Asbestos waste disposal and dumping: challenges and responses

Andrew Doig
Introduction

- Overview
- Asbestos basic management
- Recycling and asbestos
- Illegal disposal
- Summary
ASBG Who are we?

- The **Australian Sustainable Business Group** is an business representative body
- We operate to assist **businesses** to deal with rapidly changing environmental laws
- Provision of topical **seminars**, **newsletters** and **conferences** and **lobbying** for members
- See more at [www.asbg.net.au](http://www.asbg.net.au)
- **Submissions under Policy, ASBG Submissions**

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ASBG's perspective on asbestos waste management
Management of Asbestos - Burial

There is only one practical method for management of asbestos → BURIAL

Once buried it is immobile and inert → Options:

1. Asbestos waste → to a licensed landfill
2. Asbestos contaminated materials (soils) can be buried on site as a ‘capped landfill’ or other methods
3. Alternative options to be considered for local burial
   - Require an efficient, low(er) cost approach to safely manage asbestos
   - Bury properly and mark where it is
   - If need to be recovered appropriate safety actions can be taken

ASBG’s perspective on asbestos waste management
Contaminated Land
Asbestos in soils – Issue 1

WHS Reg permits removal and separation of asbestos from other materials on-site
Contaminated land NEPM criteria permit leaving a minimal risk level of asbestos on site → properly buried
Require a robust location identification process attached to lots under planning laws → know where it is for future excavations
WA has a very good and easy system for recording notations on title – this is not the case in most other states
Soil Contaminated with Asbestos

At least 250,000 tpa going to landfill in NSW annually

If across Australia a similar amount ~ 1 Mt pa

Landfill filling up faster and need new solutions
Permits to bury for resource reuse is either banned or subject to tight controls
Are there enough landfills accepting commercial amounts?

- Many landfills refuse to accept commercial quantities
- Domestic asbestos loads are of small volumes and less of an issue
- Some lists asbestos taking landfills
- Few landfills across NSW, QLD and other states accept commercial quantities → increases costs and transport distances
- This increases pressure for on-site burial
- This can place on-site asbestos remediation/on-site burial at odds with the local community
Issues ➔ Asbestos and Landfills

- Should a minimum number of landfills be required to accept asbestos in an area?
- Asbestos contamination of landfills makes maintenance difficult ➔ better controls mapping?
- Need for practical and safe methods to manage asbestos at landfill sites
- Identification of where asbestos is placed ➔ future excavations
Asbestos – Burial Alternative Options

- Need for a lower cost and local way to manage contaminated soils impacted with small amounts of asbestos
- Burying asbestos impacted soils (low concentrations) is an increasing burden → Need practical workable solutions:
  - Increase burial under road works, building sites etc. (other than site where it is generated) in a proper manner (banned in a few jurisdictions)
  - Identification via planning or contaminated land register knowing where it is
  - Future excavations → dial before digging and then use appropriate safety measures
Recycled Materials and Asbestos Traces

Recycling of C&D wastes can occur:

- On the site of generation where asbestos removal is permitted → recycled products
  - This material can be re-used on site or if passes an “asbestos free” threshold → can it be used off-site?
- At off-site facilities where C&D and other wastes are processed to produce recycled products
  - Any asbestos in received loads, load is rejected
- You cannot guarantee that all asbestos will be captured or removed → some traces will make it through, like any contaminant
Recycling Sector Overview

- Australia recycles > 52% of all wastes ~ 24 M tonnes/yr
- Turnover 2011 ➔ ~ $6.5 to $11.5 billion
- Waste levies collected NSW >$600m, Vic ~$175m, WA ~ $70m
National Resource Recovery

ASBG's perspective on asbestos waste management
# Asbestos Waste Data Thresholds

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ASBG's perspective on asbestos waste management
Recycling and Asbestos – Issue 2

Most recyclers are highly regulated:
- Environment and WHS agencies regulating and checking
- Products made from recycled materials:
  - Asbestos free thresholds must be met
  - ACCC product liability issue as well
- NSW does not permitted reuse or recycle asbestos waste
  s81 POEO (Waste Regulation) 2014
- Recyclers have little control on others brining in asbestos contaminated materials → C&D and kerbside etc.
- One bag of AC sheeting in a recycling truck → condemned to landfill
Controlling Asbestos at Recycling Works

Quality Management system used, i.e:
- Load inspection upon arrival at weighbridge
- Load inspection by spreading before stockpiling
- Material Inspection when material is loaded into crushing plant
- Material Inspection when material is being processed crushing plant
- Testing of final product on delivery to stockpile

Issue A: How much material is contaminated if a piece of asbestos is found?
Issue B: What standard do we place on recycled materials for asbestos contamination?
Threats to Recycled Materials

- WA Main Roads in 2011 took > 1 million t recycled C&D mater then stopped → asbestos contamination concerns
- Cannot guarantee zero asbestos → even extensive testing is not good enough for WA market as recycled C&D products might contain asbestos
- ‘WA’s tougher specifications by Main Roads in response to fears about asbestos in the material had scared away most buyers.’
- ~2 Mt pa C&D is going to landfill and or being stockpiled
Asbestos impacted soils and recycled products

- Estimated 250 kt pa contaminated soils – at very low levels → can be condemned for any fibre detection in NSW
- WA alone has 2 Mt pa of recycled product → condemned for any asbestos fibres which may be there
- If a no tolerance approach is expanded to all Australia it could prevent most C&D and other recycled products from being reused and recycled
- What % of the 24+ Mt pa would have to be landfilled?
- Where would the tens of millions of tonnes go?
The Asbestos Disposal Issues

If a zero asbestos threshold is required:
A: More waste, which was recycled, goes to landfill:
   - Landfills will quickly fill → community opposition to new landfills fierce, a concentration of the problem
   - Run out of landfill space → where does the waste go?

B: Reduce costs for asbestos wastes → lower levies, special provisions and treatments:
But then all wastes would be classed as asbestos wastes as:
   - They cannot be guaranteed to have zero asbestos
   - Too costly to prove asbestos free
   - Background levels will show up if looked for
Zero or Free?

- The notion of zero is not used by Government, but an “asbestos free” threshold is: AS 4964 and visual test?
- NSW criteria is any fibre detected → asbestos waste then to landfill
- SAs recent Air Quality Policy 2016 lists maximum permitted ground level concentration of asbestos at 0.33 fibres/litre
- Urban background level → 0.01 to 0.2 fibres/litre DoH

Most pollutants have no safe level, e.g. Particulate matter

Like all other pollutants a limit is set based on its health and environmental impacts

Issue: Can we set an acceptable (tiny) limit for asbestos in recycled (or any) product?
Illegal Dumping of Asbestos

- If you own land on which asbestos waste is dumped, who will clean it up?
- It is victim → Occupiers and Councils
- In recycling:
  - Kerbside collections are often contaminated with asbestos. This in NSW condemns the whole truck load → councils generally pay for the disposal costs
  - If missed the asbestos can make it way through the recycling plant resulting in contamination of stockpiles, semi –processed materials and final product. → Recycler pays for the disposal of contaminated materials
Large Scale Dumping of Asbestos

- Dib Hanna, Serial offender → multiple illegal dumping on private land has over $225K in fines now with 5 new Clean Up notices. Likely to go to jail.
- Foxman Case → $390K fine + Ordered to remove asbestos waste ($5 - $10m), but could declare bankruptcy. This could lead to another orphan site.

- The laws are there with significant fines and jail terms and confiscation of profits of the crime
- Illegal dumping requires better policing of wastes
SW Sydney Illegal C&D Processing Facility

September 2012
December 2015
Summary

- Illegal dumping require better policing and treatment of victims of such crimes
- The recycling sector especially, C&D recycling faces considerable issues with asbestos contamination → how to solve this?
- Require better solutions to the limited availability of landfills which can accept commercial quantities
- State jurisdictions are collecting close to $1b in revenue from waste levies. Could some levy funds be spent on:
  - Solutions for recycling
  - Solutions for on-site disposal and alternative burial options
  - Means of marking on planning databases where it has been placed.