal of asbestos.

## ISSUES

### TRANSPORT

The transportation of asbestos-containing waste is covered by the National Environmental Protection Council's Movement of Controlled Waste National Environmental Protection Control Measure (Controlled Waste NEPM). The Controlled Waste NEPM provides that when waste such as asbestos is transported between jurisdictions, both the waste generator and the waste receiver are notified and have approved of this movement. Licenses issued for the transportation of controlled waste in these circumstances have mutual recognition under the Controlled Waste NEPM.

Requirements surrounding the transportation of wastes such as asbestos within jurisdictions vary, although a degree of uniformity exists as a result of the previously mentioned *Australian Dangerous Goods Code* (7th Edition). These requirements do not apply to asbestos that is 'immersed or fixed' in such a way as to prevent the escape of hazardous quantities of asbestos fibres during transport.<sup>57</sup> Manufactured items containing asbestos not meeting these requirements are still exempt from the operation of the code if they are packaged in such a way as to prevent the release of respirable fibres.<sup>58</sup> While the Dangerous Goods Code places requirements on the transportation of asbestos waste, matters such as licensing of transporters are undertaken separately by each jurisdiction.

### DISPOSAL

The cost of removal and disposal of asbestos will need to be modelled and investigated as part of the development of the National Strategic Plan. For example, the amount of asbestos from commercial or industrial origins disposed of at landfill facilities in Victoria has increased over the past years, from 36,772 tonnes recorded in 2007–08 to 40,643 in 2010–11.<sup>59</sup> The demand for asbestos removal infrastructure will continue to increase nationwide as more ACMs become unsafe due to the natural processes of ageing and weathering. Likewise, implementation of prioritised removal programs could see an increased demand for appropriate disposal facilities.

Waste disposal facility licensing is managed by individual jurisdictions. Although systems and processes vary, in the majority of jurisdictions these facilities are licensed to accept certain types of waste on certain conditions. In South Australia, licensing requirements include provision for the location of the waste and depth at which it may be buried.<sup>60</sup>

These additional safety requirements are undoubtedly a contributing factor to the higher cost of disposing of asbestos-containing waste.

The cost of disposal varies significantly between disposal facilities. In Victoria, for example, disposal costs range from \$78 per tonne to \$200 per tonne.

Finding an appropriate facility to accept asbestos waste may also present practical issues. In the larger states, huge geographic areas are often served by a small number of sites. In Western Australia, for example, the size of the state and the low population density of areas away from the south-west have resulted in a lack of availability of conveniently located licensed disposal facilities.

There is no waste facility within Brisbane's boundaries that will accept home owner removed ACMs.

The situation regarding removal of ACMs from remote Indigenous communities presents particular challenges. Many of the remote community municipalities lack sufficient economies of scale or resources to operate appropriate disposal facilities and, in the NT for example, the only two facilities licensed to take asbestos-containing waste (Darwin and Alice Springs) will only accept materials from within their own localities.

Finally, individual site licence holders may place their own restrictions on their hours of operation, the amount of asbestos-containing waste they will accept at any one time – or limitations on the locations they will accept waste from. Even in smaller states the nearest disposal facility is not always the appropriate one. In South Australia, only a selected number of facilities are able to accept friable asbestos, while in Victoria facilities designate whether they will accept waste from either commercial or domestic sources, but some may also accept asbestos waste from both sources.

## **STORAGE**

The safe storage of asbestos-containing waste may be necessary during removal and in the process of transporting the waste to a licensed facility for permanent disposal. Safe storage requirements usually include packaging the asbestos securely and keeping it in a sealed container in accordance with the relevant legislative requirements. Asbestos-containing waste may also be stored temporarily for a substantial period of time in instances where disposal is not a viable option.

Operators of landfills, transfer stations and temporary asbestos storage facilities are required to be licensed by the appropriate regulator in their state or territory in order to be involved in the collection, transportation, storage and disposal of asbestos. These licences may contain specific legal requirements, such as the anchoring of temporary storage containers to a foundation structure, to combat any foreseeable risks involved in long-term storage.

In the Northern Territory there are few licensed facilities. This situation is exacerbated for those in remote communities. In these circumstances, long-term storage, usually in shipping containers, is used while transportation options are investigated. While asbestos-containing waste can be stored safely in accordance with legislative requirements there are risks involved, particularly with storing large quantities for a protracted period of time. These risks include the possible decline in the integrity of encapsulation materials used within shipping containers, and of the containers themselves.

## **INAPPROPRIATE DISPOSAL AND ILLEGAL DUMPING**

The costs of removal and disposal are a clear disincentive to the appropriate disposal of asbestos-containing waste. 'Inappropriate disposal' can occur when asbestos-containing waste is disposed of at facilities not licensed to accept it, or outside the designated areas. Even if properly packaged, in such circumstances the asbestos waste may be crushed or otherwise disposed of in a manner liable to release fibres into the atmosphere or be subject to subsequent disturbance.

Illegal dumping of asbestos waste poses environmental and health risks. The cost to remediate disposal sites is significant. Arrangements for meeting the cost of remediation vary between jurisdictions and often depend on the seriousness of the incident. In many cases, the cost is borne by local councils, thus placing a strain on already limited resources. The New South Wales *Crackdown on Illegal Dumping* handbook highlights one example where a council was forced to pay \$18,045 to remediate a park where construction waste (including asbestos) had been dumped.<sup>61</sup>

The review was presented with information regarding the illegal dumping of asbestos. In one instance, there was evidence of industrial quantities of asbestos-containing building materials having been dumped on a primary school playground immediately prior to the resumption of classes after a summer vacation. The review was also advised of situations where smaller amounts of asbestos waste were illegally secreted within hard rubbish or normal domestic waste collections, including 'green waste' destined for composting and public use.

To combat illegal and inappropriate dumping, some waste disposal facilities have implemented initiatives to encourage safe disposal of asbestos, such as the 'Free Asbestos Drop-Off Day' on the last Sunday of every month offered by the Tamala Park landfill facility in Western Australia.<sup>62</sup>

Compliance and enforcement activities and deterrents could be strengthened to reduce illegal dumping. For example, regional illegal dumping squads have been cooperatively established by the NSW Office of Environment and Heritage and partner councils in the Sydney region. Although not specifically targeting the illegal dumping of

asbestos, these squads aim to reduce incidents of illegal dumping generally through the encouragement of a coordinated approach to responding to and investigating incidents.<sup>63</sup>

## STAKEHOLDER COMMENTS

The majority of comments received in relation to infrastructure related to disposal facilities. The cost of disposal, including transport and the fee charged by facilities, was consistently pointed to as an incentive for illegal dumping. The WorkCover NSW submission stated that cost of disposal is a factor in illegal dumping, but noted that a range of other factors have also been identified, including convenience and uninformed action.<sup>64</sup>

The cost of engaging trained removalists was raised in a number of submissions as a barrier to safe removal. The Asbestos Diseases Society of Victoria, for example, suggested that subsidies for removal should be considered by the government.<sup>65</sup>

The particular challenges in accessing affordable infrastructure that are faced by regional, rural and remote communities were mentioned by a number of stakeholders. The Master Builders Australia submission noted that no sites in the Northern Territory accept commercial quantities of asbestos waste, meaning that it must be transported interstate for disposal.<sup>66</sup>

## CONCLUSION

The availability and accessibility of infrastructure to support the safe handling, removal, storage, transport and disposal of ACMs varies between and within jurisdictions. In some areas, there are only a handful of disposal sites that were able to accept asbestos-containing waste; sometimes these were at a great distance from source locations and premium fees are being levied.

Many of the activities proposed for the National Strategic Plan will depend on the availability of appropriate asbestos disposal facilities. The establishment of adequate infrastructure, the publication of information regarding asbestos disposal and the introduction of incentives and mechanism to discourage the illegal dumping of ACMs will be key factors in its success.

As a first step, there should be an assessment of infrastructure and systems for identification, handling, removal, storage, transport and disposal of ACMs, particularly in light of a possible national systematic removal program. This will be important in relation to the availability and capacity at disposal facilities.

Measures to address the illegal dumping of asbestos require particular focus. Sufficient disposal facilities in appropriate locations that are able to accept asbestos will be particularly critical in ensuring that ACMs are disposed of safely. Activities in this area should include:

An assessment of the impact of removalist and/or disposal fees as a possible inducement for illegal dumping:

- Initiatives to encourage safe disposal at licensed facilities, such as full or partial fee subsidisation; and
- Enhancements to existing compliance and enforcement activities and deterrents – including penalties.

## RECOMMENDATION

5. The review recommends that the National Strategic Plan provide for development of guidelines and principles to improve transport, storage and disposal of asbestos, including:
  - (a) Reviewing the adequacy of existing infrastructure and systems to cater for existing and future demand;
  - (b) Initiatives to encourage safe storage and disposal at licensed facilities; and
  - (c) Support and incentives for reporting of illegal disposal sites.

# Chapter 6 – Improving Asbestos Awareness

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Asbestos awareness for everyone should be a key priority area under the National Strategic Plan. During the review, awareness of asbestos, the dangers it poses, how to recognise it and where to seek expert assistance, were consistently raised as significant areas that require urgent attention. Home renovators and tradespeople in particular were identified as high-risk groups.

Because concerns in relation to the dangers of asbestos have been longstanding, a number of government and community efforts have already attempted to address improving community awareness. To capitalise on the work already underway, and to ensure effort and resources are allocated appropriately, the National Strategic Plan should apply a systematic and coordinated approach to asbestos awareness. The following principles should guide development of activities in this area:

- Identification of awareness needs;
- Development and coordinated implementation of multi-tiered, targeted and sustained awareness campaigns;
- Development of specialised awareness materials;
- Systematic, impartial and timely evaluation to inform future activities; and
- Consolidation and provision of information to the public, such as initial advice along with referral to the appropriate agency according to the circumstances of the enquiry.

## ISSUES

For the purposes of this review, asbestos awareness is considered to be an individual's knowledge and understanding of:

- Materials that can reasonably be assumed to contain asbestos;
- Risks associated with asbestos exposure; and
- Appropriate steps that may be taken to safely address those risks.

Public asbestos awareness is distinct from formalised education and training to attain the knowledge and skills necessary to safely work with asbestos and manage, remove, handle, store, transport and/or dispose of it. Asbestos education is addressed in Chapter 7.

## AWARENESS NEEDS

To ensure the maximum effectiveness of asbestos awareness campaigns, the information needs of the community generally, and of groups at higher risk of exposure, must first be assessed.

A 2008 national and international literature review compiled by the then Australian Safety and Compensation Council found '*... a wealth of information regarding past exposures to asbestos of people diagnosed with asbestos-related disease, [but that] the search resulted in only five studies on current work practices and exposures*'.<sup>67</sup> Of these reports, only three also addressed awareness issues – two were conducted in the United Kingdom and the other by the ACT Asbestos Taskforce in Australia.

Since the 2008 Australian Safety and Compensation Council report was compiled, Safe Work Australia has conducted a comprehensive study into the awareness and attitudes of construction and maintenance workers towards asbestos. Consistently, these studies found that more could be done to improve the dissemination and penetration of asbestos awareness information to meet the needs of workers.

Asbestos awareness by home owners is also an important consideration given the previously mentioned increased trend of asbestos-related diseases found in home owners undertaking renovations and DIY work and their families. The review is aware of a small number of studies that assess the level of awareness within this cohort; most surveys were conducted to evaluate the success of awareness initiatives. For example, the Victorian Department of Human Services undertook a project to gauge whether its messages about reducing exposure to asbestos and lead-based products during home renovation were reaching those most at risk. The executive summary of this report summarised its findings as follows:

*'Most respondents who had carried out renovation work either on their current home or on another home in the last five years were exposed to a potential lead and/or asbestos hazard (83% and 81% respectively). Nearly one-third of all renovators had altered or removed a known asbestos-containing product (29%), but importantly, only a quarter of these respondents were aware of the fact (25%)'.<sup>68</sup>*

Of concern is the relatively small number of studies addressing current practices and levels of asbestos awareness. Current research appears to be confined to a limited range of high-risk groups. Additional studies for newly identified at-risk groups, such as home owners and DIY renovators, would be beneficial to the ongoing understanding of asbestos awareness and could assist in crafting awareness programs directed at those groups.

## **AWARENESS CAMPAIGNS**

The review has been informed of and reviewed a large body of material relating to awareness campaigns.

Recent asbestos awareness campaigns particularly those emanating from government sources have developed consistent messages directing people to consider engaging a professional removalist to avoid handling asbestos. This is evident in the Tasmanian Government's 'Asbestos in Tasmania'<sup>69</sup> and the Queensland Health's 'Asbestos in the Home'<sup>70</sup> websites, both launched in 2011.

Most awareness material appears to be aimed at people who have a prior awareness of asbestos or asbestos issues. This form of information is 'passive information' in that it is available upon request or through enquiry. This form of material should be supplemented with sustained proactive awareness initiatives that alert people to the dangers of asbestos products prior to initial contact with the substance, and provide access to additional information in the event that removal is required.

The Dial Before You Dig campaign in relation to underground cables provides an example of this approach to potentially dangerous circumstances. A simple memorable message is communicated that encourages individuals to seek more information prior to commencing excavation work. Recently, the ACT Government has conducted a print and electronic media campaign advising renovators to check for asbestos before undertaking any work on their homes.

## **SPECIALIST AWARENESS MATERIAL**

Beyond the broad information needs of the general public, and at-risk groups, there may also be a need for awareness material to meet specific needs of vulnerable groups such as those for whom English is not a first language or those who have alternative communication needs.

Specialist material may also need to be developed for dissemination prior to or following particular events where asbestos products may present an increased danger. For example natural disasters such as bushfires, storms, cyclones, and floods increase the risk of friable asbestos being released into the environment on an uncontrolled basis. The January 2011 floods in Brisbane and the surrounding areas highlighted the need for coordinated awareness measures relating to the dangers of asbestos during clean-up and recovery activities. The COAG Disaster Resilience Committee deals with arrangements for coordinated responses to natural and other disasters. The committee is responsible for the National Disaster Resilience Strategy, which aims to build on lessons learned during the recent bushfires and floods that could benefit from national collaboration. The new agency could work with the committee to develop appropriate information and options for disseminating that information during and after disasters.

Specific event initiatives to improve awareness have also been undertaken by a number of states. The Victorian Environmental Health website, for example, provides information to people affected by bushfires on the potential risks posed by asbestos fibres.<sup>71</sup>

## **EVALUATION**

The long latency period associated with development of an asbestos-related disease means that success of awareness campaigns cannot be readily measured using medical statistics. Research to proactively assess the success of measures under the National Strategic Plan will be necessary to ensure awareness activities and campaigns target the at-risk groups and are effective in informing and changing behaviours. Assessment of the awareness campaigns will support future activities to ensure that they can be improved and adapted having regard to past experience. For example, in 2005 the ACT Asbestos Taskforce conducted a survey to establish a baseline data on the community's knowledge of asbestos and its associated risk prior to a general awareness

campaign. That survey found that less than 10 per cent of people reported being aware that their homes may contain asbestos.<sup>72</sup> Following this campaign, the ACT Asbestos Taskforce commissioned an evaluation, which found that, although participants were aware of the key message presented in the campaign, three in four houses in the ACT may contain asbestos. Most, however, thought that their house would not be one of the three, or if it was, were not aware where that material might be located.<sup>73</sup>

## PROVISION OF INFORMATION TO THE PUBLIC

There is a great deal of information about asbestos available to the public. However, it is not always clear which information source is the appropriate one in each circumstance. For example, there is a bewildering array of websites that purport to provide information; conducting a simple internet search of the phrase ‘asbestos information’ results in the identification of more than 40 million hits from a wide range of websites presenting conflicting information. This has the obvious potential to cause confusion and result in unsafe practices.

Several jurisdictions have established consolidated web portals in order to better inform employers, workers and members of the public on asbestos issues. There may be a need for a well-publicised ‘one-stop-shop’ website that could direct members of the public to the most appropriate agency to respond to their specific asbestos-related questions.

## STAKEHOLDER COMMENTS

The majority of submissions received by the review indicated that improving asbestos awareness in both the workplace and the general community should be considered as a priority area for an activity under the National Strategic Plan.

Submissions from across all stakeholder groups identified barriers to raising asbestos awareness in the community and workplace. These include a ‘she’ll be right’ attitude towards working with asbestos, and a sense that, since the mining and use of asbestos has been banned in Australia, asbestos is no longer a health issue.

The submissions provided to the review made a number of suggestions for awareness-raising activities ranging from mass media campaigns similar to the anti-smoking or SunSmart campaigns. During consultations, stakeholders also suggested provision of cautionary information regarding asbestos to the purchasers of power tools.

## CONCLUSION

A key challenge when implementing the National Strategic Plan will be in the area of improving public knowledge about the dangers of asbestos, how to recognise it and where to seek expert assistance. There is evidence of a general lack of asbestos awareness among large sections of the Australian public. As a consequence, there is a heightened danger for tradespeople, DIY home renovators and bystanders who may be unwittingly exposed to asbestos fibres. As noted above, the studies conducted in Western Australia indicate a ‘third wave’ of asbestos-related disease involving the renovator cohort.<sup>74</sup>

To improve asbestos awareness, the National Strategic Plan should include a comprehensive study into awareness of, and attitudes towards, the hazards of asbestos. The study should seek to establish the level of asbestos awareness and attitudes towards it in the community generally and identify appropriate opportunities for awareness campaigns. The study should also specifically target those thought to be in high-risk groups for exposure, such as home owners and renovators, tradespeople and those living in remote and natural disaster prone communities.

Based on the information obtained from the awareness study, appropriately targeted campaigns should be developed and deployed to improve awareness of asbestos, including its historical use, the associated risks, and what protective actions individuals should take. To be successful, the campaigns will need to provide information aimed at changing behaviour. They should have an unambiguous and credible evidence-based message tailored to target groups according to their risk levels. The campaigns would need to be persistent, sustained, and coordinated; using a variety of communication methods and media tailored to the target group needs and preferences. Where possible they should involve appropriate communication tools at key intervention or leverage points, such as when selling or renovating a property and the purchase of home renovation tools.

Many stakeholders pointed to the recent natural disasters such as the Black Saturday Bushfires in Victoria, the Queensland Floods and Cyclone Yasi, and predictions that extreme climate events are likely to increase in future. They raised the issue of dealing with asbestos-contaminated debris following such events and the dangers for volunteers engaged in clean-up work without knowledge of the appropriate precautions to take in dealing with asbestos debris. The review has concluded that action therefore needs to be taken to improve awareness of the potential risks posed by asbestos during clean-up operations, particularly after natural disasters.

The new national agency should also have the function of consolidation and provision of information to the public, such as initial advice along with a referral to the most relevant jurisdictional agency according to the circumstances of the enquiry. This could include an initial helpline and a central website for publishing advice and the location of licensed disposal sites throughout the nation, along with summaries of arrangements for appropriate permanent safe asbestos disposal.

## **RECOMMENDATION**

6. The review recommends that the National Strategic Plan provide for a program to improve asbestos awareness, which will include:
  - (a) A comprehensive study into community awareness of, and attitudes towards, the hazards of asbestos;
  - (b) The development and implementation of multi-tiered, targeted and sustained asbestos awareness campaigns;
  - (c) Systematic, impartial and timely evaluation of awareness campaigns;
  - (d) The development of specialised asbestos awareness materials for use in situations such as natural disaster recovery operations; and
  - (e) The consolidation of and enhancement of the provision of information to the public in relation to asbestos and safe asbestos removal.

# Chapter 7 – Improving Asbestos Education

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As discussed in Chapter 6, asbestos education is the training necessary to attain the knowledge and skills to safely manage, remove, handle, store, transport and dispose of asbestos. The review recommends that the only people who should be able to undertake these activities be licensed removalists, and appropriately trained tradespeople who deal with asbestos in the course of their ordinary duties. Accordingly, only these categories of workers, along with those required to advise on asbestos-related responsibilities, should require asbestos education.

Given the similarities between awareness and education, the systematic, coordinated approach discussed in Chapter 6 is equally applicable in the case of education. Accordingly the National Strategic Plan should provide for:

- Identification of education needs;
- Development and coordination of education initiatives; and
- Systematic, impartial and timely evaluation of initiatives to inform future activities.

## ISSUES

The importance of asbestos education cannot be underestimated. A Safe Work Australia study on asbestos exposure and compliance of construction and maintenance workers found that those who had asbestos-specific OHS training were three times more likely to have a better understanding of the risks posed by asbestos than those who had not had such training.<sup>75</sup> Furthermore, information obtained from specific trade training resulted in a greater understanding of the risks than information obtained from more general sources, such as newspapers and television.<sup>76</sup> This is of particular relevance for workers in occupations that face a higher probability of coming into contact with ACMs in the course of their everyday work.

## IDENTIFICATION OF EDUCATION NEEDS

The ubiquity of ACMs means that a wide range of workers are likely to come across ACMs as part of their everyday work. The educational needs of these different classes of workers will vary considerably.

There are sectors of the workforce that are unlikely to be required to work with ACMs. This is particularly the case for workers in the services industry who, for example, at most may be required to identify asbestos solely for the purpose of avoiding hazardous exposure to it. In these cases, awareness initiatives may be most appropriate in developing a baseline knowledge of the risks posed by asbestos and how to avoid them in day-to-day situations. For these classes of workers, formal asbestos education or training would not be required due to the low probability that they will be expected to work with such materials in a manner that could represent a danger to their health.

The model work health and safety regulations require an employer to provide training to workers who are likely to undertake 'asbestos-related work'. This includes workers engaged in asbestos research, maintenance of bonded ACMs and the transportation of asbestos or asbestos waste.<sup>77</sup>

The model code of practice on how to manage and control asbestos in workplaces advises that this training may cover:

- Health risks posed by asbestos;
- Types, uses and likely presence of asbestos in the workplace;
- The roles and responsibilities of both workers and employers under the workplace asbestos management plan; and
- Processes and safe work procedures to be followed to prevent exposure.<sup>78</sup>

This represents the basic level of education required under the model work health and safety regulations and is aimed at ensuring that any workers who are likely to encounter asbestos are provided with education necessary to deal with it in a safe manner.

The other end of the spectrum is the requirement for Class A and Class B licences to be held by persons undertaking asbestos removal work.<sup>79</sup> Class A licence holders are permitted to undertake removal of friable and non-friable asbestos, while Class B licence holders may only remove non-friable asbestos. The education standard for Class A licence holders is higher due to the greater risks they face in removing friable asbestos. Education standards for these licences, and for asbestos supervisors and assessors, are set down in work health and safety laws.

The extension of education opportunities beyond licensed professions has been taken up in the ACT where a list of approved occupations are permitted to handle (but not remove or dispose of) less than 10 square metres of bonded asbestos provided they have undertaken one of two approved Vocational Education and Training (VET) courses.<sup>80</sup> This list of approved occupations includes architects, fencers, landscape architects and interior decorators.<sup>81</sup>

## **ASSESSORS AND REMOVALISTS**

Many of the initiatives proposed for National Strategic Plan will be dependent for success on the availability of an appropriately qualified workforce, including assessors and removalists.

Under model work health and safety regulations, a person with ‘management or control’ of a workplace must, as far as is reasonably practicable, ensure that all ACMs are identified by a ‘competent person’.<sup>82</sup> In this situation, a ‘competent person’ does not have to be licensed, but has to have acquired through training, qualification or experience the knowledge and skills to carry out the task.<sup>83</sup> At present, the ACT is the only jurisdiction that requires the person undertaking this task to be licensed.<sup>84</sup> To obtain a Class A licence in the ACT, an individual must have completed specified training courses, obtained one of a range of tertiary qualifications, and have work experience in the field.<sup>85</sup>

Under work health and safety laws, asbestos removal must (in most circumstances) be undertaken by a licensed removalist. One of the major outcomes of the work health and safety harmonisation process as it affects asbestos will be the implementation of a nationally recognised licensing process. This will facilitate the cross-jurisdictional recognition of asbestos-related licences.

In its regulation impact statement on the model work health and safety regulations, Safe Work Australia undertook a detailed analysis of how the new licensing requirements would impact asbestos removalists, including estimating the number of Class A and Class B licences currently issued, how many removal jobs each licensee undertook per year, and how many people they were likely to have working under each licence.<sup>86</sup> While the asbestos removal industry and relevant training bodies indicated confidence that a trained workforce would be readily available to meet changes in regulatory requirements, this degree of analysis may also need to be undertaken in relation to each component of the asbestos management chain to support the activities under the National Strategic Plan. Consequently, it may be necessary to consider phasing in some of these activities.

The national Construction and Property Services Industry Skills Council has determined the nominal training hours required to be undertaken in order to achieve competency as an asbestos removalist, supervisor and assessor of such work. They are 20 hours for the removal of friable and non-friable material (CPCDC3014A and CPCDC3015A), 8 hours for a supervisor (CPCBC4051A) and 40 hours for an assessor (CPCBC5014A). Consequently, notwithstanding the relative ease with which such competencies may be obtained, it may nevertheless be necessary to consider phasing in some of those activities.<sup>87</sup>

## **EDUCATION COORDINATION**

Many of the classes of workers who are likely to be exposed to ACMs through their work fall within the Australian occupational licensing framework, such as electricians and plumbers. Occupational licensing exists to ensure that work done in industries with the potential to cause harm to the public is undertaken in a safe manner by qualified persons. Occupational licensing also seeks to ensure high work health and safety standards are maintained in these industries through the inclusion of safety competencies as part of licensing requirements.

Occupational licensing requirements, such as competencies, are primarily overseen by individual states and territories through government agencies or industry-specific authorities. Coordination between jurisdictions occurs at a national level. For example, the National Occupational Licensing Authority (NOLA) is working to introduce national licensing arrangements and underpinning competencies in a range of fields, including for plumbers and

electricians. The competencies that go towards occupational licences are overseen by individual states and territories and delivered by Registered Training Organisations (RTOs).

The provision of appropriate occupational training, including that required to support the nationally harmonised work health and safety asbestos regulations and codes, is being addressed through the mechanisms outlined above.

The National Quality Council is tasked with bringing together the various stakeholders in the VET sector to oversee and support the current and future quality of VET across Australia.

## EVALUATION OF EDUCATION INITIATIVES

As with asbestos awareness, one of the most important steps in improving education outcomes will be evaluating the success of initiatives undertaken as part of the National Strategic Plan. As noted in the Safe Work Australia study on asbestos exposure and compliance, workers in some trades consistently demonstrated greater compliance with safe work practices than others.<sup>88</sup> Determining the factors that led to improved educational outcomes for these trades would allow for best-practice examples to be adopted throughout.

## STAKEHOLDER COMMENTS

The majority of submissions received by the review indicate that there is support for the inclusion of asbestos education as a priority area under a national strategic plan. Many submissions outlined the need to improve the quality and quantity of education activities for high-risk groups. It was suggested that an audit or evaluation of existing education activities be undertaken '*... with a view to building on their successes, addressing their failures, and assessing their viability on a more extensive scale*'.<sup>89</sup>

Other submissions noted the changed training requirements arising out of work health and safety harmonisation. The submission from Master Builders Australia notes that '*... the model regulations will for the first time require asbestos removal workers and asbestos supervisors to have completed nationally consistent competency based training*'.<sup>90</sup>

The Real Estate Institute of Australia emphasised to the review the need for appropriate transitional education to inform agents of any new responsibilities arising from the recommendations of the review. This includes the sale or letting of the premises, where there will be a need for professionals such as real estate agents to provide accurate advice in relation to these requirements.

## CONCLUSION

As with asbestos awareness, providing those workers who deal with asbestos with the appropriate knowledge and skills to do so safely is one of the priority areas for the National Strategic Plan. While market forces will come into play regarding the supply of licensed assessors and removalists, attention will also need to be given to measures to meet the increased demand that will arise. Where possible, consideration should be given to consolidating functions; for example existing building inspectors could undertake identification and assessment functions if properly trained.

To progress improvement in asbestos education, the National Strategic Plan will need to include reference to the identification of education needs for both licensed operators and workers in high-risk occupations who may encounter and be required to disturb ACMs during the course of their work. The new national agency will therefore need to work with education regulators, RTOs and NOLA to ensure the safety modules for appropriate high-risk occupations include mandatory and nationally consistent asbestos education for new workers appropriate to their trade. Short practical training courses specific to each industry will need to be developed for workers who have completed training prior to introduction of these mandatory requirements.

At the completion of either training courses, tradespeople will have satisfied the training element required to have the exemption under the nationally consistent asbestos regulatory regime apply to their work. Accordingly, a certification or endorsement on existing licences would be issued to this effect. Given the moves towards a national occupational licensing system, the new national agency could work with NOLA to implement this initiative.

The education activities associated with the National Strategic Plan will also need to make provisions for those who will have an obligation to provide advice in relation to the new requirements, such as real estate agents.

## **RECOMMENDATION**

7. The review recommends that the National Strategic Plan provide for a program of education campaigns to improve knowledge for those working with asbestos, which will include:
  - (a) Identification of education needs for licensed operators as well as high-risk and specified exemption occupation workers referred to in recommendation 4(c);
  - (b) Encouragement and support for the training of adequate numbers of qualified assessors and removalists;
  - (c) Mandatory asbestos education for new workers appropriate to their trade, including the development of industry-specific asbestos education modules for inclusion in trade training packages;
  - (d) Practical asbestos safety training for existing workers likely to come into contact with ACMs in the course of their ordinary duties;
  - (e) Education and information for those with responsibility to advise regarding the new requirements; and
  - (f) Systematic, impartial and timely evaluation of the education campaigns.

# Chapter 8 – Asbestos Data and Information Sharing

Significant amounts of data regarding asbestos and asbestos-related disease are already being collected in various ways throughout Australia. This information is generally collected and used for a single purpose only. The utilisation of this data could be significantly enhanced by improving information sharing mechanisms between and across both agencies and jurisdictions.

Using this information to its fullest potential will require robust information-sharing mechanisms to ensure that organisations with a genuine interest are able to access relevant data.

To progress improvement in asbestos knowledge and information sharing, the following will need to be addressed:

- Sharing of all relevant information and research between jurisdictions, social partners and all appropriate stakeholders including relevant health-related data; and
- Monitoring developments in asbestos research and management, locally, nationally and internationally, to identify innovations that may need to be included in the National Strategic Plan.

## LOCATION DATA

### ISSUES

Knowing the location of ACMs is critically important to developing appropriate management strategies. This includes materials in both the built environment and asbestos that has been dumped or disposed of following removal.

Data on the location of ACMs can be drawn from several sources. As noted in Chapter 3, a significant amount of data on the location of asbestos in both the built and natural environments is already being collected by building owners as part of their work health and safety duties.

Some organisations or individuals may not have reported the location of asbestos dump sites due to the threat of penalty under particular legislation. Consideration may need to be given in the National Strategic Plan to allowing organisations or individuals a grace period (e.g. an up to three-year amnesty period) to report on known asbestos dump sites.

### STAKEHOLDER COMMENTS

Approximately two-thirds of the submissions received by the review responded to the *Issues Paper* questions on location data. The majority of submissions, across nearly all of the stakeholder groups, indicate a need to improve the way in which location data is disclosed, reported and managed. A number of submissions urged that the oversight of nationally consistent data management and reporting be considered a priority area under a national strategic plan.

Some of these submissions further recommend that location data be consolidated and made publicly available. According to the submission from the Asbestos Victims Association SA, ‘... *the development of an asbestos map would in the long term make any response to natural disasters much easier*’.<sup>91</sup>

Not all submissions, however, agreed with the consolidation of location data. For example, the submission from the Australian Chamber of Commerce and Industry stated that:

*‘... a consolidated register would be cumbersome, bureaucratic and expensive to establish and maintain. A consolidated register would also lead to complacency about the existence of asbestos – with the risk that people falsely assume that a building not on the register does not contain asbestos’.*<sup>92</sup>

## CONCLUSION

According to the old adage, 'If you can't measure it, you can't manage it'. To deal effectively with all of the complex asbestos management issues in Australia, it is essential to have a rigorous, comprehensive, reliable, up-to-date and accessible database of asbestos locations.

Data from municipality based asbestos location registers should be aggregated and mapped to identify areas of high, medium and low-density ACM locations. The data should be made available to all relevant authorities to assist with civic planning, development of asbestos abatement policies and with management of responses to natural or other disasters. The review envisages that databases so established by local government (or equivalent) would be used to populate a current, accurate and reliable national database to be maintained by the new national agency.

Consolidation of the wealth of information already available would improve its usefulness. In particular, the central collation of this information could allow for more targeted management efforts in high-density asbestos areas.

## MEDICAL DATA

### ISSUES

The relationship between asbestos exposure and disease has been well established, and the World Health Organization (WHO) has recognised asbestos as one of the most important occupational carcinogens. The WHO declared the need to eliminate asbestos-related disease and cease asbestos use.<sup>93</sup> Recently the WHO also updated its global estimate of asbestos-related disease, which continues to rise.<sup>94</sup>

The Australian Mesothelioma Registry is a significant potential source of information in relation to that particular asbestos-related disease. The purpose of the registry is to collect information from mesothelioma patients to better understand the relationship between asbestos exposure and mesothelioma, and to assist in the development of policies to deal with asbestos.<sup>95</sup> From 1 July 2010, the registry has been notified by state and territory health agencies of new cases of mesothelioma. The registry collects information via voluntary participation by patients, including the nature and history of asbestos exposure. Consenting patients are also surveyed about their residential, school and occupational histories, as well as any family history of mesothelioma. The current contractual period for the management of the registry expires in 2013.

The manner in which the registry collects data for mesothelioma sufferers may provide a template for initiatives to collect information on a wider range of asbestos-related diseases, such as asbestosis and lung cancer. Work may be required under the National Strategic Plan to improve existing structures to better extract data as well as collecting information on a wider range of diseases.

Decisions regarding such initiatives would need to take into account current expert medical opinion which states that it is not possible to definitively determine whether asbestos exposure was the causative factor in the development of individual lung cancers that can also be triggered by other catalysts such as smoking. That said, there is research recently published that indicates that for each case of mesothelioma, it can be assumed that there are at least two cases of asbestos-induced lung cancer.<sup>96</sup> There is also evidence of the substantially increased risk faced by people who both smoke and are exposed to asbestos fibres.<sup>97</sup> Likewise, a recent case-control study of chrysotile miners in China, adjusted for smoking, shows an alarmingly high number of lung cancers.<sup>98</sup>

### STAKEHOLDER COMMENTS

Over half of the submissions received by the review responded to the questions in the *Issues Paper* on the disclosure, reporting and collation of medical data.

Submissions from a variety of stakeholders, including unions, community organisations, academics and individuals indicated support for the development of a nationally consistent and consolidated database that collects information and reports on a broad range of asbestos-related diseases.

Submissions from these groups noted that a number of organisations or health professionals could assist with the establishment of a structure or model to improve the management of medical data. These include the Australian

Mesothelioma Registry, the NSW Dust Diseases Board, the relevant state coroners' offices, occupational physicians and epidemiologists, as well as, the Australian Association of Cancer Registries.

A small number of submissions questioned the validity, reliability and possible use of medical or exposure data.

## CONCLUSION

Careful monitoring of malignant mesothelioma in Australia is essential. It is important that the Australian Mesothelioma Registry remains viable to allow for the collection of vital information on the Australian mesothelioma epidemic for the use of governments, the medical community and the general public. The National Strategic Plan should build on the activities of the registry.

In order to more accurately assess the incidence of lung cancer caused by asbestos exposure, the new agency should also seek the active cooperation of clinical and epidemiological experts to investigate opportunities to establish a database with asbestos exposure information from lung cancer patients to establish a more complete register of asbestos-related diseases.

## INFORMATION SHARING

### ISSUES

As noted in Chapter 1, many jurisdictions have taken steps to improve interagency cooperation through the establishment of asbestos forums.

Some examples of this include:

- The New South Wales Heads of Asbestos Coordination Authorities (HACA) which came about as a result of the state ombudsman's report entitled *Responding to the Asbestos Problem: The Need for Significant Reform in NSW*,<sup>99</sup> and
- The South Australian Asbestos Safety Action Plan, which is managed by WorkSafe SA in conjunction with a variety of stakeholders. Specific activities under the action plan relate to encouraging information sharing and the undertaking of research.

The existence of these cooperative frameworks demonstrates the increasing jurisdictional awareness of the need to effectively tie together asbestos management initiatives and to formalise channels for information sharing. The next logical step is cross-jurisdictional information sharing. Initiatives of this kind are taking place through existing cooperation bodies such as enHealth, but these efforts could be afforded greater strategic direction under the National Strategic Plan.

### STAKEHOLDER COMMENTS

Based on the responses to the questions canvassed in the *Issues Paper*, many of the submissions support greater coordination and information sharing between jurisdictions.

The submission from New South Wales Business Chamber states: '*... there is merit in jurisdictions collaborating and cooperating to share learnings and to leverage initiatives beyond state/territory boundaries*'.<sup>100</sup>

## CONCLUSION

At a minimum, there should be a sharing of all information and research that is relevant to improving awareness and management of asbestos (including health-related data) between jurisdictions, social partners and all appropriate stakeholders. Developments in asbestos research and management, locally, nationally, and internationally, should be monitored by the new national agency to identify innovations that may be considered for application under the National Strategic Plan.

Information from asbestos-related research initiatives by all jurisdictions and relevant organisations should be made available and the new national agency should regularly analyse the resultant aggregated data, along with the asbestos location database referred to elsewhere, in order to investigate potential correlations between asbestos location data and the incidence of asbestos-related disease.

The important contributions of employee and employer organisations could also be enhanced through improved information-sharing protocols under the National Strategic Plan. These organisations have an interest in ensuring the risks posed by asbestos are effectively managed, and these efforts could be considerably enhanced through improved information availability. Likewise, accessing the practical knowledge held by support groups would assist in ensuring that best practice is shared and adopted nationally. In this regard, consideration may also need to be given to the adequacy of resourcing for legitimate support groups, and for the need for them to have an effective national voice.

## **RECOMMENDATION**

8. The review recommends that the National Strategic Plan provide for:
  - (a) Better utilisation of knowledge regarding the locations of asbestos in Australia to obtain an accurate indication of ACM density via a national database and thus assist with civic planning and the development of asbestos abatement policies and management of responses to natural or other disasters.
  - (b) Improved capture and use of epidemiological data by:
    - (i) Supporting the Australian Mesothelioma Registry to continue activities beyond the current contractual period; and
    - (ii) Creating a more comprehensive registry by investigation of the opportunities to extend the Australian Mesothelioma Registry to include asbestos exposure information relating to lung cancer patients and other asbestos-related diseases.
  - (c) Improving opportunities for sharing information and data relating to asbestos which would include:
    - (i) Sharing of all relevant information and research including health-related data, between jurisdictions, social partners and all appropriate stakeholders; and
    - (ii) Monitoring of developments in asbestos research and management, locally, nationally, and internationally, to identify innovations that could be considered for application under the National Strategic Plan.

# Chapter 9 – Administration of the National Strategic Plan

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The establishment of an appropriate administrative mechanism will be a critical factor in ensuring that all stakeholders are engaged and the key elements of the National Strategic Plan are effectively implemented. The successful implementation of the National Strategic Plan, its operation into the future, and mechanisms for its effective administration are therefore addressed in this chapter.

While acknowledging the good intentions and efforts of all involved, stakeholders across all jurisdictions frequently raised concerns regarding the fragmented nature of administering asbestos issues, and the resultant overlap, confusion and gaps this engenders. The administration of the National Strategic Plan should avoid confusion and overlap caused by the current fragmented administration across multiple jurisdictions.

## ISSUES

A number of recent jurisdictional reviews on asbestos management have also identified administration of asbestos within that jurisdiction as an issue. A number of states and territories have now taken steps to improve cooperation on asbestos awareness and management activities within their own boundaries, primarily by establishing a coordinating entity. These include:

- The NSW Government established the Heads of Asbestos Coordination Authorities ‘... to ensure that NSW Government agencies and local 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’;<sup>101</sup> and
- The Tasmanian Government established a dedicated asbestos unit within Workplace Standards Tasmania to coordinate policy using a whole-of-government approach, improving community education and awareness on asbestos issues, and to make recommendations to government about asbestos issues.

At the national level, coordination efforts have been focused on subject matter areas. For example, Safe Work Australia is responsible for coordinating asbestos work health and safety issues, while enHealth has responsibility for coordination of asbestos management where it relates to public health.

There are three main options for establishing an entity to coordinate asbestos management and awareness at the national level:

- Establishment of a new national body;
- Establishment of a new committee; or
- Allocation of responsibility to an existing body or committee.

Key to the success of any entity charged with administration of the National Strategic Plan will be that it has the expertise and authority to coordinate activities across all tiers of government affecting multiple portfolios such as health, safety, environment and education. For each of the options indicated above, this would need to be achieved by engaging with, and capitalising on, the asbestos regulatory coordination frameworks established within state and territory jurisdictions.

## A NEW NATIONAL BODY

In their *National Declaration: Towards an Australian Safe Asbestos Free Environment*, the 2010 Asbestos Summit called for the establishment of a National Asbestos Authority. They suggested:

*‘A National Asbestos Authority (NAA) should initially be established as an independent authority with the appropriate powers to coordinate and enforce all of the aspects contained in the range of tasks and matters listed in this Declaration.*

*The NAA would work best as an independent body, as a statutory authority. Its coverage and agenda would not be limited to workplaces so that it could develop a total community approach.*

*The activities of the NAA could be overseen by a board of management consisting of a representation from key stakeholders from unions, the community, asbestos disease support groups, health groups and government'.<sup>102</sup>*

Experience would suggest that a new body may operate more effectively with a smaller management board than that proposed above. It could be comprised of a high-level tripartite membership, including representation of all Australian governments (including local government) and national peak bodies (i.e. unions and employer associations).

The smaller board could be supported by input from an advisory committee consisting of appropriate community and expert representatives, such as asbestos advocacy groups, industry associations, and representatives of remote and regional communities and relevant health and medical research bodies. This model has been successfully used for work health and safety via Safe Work Australia, and for transport safety via the National Rail and Transport Commission, and their predecessors.

This approach could be necessary given the large number of agencies and other parties involved in addressing the asbestos problem in Australia, and the scope of the problem.

The absence of a national peak or umbrella body of asbestos disease support groups is also a factor that needs to be taken into account in relation to the governance and advice arrangements for a new agency.

## **A NEW COMMITTEE**

The Council of Australian Governments (COAG) has the capacity to initiate, develop and monitor the implementation of policy reforms that are of national significance and which require cooperative action by Australian governments. This framework could provide the necessary authority and impetus to act using both regulatory and non-regulatory responses to issues.

A new dedicated coordination committee could be established to administer the National Strategic Plan. The committee could comprise of representatives from relevant agencies in each jurisdiction and be supported by a secretariat within an Australian Government department.

Alternatively, jurisdictions could take it upon themselves to rotate provision of secretariat functions as is done for other similar national coordination committees. An example of this approach is the Heads of Work Safety Authorities.

## **ALLOCATION TO AN EXISTING BODY/COMMITTEE**

An existing body or committee at the national level could be charged with administration of the National Strategic Plan. The review's *Issues Paper* provided two examples of existing entities whose responsibilities could potentially be extended to include coordination of asbestos management. The entities were Safe Work Australia and enHealth.

While this approach would capitalise on existing infrastructure and expertise, and possibly assist to somewhat address resourcing concerns, the entities may not have the necessary authority across the full scope of the issues or the single-minded focus on asbestos management to allow for success.

Under any or all of the above approaches, jurisdictions would continue to have direct carriage of many of the activities under the National Strategic Plan. States and territories currently have the majority of responsibility for management of asbestos matters, and consequently the greatest levels of existing expertise and resources.

## **STAKEHOLDER COMMENT**

The review's *Issues Paper* canvassed opinion on options for administering a national strategic plan. A substantial majority of submissions supported establishment of a new national body to administer the National Strategic Plan and to coordinate asbestos management measures. Submissions suggested that the new national body be independent and tripartite with representation from a wide variety of stakeholders, including representatives from Commonwealth, state or territory and local governments, unions, industry, business enterprises, and legal, health and community groups.

Some submissions also suggested that the new national body have a coordinating role rather than a regulatory one. According to the Master Builders Australia submission:

*'... the management, removal, transport and disposal of asbestos are all highly regulated and a further layer of regulation is unnecessary. This suggests that any national body should be limited to a coordination role, working with existing regulators and other stakeholders.'*<sup>103</sup>

Although the majority of submissions supported the concept of the plan being administered or coordinated at a national level, a few submissions raised potential challenges involved in such a move. For example in its submission, Unions NT noted:

*'The use of an existing or new standalone national body or organisation may be difficult to achieve in relation to the administration of all operational activities, given the complex and different roles of Commonwealth and State Government agencies and local councils in the management of asbestos.'*<sup>104</sup>

There were mixed views on the suitability of Safe Work Australia as an alternative option. Some advocated allocating the plan to Safe Work Australia. However, others noted that this would inappropriately extend their role into public health issues;<sup>105</sup> where entities such as enHealth already have an established role.<sup>106</sup>

## CONCLUSION

A consistent feature of much of the advice and submissions put to the review was concern at the fragmentation and inconsistency of asbestos management and awareness activities throughout the nation. While there were differing views as to what its exact functions should be, the overwhelming majority of stakeholders agreed that there was a pressing need for a national body to take responsibility for the National Strategic Plan – and that there was no existing agency that could appropriately assume that role.

The review does not favour the alternatives of setting up a new multi-jurisdictional committee or allocating responsibility for the oversight of the National Strategic Plan to an existing agency or committee because:

- Experience with other similar challenges has demonstrated that real traction is only gained through a dedicated and appropriately resourced agency with the ability to set tasks and deadlines and reinforce the required sense of urgency;
- The nature of the challenges posed by asbestos requires a specialist and focused agency that is not likely or prone to be diverted by other activities and priorities; and
- A 'business as usual' approach, which would be implicit in either of these alternatives, has not resulted in a decline in the incidence of asbestos-related disease and death in Australia, as demonstrated by the evidence cited elsewhere in this report.

Hence the review has concluded the Australian Government should be urged to now take the lead and advocate to all jurisdictions the establishment of a new national agency: the Australian Asbestos Awareness and Management Agency (AAAMA).

To be effective and achieve the buy-in of all relevant stakeholders, AAAMA should have a high-level tripartite governing board, including an independent chairperson, representation of all Australian governments and the national peak union and employer bodies. Given the key roles envisaged for local government in areas such as the maintenance of asbestos location registers and administration of the Asbestos Content Report scheme, it is appropriate that they have an avenue of representation on the board of the new agency. As the agency's role will include consideration of medical and epidemiological data and information, its decision making and credibility at the highest levels would benefit from specialist input. Therefore, a pre-eminent medical expert in the field of asbestos-related diseases should also sit on the board.

AAAMA should also be supported by input from an appointed expert advisory committee consisting of appropriate community representatives and professionals such as, asbestos advocacy groups, industry associations, representatives of remote and regional communities and health bodies.

The review has not been persuaded to recommend the AAAMA have regulatory responsibilities in the first instance. It is expected, however, that the most logical and effective future allocation of resources and the exercise

of regulatory functions to support the aim of the National Strategic Plan would be considered by governments in the partnership that would be involved around these issues in future.

All aspects of the new agency's activities would involve a process of rigorous and objective evidence-based decision making. It would, of course, also require appropriate modest resourcing and staffing. A chief executive officer would undertake the day-to-day roles of implementing, monitoring and reviewing the agency's activities under the guidance of the board.

AAAMA should have the expertise and authority to coordinate activities across all tiers of government affecting multiple portfolios such as health, safety, environment and education. This could be achieved by engaging with, and capitalising on, the asbestos regulatory coordination frameworks established within state and territory jurisdictions.

AAAMA should be established, staffed and be fully operational by the end of 2013 so that it can commence implementing the National Strategic Plan as soon as it has been finalised. In order to give it the stature, independence and security of tenure that it will need, the establishment of AAAMA should be supported by statute.

The recommendations contained in previous chapters encompass a broad range of issues relating to improving asbestos awareness and management in Australia. Given constraints such as the availability of resources and skilled personnel etc, the report recognises that not all of these recommendations may be capable of total implementation at the outset of the National Strategic Plan. Consideration may need to be given to options such as phasing initiatives in or conducting pilot programs. Examples of this could include the identification of disposal sites and the introduction of the residential Asbestos Content Report scheme as mentioned in Chapter 3. In this regard, the review received correspondence from the City of Greater Geelong in Victoria, in which they expressed interest in being involved in any pilots that may arise. Having discrete and clearly defined boundaries and a mix of residential, industrial and commercial structures that have been progressively erected over the past two centuries, in many respects in the matter of asbestos, Geelong represents a microcosm of Australia as a whole.

Should it be decided that pilot programmes are the best mechanism for the early trialling or introduction of some of the initiatives proposed elsewhere in this report, AAAMA should actively explore this with the City of Greater Geelong or other suitable municipalities that may wish to be involved.

## **RECOMMENDATION**

9. The review recommends that the Australian Government support and legislate for the establishment of a new national agency to have responsibility for the implementation, review, refinement and further development of the plan in accordance with the principles and recommendations outlined in this report. The Australian Asbestos Awareness and Management Agency (AAAMA) should:
  - (a) Have the expertise and authority to coordinate activities across all tiers of government, affecting multiple portfolios such as health, safety, environment, and education;
  - (b) Engage with the asbestos regulatory coordination frameworks established within state and territory jurisdictions;
  - (c) Be overseen by a governing board with high-level tripartite membership, including an independent chairperson, a medical expert, representation of all Australian governments including local government and national peak bodies;
  - (d) Be supported by input and technical expertise from an appointed advisory committee consisting of appropriate community representatives and professionals; and
  - (e) Have appropriate staffing and resources to implement, monitor and review its activities under the direction of a chief executive officer.

# Chapter 10 – Medical Research

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Mesothelioma and other asbestos-related cancers generally have a long latency period and high mortality rate. Areas that appear to cause particular concern in the medical community are the lack of early diagnosis measures for mesothelioma and the lack of effective treatment options to increase the survival rate of mesothelioma patients. The need to support research into these diseases is given further emphasis by the recent spread into broader segments of the population. This chapter deals with supporting and coordinating such research efforts.

## ISSUES

### DIAGNOSIS AND TREATMENT OF ASBESTOS-RELATED DISEASES

Underpinning all of the consultations and submissions to the review was a strong desire to prevent future asbestos-related disease, together with a wish for better diagnosis and treatment. While asbestosis, which is contracted as a consequence of intensive exposure to asbestos, is becoming a less frequent diagnosis due to effective preventive measures and the bans on asbestos use, the incidence of mesothelioma has continued to rise. It is no longer an infrequent diagnosis and its incidence is projected to continue to rise for years to come.

The review was informed that the diagnostic process in patients with mesothelioma can be difficult and problematic, and may take several weeks. Frequently, additional expert advice is needed to ascertain the diagnosis. Treatment decisions are affected by this delay. Despite modest improvements in treatment in recent years, the prognosis of patients with mesothelioma has remained poor and median survival following diagnosis remains less than 12 months. Novel methods to improve the diagnostic process of asbestos-related cancers are urgently needed, as are more effective means for the treatment of mesothelioma.

### SUPPORT FOR MEDICAL RESEARCH IN AUSTRALIA

Mesothelioma and other asbestos-related diseases receive low levels of research funding compared to other forms of cancer. When financial support for oncological research in Australia was reviewed recently, it was apparent that research into cancers with poor prognosis, such as mesothelioma and lung cancer, is receiving significantly less support than research into more favourable cancer diagnoses such as breast cancer.<sup>107</sup>

A report compiled by Cancer Australia concerning funding for cancer research projects noted that overall funding in Australia was \$84.9 million in 2003, \$91.7 million in 2004 and \$115.1 million in 2005 (not including fellowships, infrastructure and equipment). Less than 5 per cent of this funding was attributed to lung-related cancers, which includes mesothelioma. The report also noted that unlike other cancers such as breast cancer, leukaemia and melanoma, funding for research into asbestos-related cancers was relatively low.<sup>108</sup>

According to figures provided by the National Health and Medical Research Council (NHMRC), approximately \$15.4 million was allocated to mesothelioma research between 2000 and 2011. This includes the oversight of a small ongoing \$5 million fund provided by the former James Hardie Industries under the terms of the final Asbestos Injuries Compensation Fund Agreement in 2006.\* It should be noted NHMRC funding relies on organisations successfully applying for grants.

In 2006, James Hardie wrote to their shareholders to seek their approval to establish a long-term compensation fund for Australian asbestos-related personal injury claims against former James Hardie subsidiaries. Notably, James Hardie cited a report by KPMG in 2006, which stated:

*'An actuarial and insurance industry review undertaken by KPMG actuaries in August 2004, which was updated to September 2006, estimated that the total cost of Australian asbestos liabilities in relation to personal injury claims may exceed \$9 billion, although KPMG actuaries acknowledged the uncertainty in predicting a definitive figure.'*<sup>109</sup>

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\*\$500,000 per year for 10 years from 2007

There are a number of research groups with major research activities (preclinical, translational, clinical and epidemiological) in Australia. Because of the manner in which funding for medical research into asbestos-related diseases is conducted, the climate for research funding in Australia could be best described as competitive. If so, rather than driving effective collaborative research efforts, this could have a consequence that researchers become more isolated.

## STAKEHOLDER COMMENTS

Although not covered by the review's terms of reference, a number of submissions received from community organisations, unions and medical specialists identified medical research and patient management as requiring attention.

Dr Malcolm Feigan noted in his submission:

*'Mesothelioma is probably the only cancer whose cure rate has not significantly benefitted from medical advances in surgery, chemotherapy or radiotherapy, better screening tools and diagnostic imaging. With a new wave of cases being diagnosed after home renovations, the problem of finding a medical solution is becoming more pressing.'*<sup>110</sup>

## CONCLUSION

As with a number of the other areas dealt with by the review, it became apparent that there were gaps in asbestos disease reporting data and knowledge, particularly in relation to the sharing of information across jurisdictions. The gathering and sharing of information and knowledge concerning the incidence of asbestos-related disease throughout Australia should be better coordinated.

Research into asbestos-related disease should be driven by excellence. National cooperation should be encouraged to avoid redundancy or duplication of effort. In making funding decisions, governments and funding bodies should also consider the magnitude of expenses that are, and will be, made to compensate asbestos victims – and the other economic imposts of asbestos-related disease. There is a national economic imperative to reduce this cost by funding medical research into asbestos-related disease.

The review has concluded that more funding is required for research into asbestos-related disease; and this would be best achieved by supporting the effective cooperative research efforts already established in Perth, Sydney and elsewhere. Sufficient Commonwealth funding should be provided for a coordinated national research effort to discover ways of preventing or curing asbestos-related cancers. This, in combination with the range of other asbestos management measures mentioned elsewhere, could enable Australia to become the first nation to dramatically reduce and then eliminate deaths from asbestos.

## RECOMMENDATION

10. The Review recommends that there be sufficient funding for a coordinated national research effort into ways of preventing or curing asbestos-related disease, particularly mesothelioma.

# Chapter 11 – International Obligations

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The international trade in asbestos has declined considerably from its peak in the 1970s.<sup>111</sup> This was the result of waning demand in the USA and Europe, at least part of which can be attributed to the growing public awareness of the health risks posed by asbestos.<sup>112</sup> Between 2003 and 2007 world consumption remained relatively steady, averaging 2.11 million tonnes. The leading consuming countries in 2007 were China, India and Russia.<sup>113</sup>

Large volumes of asbestos are still traded internationally, often to developing countries. Although not specifically encompassed by the review's terms of reference, many stakeholders highlighted the importance of Australia's role in efforts to improve the international framework surrounding the world trade in asbestos.

## ISSUES

The remaining major international producers and importers of chrysotile asbestos still claim that it does not pose a risk to human health if it is properly encapsulated and maintained. This is disputed by a number of countries and international organisations, including the World Health Organization and the International Labour Organization, which have deemed all forms of asbestos (including chrysotile) to be carcinogenic and a risk to health and safety.

A number of international multilateral treaties have sought to place restrictions on the trade in asbestos. The Rotterdam Convention, which promotes a cooperative approach to the international trade in certain hazardous chemicals and imposes prior informed consent procedures for all forms of asbestos other than chrysotile. Australia has spearheaded efforts to have these requirements also apply to chrysotile asbestos. However, the convention's members did not obtain the consensus needed to support taking this step in June 2011.

The Basel Convention on the Control of the Transboundary Movement of Hazardous Wastes and their Disposal classifies asbestos (including chrysotile) as a hazardous waste. The convention seeks to promote the environmentally sound management and disposal of such wastes through a consent-based system among its members.

Countries that have instituted domestic bans or restrictions on the use of asbestos products include Chile, South Korea, Japan, the United Kingdom and all but two member states of the European Union. Additionally, a number of state and federal laws in the USA have placed restrictions on the use of asbestos. The legality of importation bans was considered by the World Trade Organization in 2001 following a Canadian appeal against an importation ban implemented by France on the grounds that it was justified as a measure to protect human health and safety.<sup>114</sup> The Canadian case ultimately failed on the grounds that the ban could be justified as being necessary to 'protect animal, human, plant life or health'.<sup>115</sup>

A number of non-governmental organisations have been established to support sufferers of asbestos-related diseases and advocate for a global ban on the use of asbestos. These include both global organisations (such as the International Ban Asbestos Secretariat and the Global Ban Asbestos Network) and groups that focus on individual regions or countries. These groups both lobby government and support conferences designed to raise awareness of the risks posed by asbestos and end its use worldwide. These efforts are supported by a number of employee groups, which have historically been at the forefront of efforts to ban the use of asbestos internationally.<sup>116</sup>

The presence of asbestos in ships is a regulatory challenge. The review was advised of ACMs in vessels, particularly foreign flagged ships engaged in coastal shipping or resources projects located within Australian waters.

Shipping in Australia is currently regulated by the Australian Government Department of Infrastructure and Transport, the Australian Maritime Safety Authority (AMSA), and state and territory work health and safety regulators as required. Ships must have a permit issued under the *Navigation Act 1912* (the Nav Act). They need to meet a number of criteria before being granted a permit, including a satisfactory ship inspection report in the case of dry bulk vessels and tankers.

In September 2011, the Minister for Infrastructure and Transport announced a package of reforms aimed at simplifying regulations for shipping. This includes a rewrite of the Nav Act and the creation of two additional pieces

of legislation, the Coastal Trading (Revitalising Australian Shipping) Bill (Coastal Trading Bill) and the Marine Safety (Domestic Commercial Vessel) National Law Bill (National Law Bill).

If enacted, the Coastal Trading Bill will require all vessels operating in Australian waters to have a licence. A number of criteria will be attached to the granting of a licence, including the nature of the vessel and cargo it is carrying.

The National Law Bill will make AMSA the single national regulator for vessel safety from 1 January 2013. This includes the development and implementation of national standards covering vessel construction, operation and crew qualifications. In some cases, AMSA may delegate these responsibilities to existing state and territory regulators.

The *Occupational Health and Safety (Maritime Industry) Act 1993* deals with the health and safety of seafarers. AMSA provides the inspectorate function for the Act and has an agreement with the state regulators for the management of relevant work health and safety issues. The Act will be reviewed in line with the national harmonisation of work health and safety laws.

It will be necessary to monitor these arrangements to ensure that management of ACMs in ships is dealt with effectively.

## STAKEHOLDER COMMENTS

The review's *Issues Paper* asked submitters to consider whether Australia should take on a more active role in encouraging an effective ban on the international trade in asbestos.

Approximately half of the submissions received provided comments on this matter. Consistently, these submissions demonstrated support for the concept of Australia taking a more active role internationally. For example, the Gippsland Asbestos Related Disease Support Inc. submission stated that they '*... would love to see Australia striking out and taking a lead role in what is an extremely important health issue to everyone around the world*'.<sup>117</sup>

The Australian Council of Trade Unions' submission highlighted the need to '*... counter wrong and misleading statements and actions of proponents of continued trade*'.<sup>118</sup>

The Australian Institute of Marine and Power Engineers supported more effective international bans, stating:

*'Despite these two Federal regulatory regimes, vessels continue to come into Australia [for operation in Australia – not on international trading voyages] with asbestos-containing materials.'*<sup>119</sup>

## CONCLUSION

The International Labour Organization estimates that there are 100,000 work-related asbestos deaths worldwide every year.<sup>120</sup> While a number of countries have banned the mining, processing and export of all forms of asbestos, others have not done so. In fact, in the developing world the trade in asbestos products continues to grow.

Having regard to its national experience with asbestos, Australia has a moral obligation to play an international leadership role. While recognising it does not fall within the scope of the terms of reference for this review, and consequently is not recommended as a formal activity under the National Strategic Plan, the review nevertheless is of the view that Australia should pursue all opportunities to actively lobby for improvements in international arrangements governing the management and trade of asbestos with the objective of achieving a total worldwide ban in the production and trade of asbestos and asbestos-containing products. An effective international ban would assist the achievement of our national policy intent in problematic areas such as foreign flagged coastal shipping and offshore resource projects.

## ***RECOMMENDATION***

11. The review recommends that the Australian Government continue to play a leadership role in a global campaign aimed at securing a total worldwide ban in the production and trade of asbestos and asbestos-containing products so as to contribute towards the worldwide elimination of asbestos-related diseases, and to more effectively control the entry of ACMs into this country.

# Chapter 12 – Former Compulsorily Acquired Property

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One of the questions posed in the review's Issues Paper sought views on what responsibility governments should have in relation to the removal of asbestos from former government-owned properties. One response to this question piqued the review's interest, and this chapter examines a potential solution to the problem raised in this response.

## ISSUES

The power of the Commonwealth to compulsorily acquire property from individuals and states is enshrined in section 51(xxxi) of the Australian Constitution. The circumstances and conditions under which the Commonwealth may exercise this power are contained in the *Land Acquisitions Act 1989*, including application of 'just terms' to provision of notice, consultation, and to determining the market value of the property.<sup>121</sup>

Where the government determines that it no longer needs land that has been compulsorily acquired, the Land Acquisition Act requires the government to apply the general principle that the land should, if practicable, be first offered for sale back to the original owner at market value.<sup>122</sup> This obligation only arises if the resale of the land occurs within seven years of the initial acquisition and substantial improvements have not been made to the land.

Both state governments and local councils have similar powers to compulsorily acquire land from members of the public on 'just terms'.

## STAKEHOLDER COMMENT

The review received a submission from Ms Valerie Le Maitre, who advised that a portion of a long-held family-owned farm had been compulsorily required by the Department of Defence during World War II. While in possession of the property, the Department of Defence constructed several large structures on the land. In the 1960s, the structures and land were reacquired by Ms Le Maitre's family.

Ms Le Maitre subsequently became aware that the structures built by the Department of Defence contained asbestos and proposed that the government take responsibility for management and remediation of the buildings. In particular, Ms Le Maitre noted that the Department of Defence has implemented a comprehensive approach to removing asbestos from their current properties and suggested that this be extended to encompass former Defence buildings and infrastructure.<sup>123</sup>

Other stakeholders made general comments to the review in relation to responsibility for former government-owned properties. The State School Teachers' Union of WA, for example, suggested that while governments should not have a responsibility in relation to the removal of asbestos from former government-owned properties, they should be required to provide information on the presence and condition of ACMs at the time of sale or disposal.<sup>124</sup>

## CONCLUSION

The review accepts that the principle of *caveat emptor* applies to the circumstances of most former government properties found to contain asbestos. However, in the case of property that was compulsorily acquired, and then returned to the original owner with asbestos-containing structures erected during the period of government ownership, consideration must also be given to the involuntary nature of the transaction and the application of natural justice. Therefore, in the unusual and limited circumstances of compulsory acquisition and subsequent divestment to the original and ongoing owner as described above, the principle of 'polluter pays' should also come into consideration. The government agency concerned has a strong moral obligation to make good the management and remediation of the ACMs concerned.

## ***RECOMMENDATION***

12. The review recommends that where ACMs were introduced onto previously privately owned land during a period of compulsory government acquisition, and such land has reverted to its original ownership and remains so, the relevant government agency should remediate the property.

# Appendix A – List of Review Submissions

List of review submissions		
No.	Submitter name	Organisation
1	Ms Hylde Rolfe	Individual
2	Asbestos Audits and Environmental Audits Pty Ltd t/a AARMS	Business enterprise
3	Gippsland Asbestos Related Diseases Support Inc.	Community organisation
4	Australian Asbestos Network	Academic
5	Ms Valerie Le Maitre	Individual
6	CFMEU – Construction and General Division, National Office	Union
7	Ms Laura Clyne	Individual
8	Dr Malcolm Feigan	Individual
9	CFMEU – Construction and General Division, Victorian Branch	Union
10	Asbestos Contractors Group Ltd	Industry representative
11	Northern Territory Trades and Labor Council Incorporated trading as Unions NT	Union
12	Confidential submission – Name withheld at submitter's request	
13	Mr David Friedman	Individual
14	Community and Public Sector Union – State Public Services Federation, Federal Office	Union
15	James Hardie Industries SE	Business enterprise
16	Shop, Distributive and Allied Employees' Association (SDA) National Office	Union
17	Asbestos Victims Association (SA) Inc.	Community organisation
18	Mr Neville Bayley	Individual
19	Asbestos Diseases Society of Victoria	Community organisation
20	WA Department of Environment and Conservation	Government representative
21	Geelong Trades Hall Council	Union
22	Queensland Council of Unions	Union
23	State School Teachers' Union of WA	Union
24	City of Greater Geelong	Government representative
25	Master Builders Australia Ltd	Industry representative
26	Mike van Alphen	Academic
27	Australian Manufacturing Workers Union	Union
28	Mr David Bolton	Individual
29	Australian Chamber of Commerce and Industry	Industry representative
30	Asbestos Audits Queensland	Industry representative

<b>No.</b>	<b>Submitter name</b>	<b>Organisation</b>
31	Finance Sector Union of Australia	Union
32	Australian Institute of Marine and Power Engineers	Union
33	WorkSafe Western Australia	Government representative
34	Holroyd City Council	Government representative
35	Unions NSW	Union
36	Victorian Trades Hall Council	Union
37	Mr Simon Koop	Individual
38	New South Wales Business Chamber	Industry representative
39	Cancer Council Australia	Community organisation
40	Housing Industry Association Ltd	Industry representative
41	Unions WA	Union
42	Australian Council of Trade Unions	Union
43	Mr Paul O'Callaghan	Individual
44	CFMEU SA Branch	Union
45	Australian Industry Group	Industry representative
46	NSW Teachers Federation	Union
47	Metropolitan Waste Management Group	Government representative
48	ACT Government	Government representative
49	Australian Customs Service	Government representative
50	Tasmanian Government	Government representative
51	Environmental Health Directorate WA	Government representative
52	Royal Australian College of Physicians	Other (medical college)
53	Mobius Environmental on behalf of Benedict Recycling Pty Ltd, Boral Recycling Pty Ltd, Brandown Pty Ltd, and Hi-Quality Recycling Pty Ltd	Business enterprise
54	Waste Contractors and Recyclers Association of NSW	Industry representative
55	Australian Council of Recycling	Industry representative
56	Asbestos Free Tasmania Inc.	Community organisation
57	NSW Government	Government representative

## Appendix B – Stakeholder Consultations

Stakeholder consultations		
Date	Location	Stakeholder
15 December 2010	Qld.	Workplace Health and Safety Queensland
		Queensland Asbestos Disease Related Support Society Inc.
		Wesley Research Institute
		Chamber of Commerce and Industry Queensland
		Queensland Council of Unions
20 December 2010	NSW	NSW Business Chamber
23 December 2010		WorkCover NSW
		Karen Banton, CEO, Bernie Banton Foundation Ken Fowlie & Joanne Wade, Slater & Gordon*
13 January 2011	ACT	ACT Government – Chief Minister’s Department
		Safe Work Australia
18 January 2011	WA	Chamber of Minerals and Energy of Western Australia Inc.
		Unions WA
		WorkSafe WA
		Asbestos Diseases Society of Australia Inc.
19 January 2011		National Centre for Asbestos Related Diseases
20 January 2011	Vic.	Associate Professor, Breen Creighton, RMIT University*
		Australian Council of Trade Unions – Occupational Health & Safety and Workers’ Compensation Unit*
21 January 2011	NT	WorkSafe NT (via teleconference)
		NT Department of Health and Families (via teleconference)
		Department of Families, Housing, Community Services and Indigenous Affairs - NT State Office (via teleconference)
28 January 2011	SA	SafeWork SA
		Asbestos Diseases Society of South Australia
		Asbestos Victims Association of (SA) Inc.
		SA Asbestos Coalition
		Department of Health South Australia
2 February 2011	ACT	Comcare
		Department of Defence
		ACT & Region Chamber of Commerce & Industry
		Australian Chamber of Commerce and Industry
		Australian Customs and Border Protection Service

Date	Location	Stakeholder
3 February 2011	NSW	Workers' Compensation Dust Diseases Board
		Unions NSW
		Ombudsman New South Wales
		Australasian Faculty of Occupational and Environmental Medicine
		Australian Industry Group
9 February 2011	Vic.	WorkSafe Victoria
		Gippsland Asbestos Related Diseases Support Inc.
		Asbestos Information & Support Service
		Asbestos Diseases Society of Victoria Inc.
10 February 2011	Tas.	Workplace Standards Tasmania
		Asbestos Free Tasmania Foundation Inc.
		Unions Tasmania
		Australian Workers Union
14 February 2011	NSW	Matt Peacock – Journalist and author*
15 February 2011		Asbestos Diseases Foundation of Australia Inc.
		Property Council of Australia
		Holroyd City Council
16 February 2011	Vic	Australian Council of Trade Unions
24 February 2011	WA	Asbestos Diseases Society of Australia Inc.*
		Clinical Professor, Bill Musk, Charles Gairdner Hospital*
		Global Foundation Round Table*
1 March 2011	Vic.	Victorian Trades Hall Council*
24 March 2011	NSW	Cancer Council Australia*
		Heads of Workplace Safety Authorities*
14 April 2011	QLD	Australian Council of Trade Unions National Occupational Health & Safety and Workers' Compensation Conference*
28 April 2011	ACT	National Health and Medical Research Council
		Australian Local Government Association
3 May 2011	NSW	Dallas Booth, CEO, Asbestos Injuries Compensation Fund*
4 May 2011		Construction Safety Education Forum*
		Asbestos Diseases Research Institute*
9 June 2011	WA	Australian Asbestos Network*
6 July 2011	Vic.	Department of Defence
7 July 2011		Ken Webb, Managing Director, Hazibag Australia*

Date	Location	Stakeholder
28 July 2011	NSW	James Hardie Industries Ltd.
16 August 2011	NT	WorkSafe NT
		Masters Builders Association
		McMahon Services
		Lord Mayor, Graham Sawyer, Darwin City Council
17 August 2011	NT	Territory Alliance
		Department of Health and Families NT
2 September 2011	NSW	WorkCover NSW (via teleconference)
	NT	Department of Families, Housing, Community Services and Indigenous Affairs (via video conference)
14 November 2011	WA	Cancer Council Western Australia and Unions WA*
15 November 2011	WA	The Clinical Oncological Society of Australia Annual Scientific Meeting 2011
		WA Asbestos Coordinators Forum – Cancer Council WA
22 November 2011	ACT	Rex Hoy, CEO, Safe Work Australia
		Parliamentary Group on Asbestos Related Disease Launch*
23 November 2011	Vic.	Australian Education Union – Asbestos in Schools and Public Buildings Forum*
24 November 2011	Vic.	Victorian Trades Hall Council – Asbestos Management Review panel discussion*
25 November 2011	Vic.	Victorian Trades Hall Council – Asbestoswise Commemoration Service*
5 March 2012	Vic.	Australian Council of Trade Unions*
19 March 2012	WA	Asbestos Diseases Society of Australia Inc.
		WorkSafe WA
		Department of Health WA, Environmental Health Directorate
20 March 2012	SA	SafeWork SA
		SA Asbestos Coalition
21 March 2012	ACT	Australian Local Government Association
		Department of Finance and Deregulation
		Safe Work Australia
	NT	WorkSafe NT (via teleconference)
		Unions NT (via video conference)

Date	Location	Stakeholder
22 March 2012	ACT	Master Builders Australia
		Housing Industry Association Ltd
		ACT Government – Chief Minister’s Department and other ACT Government Agencies
		Real Estate Institute of Australia
23 March 2012		Comcare
		Environmental Health Committee (enHealth)
26 March 2012	NSW	Cancer Council Australia
		Cancer Institute NSW
27 March 2012		Heads of Asbestos Coordination Authorities Working Group
		Local Government and Shires Associations of NSW
28 March 2012	QLD	Asbestos Industry Association
		Queensland Asbestos Related Disease Support Society Inc.
		Workplace Health and Safety Queensland
29 March 2012	Vic.	WorkSafe Victoria
		Victorian Trades Hall Council
		Australian Chamber of Commerce and Industry
		Asbestoswise
30 March 2012	Tas.	Workplace Standards Tasmania
		Tasmanian Chamber of Commerce and Industry
		Asbestos Free Tasmania Foundation Inc.
		Ronda Kirkpatrick – Individual
10 April 2012	Vic.	Karen Banton & Rod Smith, Bernie Banton Foundation*
11 April 2012	ACT	David Magee, Construction and Property Services Industry Skills Council (via teleconference)
3 May 2012	ACT	Cancer Council Australia – ‘Cancer in the Workplace’ conference*
20 June 2012	ACT	Parliamentary Group on Asbestos Related Disease*

**Key**

\* Non-secretariat meeting

 Conference, seminar or other meeting

# Appendix C – Chair and Advisory Group Biographies

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## CHAIRMAN

### MR GEOFF FARY

Mr Fary brings a diverse background and range of experiences to his role of Chairman of the Asbestos Management Review.

Elected Australian Council of Trade Unions (ACTU) Assistant Secretary in 2007 and re-elected in 2009, he had responsibility for the peak council's policy on OH&S – including asbestos.

He previously worked as a labourer, shearer, administrator, Victorian Director of the Australian Trade Union Training Authority, Chief of Staff to a federal Cabinet minister, Human Resources Director & Company Director George Weston Foods Ltd, CEO of Industrial Relations Victoria, Employee Relations Manager for Nestlé Australia and Executive Director of the Association of Professional Engineers, Scientists and Managers, Australia.

A Member of the Institute of Company Directors and a Fellow of the Australian Institute of Management, Mr Fary was recently appointed to the latter organisation's board.

His career moves have given him the unusual combined perspective of corporate, government and union experiences that he brings to the role of chairman of the review.

## ASBESTOS MANAGEMENT REVIEW ADVISORY GROUP

### MR JIM BARRETT

Mr Barrett is the Executive Director of the Australian Constructors Association, an organisation formed in 1994 to represent the views of major contractors to Federal and state/territory governments and other major industry organisations.

Mr Barrett is also the Director, Construction and Infrastructure with the Australian Industry Group, where he joined 1995. Mr Barrett holds directorships relating to the construction industry and he was the Director Development with the Australian Government's Construction Industry Development Agency from 1991 to 1995.

### MR PAUL BASTIAN

Mr Bastian is the National President of the Australian Manufacturing Workers Union (AMWU) and is a campaigner against the asbestos industry and an advocate for asbestos victims. The AMWU was a co-convenor of the National Asbestos Summit in June 2010 along with the ACTU and the Cancer Council of Australia.

In 2008, Mr Bastian represented the AMWU and International Metalworkers Federation at an International Conference on asbestos, convened by the Vietnam Institute for Labour Protection.

Mr Bastian has a long history of involvement with community and union campaigns and was appointed to the board of the Asbestos Diseases Research Institute in November 2007. Mr Bastian has attended a number of international conferences on asbestos and its eradication.

## **MR LINDSAY FRASER AM**

Mr Fraser is an Assistant Secretary of the Construction, Forestry, Mining and Energy Union (CFMEU) in the National Office of the Construction and General Division. Mr Fraser has decades of experience within the construction industry. Through his work as a union official, Mr Fraser has been involved in representing asbestos removal workers and assisting asbestos victims.

Mr Fraser is also the national officer responsible for training and safety within the CFMEU. He has chaired the Construction and Property Services Industry Skills Council and the Construction Industry Advisory Committee, dealing with issues such as asbestos licensing. Mr Fraser has also participated in advisory groups providing assistance to Safe Work Australia as it develops national regulations and codes of practice.

## **ADJUNCT PROFESSOR ROBERT GUTHRIE**

Dr Guthrie is Adjunct Professor of Workers' Compensation and Workplace Laws at Curtin University in Western Australia. He is a lawyer and an academic, with an interest in workers' compensation, occupational health and safety and industrial relations matters. He is currently employed as a criminal injuries assessor in the Department of Attorney-General Western Australia – having the status of a magistrate under a five-year term of office. He was sworn in in May 2010.

Dr Guthrie has held a number of prominent positions including being the Chairman of the Western Australian Commercial Tribunal, Chair of the Enquiry into the Workers' Compensation Dispute Resolution System in Western Australia (1991) which resulted in changes being made to the workers' compensation legislation in Western Australia, and was a member of the Pearson Committee in 1999 which also reviewed the Western Australian compensation legislation.

In 2001, he conducted a review of the Western Australian workers' compensation legislation, which resulted in a report to the Western Australian Government leading to significant changes to the *Workers' Compensation and Injury Management Act 1981* (WA) in 2004–05. He has published over 70 academic papers in national and international journals. He holds a B Juris, LLB, LLM, MCom and PhD. Dr Guthrie was also the founding author of the Butterworths/LexisNexis Workers' Compensation Western Australia.

## **MR TIM HAMMOND**

Mr Hammond is a barrister practising at Francis Burt Chambers, located in Perth. Since 2002 he has specialised in asbestos litigation, prosecuting cases on behalf of victims suffering from terminal asbestos disease.

In 2004, Mr Hammond was appointed a salaried partner of Slater & Gordon and in 2007 he became a shareholder of the firm. During his time at Slater & Gordon, he represented victims of asbestos disease in most jurisdictions in Australia. Mr Hammond left Slater & Gordon in 2010 and now practises as a barrister. He is also currently lecturing in law at the Murdoch University Law School.

## **MS SYLVIA KIDZIAK AM**

Ms Kidziak is the Managing Director of SL Engineering and previously held the position of Principal Consultant, Occupational Health, Safety and Environment Policy at Australian Business Ltd for 24 years.

Ms Kidziak has received several awards for her work, which includes extensive advice on policy and technical issues relating to workplace health, safety and specifically asbestos. Ms Kidziak is Chair of the Radiation Health and Safety Advisory Council, a board member of the NSW Workers Compensation (Dust Diseases) Board and The Asbestos Diseases Research Foundation and also a member of the NSW Workers' Compensation and Workplace Occupational Health and Safety Advisory Council.

## **PROFESSOR BRUCE ROBINSON**

Professor Robinson is the Director of the National Centre for Asbestos Related Diseases. He is a respiratory physician at Perth's Sir Charles Gairdner Hospital and conducts teaching and research within the University of Western Australia's School of Medicine and Pharmacology.

Internationally recognised for his work in the field of asbestos-induced cancer, Professor Robinson published the world's first blood test for diagnosis, monitoring and early detection of mesothelioma. He has initiated many other world-first therapies and made major discoveries about how the body's immune system fights cancer.

Professor Robinson has received numerous awards, including the Wagner Medal, the Western Australian Premier's Science Award, and the Eric G Saint Award, for his research work into mesothelioma and asbestos-related diseases, and his significant achievements and leadership in science. In 2010, the Australian Medical Association (WA) honoured Prof Robinson for his outstanding contribution to medicine and humanity.

## **MS TANYA SEGELOV**

Ms Segelov is a partner with Turner Freeman Lawyers and is one of the leading specialists in Australia for asbestos disease and mesothelioma claims, having represented the late Bernie Banton and Judge Robert Bellear.

Ms Segelov has also been involved extensively in legislative reform, relating to dust disease legislation, in both New South Wales and South Australia and is an honorary lawyer for the Asbestos Victims Association of South Australia and a member of the Asbestos Disease Foundation of Australia.

## **PROFESSOR NICO VAN ZANDWIJK**

Professor van Zandwijk is currently the Director of the Asbestos Diseases Research Institute and a board Director of the International Association for the Study of Lung Cancer.

Professor van Zandwijk has held numerous prominent positions, including serving as Secretary and Chair of the European Organisation for Research and Treatment of Cancer: Lung Cancer Group, chairing a state council on asbestos and lung cancer and the Scientific Board of the clinical section of the Netherlands Cancer Institute. He has also authored and co-authored more than 200 peer-reviewed international papers and chapters.

# Appendix D – Comparison of Jurisdictional Regulatory Frameworks

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The information presented below represents a broad overview of asbestos management arrangements in each jurisdiction.

## ASBESTOS MANAGEMENT IN NEW SOUTH WALES

Coordination of management activities New South Wales (NSW) is currently being reorganised in light of the NSW Ombudsman's report entitled *Responding to the Asbestos Problem: The Need for Significant Reform in NSW* that was published in November 2010. The government's response, which was released in August 2011, established the Heads of Asbestos Coordination Authorities (HACA) to improve cross-agency coordination. This consists of representatives from a range of agencies that deal with asbestos management. The HACA has been tasked with producing a state-wide asbestos management plan within 18 months of its establishment and to produce an annual report on its implementation.

To improve the quality and consistency of information being provided to the public by local councils, the NSW Government produced a document entitled *Asbestos Blueprint: A Guide to the Roles and Responsibilities for Operational Staff of State and Local Government*. This document is intended to provide clarity about the roles and responsibilities of all local councils and relevant government agencies at each stage of the asbestos life cycle.

## LEGISLATION AND REGULATORS

Workplace management of asbestos in New South Wales is managed by Work Health and Safety NSW under the *Work Health and Safety Act 2011* and its supporting regulations. Work health and safety duties are placed on mining operators by the *Mine Health and Safety Act 2004* and the *Coal Mine Health and Safety Act 2002*, which are overseen by the Department of Trade & Investment, Regional Infrastructure and Services.

At a state level, building regulation and approvals in NSW are undertaken by the Department of Planning and Infrastructure in accordance with the *Environmental Planning and Assessment Act 1979* (the Planning Act) and the Environmental Planning and Assessment Regulations 2000 (the Planning Regulations). These are underpinned by the State Environmental Planning Policies, which are promulgated by the NSW Minister for Planning. Local councils have extensive powers over building regulation and approvals under the Planning Act and the *Local Government Act 1993*.

The environmental effects of asbestos, including waste management, transportation and responses to contamination, are managed by the NSW Office of Environment and Heritage. The primary legislation covering asbestos-related matters are the *Protection of the Environment Operations Act 1997* and the Protection of the Environment Operations (Waste) Regulation 2005.

## ASBESTOS MANAGEMENT IN VICTORIA

In Victoria there are various legislative instruments that deal with asbestos-related matters. Noting the complexities of having multiple agencies dealing with these matters, the Environmental Health Unit within the Victorian Department of Health has produced Environmental Health Notes outlining the division of responsibilities between agencies (*Environmental Health Notes No. 1: Asbestos – Roles and Responsibilities for Government*) and the role played by local councils (*Environmental Health Notes No. 2: Guidelines for Local Government on Asbestos*).<sup>125</sup>

## LEGISLATION AND REGULATORS

In Victoria, asbestos in the workplace and in mines is primarily managed by WorkSafe Victoria. Introduction of nationally harmonised work health and safety legislation in Victoria has not yet proceeded, so the primary legislation remains the *Occupational Health and Safety Act 2004* and the accompanying Occupational Health and Safety (Asbestos) Regulations 2007.

The regulator for public health is the Department of Health (Environmental Health Unit). The legislation administered by both the Department of Health and the Environmental Health Units within each local government

across Victoria in regard to public health issues arising from non-workplace asbestos issues is through the nuisance provisions of the *Public Health Act 1958*.

At a state level, building regulation and approvals in Victoria are overseen by the Department of Planning and Community Development. The primary legislation is the *Building Act 1993* and the Building Regulations 2006. Planning permits for individual developments are issued by the relevant local council under the Act. Planning permits may be required for activities such as renovating or demolishing existing structures.<sup>126</sup>

The agency with primary responsibility for environmental matters related to asbestos is the Victorian Environmental Protection Agency (EPA). The EPA's powers are laid out in the *Environment Protection Act 1970* and the Environment Protection (Prescribed Waste) Regulations 1998 and other supporting legislation. Under this legislation, the Victorian EPA is responsible for managing land polluted with ACMs and remediation of contaminated land. Additionally, the Victorian EPA has oversight of the licensing and management of commercial waste transporters and waste management facilities.

## ASBESTOS MANAGEMENT IN QUEENSLAND

An Interagency Asbestos Group (IAG) was established in 2009 by the Queensland Government to provide a coordinated and systematic approach to the management of asbestos in Queensland. The IAG is comprised of state government agencies with responsibility for asbestos-related matters and a representative from the Local Government Association Queensland.

The Queensland Government has also implemented the Queensland Workers' Compensation Cross-Agency Strategy to strengthen the interaction between WorkCover Queensland, Q-Comp, Workplace Health and Safety Queensland (WHSQ) and Electrical Safety within the Department of Justice and Attorney-General. The Strategy aims to more effectively prevent work-related harm and to better respond to its consequences including the exposure to asbestos. One of the priorities of the strategy is to work cooperatively with and respond to the Asbestos Management Review both during the review process and to any subsequent relevant recommendations that the review proposes.

## LEGISLATION AND REGULATORS

WHSQ is the main OHS regulator. Legislation based on the model Work Health and Safety Act and regulations came into force in Queensland on 1 January 2012. Mining and quarrying are regulated under the *Mining and Quarrying Safety and Health Act 1999* and the *Coal Mining Safety and Health Act 1999* and administered by the Department of Natural Resources and Mines.

Development applications are required in Queensland for all new building works including demolitions, alterations and additions to existing buildings, as well as building works carried out on commercial buildings.<sup>127</sup> These are issued by building certifiers licensed by the Building Services Authority, who may be employed by local councils or operate as a private enterprise.

In Queensland, the Department of Environment and Heritage Protection (DEHP) is responsible for environmental protection, including waste management, with some powers devolved and delegated to local government under the *Environmental Protection Act 1994*, the Environmental Protection Regulation 2008, the Environmental Protection (Waste Management) Regulation 2000 and the *Waste Reduction and Recycling Act 2011*.

Under this legislation, the DEHP:

- Manages contaminated land and associated registers;
- Regulates the transportation and disposal of asbestos-containing waste;
- Administers with local government the illegal waste dumping provisions; and
- Coordinates Queensland's environmental recovery after natural or other disasters.

The *Public Health Act 2005* and Public Health Regulation 2005 contain a number of requirements relating to asbestos in non-workplace situations. This legislation is administered by Queensland Health in conjunction with local governments. In particular, this legislation places restrictions on the ability of private property owners in relation to working with asbestos, asbestos removal and transportation.<sup>128</sup>

## ASBESTOS MANAGEMENT IN WESTERN AUSTRALIA

To assist with the coordination of asbestos management, a variety of Western Australian agencies participate in an Asbestos Regulators Forum. This working group has met three times and consists of regulators with responsibility for asbestos matters, including the Department of Health and WorkSafe WA, and representatives from other relevant bodies including local councils, research facilities and community groups. The forum is managed by the Department of Health and is currently convened on an ad hoc basis.

### LEGISLATION AND REGULATORS

Work health and safety in Western Australia is primarily managed by WorkSafe WA, a division of the Department of Commerce, under the *Occupational Safety and Health Act 1984* and its supporting regulations.

Environmental asbestos management is primarily the responsibility of the Department of Environment and Conservation. The primary legislation in this area is the *Contaminated Sites Act 2003*, which contains requirements for the identification, recording, disclosure and potential remediation of sites contaminated with asbestos.

Asbestos material must be disposed of at a disposal site licensed under Part V of the *Environmental Protection Act 1986*. Asbestos can be accepted at Class I (inert), II or III (putrescibles) disposal sites that are licensed to accept asbestos. Prescribed premises, works approvals and licences all come under Part V of the *Environmental Protection Act 1986*.

The Controlled Waste Regulations 2004 outline the requirements for the packaging and labelling of asbestos for correct transport and disposal.

Public health aspects relating to asbestos are primarily managed under the Health (Asbestos) Regulations 1992. These are currently under review. The regulations require any person storing, breaking, damaging, cutting, maintaining, repairing, removing, moving or disposing of asbestos or ACMs to take reasonable measures to prevent asbestos fibres entering the atmosphere. Additionally, these regulations grant broad powers to local government 'authorised persons' to require ACMs to be maintained, repaired, removed, disposed of or handled in a particular way. The Department of Health – Environmental Health Directorate that is overseeing the review of the Regulations has developed *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in WA*. These are in the process of being adopted nationally.

## ASBESTOS MANAGEMENT IN SOUTH AUSTRALIA

Coordination of asbestos management in South Australia takes place under the auspices of the *Asbestos Safety Action Plan*. The action plan was launched in November 2008 and ties together the efforts of various organisations operating in South Australia. Development of the action plan was led by SafeWork South Australia (SafeWork SA) and assisted by the Asbestos Advisory Committee which is comprised of representatives from government, industry and employee groups.

The stated aim of the action plan is to 'reduce illness and disease caused by exposure to asbestos fibres'. The achievement of this goal is supported by five strategic actions:

- Communication;
- Education;
- Partnership;
- Intervention; and
- Research.

Specific activities and their accompanying lead agencies were identified as part of the plan, and an annual report is produced by the committee on the performance of the action plan.

### LEGISLATION AND REGULATORS

The primary work health and safety legislation in South Australia is the *Occupational Health Safety & Welfare Act 1986* and its supporting regulations, the Occupational Health, Safety and Welfare Regulations 2010. These laws are administered and enforced by SafeWork SA.

At a state level, building regulation and approvals in South Australia are overseen by the Department of Planning and Local Government under the auspices of the *Development Act 1993* (the Development Act). Work classified as 'development' under the Development Act must not be undertaken before submitting a development application. The term 'development' includes subdivision of land, home extensions and demolition work.<sup>129</sup>

The environmental effects of asbestos contamination are managed by the SA EPA. The primary legislation covering asbestos-related matters are the *Environment Protection Act 1993* (the Environment Protection Act) and the Environment Protection Regulations 2003. This includes responsibility responding to the illegal dumping of commercial quantities of industrial and demolition waste and hazardous waste. Local councils are tasked with responding to the illegal dumping of smaller quantities of waste by the *Local Government Act 1999*.

Waste and resource transportation and recovery is primarily managed by the SA EPA under the Environment Protection Act. The SA EPA also has powers in relation to the approvals needed to transport waste commercially and to establish a waste disposal facility under the Development Act.

## **ASBESTOS MANAGEMENT IN TASMANIA**

In August 2010, the Asbestos Unit within Workplace Standards Tasmania (Workplace Standards) was established to improve the coordination of asbestos management in Tasmania. The unit's role is to provide a strategic and specialised approach to asbestos management across government departments and to increase asbestos education and awareness throughout the Tasmanian community, including tradespeople and home renovators.<sup>130</sup>

### **LEGISLATION AND REGULATORS**

In Tasmania, Workplace Standards is the main OHS regulator and administers the *Workplace Health and Safety Act 1995*, the Workplace Health and Safety Regulations 1998 and the *Dangerous Goods Act 1998*.

Building work in Tasmania is regulated by Workplace Standards Tasmania under the *Building Act 2000* (the Building Act), and the Building Regulations 2004 (the Building Regulations). Under these laws any building work including minor alterations or minor repairs that involve the demolition or removal of asbestos requires a building permit from the local council.

Environmental management and pollution control matters deriving from the *Environmental Management and Pollution Control Act 1994* (EMPC Act) are the responsibility of the Environmental Protection Authority (EPA). This includes the regulation of the transportation and disposal of asbestos-containing waste through the Environmental Management and Pollution Control (Waste Management) Regulations 2010. The EPA Division of the Department of Primary Industries, Parks, Water and Environment supports the EPA in the monitoring and regulation of environmental issues including illegal dumping, land contamination, the movement of controlled wastes and landfill activities in accordance with the EMPC Act, other environmental regulations, policies and best-practice guidelines.

The Environmental Health Service Unit within the Department of Health and Human Services regulates the environmental health provisions under the *Public Health Act 1997* (the Public Health Act). This devolves a number of powers to local councils, such as rectification and closure notices, which could be applied in relation to asbestos. Local governments may also issue abatement notices to either a person causing a nuisance or the owner or occupier of the land on which the nuisance arises under the *Local Government Act 1993*.

## **ASBESTOS MANAGEMENT IN THE AUSTRALIAN CAPITAL TERRITORY**

As part of the ACT Government's response to the 2010 review into the management of asbestos in the territory, the ACT Government has established an Asbestos Regulators' Forum to assist with the coordination and management of asbestos within the territory. The forum includes members of the nine government directorates that have responsibility for asbestos-related matters. A formalised co-ordinator's position within the Chief Minister and Cabinet Directorate will also be established to oversee the coordination of asbestos management across all directorates.

### **LEGISLATION AND REGULATORS**

Enforcement of workplace health and safety legislation in the ACT is the responsibility of WorkSafe ACT. The regulation of asbestos in the workplace occurs under these regulatory instruments:

- The *Dangerous Substances Act 2004* and the Dangerous Substances (General) Regulations 2004, which contains requirements for asbestos registers, management plans, risk assessment and atmospheric monitoring;
- The *Construction Occupations (Licensing) Act 2004*, which includes the Construction Occupations (Licensing) Regulation 2004 and the Construction Occupations (Licensing) (Mandatory Qualifications) Declaration – these contain requirements for asbestos removalist and assessor licensing; and
- The *Building Act 2004* and the Building (General) Regulations 2008, which require notification of asbestos removal from buildings by licensed removalists, including written plans.

The Environment and Sustainable Development Directorate includes agencies responsible for environmental policy and protection, sustainability policy, the government architect, heritage, transport planning and nature conversation.

The ACT Planning and Land Authority (ACTPLA) is part of the Environment and Sustainable Development Directorate. ACTPLA has responsibility for all enquiries about building approvals, development applications and demolitions (including renovation work, identification and removal, laws and obligations and complaints). ACTPLA also deals with industry licensing management for asbestos assessors and removalists, builders and tradespeople dealing with the handling, disturbance and removal of bonded and friable asbestos.

The Environment Protection Authority administers the *Environment Protection Act 1997*, which covers waste classification and disposal, licensing of disposal facilities and regulation of pollution and land contamination.

The Health Directorate deals with the public health aspects of asbestos management. The Health Protection Service manages risks and implements strategies to prevent public health issues, as well as providing a timely response to public health events.

The Justice and Community Safety Directorate deals with asbestos issues related to the sale of property transactions. The Office of Regulatory Services (ORS), Work Safe ACT, has regulatory responsibility for the *Dangerous Substances Act 2004* and *Work Health and Safety Act 2011* and associated regulations. The ORS regulates the management and safe handling of asbestos and the asbestos register requirement, including provision of advice, response to complaints, investigation and enforcement and compliance action.

The Territory and Municipal Services Directorate deals with all reports and enquiries about the dumping of asbestos on public land. Asbestos disposal services are provided by Thiess at two sites, under contract to ACT NoWASTE.

## ASBESTOS MANAGEMENT IN THE NORTHERN TERRITORY

Management of asbestos in the NT is shared between seven government departments. The main responsible agencies are the Department of Justice, the Department of Natural Resources, Environment, the Arts and Sport (NRETAS) and the Department of Health. Emergency situations involving asbestos are managed by a combination of government departments and the Northern Territory Fire and Rescue Service.

## LEGISLATION AND REGULATORS

Work health and safety matters in the Northern Territory (NT) are regulated and enforced by NT WorkSafe. The Northern Territory *Work Health and Safety (National Uniform Legislation) Act 2011* is the primary legislation and covers all industries except mining.

Building Advisory Services within the Department of Lands and Planning is responsible for building regulation in the NT under the *Building Act* and Building Regulations. The building approval process in the NT is done privately through licensed building certifiers who assess building applications, issue building permits, undertake site inspections and issue permits to occupy on the satisfactory completion of any building works.

NRETAS is responsible for the protection of the environment including waste management under the *Waste Management and Pollution Control Act (WMPC Act)*. NRETAS enforces the WMPC Act through various methods including environmental audits, compliance plans, performance agreements, issuing or Pollution Abatement Notices, the suspension or cancellation of environment protection approvals or licences and through criminal proceedings. Environmental offences and penalties are outlined in the *Environmental Offences and Penalties Act*.

Waste disposal in the NT is managed by local city councils under the *Waste Management and Pollution Control Act* and in accordance with the environmental protection approvals and licences issued by NRETAS. Due to the remoteness of communities and transport distances in the NT, secondary systems such as temporary storage and on-site containment cells may be considered for the storage of ACMs. Operators of temporary storage facilities and on-site containment cells require environmental protection approvals and licences issued by NRETAS in order to conduct these activities.

The Department of Health – Environment Health Branch mainly provides an advisory role in relation to asbestos. It exercises a controlling role where major asbestos complaints are received. Asbestos may be treated as a public health nuisance in the NT under the *Public and Environmental Health Act* in a similar way to any other contaminant or hazard that may affect the general public. The Environmental Health Branch therefore deals with major asbestos complaints in the non-occupational environment as it would for any other public health nuisance under public health legislation.

## COMMONWEALTH ASBESTOS MANAGEMENT

The power of the Commonwealth Government to legislate on asbestos-related matters arises from the powers granted to it by section 51 of the Australian Constitution. In practice, the government has had direct responsibility for asbestos matters in a relatively narrow range of circumstances, including the health and safety of workers in Commonwealth-regulated workplaces and matters related to the importation and exportation of asbestos and ACMs.

The Commonwealth Government also has a role in coordinating and leading national efforts in a range of asbestos-related areas. This includes work undertaken through organisations such as Safe Work Australia, the national statutory agency with responsibility for improving work health and safety arrangements across Australia; and the Environmental Health Committee (enHealth), a subcommittee of the Australian Health Protection Committee. An example of this type of coordination work was the endorsement by enHealth of a national guide entitled *Asbestos: A Guide for Householders and the General Public* in May 2012.<sup>131</sup> This document is intended to serve as a model guide for use by each jurisdiction and was produced collaboratively with states and territories. The Northern Territory Department of Health's website already links to the publication.<sup>132</sup>

## LEGISLATION AND REGULATORS

Work health and safety in the Commonwealth is managed by Comcare under the *Work Health and Safety Act 2011* and its supporting regulations, which came into force on 1 January 2012. Comcare established the Asbestos Committee in February 2012 under its governance plan to bring together representatives from areas within Comcare that have an involvement in asbestos matters. The purpose of the committee is to provide an opportunity for participants to share and exchange information on respective roles and activities.

The management of ACMs in the Australian Defence Force (ADF) is overseen by Comcare as part of its function as the Commonwealth's work health and safety regulator. Until 31 December 2010, the ADF was exempted from the national ban and was permitted to use asbestos-containing parts and components considered to be mission-critical and where there were no known non-asbestos alternatives. All exemptions have now ended and Comcare continues to work closely with the ADF to ensure that any ACMs identified in the workplace are dealt with appropriately.

The national ban on the use of asbestos in Australia is supported by asbestos import and export controls. This is primarily managed by the Australian Customs and Border Protection Service under the Customs (Prohibited Imports) Regulations 1956, which prohibits the importation of ACMs in most circumstances without permission.

There have been recent detections where asbestos has been imported into Australia with incorrect certification indicating the materials were asbestos-free. This has included asbestos-containing products that were ultimately destined for the offshore oil and gas industry in north-western Australia that were incorrectly certified as being 'asbestos-free' prior to importation. Customs and Border Protection advised the review that, following these incidents, they undertook an awareness-raising campaign among importers recommending that they have the asbestos-free status of the equipment certified by Australian laboratories prior to importation. This has led to an increase in requests for exemptions to the regulations, to enable goods suspected of containing asbestos to be imported into Australia for the purpose of testing. Customs and Border Protection advised that additional work is being undertaken in association with the Department of Foreign Affairs and Trade to increase the international

awareness of Australia's asbestos import ban. They anticipate that increased levels of awareness among our major trading partners will further assist to prevent the inadvertent importation of ACMs.

Identified instances of misclassification of both import and export goods as containing asbestos have resulted in incorrect statistics being recorded on import and export of asbestos. Customs and Border Protection has implemented a variety of mechanisms aimed at ensuring records are correct at the time of lodging an import or export declaration. This is intended to maintain the integrity of the data on the efficacy of import and export controls and ensure Customs and Border Protection risk based and intelligence driven approach to border enforcement is maintained.

Finally, the review was advised that as part of the Northern Territory National Emergency Response (NTNER), the Commonwealth implemented a survey of 73 NTNER communities to locate and identify ACMs. In September 2009, the Commonwealth Government commenced a project to remove high-risk ACMs from these communities. This is an ongoing project which has now been handed to the NT Department of Construction and Infrastructure, which is responsible for coordinating and maintaining an asbestos register for all government assets in the 73 NTNER communities.

# Endnotes

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- <sup>1</sup> World Health Organization, *Elimination of Asbestos Related Diseases*, WHO/SDE/OEH/06.03, September 2006.
- <sup>2</sup> National Health and Medical Research Council, *Asbestos Related Diseases*, <http://www.nhmrc.gov.au/your-health/asbestos-related-diseases>, accessed 27 March 2012.
- <sup>3</sup> Olsen, N, Franklin, P, Reid, A, de Klerk, N, Threlfal, T, Shilkin, K, Musk, B, 'Increasing incidence of malignant mesothelioma after exposure to asbestos during home maintenance and renovation', *Medical Journal of Australia*, 2011, pp. 271–274.
- <sup>4</sup> Asbestos Management Review, *Terms of Reference*, October 2010.
- <sup>5</sup> Virta, Robert, *Asbestos: Geology, Mineralogy, Mining and Uses*, US Department of the Interior, US Geological Survey, 2002, p. 4.
- <sup>6</sup> Workplace Health and Safety Queensland, *What is Asbestos and Where is it Found?*, 2011, <http://www.deir.qld.gov.au/workplace/subjects/asbestos/definition/index.htm>, accessed 19 January 2012.
- <sup>7</sup> Queensland Health, *What is Asbestos?*, 2008, [http://www.health.qld.gov.au/asbestos/about\\_asbestos/what\\_is\\_asbestos.asp](http://www.health.qld.gov.au/asbestos/about_asbestos/what_is_asbestos.asp), accessed 19 January 2012.
- <sup>8</sup> United States Geological Survey, *Worldwide Asbestos Supply and Consumption Trends from 1900 through 2003*, 2006, p. 34.
- <sup>9</sup> Department of Industry and Resources, Department of Local Government and Regional Development, *Management of Asbestos Contamination in Wittenoom: Non-technical Summary*, 2006, p. 1.
- <sup>10</sup> NSW Government, *Responding to the Asbestos Problem: The Need for Significant Reform in NSW*, 2010, p. 10.
- <sup>11</sup> Leigh, J, Davidson, P, Hendrie, L, Berry, D, 'Malignant mesothelioma in Australia', 1945–2000, 2002, *American Journal of Industrial Medicine* 41: pp. 188–201.
- <sup>12</sup> National Occupational Health and Safety Commission, *Regulation Impact Statement on the Proposed Codes of Practice and Guidance Note for Asbestos*, 2005, p. 7.
- <sup>13</sup> *Ibid.* p. 1.
- <sup>14</sup> See the USA Environmental Protection Agency website for further information: <http://www.epa.gov/asbestos>, accessed 27 March 2012.
- <sup>15</sup> Australian Bureau of Statistics, *Australian Housing Survey – Household Characteristics, Costs and Conditions*, 1994.
- <sup>16</sup> ACT Government, ACT Asbestos Taskforce, *Asbestos Management in the ACT*, 2005, p. 33.
- <sup>17</sup> National Health and Medical Research Council, *Asbestos Related Diseases*, <http://www.nhmrc.gov.au/your-health/asbestos-related-diseases>, accessed 27 March 2012.
- <sup>18</sup> Workplace Health and Safety Queensland, *Asbestos Work Health and Safety Action Plan*, 2011, p. 3.
- <sup>19</sup> Australian Institute of Health and Welfare, *Australia Cancer Incidence and Mortality Books*, <http://aihw.gov.au/acim-books>, accessed 19 April 2012.
- <sup>20</sup> Australian Institute of Health and Welfare, *Australian Cancer Incidence and Mortality, Mesothelioma for Australia*, (ICD10 C45).
- <sup>21</sup> Australian Institute of Health and Welfare, *Australian Cancer Incidence and Mortality, Mesothelioma for Australia*, (ICD10 C45).
- <sup>22</sup> Olsen, N, Franklin, P et al., 'Increasing incidence of malignant mesothelioma after exposure to asbestos during home maintenance and renovation', *Medical Journal of Australia*, 2011, p. 271.
- <sup>23</sup> Safe Work Australia, *Mesothelioma in Australia, Incidence 1982 to 2007, Mortality 1997 to 2007*, p. 14.
- <sup>24</sup> Australian Bureau of Statistics, *3303.0 Causes of Death*, Australia, 2010.
- <sup>25</sup> Safe Work Australia, *Mesothelioma in Australia, Incidence 1982 to 2007, Mortality 1997 to 2007*, p. 14.

- 
- <sup>26</sup> Clements, M, Berry, G, Shi, J, 'Actuarial projections for mesothelioma: an epidemiological perspective'. Presented to the Actuaries of Australia XIth Accident Compensation Seminar, 2007, [http://www.actuaries.asn.au/Library/5.cACS07\\_paper\\_Clements\\_Actuarial%20Projections%20for%20Mesothelioma.pdf](http://www.actuaries.asn.au/Library/5.cACS07_paper_Clements_Actuarial%20Projections%20for%20Mesothelioma.pdf), accessed 11 May 2012.
- <sup>27</sup> KPMG, *Valuation of Asbestos-Related Disease Liabilities of Former James Hardie Entities ('The Liable Entities') to be Met by the Special Purpose Fund*, KPMG Actuaries Pty Ltd, 2006.
- <sup>28</sup> Leigh, J, Davidson, P, Hendrie, L, Berry, D, 'Malignant mesothelioma in Australia, 1945–2000', 2002, *American Journal of Industrial Medicine* 41: pp. 188–201.
- <sup>29</sup> National Health and Medical Research Council, *Asbestos Related Diseases*, <http://www.nhmrc.gov.au/your-health/asbestos-related-diseases> accessed 27 March 2012.
- <sup>30</sup> *Model Work Health and Safety Regulations*, Chapter 8.
- <sup>31</sup> Australian Safety and Compensation Council, *Asbestos Management and Control: A Review of National and International Literature*, 2008, p. 12–13.
- <sup>32</sup> South Australian Government, *Asbestos Safety Action Plan*, p. 3.
- <sup>33</sup> Queensland Government, *Asbestos Work Health and Safety Action Plan 2011–2016*, p. 6.
- <sup>34</sup> NSW Government, *Responding to the Asbestos Problem: The Need for Significant Reform in NSW*, p. 6.
- <sup>35</sup> Asbestos Management Review, *Issues Paper*, p. 7.
- <sup>36</sup> Asbestos Management Review, *Issues Paper*, p. 8.
- <sup>37</sup> Victorian Trades Hall Council, *Submission No. 36*, p. 4.
- <sup>38</sup> *Model Work Health and Safety Regulations*, r. 424.
- <sup>39</sup> *Model Work Health and Safety Regulations*, r. 425.
- <sup>40</sup> *ibid.*
- <sup>41</sup> *ibid.*
- <sup>42</sup> *Land and Business (Sale and Conveyancing) Act 1994*, ss.7–8 and *Land and Business (Sale and Conveyancing) Regulations 2010*, Schedule 2, Div. 2 and Schedule 1, Div. 2.
- <sup>43</sup> *ibid.*
- <sup>44</sup> NT Government, *Asbestos Disposal in the Northern Territory*, p. 2, [http://www.nretas.nt.gov.au/\\_data/assets/pdf\\_file/0008/14030/asbestos\\_disposal\\_in\\_the\\_northern\\_territory.pdf](http://www.nretas.nt.gov.au/_data/assets/pdf_file/0008/14030/asbestos_disposal_in_the_northern_territory.pdf) accessed 21 March 2012.
- <sup>45</sup> Safe Work Australia, *Code of Practice: How to Manage and Control Asbestos in the Workplace*, 2011, p. 8.
- <sup>46</sup> ACT Government, *ACT Asbestos Taskforce, Asbestos Management in the ACT*, 2005, p. 30.
- <sup>47</sup> *Dangerous Substances Act 2004 (ACT)*, Part 3A.4.
- <sup>48</sup> *Model Work Health and Safety Regulations*, r. 458.
- <sup>49</sup> *Model Work Health and Safety Regulations*, r. 458.
- <sup>50</sup> *Public Health Regulations 2005 (QLD)*, rr. 2D, 2E.
- <sup>51</sup> Queensland Health, *Asbestos: A Home Renovator's and Tradesperson's Guide for Minor Work in Domestic Buildings*, 2010, p. 20.
- <sup>52</sup> EPA Victoria, *Industrial Waste Resource Guidelines: Asbestos Transport and Disposal*, IWRG611.1, July 2009, p. 1; EPA of South Australia, *EPA Guidelines: Wastes Containing Asbestos: Removal, Transportation and Disposal*, EPA 414/09, July 2009, p. 3.
- <sup>53</sup> Mike van Alphen, University of South Australia, *Submission No. 26*, p. 22.

- 
- <sup>54</sup> Burdorf A, Heederik D., 'Applying quality criteria to exposure in asbestos epidemiology increases the estimated risk', *The Annals of Occupational Hygiene*, 2011, July 55(6): pp. 565–568.
- <sup>55</sup> Government of Western Australia, *Asbestos Management: Guide for Agencies*, 2010, p. 11.
- <sup>56</sup> *ibid*, p. 12.
- <sup>57</sup> *Australian Dangerous Goods Code*, 7th Edition, sp. 168, p. 283
- <sup>58</sup> *ibid*.
- <sup>59</sup> Victorian Environmental Protection Authority, *Prescribed Industrial Waste Disposed to Landfill: Annual Trends*, p. 3.
- <sup>60</sup> South Australian Environmental Protection Authority, *Lucas Waste Management Pty Ltd licence to Operate a Waste or Recycling Depot*, cl. 10.
- <sup>61</sup> NSW Department of Environment and Climate Change, *Crackdown on Illegal Dumping: Handbook for Local Government*, 2007, p. 25.
- <sup>62</sup> Tamala Park Landfill Facility, *MRC Free Asbestos Drop-Off Days*, <http://www.mrc.wa.gov.au/Tamala-Park-Operations.aspx> accessed 28 March 2012.
- <sup>63</sup> NSW Office of Environment and Heritage, *Regional Illegal Dumping (RID) Squads*, <http://www.environment.nsw.gov.au/warr/RIDSquads.htm> accessed 28 March 2012.
- <sup>64</sup> WorkCover NSW on behalf of the Heads of Asbestos Coordinating Authorities, *Submission No. 57*, p. 8.
- <sup>65</sup> Asbestos Diseases Society of Victoria, *Submission No. 19*, p. 6.
- <sup>66</sup> Master Builders Australia Ltd, *Submission No. 25*, p. 18.
- <sup>67</sup> Australian Safety and Compensation Council, *Asbestos Management and Control: A Review of National and International Literature*, July 2008, p. 6.
- <sup>68</sup> IPSOS Consultants for Department of Human Services (Victoria), *Are Messages About Reducing Exposure to Asbestos and Lead-based Products During Home Renovation Reaching Those Most at Risk?*, DHS Ref: 77/07, June 2008, p. 5.
- <sup>69</sup> Tasmanian Government, *Asbestos in Tasmania*, <http://www.asbestos.tas.gov.au> accessed 28 March 2012.
- <sup>70</sup> Queensland Health, *Asbestos in the Home*, <http://www.health.qld.gov.au/asbestos> accessed 28 March 2012.
- <sup>71</sup> Victorian Department of Health, *Hazards on Your Property after a Bushfire*, [http://www.health.vic.gov.au/environment/emergency\\_mgmnt/cleaning\\_up.htm](http://www.health.vic.gov.au/environment/emergency_mgmnt/cleaning_up.htm) accessed 28 March 2012.
- <sup>72</sup> ACT Asbestos Taskforce, *Community Engagement Report December 2004 – May 2005*, p. 1.
- <sup>73</sup> Artcraft Research for the ACT Asbestos Taskforce, *Final Report on Focus Groups among the General Public and Tradespeople*, 20 June 2005.
- <sup>74</sup> Olsen, Nola J et al., 'Increasing incidence of malignant mesothelioma after exposure to asbestos during home maintenance and renovation', *The Medical Journal of Australia*, MJA 195 (5), 5 September 2011, [https://www.mja.com.au/sites/default/files/issues/195\\_05\\_050911/ols10125\\_fm.pdf](https://www.mja.com.au/sites/default/files/issues/195_05_050911/ols10125_fm.pdf), accessed 21 March 2012.
- <sup>75</sup> Safe Work Australia, *Asbestos Exposure and Compliance Study of Construction and Maintenance Workers*, February 2010, p. 23.
- <sup>76</sup> *ibid*.
- <sup>77</sup> *Model Work Health and Safety Regulations*, r. 419.
- <sup>78</sup> Safe Work Australia, *How to Manage and Control Asbestos in the Workplace: Code of Practice*, 2011, p. 37.
- <sup>79</sup> *Model Work Health and Safety Regulations*, Part 8.7.
- <sup>80</sup> *Building (General) Regulations 2004* (ACT), Schedule 1, Part 1.3, Item 25.
- <sup>81</sup> *ibid*.
- <sup>82</sup> *Model Work Health and Safety Regulations*, r. 422.

- 
- <sup>83</sup> Safe Work Australia, *Code of Practice: How to Manage Asbestos in the Workplace*, 2011, p. 16
- <sup>84</sup> ACT Government, *Submission No. 48*, p. 9.
- <sup>85</sup> *Construction Occupations (Licensing) Regulation 2004 Mandatory Qualifications Schedule (ACT)*.
- <sup>86</sup> Safe Work Australia, *Decision Regulation Impact Statement for National Harmonisation of Work Health and Safety Regulations and Codes of Practice*, 2011, p. 208.
- <sup>87</sup> *Victorian Purchasing Guide for CPC08 Construction, Plumbing and Services Training Package*, Version No. 7. May 2012, pp. 19–20.
- <sup>88</sup> Safe Work Australia, *Asbestos Exposure and Compliance Study of Construction and Maintenance Workers: Follow-up Report*, June 2010, p. 2.
- <sup>89</sup> Cancer Council Australia, *Submission No. 39*, p. 12.
- <sup>90</sup> Master Builders Australia Ltd, *Submission No. 25*, p. 21.
- <sup>91</sup> Asbestos Victims Association (SA) Inc., *Submission No. 17*, p. 5.
- <sup>92</sup> Australian Chamber of Commerce and Industry, *Submission No. 29*, p. 15.
- <sup>93</sup> World Health Organization, *Elimination of Asbestos-Related Diseases* [http://whqlibdoc.who.int/hq/2006/WHO\\_SDE\\_OEH\\_06.03\\_eng.pdf](http://whqlibdoc.who.int/hq/2006/WHO_SDE_OEH_06.03_eng.pdf), 2011, accessed 20 April 2012.
- <sup>94</sup> World Health Organization, *Asbestos: Elimination of Asbestos-Related Diseases*, Fact Sheet 343, July 2010.
- <sup>95</sup> See <http://www.mesothelioma-australia.com/home-page/what-are-our-aims.aspx>, accessed 27 March 2012.
- <sup>96</sup> McCormack, V, Peto, J et al., 'Estimating the asbestos-related lung cancer burden from mesothelioma mortality', *British Journal of Cancer* (2012) Volume 106, Issue 3, pp. 575–584.
- <sup>97</sup> Reid A, De Klerk NH, et al., 'The risk of lung cancer with increasing time since ceasing exposure to asbestos and quitting smoking', *Occupational and Environmental Medicine*, Volume 63, Issue 8, pp. 509–512, 2006.
- <sup>98</sup> Wang X, Yano E, et al., 'A 37-year observation of mortality in Chinese chrysotile asbestos workers', *Thorax: An International Journal of Respiratory Medicine*, <http://thorax.bmj.com/content/early/2011/09/21/thoraxjnl-2011-200169.short?rss=1>, 2011, accessed 20 April 2012.
- <sup>99</sup> NSW Government, *Responding to the Asbestos Problem: The Need for Significant Reform in NSW*, August 2011, p. 4.
- <sup>100</sup> New South Wales Business Chamber, *Submission No. 38*, p. 2.
- <sup>101</sup> NSW Government, *Responding to the Asbestos Problem: The Need for Significant Reform in NSW*, August 2011, p. 3.
- <sup>102</sup> Australian Manufacturing Workers' Union, *National Declaration: Towards an Australian Safe Asbestos Free Environment*, 2010, p. 2. [http://www.amwu.org.au/content/upload/files/campaigns/Asbestos/asbestos\\_dec\\_jun\\_2010.pdf](http://www.amwu.org.au/content/upload/files/campaigns/Asbestos/asbestos_dec_jun_2010.pdf) accessed 4 January 2012.
- <sup>103</sup> Masters Builders Australia Ltd, *Submission No. 25*, p. 6.
- <sup>104</sup> WorkCover NSW, *Submission No. 57*, p. 2.
- <sup>105</sup> Master Builders Australia Ltd, *Submission No. 25*, p. 7.
- <sup>106</sup> Northern Territory Trades and Labor Council (Unions NT), *Submission No. 11*, p. 2.
- <sup>107</sup> Robotham J, 'Deadliest cancers lose funding race'. *Sydney Morning Herald*, 3 February, 2012.
- <sup>108</sup> Cancer Australia, *Cancer Research Projects and Research Programs in Australia 2003 to 2005*, p. 29
- <sup>109</sup> James Hardie Industries NV, *Proposal to provide long-term funding for compensating Australian asbestos-related personal injury claims against certain former James Hardie companies*, p. 10, 2006.
- <sup>110</sup> Dr Malcolm Feigan, *Submission No. 8*, p. 2.
- <sup>111</sup> *Worldwide Asbestos Supply and Consumption Trends from 1900 through 2003*, p. 1. <http://pubs.usgs.gov/circ/2006/1298/c1298.pdf> accessed 27 March 2012.

- 
- <sup>112</sup> *ibid*, p. 3.
- <sup>113</sup> *World Asbestos Consumption from 2003 through 2007*, United States Geological Survey, Mineral Industry Surveys, p. 1.
- <sup>114</sup> See [http://www.wto.org/english/tratop\\_e/envir\\_e/edis09\\_e.htm](http://www.wto.org/english/tratop_e/envir_e/edis09_e.htm) accessed 27 March 2012.
- <sup>115</sup> See [http://www.wto.org/english/tratop\\_e/envir\\_e/edis09\\_e.htm](http://www.wto.org/english/tratop_e/envir_e/edis09_e.htm) accessed 27 March 2012.
- <sup>116</sup> See [http://www.icftu.org/www/pdf/statements/124EB\\_E\\_12\\_a\\_Asbestos%20%20EB%20resolution%20%20FINAL.pdf](http://www.icftu.org/www/pdf/statements/124EB_E_12_a_Asbestos%20%20EB%20resolution%20%20FINAL.pdf) accessed 27 March 2012.
- <sup>117</sup> Gippsland Asbestos Related Diseases Support Inc., *Submission No. 3*, p. 18.
- <sup>118</sup> Australian Council of Trade Unions, *Submission No. 42*, p. 25.
- <sup>119</sup> Institute of Marine and Power Engineers, *Submission No. 32*, p. 2.
- <sup>120</sup> Dr Jukka Takala, *European Asbestos Conference, Dresden, Germany, 2003*.
- <sup>121</sup> *Land Acquisition Act 1989*, Part V, Div. 2.
- <sup>122</sup> *Land Acquisition Act 1989*, s. 121.
- <sup>123</sup> Valerie Le Maitre, *Submission No. 5*.
- <sup>124</sup> State School Teachers' Union of WA, *Submission No. 23*, p. 8.
- <sup>125</sup> [http://www.health.vic.gov.au/environment/downloads/hs522\\_notes1\\_web.pdf](http://www.health.vic.gov.au/environment/downloads/hs522_notes1_web.pdf) and [http://www.health.vic.gov.au/environment/downloads/hs523\\_notes2\\_web.pdf](http://www.health.vic.gov.au/environment/downloads/hs523_notes2_web.pdf) accessed 1 June 2012.
- <sup>126</sup> <http://www.buildingcommission.com.au/www/html/671-what-are-building-permits.asp> accessed 1 June 2012.
- <sup>127</sup> Queensland Government Department of State Development, Infrastructure and Planning, <http://dlgp.qld.gov.au>, accessed 15 May 2012.
- <sup>128</sup> Public Health Regulation 2005, Part 1A, Div 1.
- <sup>129</sup> *Development Act 1993*, s. 4.
- <sup>130</sup> [www.wst.tas.gov.au](http://www.wst.tas.gov.au) – *About Us*, accessed 15 May 2012.
- <sup>131</sup> Department of Health and Ageing, *Asbestos: A Guide for Household and the General Public – May 2012*, <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-enhealth-asbestos-may2012.htm> accessed 24 May 2012.
- <sup>132</sup> Northern Territory Department of Health, *Solid Waste Management*, [http://www.health.nt.gov.au/Environmental\\_Health/Solid\\_Waste\\_Management/index.aspx](http://www.health.nt.gov.au/Environmental_Health/Solid_Waste_Management/index.aspx) accessed 24 May 2012.

