While Bahrain and Kuwait banned all forms of asbestos containing materials (ACMs), some countries in the Middle East have still not banned the use of all ACMs, says DAVID KELLY, the co-founder of Kellgren Risk Management Service

**Asbestos: should it be banned, removed or controlled?**

The word asbestos strikes fear into most people and there are statistics to back this up — approximately 100,000 people die every year from asbestos related illness.

In an ideal world, all asbestos containing materials (ACMs) would be banned across the entire globe. In many countries this has happened. Some countries such as Bahrain and Kuwait banned all forms of ACMs in the mid 1990s, even before the UK finally banned all forms in 1999. However, some countries in the Middle East did not ban asbestos imports until the mid/late 2000s and indeed, some countries in the Middle East have still not banned the use of all ACMs and it is still widely used.

Regardless of whether a country has banned the use of all ACMs, shouldn’t the moral obligation of duty of care to colleagues, workers and the general public be considered? This article is not intended to push legislation that may not be the right approach for the reader to consider if they or their partner or indeed their children are living, working or studying in an asbestos environment and what the landlord or ‘duty holder’ is doing to maintain a safe environment?

The UK now has some of the most rigorous legislation with regards to asbestos as explained in The Control of Asbestos Regulations 2012 and states such as Abu Dhabi must be commended for taking a similar approach.

To summarise the UK regulations, before every asbestos survey must be carried out and in every non domestic building a suitable and sufficient asbestos register and monitor ACMs for any change in condition.

If ACMs are to be removed from a building then the material assessment will determine if it is to be removed and if so, it is licenced removal required.

Even if asbestos has been banned in a particular country, it should be considered that there will probably be tonnes of ACMs still present in many buildings across the country – in the UK it is estimated that there is still ‘decades of work’ to identify where non ACMs are located.

There are no known safe levels of exposure so the next question is how to identify, remove or control ACMs? Below is a brief outline of these three important questions:

To identify asbestos, it is best to understand what it is and its uses. Asbestos is the name given to a group of naturally occurring minerals that are contained within rock, appearing as masses of strong, flexible fibres that can be separated into thin threads and woven. The fibres are recognised as being a good electrical insulator, of high mechanical strength, chemically inert and good thermal/fire/sound insulators and for these reasons they have been widely used in industry and part of building constructions for many decades (peak use is widely recognised as being in the 1960s and early 70s). There are six types of asbestos but the three major types are Chrysotile (white) which is a serpentine snake-like fibre, and the generally recognised more harmful types of Amosite (brown) and Crocidolite (blue) which are amphibole, needle-like fibres. These fibres are known as sparingably soluble which means that they can penetrate deep into the alveolar region of the lung.

Symptoms of exposure to asbestos fibres may take years to manifest but it should be noted that smokers are approximately 10 times more susceptible than non-smokers. Asbestos can cause two main types of damage in humans: Cancer, for example mesothelioma or lung cancer; and fibrous thickening of the lung known as Asbestosis.

Identification of ACMs in a building uses a systematic approach so that no areas are missed and all findings are carefully recorded. An indication of where asbestos may be located comes from its properties previously highlighted so particular care is taken to check areas where electrical, thermal and fire insulation is prevalent (for example, boiler rooms, electrical rooms, pipe and roof lagging). Laboratory analysis is required to confirm if an ACM is present and the type but the trained eye of an expert can normally detect ACMs and probable type.

Remove it or control it? ACMs come in all shapes and sizes but potential for fibre release is the basis for priority of action to be taken. Below is a graph that is on the HSE website to help determine fibre release and is a basis for priority.

There are three basic steps: 1. An asbestos surveyor has to establish if ACMs are present and if so; 2. He has to assess the risk and; 3. Make a plan and decide if it must be removed or can be managed (in many cases asbestos can be left alone, for example if it is in good condition and cannot easily be disturbed).

To assist the surveyor, he will use an algorithm to determine next steps.

**Material Assessment:** Each of the following four categories will be given a score between 0.3 to determine a low, medium and high score and to assess next steps; product type, extent of damage/deterioration, surface treatment and asbestos type. From the above, a surveyor can determine if ACMs are to be removed or remain.

If any ACMs are to remain then the following needs to be undertaken.

**Priority Assessment:** Again there are four main headings with scores between 0 to 3 to assess low, medium and high levels and next steps; normal occupant activity, likelihood of disturbance, human exposure potential and maintenance activity.

If ACMs are to be removed from a building then the material assessment will determine the level of risk and also if a licenced contractor is required to remove or if ACMs can be bagged carefully by a competent person. In all cases, removed ACMs must be taken from site by a licenced waste management company. However, if ACMs are to remain then it is the duty holder’s responsibility to maintain an asbestos register and monitor ACMs for any changes in condition.

**Securing HSE with wireless mode**

Emerson Process Management Middle East and Africa reveals actions taken on safer, more secure and smarter wireless plant

Wireless technologies have changed the way we live, providing a means for everyone to get in touch with anyone when and where. In the process industries, the same technologies are used by organisations to improve their operations, particularly in the areas of maintenance, security, and health safety, and environmental (HSE) performance.

Wireless is now implemented in thousands of industrial facilities in more than 120 countries around the world. An important event that caused this widespread adoption was the creation of a multi-vendor, interoperable industry standard.

The international standard IEC62591 or WirelessHart is the first standard developed specifically to meet the needs of the process industries.

It was established by the Hart Communication Foundation (HCF) in collaboration with end-users, process equipment vendors, and engineer- ing and communication experts. WirelessHart was ratified in September 2007 by the HCF and approved by the International Electrotechnical Commission (IEC) in 2010.

Having achieved the benefits of wireless technologies with robust, multi-tiered, always-on security is why vendors like Emerson design their technologies with robust, multi-tiered, always-on security that uses the most advanced techniques.

Wireless is the next inflection point in the process industries and hesitant adopters should realise that they should leverage this innovation now if they don’t want to fall further behind the curve.