

## ***Taking risks with asbestos: What influences the behaviour of maintenance workers?***

### **1. Organisations involved**

Health and Safety Executive (HSE), UK

### **2. Description of the case**

#### **2.1. Introduction**

Asbestos is a very dangerous substance if not dealt with correctly. Many tonnes of asbestos were used in building materials until as late as 1999, such as asbestos cement, and much of this is still present in the built environment. Asbestos is contained in a wide variety of different products and can be difficult to identify. Often those most at risk of exposure are unaware that this is the case.

Breathing asbestos fibres can lead to various asbestos related diseases, ARDs. These are mainly cancers of the chest and lungs, and are the single greatest cause of work related fatalities in the UK. As a result of their past exposure to asbestos materials, around 4,000 people in Great Britain die each year<sup>1</sup>.

If material containing asbestos is disturbed, the asbestos fibres can be released and breathed in. If these fibres lodge in the lungs they do not dissolve and can work their way to the outer surface of the lungs leading to several diseases, some of which are fatal. The conditions caused by asbestos exposure include:

- Asbestosis – an irreversible scarring of the lungs that causes a decrease in elasticity. It is an industrial disease that is associated with high levels of exposure to all types of asbestos in the past.
- Lung cancer – there is an increased incidence of lung cancers in those working with asbestos. Moreover, smokers who are exposed to asbestos fibres have an increased risk of contracting the disease.
- Mesothelioma – a cancer of the lining of the lungs or digestive tract.

It is unclear exactly what levels of exposure cause these diseases but it is known that the more asbestos fibres are breathed in, the greater the risk to health. Other factors that may affect the risk of developing ARDs include the duration of contact and the fibre type (mineral form and size distribution). Other factors that may play a role in the development of these diseases include the chemicals that individuals may be exposed to, their age, sex, diet, family traits, lifestyle (e.g. smoking), and general state of health.

According to the Health and Safety Executive of Great Britain (HSE) there can be a long delay between the very first exposure to asbestos and the onset of the disease: anywhere between 15 and 60 years<sup>2</sup>. In recent years fatalities have occurred among those formerly employed in occupations in which exposure to asbestos materials was most intense, including shipbuilding, railway engineering and asbestos product manufacturing. Only by eliminating or minimising exposure of those who are now at the greatest risk - e.g. carpenters, joiners, shopfitters, plumbers, electricians etc. - will future cases of ARDs be prevented.

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<sup>1</sup> HSE, *Why is Asbestos dangerous?*, web article <http://www.hse.gov.uk/asbestos/dangerous.htm> (accessed June 2009)

<sup>2</sup> HSE, *Background Facts on Asbestos*, web article available under: <http://www.hse.gov.uk/asbestos/general-info.pdf2> (accessed June 2009)

## **2.2. Aims**

The aim of the research is to find out why maintenance workers do not always follow HSE guidance, and to identify ways of encouraging workers to follow the guidance in the future. To explore this, workers were encouraged to discuss their attitudes, awareness, knowledge and behaviour around asbestos. More specifically the interviews covered the following topics:

- Workers' occupations, types of work undertaken and whether they work in the domestic or non-domestic sectors.
- Their perceived contact with asbestos-containing materials (ACMs) in their work.
- To what extent workers are informed of the location of asbestos when visiting a work site.
- Training and refresher courses received.
- Levels of knowledge and awareness of HSE guidance on good practice.
- Attitudes to asbestos risks and to working correctly with ACMs.
- Key organisations/stakeholders that influence maintenance workers.
- Workers' favoured means of receiving work-related information.
- Sources of guidance on working with asbestos and individual reactions to existing asbestos guidance.
- Influence of colleagues and others on individual attitudes, awareness and behaviour.
- Financial and other barriers to engaging in good practice.

Workers were invited to share their personal experiences of working with asbestos, how they dealt with it, how they felt about the situation, and other related issues. They were also asked to rate how knowledgeable they felt they were about a range of asbestos-related issues. Four options were provided: (a) You know about it and understand it pretty well; (b) You know a little bit about it but are not confident you know enough; (c) You don't know but feel you should, and (d) You don't know and you don't need to know.

## **2.3. Scope of the project**

There were 60 interviewees, all of whom worked in the construction industry. Potential participants were identified through around 30 intermediaries (e.g. training providers, suppliers, recruitment agencies, employers, trade bodies and trade unions). In addition, around 3,000 sole traders were sent a letter with an opt-in slip attached, which they were asked to send back if they were interested in participating in the research. All participants were given a £20 gift voucher on completion of the interview, and interviews were conducted on respondent's work premises or in their own homes at a time convenient for them. Each interview lasted between 20 and 90 minutes. These interviews were all fully transcribed and analysed.

The aim of this research was to provide insights into the knowledge, attitudes and behaviours of a wide range of workers of varying ages, experiences and from different trades. It does not necessarily represent the building and maintenance sectors as a whole, but can provide an overall picture of the issues related to asbestos risk and potential barriers to changing behaviour.

## **2.4. Results and evaluation**

What is needed to overcome barriers to safe behaviour? The study showed that there are a complex range of factors that influence individual behaviours. All of these need to be considered. Only then can training or information sharing be effective.

Although no direct procedure or intervention was proposed, the report identified a range of issues that affect an individual's safe behaviour around asbestos. These results may be used to optimise future trainings and instructions. The issues can be broken down into four main categories:

- technical issues relating to the complexity of messages about asbestos, its effects and how to deal with it effectively

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- psychological issues concerning an individual's attitudes towards risk, health and the specific risks posed by asbestos
- cultural factors such as pressures from employers, clients, co-workers etc, which are largely driven by economic as well as social pressures
- control factors, namely how much individuals feel that they are in control of their work environment These are related to the nature of the employment contract an individual has, and their labour market capital

Attitudes towards behaving safely are the result of two adverse forces: the negative impact of not behaving safely against the positive benefits of doing so (i.e. whether the economic or social costs are outweighed by the health benefits). The prevailing safety culture and the attitudes of co-workers/family/employers are also clearly important. These, together with an individual's sense of control, determine whether they intend to behave safely or not. However, in order to translate the intention to behave safely into practice, it is important that employees have sufficient knowledge of appropriate preventive measures.

The finding of this report highlights the importance of addressing all aspects of the psychological process and safety culture when considering risk-taking behaviour in relation to asbestos. This is of the utmost importance when trying to promote full adherence to HSE safety guidance by both workers and employers or when developing optimally effective training packages and prevention and management initiatives for workers and employers. However, to date the findings of this report have not been systematically integrated into the further development of existing training packages or preventative initiatives. As a result there is limited data about the practical application of the report's findings.

## **2.5. Further information**

The report and the work it describes were funded by the HSE. Research was conducted by the Institute for Employment Studies (IES).

## **2.6. Contact information**

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## **2.7. Transferability**

The method used to gather information is easily transferable to other sectors or member states. Some of the findings of the study may be peculiar to the UK, although most of the findings are likely to be widely applicable.