Asbestos Identification, Inventory, Risk Assessment & Management Plan

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Forms of asbestos commercially exploited

Crysotile (White) asbestos is by far the most common form of asbestos
Figure 1 - Mesothelioma, asbestososis, and pleural thickening: time trends in annual deaths and Industrial Injuries Benefit Disablement (IIDB) cases*

*Latest statistics are for 2018 for deaths and 2019 for IIDB cases
Available resources

**UK**

- L143 – Approved Code of Practice for CAR 2012
- L127 – Approved Code of Practice (Regulation 4)
- HSG227 - A comprehensive guide to managing Asbestos in Premises
- INDG223 – A short guide to managing asbestos in buildings
- HSG264 – Asbestos: The Survey Guide
Who do Australians say a competent person is?

The WHS Regulations define a competent person to be someone who has acquired knowledge and skills to carry out the task through training, a qualification or experience. This may mean that the competent person who can identify asbestos is:

- trained to handle and take asbestos samples, have the knowledge and experience to identify suspected asbestos and be able to determine risk and control measures
- familiar with building and construction practices to determine where asbestos is likely to be present, and/or
- able to determine that material may be friable or non-friable asbestos and evaluate its condition.

There may be a person within the business who is competent to identify asbestos. If there is not, an external competent person should be engaged. Persons who may be considered to be competent in the identification of asbestos if they meet the criteria outlined above include:

- occupational hygienists who have experience with asbestos
- licensed asbestos assessors
- asbestos removal supervisors
- individuals who have a statement of attainment in the unit competency for asbestos assessors, or
- a person working for an organisation accredited by NATA under AS/NZS ISO/IEC 17020:2013: *Conformity assessment – Requirements for the operation of various types of bodies performing inspection*.

A ‘competent person’ for the purpose of clearance inspections for asbestos removal needs to have different skills and experience.
(a) ensure that all asbestos-containing materials at the workplace are identified by a competent person;

(b) if it is uncertain whether the suspected material contains asbestos, either deem the material to be asbestos-containing material or arrange for a sample of that material to be analysed for the presence of asbestos by a laboratory competent to carry out such analyses;

(c) if part of the workplace is inaccessible and considered by a competent person as likely to contain asbestos, assume that asbestos is present in that area;
Reg 3: Identification of asbestos in place

(d) if no asbestos is identified as per subregulations (a), (b) and (c), ensure that the asbestos-free status of the workplace is substantiated in writing by a competent person: Provided that subregulation (d) does not apply to an employer who occupies or uses a structure as defined in the Construction Regulations, 2003, published as Government Notice R.1010 in Gazette No. 25207 of 18 July 2003, where construction commenced at least three years after promulgation of the Regulations for the Prohibition of the Use, Manufacturing, Import and Export of Asbestos and Asbestos-containing Materials, 2007, published as Government Notice R.341 in Gazette No. 30904 of 28 March 2008, under section 24B of the Environment Conservation Act, 1989 (Act No. 73 of 1989).

• Don’t celebrate too soon!
Everite “BIGSIX” Asbestos or Nutec?
Reg 3: Identification of asbestos in place

- Nutec register & asbestos register. Paint logo’s on both, Yellow A and Blue N
- 2008 Regulations for the Prohibition of the Use, Manufacturing, Import and Export of Asbestos and Asbestos Containing Materials
  - Any building older than **2008** assume asbestos
- Identifying asbestos by sight can be difficult. Asbestos often mixed into other materials and can have different colours or the same colours as other, less harmful materials
- Practically no association between senses & risk – doesn’t smell or irritate
Reg 4 Inventory of asbestos in place

(e) the risk categorisation derived from the asbestos risk assessment as detailed in regulation 5(3); and

Reg 5 Asbestos risk assessment

(3) The asbestos risk assessment must, as an outcome, have a risk categorisation based on the potential for exposure to asbestos for each item of asbestos-containing material, which must be derived from the following:

(a) The health impacts of asbestos;
(b) the number of persons potentially exposed at the workplace;
(c) the potential for damage or disturbance of asbestos-containing materials at the workplace, also by maintenance activities, potential incidents and normal occupant activities; and
(d) the condition of asbestos-containing material, including state of deterioration.
## Example inventory

### Asbestos register

| Workplace address: | XYZ Manufacturing  
Unit 3A, Trading Estate  
West, Anytown 9001 | Name of competent person: | Jim Smith,  
Site OHS manager  
(01) 3293 4012 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date asbestos was identified or assumed to be in the workplace</td>
<td>Type of material (identified/assumed)</td>
<td>Is it friable or non-friable?</td>
<td>Condition of asbestos</td>
</tr>
<tr>
<td>1/2/2011</td>
<td>AC roof sheeting (assumed)</td>
<td>Non-friable</td>
<td>Good, minor deterioration on western end</td>
</tr>
<tr>
<td>1/2/2011</td>
<td>Fibro wall cladding (assumed)</td>
<td>Non-friable</td>
<td>Sound condition structurally, paint lifting in some places</td>
</tr>
<tr>
<td>1/2/2011</td>
<td>Pipe insulation (assumed)</td>
<td>Friable</td>
<td>Cracked at bends in pipe</td>
</tr>
<tr>
<td>1/2/2011</td>
<td>Cement flue (identified)</td>
<td>Non-friable</td>
<td>Good condition, coated</td>
</tr>
</tbody>
</table>
What is a risk assessment?

"asbestos risk assessment" means a risk assessment and risk categorisation of potential exposure to asbestos dust;

"risk categorisation" means the grouping and ordering of potential asbestos exposure risks as contemplated in regulation 5(3);

Risk Severity Matrix

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>1 (Insignificant)</th>
<th>2 (Minor)</th>
<th>3 (Moderate)</th>
<th>4 (Major)</th>
<th>5 (Critical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost Certain 5</td>
<td>Moderate</td>
<td>High</td>
<td>Extreme</td>
<td>Extreme</td>
<td>Extreme</td>
</tr>
<tr>
<td>Likely 4</td>
<td>Moderate</td>
<td>Moderate</td>
<td>High</td>
<td>Extreme</td>
<td>Extreme</td>
</tr>
<tr>
<td>Possible 3</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
<td>High</td>
<td>Extreme</td>
</tr>
<tr>
<td>Unlikely 2</td>
<td>Low</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Rare 1</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
1. Risk assessment required for assessment of asbestos in place. Every 24 months carried out in terms of 5(3). This is tied at the hip to asbestos inventory;

2. Risk assessment required for asbestos repair work, as required. Carried out in terms of 5(5). This is a traditional work based assessment / evaluation / control of asbestos to limit exposure related to work conducted;

3. Risk assessment required for asbestos removal work. Additional aspects to consider as detailed in 5(6);

(6) The asbestos risk assessment for asbestos removal work, as part of the plan of work as contemplated in regulation 15 for asbestos-containing materials identified for removal, must consider the following:

(a) The aspects detailed in subregulation (5);
(b) the risk assessment carried out in accordance with regulation 12(2);
(c) the potential exposure of persons other than employees;
(d) the potential contamination of the air, ground and water;
(e) the thorough decontamination of employees and the workplace;
(f) the transportation of asbestos-containing materials and asbestos waste; and
(g) emergency scenarios.
Before commencement of any asbestos work and during such work, the registered asbestos contractor must ensure that—

(a) a risk assessment is performed that includes—
   (i) identification of the hazards to which persons may be exposed;
   (ii) an assessment of the risks related to the hazards based on a documented method; and
   (iii) documented control measures to mitigate the risk;
(b) the risk assessment contemplated in subregulation (a) is reviewed—
   (i) at regular documented intervals;
   (ii) when an incident has occurred; and
   (iii) when the scope of work changes; and
(c) an up-to-date copy of the risk assessment is made available at the relevant asbestos work site.

<table>
<thead>
<tr>
<th>Sequence of Events</th>
<th>Potential Accidents or Hazards</th>
<th>Preventive Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park vehicle</td>
<td>a) Vehicle too close to passing traffic</td>
<td>a) Drive to area well clear of traffic. Turn on emergency flashers</td>
</tr>
<tr>
<td></td>
<td>b) Vehicle on uneven, soft ground</td>
<td>b) Choose a firm, level parking area</td>
</tr>
<tr>
<td></td>
<td>c) Vehicle may roll</td>
<td>c) Apply the parking brake; leave transmission in PARK; place blocks in front and back of the wheel diagonally opposite to the flat</td>
</tr>
</tbody>
</table>
Mine production of asbestos worldwide from 2007 to 2019 (in 1,000 metric tons)
Asbestos consumption

Top 5 Asbestos Consumers


International Consortium of Investigative Journalists

Graphic by www.stephenrountree.com
Asbestos management plan

6. (1) If asbestos-containing materials are identified, as required in regulation 3, the employer or self-employed person must ensure that a written asbestos management plan for the workplace is prepared by a competent person.

(c) a policy, procedure and implementation plan for phasing out existing asbestos-containing materials at the workplace, which considers the following:

(i) The principle of 'reasonably practicable'; and
(ii) reasons for decisions.

• Reason for change to “abatement” – can’t just manage “asbestos in place”
• Build into procurement processes
Thank you