Keeping risks under control

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Martin Russell-Croucher investigates the ongoing concerns about asbestos, and the key to its best management

A recent freedom of information request to Warrington Borough Council has revealed the presence of asbestos in 80% of the schools in the Cheshire town. Of course, this is not untypical; according to UK government?s own estimates, 70% of school buildings in the UK contain asbestos, a legacy from past construction booms, in particular some of the early CLASP schools where asbestos featured heavily as a fire and noise reduction material.

There are three main types of asbestos used in construction: white (chrysotile), brown (amosite) and blue (crocidolite), usually but not always found in combination with other materials. White asbestos is considered to be less toxic than blue or brown, but all are considered carcinogenic by the EU in its asbestos directive. Asbestos is a fibrous material that is almost infinitely divisible, making it useful for a building product because it can be spun or incorporated into other materials where the fibres provide strength. Unfortunately, the downside is that it fragments into small shards, which when ingested can cause cancer either in the lung or by penetrating into the chest cavity (the pleura). The most common types of disease are asbestosis (asbestos-related cancer of the lung) and mesothelioma (cancer of the chest cavity) plus there are non-cancerous asbestos-related pleural plaques (plaques formed around asbestos fibres that have penetrated the chest cavity).

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In construction, asbestos was considered a 'wonder' material, in that it was cheap, being mined in various parts of the world, particularly Canada and South Africa, and had a number of useful properties, for example, providing strength in products such as asbestos cement and earlier types of artex. It was also inflammable, so used as a fire retardant, inside doors and walls and in domestic situations such as fire blankets in kitchens, on ironing boards or most likely still to be found nowadays as a fire barrier between boiler and wall. It was also used as a sound suppressor, and has been found in pipe organs in churches to dampen the noise of the air pumps.

While the dangers of asbestos use have been known since the early 20th century, it continued to be widely used for insulation, flooring and roofing, particularly in the 1950s. The material was finally totally banned in the UK in 1990s but as late as the 1980s it was still being used in buildings, for example fascia and soffit boards. Agricultural buildings from this period still commonly contain asbestos cement sheeting.

Long gestation period

Media reports following the Warrington findings were rather alarmist suggesting that from "the simple act of going to school, you can die of an industrial disease". This is highly unlikely, because although asbestos-related diseases have a gestation period typically of 20 years or more which make it difficult to attribute cases to the exposure of former pupils in the current make up of statistics, relatively high levels of exposure to the fibres are necessary to increase the possibility of contamination.

Most people affected by asbestos have tended to be those who worked directly with it, so there is a high incidence of related diseases near former asbestos factories (the biggest was in Leeds), shipyards (asbestos was used as an insulator for the steam engines and pipework in ships) and ports (unloading sacks exposed dockers to asbestos dust).

But while the risk of former pupils getting an asbestos-related disease from asbestos containing materials (ACMs) is slight, there have been some teacher-related cases. A spokesman for Warrington Borough Council said:

"The presence of asbestos in school buildings is not uncommon and Warrington is no different to many other areas across the UK. However, we do take the issue of asbestos seriously and schools are required by health and safety legislation to manage safely the presence of asbestos within buildings and this is carried out in line with guidance provided by the Health and Safety Executive (HSE)."

The HSE recommends that unless the ACM is in bad condition it is left in place. This is because its removal is expensive, requiring use of a licensed contractor, waste disposal facilities are limited, the work is potentially very disruptive and often opens more danger of exposure than if it was left in place. The key to the management of asbestos is to ensure that it is undisturbed and remains in good condition. For that reason all properties that contain ACMs should have an asbestos register detailing where and what it is and an asbestos plan setting out procedures for dealing with it, such as regular inspections. Both should be made available to anybody who may work in areas where ACMs are present.

Building work incidents

Most major incidents regarding asbestos have stemmed from inadvertent release while carrying out building work. Even reputable businesses have been caught out during refurbishment work where a proper investigation for the presence of asbestos had not been carried out. The cost of the clean up to decontaminate the affected areas will be many times the cost of the original work, usually requiring complete closure of the affected area until the all clear is given. And the consequences can far outweigh the cost of both discovering and dealing with the asbestos correctly. Apart from the reputational risk, large fines by HSE are quite usual.

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The message for members involved with the refurbishment or demolition of any building, not just schools, which could potentially contain ACMs is to check whether an asbestos register and/or plan is in place. If it is, this can form the basis of a plan to deal with the asbestos during the works. If not, and there is a possibility that there are ACMs, then an

asbestos inspection is essential if only to confirm that there is no asbestos, because the potential delay and cost will far outweigh the fee. At London?s Festival Hall, for example, asbestos was discovered during refurbishment leading to a six-month delay and several million pounds in removal costs.

This is probably also a good time to remind members that the HSE requires anybody who is likely to come into contact with ACMs during their work ? and, of course, this would include any member undertaking surveys of existing properties for whatever reason ? must be asbestos awareness trained, which HSE suggests is updated annually. RICS runs asbestos awareness training on a regular basis.

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More information

- RICS guidance note 3rd edition: <u>Asbestos and its implications for surveyors</u> and their clients
- Warrington Guardian <u>'Deadly asbestos found in 80% of schools'</u> (13 June 2013)
- Asbestos in schools, Michael Lees, July 2010
- Related competencies include: T074 , T077