

Asbestos Captures Notice Abroad; Leaders Disagree on Dangers

Whether to strip or encapsulate is often a political question in Great Britain

Great Britain, North America and Scandinavia appear to be at the forefront of asbestos research and regulations, but scientists in those countries do not always agree on the dangers of the material and the methods for its abatement. Other European countries, however, have few—or only newly emerging—asbestos laws.

During a recent international asbestos abatement conference in London sponsored by Georgia Tech Research Institute, attendees outlined asbestos policies in their respective countries. From their comments, it appears that the United States has the most stringent regulations—and the greatest litigation concerns. European experts sometimes think the United States goes overboard in its strict rules. European abatement contractors also consider some American methods impractical.

SPAIN'S GUIDELINES. Spain has few asbestos regulations, if any. Two or three years ago, the Spanish government developed skeleton guidelines for worker health and safety, in which asbestos was included.

Fernando Jimenez, a conference attendee whose waste treatment facility is headquartered in the Spanish capital of Madrid, said that most industries in his country still try to ignore the dangers of asbestos.

"There are no regulations forcing them to remove asbestos," he said.

There also are no general rules forbidding the use of asbestos in the country, he said, although not many industries are continuing to use asbestos-containing materials, except for a few asbestos cement products. Building owners do not appear to be as concerned or frightened of litigation as they are in the United States.

The European Community (EC) sets up some basic worker safety and health and environmental rules for its members, and Spain, as one of the newer members, is finding itself trying to catch up.

"Spain has not been concerned about the environment," Jimenez said. "Once we joined the EC, we started working on (our regulations). There are no facilities for hazardous waste in Spain. We don't have many controlled landfills

...or chemical treatment plants. I think we have started on it (now) just because we have joined the EC."

IRELAND FURTHER AHEAD. Ireland has been a European Community member longer than Spain has and, as a result, has been developing its environmental regulations for a longer period of time. For example, an EC directive at the beginning of this decade prompted Ireland to begin removing asbestos and protect abatement workers. In addition, the country requires EC-mandated disposal sites.

"We have recently (developed) some legalized waste dumps—landfill sites—

Sweden is more advanced in its approach.

but they're only a very recent occurrence," said Martin O'Grady, National Safety Advisor for Telecom Eireann in Dublin, Ireland's national telephone company. Until recently, local politicians balked at the prospect of locating landfills in areas where their constituents lived.

"They all agreed it was a good idea, but it should be in someone else's backyard," O'Grady said. "Recently, that sort of Catch-22 situation was (resolved) because of an EC directive which obliged local authorities to open (waste sites). They bypassed the elected politicians... and went ahead and opened (the sites)."

"Prior to that, we had to export all our waste to England, at quite a large premium, and it was disposed in waste dumps there," he said. "Or else it was just dumped by the side of the road, which defeated the whole purpose. The local populace probably got a larger dose than if they had agreed to landfill sites."

TWO OFFICIAL CONTRACTORS. Ireland has only two asbestos abatement contractors who are officially recognized by the Irish Department of Labor. Irish-recommended work methods on abatement projects generally are borrowed from the British Health and Safety Executive's approved guidelines.

"Generally, if there's a responsible stripping operation, it's done according to these (British guidelines)," O'Grady

said. "But there are a lot of what we and the British call 'cowboy contractors' and what you call 'rip-and-skip' (contractors). They're a common phenomenon, I think."

Ireland banned crocidolite (blue asbestos) imports several years ago, but some manufacturers still use chrysotile (white) asbestos in some materials, such as asbestos cement products.

While the United States applies its regulations to all types of asbestos equally, most European countries distinguish between asbestos types. They consider chrysotile less dangerous than crocidolite and amosite, and write their regulations accordingly.

Ireland's Institute of Industrial Research and Standards is responsible for duties such as asbestos monitoring and analysis and aggressive sampling after a cleanup operation. The Institute also gives the final stamp of approval after an abatement project renders a building or work area safe. The Institute is "generally respected by everyone there as being objective, and it's handy because it's accepted by the unions," O'Grady said.

WEST GERMANY. Several American military personnel stationed in West Germany who attended the conference indicated that they found few—if any—German rules regarding asbestos. American military bases in Europe face a unique situation: they must follow American environmental and safety rules where their personnel are concerned, but often they must at the same time obey the environmental and safety laws of their host countries.

Because specific asbestos regulations are few and far between in Germany—and because modern abatement equipment and personal protective gear is difficult to find there, the American military has met several obstacles.

"Off the tops of our heads, we do not think of the Germans as being very active at all in the asbestos abatement area," said Dave Mayer, senior research scientist for Georgia Tech's Environmental, Health, and Safety Division.

ADVANCEMENT IN SWEDEN. Sweden, on the other hand, is considerably more advanced in its approach to the asbestos problem and in its abatement technology. Asbestos is not approached from an environmental perspective

By Sheri Hagen Poore, MA, European Correspondent, Hannover, West Germany.

there as much as from a worker safety perspective. Sweden and the rest of Scandinavia have relatively strong workers' movements in comparison to the United States, and the political strength of the unions historically has promoted improved health and safety conditions for workers.

Asbestos regulations have changed several times over the past 10 to 15 years in Sweden. The most recent rules include:

- As of April 1, 1986, all asbestos abatement projects must be registered with the authorities before work commences.

- As of Oct. 1, 1986, all workers employed in asbestos abatement must receive special training. In addition, all building workers who might encounter asbestos, such as construction or maintenance workers—even though they are not abatement workers—should receive a half-day's worth of training in basic facts about asbestos, where it can be found and what its hazards are.

- Before the end of 1986, all owners of buildings with mechanical ventilation systems were to have surveyed their buildings for asbestos and filed their results with municipal authorities.

This is similar to the U.S. Environmental Protection Agency rule that the presence of asbestos—especially in schools—should be registered. However, the Swedish rule does not require that parents of children attending schools in which asbestos has been located be notified of its presence.

On Jan. 23, 1986, the National Swedish Board of Occupational Safety and Health issued Ordinance AFS 1986:2 concerning asbestos. Provisions under

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the ordinance include:

- The use of asbestos and asbestos-containing materials (ACM) is banned, except by special permission of the National Board of Occupational Safety and Health.

- Brake linings and other frictional ACM may be used if no acceptable products of less harmful material are available.

- Encapsulated ACM must be labeled as such.

- Proper abatement work precautions, waste disposal and air sampling techniques are defined.

- Medical surveillance of workers, protective clothing and other personal protective equipment also are defined.

Sweden, similar to the United States, underwent a massive building effort during the 1950s and 1960s when asbestos use was at its peak. Because of Sweden's cold climate, buildings contain a large amount of asbestos insulation. Most of it can be found in ventilation ducts, with the potential for release of asbestos fibers through ventilation systems, particularly in hospitals, schools and office buildings, but infrequently in residential areas.

Some experts estimate that there may be as much as 100 kilograms (220 pounds) of pure asbestos in Sweden per Swedish citizen, said Jan Brochner, technical director for ABVAC Asbestos Removal in Spanga, Sweden.

"This means that there is a very large (asbestos abatement) market," he said. "It also means that *all* the asbestos can hardly be removed."

Brochner said that Swedish asbestos abatement methods differ in several ways from those in the United States.



Exposure from asbestos fiber fallout is recognized internationally as a serious health hazard.

Before 1973, asbestos-containing thermal insulating compositions were sprayed routinely onto steel columns, beams and decks in thousands of buildings to protect those components from fire.

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For example, encapsulation is not a popular control method for several reasons:

- Some experts consider it as only "hiding the problem."
- Experts also are skeptical about the durability of most sealants.
- Applying encapsulants often requires the same protective measures as removing asbestos, such as sealing off the work area and wearing protective clothing. The economic difference between encapsulation and removal, say the Swedes, is so small that asbestos may just as well be removed.

Swedish abatement contractors rarely use wet removal techniques, because most of the asbestos in Sweden is not friable, Brochner said. In addition, they prefer to use reusable protective clothing and disposable filters.

"We turn the U.S. approach upside down," Brochner said. "We tend to use reusable clothing but do not wish to clean or handle reusable filters."

UNITED KINGDOM: THE LEADER. "The United Kingdom started asbestos detection and control activities before we did in the (United) States," said William Spain, training and publications director for Georgia Tech's EHS division.

"In most areas, they've maintained leadership," he said. "Some other countries in Western Europe have made significant progress in asbestos detection and control; I think Sweden is a good example. But generally in Europe, I think we look to the U.K. as being the leaders."

One of the fundamental differences between U.K. and U.S. policies is in their perception of the asbestos risk. The United States tends to approach all types of asbestos with equal caution. However, British scientists have long maintained that there is a difference in risk from one asbestos form to another.

Some well-known British medical experts—among them Dr. J.C. Wagner of the Medical Research Council at Llandough Hospital in Penarth, Wales—say they are not convinced that chrysotile asbestos can lead to mesothelioma. European Community asbestos exposure standards differentiate between crocidolite, amosite and chrysotile fibers.

DIFFERENT FIBERS? The U.S. National Academy of Sciences, on the other hand, concluded that "while there may be some differences in potential carcinogenicity, there is no reason for

regulatory purposes to consider any of the different fibers separately," Spain said.

Great Britain's Health and Safety Commission (HSC), composed of trade union and employer representatives and headed by a chairman appointed by the Secretary of State for Employment (the equivalent of the U.S. Department of Labor), dictates worker safety and health policies. The regulatory body that enacts policies is called the Health and Safety Executive (HSE).

The HSE has a number of inspectorates, including the factory inspectorate, which oversees compliance with asbestos regulations.

The HSC, meanwhile, has set up a number of industry advisory groups, one of which is called the Construction Industry Advisory Committee (CON-IAC).

REQUIRED REPORTING. Another special working party, the CONIAC Asbestos Working Party, reports to CON-IAC on all matters concerning asbestos removal.

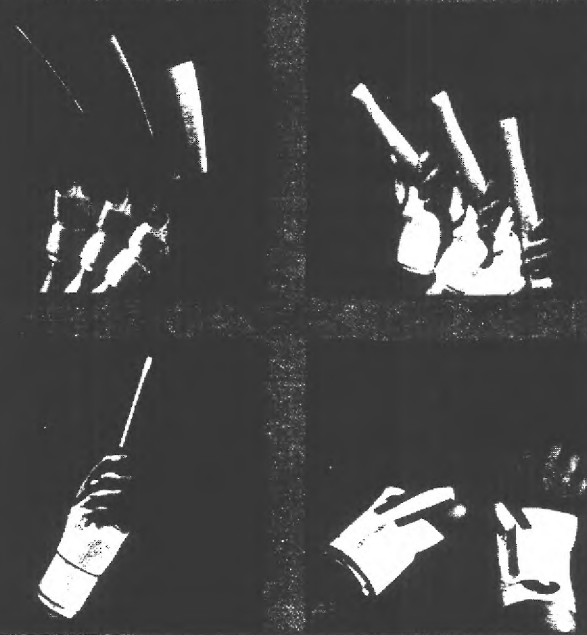
The European Committee has directed that by Jan. 1, 1987, all member countries were to have regulations in effect for controlling asbestos exposure at

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work, said Graham Henderson. Her Majesty's inspector of factories for the HSE.

Based on that EC directive, Great Britain has developed two codes of practice dictating regulations for control of asbestos exposure at work.

Great Britain's asbestos exposure limits are fixed, but are not absolute, Henderson said. In other words, if a contractor can feasibly reach a lower fiber exposure limit than required by law, for example, the HSE will require him to do so.

John Simpson, chief executive of the Asbestos Removal Contractors' Association headquartered in London, said that although the United Kingdom has led the world in control of asbestos hazards, the state of the abatement industry is "not very well."

OVER-CONTROLLED. "Asbestos removal contracting is beset by more regulations and controls than any other in the construction industry," he said.

"We are in severe danger of being over-controlled. The best performers in the industry, who invested heavily, are now seriously debating the return

on their investment."

A. St. John Holt, managing director of E. St. John Holt and Associates, accident prevention and industrial safety consultants in Southampton, England, named several asbestos control problems in the United Kingdom, some of which the United States shares, and some of which are approached differently in America:

- "Cowboy contractors" often

Great Britain's exposure limits are not absolute.

make estimates at 50 percent less than reputable contractors; they get the contracts, and no one restricts them unless they do something blatantly wrong.

- Reputable contractors have difficulty obtaining reliable, inexpensive information.

- There are no standardized removal methods.

- Building owners, contractors and other people who must deal with

asbestos often do not know who the enforcement authorities are.

- There is a lack of adequate fit testing for respirators for asbestos workers.

- Whether to strip or encapsulate is often a political question. Ripping out asbestos is "good for business, but not necessarily good for people's health." By the same token, encapsulation also often is termed a "building activity"; not a removal method, and is therefore not monitored as closely or regulated as stringently.

Spain of Georgia Tech said that a major difference between European and American asbestos removal methods is the subject of dry vs. wet removal.

WET REMOVAL NIXED. "In Britain, they started out with wet removal techniques and for reasons which are not clear to me, they went through a period of dry removal techniques," he said.

"Now, they have expressed that they are expecting to move back to wet removal techniques. In Sweden, they've not yet tried wet removal; they're still using dry removal techniques. We have reasonably good doc-

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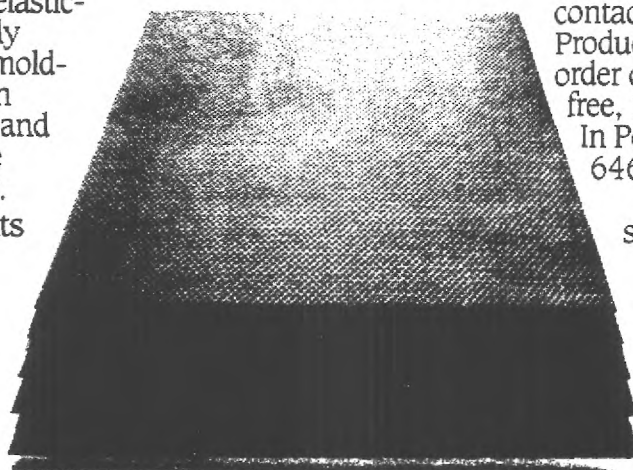
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