Asbestos: 2011 Update

• Introduction
  • John Richards, Thames Laboratories
The Problem

- Fibres are very small
- Not visible with naked eye
- Has no smell
- Has no taste
- And does not irritate!
Fibres @ 500 Magnification
The Problem

• We are all aware of the risks.
• But what makes asbestos different to other building materials?
Asbestosis

- In 2006 111 people died of asbestosis.
- Number claiming disability benefit dropped to 690.
The Traditional View

• The traditional view has associated high occupational exposure with diseases such as asbestosis.
Asbestosis Sufferers

- Asbestos Manufacturers
- Insulators
- Construction Workers
- Asbestos Applicators
- Dockers
Asbestosis

• The statistics would suggest that over the next 20 years Asbestosis will not be a cause of concern in the UK.
• Given that most of those affected were involved in asbestos production, such a decline would make sense.
• But does this mean an end to our asbestos problem?
### Table 5: Mesothelioma mortality in Great Britain: number of deaths and SMRs for males by area 1981-2005

<table>
<thead>
<tr>
<th>Area</th>
<th>Deaths</th>
<th>SMR</th>
<th>Lower</th>
<th>Upper</th>
<th>Rank within GB</th>
<th>Rank within county</th>
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2006 Death Statistics

- These deaths were predominantly from asbestos lung cancers and Mesothelioma.
  - **3 Plumbers**
  - **20 Tradesmen**
  - **6 Electricians**
  - **6 Joiners**
- These deaths were predominantly from asbestos lung cancers and Mesothelioma.
Mesothelioma

- Exposure to lower levels of asbestos can potentially cause Mesothelioma
- These deaths have generally occurred as a result of both occupational exposure and non-occupational exposure
- In 2009 2629 deaths from Mesothelioma were recorded. Suggested peak 2016 for males
Lung Cancers.

- No recorded figures. The assumption is that for every Mesothelioma death we have one Lung Cancer death
- Hence 2006 number of asbestos lung cancer deaths estimated at 2056
- Asbestos is the major cause of industrial lung cancers.
Why the Change?

- Why is Mesothelioma & Lung Cancer deaths increasing, whilst asbestosis deaths decline.
- In the UK over 10 Million Buildings are believed to contain asbestos.
- Much of this is over 30 years old and its condition is deteriorating.
- Generations have entered construction with no idea what the material looks like.
Why the Change?
If we look at those now at risk,

- Plumbers, tradesmen, electricians, surveyors.
- What do they have in common.
  - They are all working in buildings, disturbing materials that could contain asbestos.
Why the Change?

• If we look at acceptable exposure levels.
  • 30 years ago acceptable exposure was 2 fibres/cc
  • 20 years ago 0.6 fibres/cc
  • Today 0.1 fibres/cc
  • This still equates to 100,000 fibres per cubic metre.
  • General building level of 0.01 fibres/cc
  • This still equates to 10,000 fibres per cubic metre.

• How many fibres are required to develop an asbestos illness?
Why the Change?

• Recent publication by the Health Council of the Netherlands has suggested that the building background level for asbestos should be reduced to 0.001 f/ml
Non-Occupational Mesothelioma

- More widely reported
- Has been identified in housewife, teachers, doctors, bankers.
Non-Occupational Mesothelioma

- How has this occurred with a 30 year latency period?
The Duty to Manage

• One of the key weapons HSE has developed to ensure the management of asbestos in premises is Regulation 4 “The Duty to Manage”

• This came into effect in 2002.
Regulation 4 DTM

- It requires that an assessment is made of all non-domestic premises to ensure the risks of asbestos are controlled.
- This assessment is the responsibility of the ‘Duty Holder’.
Regulation 4 DTM

- Reported that this Regulation is one of the most expensive in history. (Telegraph)
- HSE research to date has suggested levels of compliance are poor.
Regulation 4 DTM

- In Kent only 40% of businesses visited were compliant.
- HSE are suggesting that only 16% of retail premises are compliant.
- Research by other groups suggest that only 30% of educational establishments are compliant.
What changes are needed?

• Improved Compliance with DTM
• Greater asbestos awareness
• Better understanding of risk
• Clearer guidance and regulation.
Improving Compliance with DTM

• RICS and others are pointing out the differences in the mechanisms for EPC’s / DEC and asking why this model of enforcement is not followed for asbestos.
• Transfer enforcement role to outside body or trading standards and ring fence fines.
• Responsibility for DTM is primarily with HSE and yet they are not the enforcing authority on a large number of sites affected by DTM.
Greater Asbestos Awareness

• Incredible that even today's students on plumbing and electrical course are not being given awareness training.

• Increased enforcement of requirements and Duty Holders asking about awareness training.
Asbestos Surveyors Guide

- HSG 264, revised asbestos survey guide.
- Replaces current MDHS 100
Asbestos Surveyors Guide

- **Main Changes**
  - HSG Document
  - Terminology:
    - Type 1 & 2 will become Management Surveys
    - Type 3 will become Refurbishment/Demolition Surveyors

- **Domestic Sector Guidance:**
  - Refurbishment Surveyors
  - Survey Strategy
Asbestos Surveyors Guide

- Section on Disclaimers / Caveats
- Competence
- Client Sections
  - Surveyor selection
  - Report formats
- Survey / Management Plan
Revision to Control of Asbestos Regulations 2006

- EU decision that HSE have not implemented the AWPD correctly.
- Result revisions to regulations are currently being consulted.
- Two terms omitted from the 2006 Regulations
  - “non-friable” and “without deterioration of non-degraded material”
Revision to Control of Asbestos Regulations 2006

• Three categories of work
• *Licensed Asbestos Works*
• *Notifiable Non-Licensed Work (NNLW)*
• *Non-Licensed Works*
Licensed Works

- (a) Work where the exposure of employees to asbestos is not sporadic and of low intensity in natures; or
- (b) Work for which the risk assessment demonstrates that the control limit will be or liable to be exceeded
- (c) Work on asbestos coatings
- (d) Work on asbestos insulating board
  - (i) is not sporadic and of low intensity; or
  - (ii) will be liable or is liable to exceed the control limit; or
  - (iii) is not short duration work.
Non-Licensed Notifiable Works

• This will apply to all currently non-licensed materials
• Where the material is either friable or where deterioration will occur during removal.

• Requirement will be;
  • Work to be notified to enforcing authority
  • Training of staff
  • Medical surveillance
  • Record retention
Non-Licensed Works

• No change on current situation
**Proposed Revisions**

<table>
<thead>
<tr>
<th>Non-licensed works</th>
<th>NNLW</th>
<th>Licensed Works</th>
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</table>
| -compliance with risk assessment, control of exposure and training requirements | -Notification before start  
- Medical examination every 3 years  
- Health records  
- compliance with risk assessment, control of exposure and training requirements | -licensing  
Notification 14 days in advance  
- Emergency arrangements  
- Designated asbestos areas  
- Medical examination every 2 years  
- Health records  
- compliance with risk assessment, control of exposure and training requirements |
Horror Video