Asbestos – Hazards Of The Past Are Hazards Of The Future?

Asbestos was mined, manufactured and produced as part of our everyday lives for around one hundred years of our history, yet it has left a path of destruction that will last at least one hundred more. Asbestos related diseases can take up to 40 years to present themselves, as asbestos was banned in the workplace from 2003, there are still more first and second wave asbestos related disease sufferers to be diagnosed, and sadly lost.

We currently live in the aftermath of an asbestos world, with the possibility of second or third wave asbestos exposure and related disease to occur as we renovate and demolish old buildings, residential homes, office buildings and schools. To this day, we still face the threat of first wave exposure, which will be discussed later, when products from overseas enter our workplaces.

When and How is Asbestos Hazardous?

Asbestos is most hazardous when fine, microscopic fibre particles become airborne and enter the lungs. The fine particles can enter the smallest air passages, and are difficult to remove via the natural process of the lungs, and become embedded. These embedded fibre particles irritate the lung tissue, causing the following diseases:

ASBESTOS RELATED DISEASES

Asbestosis – Usually taking more than a decade to develop, the asbestos particles scar the lungs, causing inflammation and scarring so severe that oxygen can no longer pass through the lungs into the blood.

Lung Cancer – An increase in the chance of developing lung cancer can occur if exposed to asbestos. The chances increase if you are also a smoker.

Pleural Disease – the outer lining of the lung, known as the pleura, becomes inflamed causing stiffening and thickening of the outer lining. This lining can then fill with fluid, making it difficult to breathe.

Mesothelioma – is cancer of the pleura, an aggressive, quick spreading cancer with few early symptoms, making it difficult to diagnose and treat. The average survival time after diagnosis is approximately 6-18 months. Although a small percentage of those exposed to asbestos develop mesothelioma, only a small amount of exposure is required. This disease may not occur until twenty to forty years after exposure.
THE THREE WAVES OF ASBESTOS RELATED DISEASES

Asbestos related diseases occur as a result of exposure that can be classified in three waves.

The First Wave

The first casualties of asbestos related diseases are those who came into direct contact with the asbestos air borne fibres. This includes those who worked in mining, milling, shipping and transporting the asbestos, to those working in the manufacturing plants. This unfortunately includes the wives who came into direct contact with asbestos fibres whilst washing their husband’s work clothing.

The Second Wave

The second casualties are those who came into contact with asbestos related products during their employment. Included in the second wave are railway workers, sprayers of asbestos insulation, tradespersons cutting products containing asbestos, construction workers and even mechanics.

The Third Wave

The third wave of casualties are those who are exposed in their environment - being workplaces, homes, schools and other buildings.

Due to the lag time from asbestos exposure to the diseases being diagnosed, it is unknown when the peak of asbestos related diseases will occur. As the use of asbestos was completely banned in the workplace in 2003, some predictions are made that 2035 might be the possible peak of asbestos related disease diagnosis, which is still quite some years ahead.

Wittenoom – Home Of The ‘Blue Sky Mine’.

An example of what asbestos exposure can do to a town, even years after leaving the town, can be seen in the history of the mining town of Wittenoom, part of the Pilbara region in Western Australia. Wittenoom is notoriously connected with deadly asbestos poisoning. In fact the Australian Band, Midnight Oil, used the story of the miners and people in the town, as inspiration for their song, ‘Blue Sky Mine’.

The existence of Blue Asbestos, known as Crocidolite, within this region was known as early as 1915, with the ‘asbestos rush’ which occurred approximately in 1925. CSR purchased the existing plant and commenced mining blue asbestos in 1943.

Two mines were in operation from 1943, with the initial 200 workers living in tents approximately one kilometre from the asbestos mill. Later, a town was built approximately 7 miles from the operations, which held a population of around 20,000 people. The population of Wittenoom consisted of asbestos miners and milling workers, service providers, children and wives. Included in the population were new migrants, sent to work as part of the Commonwealth Government Policy, which placed new migrants in any work situation for up to two years.

During operations at the mine, open trucks were used to transport the blue asbestos fibre to the storage shed facility, before being loaded into ships for transportation.
From 1957 to 1962, Dr Jim McNulty AO visited Wittenoom as the mines medical doctor and chest physician, diagnosing the first case of mesothelioma in Australia in a worker at the mine. Dr McNulty personally explained the dangers of exposure to the blue asbestos, and the possibility that it could cause tumours even after short exposure periods. Dr McNulty warned that the current operations could gravely endanger the workers.

EXPOSED TO ASBESTOS AT WITTENOOM:

- Approximately 7,000 men and women worked in mining and milling operations.
- Approximately 13,000 people resided as non-workers of the township, of which 7,000 were children
- More than 2,000 workers and residents have died from asbestos related diseases.
Another medical warning was given in 1961, by Western Australian Specialist Dr Bruce Hunt. Dr Hunt warned that if conditions were not improved, more would die as a result of asbestos diseases. The conditions were presented to the Premier and the Cabinet not long after, however no action occurred.

A few years later, in 1966, mining at Wittenoom ceased. The closure was as a result of falling asbestos prices and profitability.

During the 1970’s, Dr Janet Elder, Senior Chest Physician of the University Department of Medicine at Sir Charles Gairdner Hospital, expressed her horror at the number and speed of new mesothelioma cases, along with other asbestos related diseases developing amongst the former Wittenoom residents.

**Wittenoom - Present Day**

A handful of residents remain in Wittenoom as at 2007, when the Western Australian State Government disconnected town services, and withdrew the town’s status. Until these residents leave, who are completely aware of the risks in staying, the Western Australian Government will be unable to rehabilitate the area.
People continue to be placed at risk if they venture within the Wittenoom area. Eroded mine tailings have been scattered over the years. Tailings were also used as landfill for the town and also roads around the area. Until properly dealt with, the exposure of asbestos is still a concern to local Indigenous communities, visitors and tourists.

As a result of asbestos exposure, Western Australia has one of the highest rates of malignant mesothelioma per capita of population than anywhere in the world. So far, more than 2,000 people, former workers and non-workers, have died as a result of residing in Wittenoom. Unfortunately, this toll will continue to rise as asbestos related disease diagnosis can occur long after the exposure.

James Hardie Industries

Another example of asbestos exposure and related diseases occurred at one of the largest asbestos manufacturing companies in the Australian market at the time, James Hardie Industries (James Hardie). James Hardie began manufacturing asbestos in 1915, items produced included building and insulation products. They also owned asbestos mines within and outside of Australia.

Fibro House – made with asbestos products (Source: The Australian Asbestos Network 2014)

Waste from the asbestos plants ran by James Hardie was used in various ways – playgrounds, park paths, driveways and even bags to carry fruit and vegetables. James Hardie made the decision to remove asbestos from their products in 1978, having quit using asbestos products by 1987.

In 1991 the first verdict was made against James Hardie. Since then, other court decisions have followed, with James Hardie now being obligated to place 35% of its operating cash flow for the next forty years toward the Asbestos Injuries Compensation Fund – to cover payouts for Australian victims of asbestos related diseases. James Hardie has now relocated to Holland.
Bernie Banton AM

The best known victim of asbestos related diseases caused by asbestos exposure whilst working at James Hardie was Bernie Banton. Born in 1946, Bernie began working for James Hardie Bradford Insulation, in a factory that manufactured power station asbestos lagging in 1968. Three of his brothers, Albert, Edward and Bruce also worked for James Hardie.

Whilst working at James Hardie, the team he was part of were known as the ‘Snowmen’ as they were covered from head to toe in white asbestos dust. Whilst they knew that there was talk about the dangers of working with asbestos at the time, they were not aware that it would kill them. He finished working with James Hardie in 1974.

Years later, in 1998, Bernie was speaking to the widow of his late foreman from his James Hardie days. It was then that he became aware that he could be suffering from an asbestos related disease. His late foreman had died from mesothelioma, and Bernie and his wife began to piece together the symptoms, notably moments of breathlessness by Bernie during a ski holiday that year.

In early 1999, Bernie was diagnosed with asbestosis, and by February of the next year, he was unable to continue his current occupation due to the physical nature of the work. It was in late 2000, that Bernie and his wife became involved in asbestos related disease advocacy, made even more personal by the death of Bernie’s brother Edward, who died of mesothelioma in 2001. Another one of his brothers who worked at the factory, Albert, had also contracted a less serious form of asbestosis.

An Inquiry was initiated in 2004 by the New South Wales State Government. During this time, Bernie became the public face of the struggle of asbestos related diseases. Bernie had also now become dependent on supplementary oxygen around the clock.

In 2005, Bernie Banton received a Member of the Order of Australia Award (AM) and the Australian Lawyers Alliance Civil Justice Award, for his work for asbestos related disease sufferers.

Good news prevailed in February of 2007, with James Hardie commencing their contribution to the The Asbestos Injury Compensation Fund. However all the efforts of Bernie fighting for this to occur had a great effect on his health.

In August 2007 Bernie was diagnosed with mesothelioma. He died on the 27th November 2007 and was farewelled and honoured with a State funeral.

_in 1974, the year Bernie finished working at James Hardie, there were 137 workers in his facility. As at 2006, only 10 of those workers were alive._
Recent Asbestos Incident – Origin Energy

On the 13th March 2014, Origin Energy Limited announced to the market that it had ceased drilling on the Australia Pacific Liquified Natural Gas project’s coal seam gas sites in Queensland after they were informed by a supplier that an imported product sometimes used in drilling fluid, known as NUTPLUG, may contain asbestos. This shutdown was issued as a precaution to safeguard employees, contractors and landholders.

What is NUTPLUG?

‘NUTPLUG is made from ground walnut shells and is non-compressible, so it can be used in squeeze slurries as well as more conventional Lost Circulation Material’ (AMC Oil & Gas).

Origin Energy then quarantined the affected material, tracing and accounting for it through its supply chain. Specialist removal was organised for the affected material, whilst Origin Energy sourced alternate sources of drilling fluid.
‘Origin’s highest priorities are, and will continue to be, the health and safety of everyone associated with the project and minimising impacts on the environment.’ (Origin Energy Limited 2014).

Drilling operations recommenced on the 19th March 2014, with Origin Energy announcing to the market that it had conducted vigorous testing of the drill sites to ensure that there were no traces of asbestos. As a result of the testing, five of the drill rigs were given the all clear to recommence drilling, with the remaining rigs to return once their results indicated that the sites were safe to recommence operations.

Origin Energy made clear in their announcement that, ‘Origin’s highest priorities are, and will continue to be, the health and safety of everyone associated with the project and minimising impacts on the environment.’

Origin Energy were transparent in their actions, shutting down the sites of potential asbestos contamination to conduct the appropriate testing and removal of material.

Not long after the Origin Energy incident, The NSW Government – Trade & Investment department issued a Safety Bulletin to inform the mining industry of the potential asbestos danger in the supplied NUTPLUG. This Safety Bulletin can be read at: http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/safety-bulletins. Other similar reports were issued across the industry, and is evidence of the seriousness of asbestos exposure and asbestos related illnesses not only in mining, but on a national level.

Protection and Awareness for the Future?

A large change in the way that asbestos is managed and used in Australia has occurred since 1915. Whilst some of those exposed to asbestos have years ahead of them before knowing whether they have been affected, including all three waves of asbestos exposure, there is a clear minimisation of exposure strategy in place today which will hopefully result in a tapering out of these asbestos related diseases.

Yet with all the existing buildings that used asbestos products in their construction, in Australia and throughout the world, plus asbestos being found in drilling fluids and potentially other products – is there enough education, regulation, and monitoring to make asbestos exposure and asbestos related diseases a thing of the past in 100 years’ time?
Sources –


Imdex Limited - Australian Mud Company - AMC Oil And Gas www.amcolandgas.com/files/Nutplug

Government of Western Australia Department of Lands http://www.lands.wa.gov.au/Wittenoom


NSW Government – Trade & Investment - Mine Safety


