The exposure of emergency service personnel to asbestos

Darryl J. Dixon 1,2
1 Australian Graduate School of Policing, Charles Sturt University, NSW
2 Bushfire CRC, VIC

What is Asbestos?
Asbestos is a commonly used term to describe six naturally occurring silicate mineral fibres that were used widely by Australian manufacturers in over 3,000 products between the 1940’s and the 1980’s.

Asbestos is more widely known by its Blue, White, and Brown colours. Australia mined and produced products with blue and white asbestos. Its prominence was due to the fire resistant and insulation properties in addition to the cheap cost, durability and local production.

Examples of Asbestos Containing Materials

Asbestos Exposure Risk?
Individual asbestos fibres are microscopic, it is probable that thousands of fibres have been inhaled if not wearing adequate protection near damaged, unstable asbestos containing materials.

The possible health effects of asbestos include asbestosis, lung cancer and mesothelioma – however it can take up to 30 years to develop after exposure.

Notable Asbestos Incidents
Exercise Explorer, Holsworthy Army Base - 2005
Victoria Fires – 2009
Cyclone Yasi - 2011
Lennox Head ‘Tornado’ – 2010
Brisbane Floods – 2010 / 2011
Coonabarabran Fires - 2013
Tasmania Fires – 2013
Kiama Storm - 2013

Research Aims
To compare current Australian emergency services training, policies and procedures when the likelihood of exposure to asbestos is suspected or confirmed, ensuring they comply with Australian Standards and current Australian best practice policies.

The final product will support the recommendations of the Asbestos Management Review (Australian Government, 2012) by consisting of three stages:
1. A full report based on the research undertaken.
2. An ‘Asbestos Awareness Workshop’ that can be used by any emergency service or organisation to provide an induction on how to work with asbestos in the workplace or at incident scenes.
3. A journal article for a peer reviewed publication.

Current Results
A total of 31 emergency service agencies have supplied information relating to their operational asbestos management for evaluation and comparison.

Asbestos Policies

<table>
<thead>
<tr>
<th>Policy Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Asbestos Policy</td>
<td>18</td>
<td>58.1%</td>
</tr>
<tr>
<td>No Policy</td>
<td>4</td>
<td>12.9%</td>
</tr>
<tr>
<td>Covered under another Policy</td>
<td>9</td>
<td>29.0%</td>
</tr>
</tbody>
</table>

Respiratory Protection

<table>
<thead>
<tr>
<th>Respiratory Protection Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Mentioned</td>
<td>3</td>
<td>9.7%</td>
</tr>
<tr>
<td>P2</td>
<td>8</td>
<td>25.8%</td>
</tr>
<tr>
<td>Self Contained Breathing Apparatus</td>
<td>11</td>
<td>35.5%</td>
</tr>
<tr>
<td>P2 &amp; SCBA</td>
<td>5</td>
<td>16.1%</td>
</tr>
<tr>
<td>Respirator not for use with asbestos</td>
<td>4</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

Adequate Protection
Protection of the airway is vital when dealing with asbestos incidents. Australian Standard 1715:2009 recommends a P2 respirator as the minimum requirement.

The use of a Self Contained Breathing Apparatus provides a greater level of protection through lower ‘seal leakage’ and covering the entire face.


Image Credits: 3M Australia, Asbestos Education Committee, Draeger, Queensland Health, USGS

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