PRODUCT STEWARDSHIP OR BANS? ASBESTOS IN THE THIRD WORLD

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In the technological development of nations, it has been widely accepted that each country would do well to choose "appropriate technology" based on its resources, its people and their needs. Public health impacts of some technologies render them undesirable for Third World country development. Let us consider asbestos.

No one would urge that developing countries today should build plants to make asbestos thermal insulation. Asbestos has been replaced by wood pulp, fibrous glass, and other materials to make insulation products far less deadly than the asbestos insulations used in the past. Thermal insulation reinforced with asbestos is an example of *discredited technology* because of its severe, unavoidable hazards and the availability of safer alternatives. The most recent manufacture of this product I know of was in 1980; however, it may still be made by producers in Thailand and/or India.

Industry Theory: Controlled Use Exists and Is Becoming Universal

The international asbestos industry has claimed for decades that asbestos can be used safely and that it should be used in Third World development. Corrugated asbestos-cement roofing is used worldwide, and together with other asbestos-cement sheet and pipe products accounts for over 80 percent of asbestos use. Increased use of asbestos in developing countries has offset tremendous market losses in the industrial nations over the last 10 years. Quarterly publications of the Asbestos Institute in Quebec describe aggressive sales efforts in Asia, Africa, and Latin America.

The International Labor Office has published a "Code of Practice" enumerating very basic safeguards that should be used in work with asbestos.[1] Some countries have regulations that apply to industries where asbestos hazards exist. The issuance of control instruments as published documents, however, never has and never will assure that the "mandated" controls are in fact applied. The gulf between what is advertised as "controlled use of asbestos" and the reality of manufacturing and construction work with asbestos is greatest in the poor countries whose use of asbestos is on the rise.

Widespread Uncontrolled Use in Developing Countries

The chief of Brazil's environmental protection agency wrote in 1986 that the labor authorities in charge of worker protection did "poor work" and were "very ineffective."[2] As of 1986, this official wrote that, "we don't make any (power tools with exhaust ventilation) in Brazil, and it is difficult to import them."[3] It seems highly unlikely that portable saws with exhaust ventilation and dust capture are being used by construction workers handling asbestos-cement products in countries like Brazil. When that country's authorities began to inquire about health risks in asbestos manufacturing operations in 1980, the government people depended upon companies visited to provide and demonstrate the use of standard air monitoring equipment. As of 1986, the official workplace exposure limit for asbestos in Brazil was 4 fibers/cc, twenty times as high as the limit in the U.S.

Uncontrolled use of asbestos has been the norm in many countries, even in recent years. Mexican researchers found severe asbestosis in workers employed spraying asbestos; workers spraying asbestos were monitored as having exposures of 54 fibers/cc in 1982.[4] Investigations in India showed complete disregard for worker health by affiliates of U.S. and U.K. multinational corporations making asbestos products.[5,6] In one Indian plant, where I have been told asbestos-cement pipe was sawed without local exhaust ventilation, government hygienists measured exposures of 216-418 fibers/cc.[7]

If the asbestos industry is taking concerted action to implement "controlled" use of asbestos today, it represents a complete reversal of recent practices. In 1977, Canadian asbestos mining firms arranged to delete warning labelling about the cancer hazard of asbestos, opting instead to accept written releases of liability from a distributor in Japan.[8] Similarly, 1978 minutes of the Asbestos International Association reveal an international conspiracy to proceed as slowly as possible, country by country, using the weakest possible warning labels "in fear of a possible influence on sales."[8,9]

Given the historic lack of both industry product stewardship and controlled asbestos exposures, especially in the vulnerable developing countries, the operative question is: *Will* asbestos hazards be controlled? (not: *Can* asbestos hazards be controlled?) The burden is on the asbestos industry to demonstrate that it is practical to routinely use asbestos in a thoroughly controlled way in developing countries.

The record to date suggests that it is unreasonable to expect that asbestos hazards will be controlled in the developing countries. Industry spokesmen acknowledge that, even now, construction contractors in the U.S. sometimes use abrasive disc saws to cut asbestos-cement pipe—despite advice against the practice by the A-C Pipe Producers Association and the existence of applicable OSHA standards since 1972. Similar problems have been reported with the use of asbestos-cement sheet in U.S. construction work.[10]

How then can we expect Third World manufacturers of asbestos products and construction contractors to take on the cost of extraordinary control measures, when there typically isn't even pressure from industry or government authorities to do so? Where is the infrastructure of prevention (information, regulation, and compensation) in Third World countries? And why should developing countries submit to the likelihood of asbestos contamination and disease, when safer alternatives exist that will not warrant the unprecedented commitment of scarce public health resources?

Developing countries may also wish to consider another form of "pollution" that has frequently come along with the growth of an indigenous asbestos industry. This is the corruption of the fledgling professions of industrial medicine and hygiene, as pressures are brought to bear on health professionals in industry, government and academia to learn the "industry line" and downplay concerns about workplace and environmental exposure to asbestos. This impact on a vital sector of a society in development may pave the way for subsequent public health abuses by other industries. Again one must wonder, why should a developing country want to accept the externalized costs of a growing asbestos industry, given the alternatives available in 1988?

Asbestos Substitutes

In the 1980s, an increasing array of asbestos-free products has become commercially available. Asbestos-containing corrugated and flat cement sheeting, valve and pump packings, roofing felts, pipeline wrap, and vinyl flooring are no longer even made in the United States. In Europe, the Swiss Eternit Group (SEG) has agreed to eliminate asbestos in fiber-cement sheet products by 1990 in Germany and Switzerland, in favor of polyolefin fiber-cement sheet. SEG is experimenting with dozens of plant fibers and has already been able to replace asbestos with cellulose and wood fiber substitutes in Costa Rica and other Latin American countries.[11] The asbestos-free products carry warranties equal to those of the predecessor asbestos products. In Australia and Malaysia, James Hardie and its affiliates are making cement sheet products reinforced with wood pulp instead of asbestos.

This is progress indeed, when one considers that exposures from sawing asbestos-cement sheet without dust controls have been reported as over 100 fibers/cc.[12] It is also relevant that in many countries people catch water running off their roofs for drinking and cooking. EPA researchers have reported that "asbestos fiber concentrations over 500 million fibers per liter have been found in cistern drinking waters which use asbestos-cement roofing tiles to collect water."[13] It would be a relief if people had this burden of wood, coconut, or banana plant materials instead of asbestos in their drinking water.

The Role of the Canadian Government in Promoting Asbestos Use

When the U.S. Environmental Protection Agency proposed to ban asbestos, the Canadian government, representing both private and state-owned asbestos mines, applied considerable pressure to oppose the ban.[14] An article in the British magazine *The Economist* created a furor, for it suggested that Canada had become "a sort of merchant of death by unloading its asbestos on unsophisticated Third World clients who may not be aware of its dangers."[14,15] Canada's Energy, Mines and Resources Minister Marcel Masse was quoted as responding to the above article by writing, "(t)he risk can be managed anywhere. This includes the Third World, where governments are more aware of the risks and more capable of controlling them than your correspondent is willing to credit."[15] The *Toronto Star* went on to describe a $30 million campaign of federal and Quebec governments to "try to drag asbestos out of the doghouse."[15]

The Asbestos Institute, which is partly supported by Canadian taxpayers, also worries that EPA's proposed asbestos ban will impede the promotion of asbestos in countries which have little or no experience, let alone resources, in controlling industrial cancer threats. The Institute is a joint venture of the asbestos mining industry and the government, "to maximize the use of existing resources in a concerted effort to defend and promote the safe use of asbestos on a global scale." It claims to be "dedicated to promoting the proper use of asbestos."[16]

Canadian physician David Bates has called for the establishment of an independent commission ("recruited neither from industry nor from government employees") to monitor certain indicators of product stewardship in the export of Canadian asbestos and report annually to the public.[17] An appropriate topic for such an oversight panel would be the publication of lies like this by Asbestos Institute President Claude Forget: "In (Selikoff's) study of American insulation workers, asbestosis victims did not only inhale white asbestos as you state but were exposed to *mostly amosite asbestos*."[18] Canada's independent asbestos oversight panel, if it is ever set up, might also want to monitor the intimidation and villification of scientists at conferences where the hazards of asbestos are discussed. For example there is this by the Asbestos Institute Director of the Health and Environment Division, Jacques Dunnigan, at an asbestos conference in Mexico: "It is very hard for me to abstain from expressing my feeling that what we have just heard is standard, usual, ad nauseum repeated practice of some people at Mt. Sinai."[19]

Dr. Bates also called on the government of Canada to provide as much money for research into asbestos' health effects as is released for promotion of the industry. This balance, along with the creation of the oversight commission "would help to reassure average Canadians that they could not be accused of simply cynical exploitation of other people's ignorance," he concluded.[17] It *is* unworthy for the Canadian people to be represented by government officials who would rather sell ever more asbestos than plan for an asbestos-free future.

The Soviet Union's performance as a major exporter of asbestos fiber and technology is also worthy of scrutiny from a health standpoint. Reliable information on this would be most welcome, whether from the USSR, Canada, or other sources.

CONCLUSION

The eventual elimination of asbestos in favor of safer (and in

some cases essentially harmless) materials is of great public health importance. The continued lack of product stewardship by companies and countries mining asbestos, in the interim, constitutes a formidable health threat. It can only be hoped that this industry will see that its credibility and near-term survival depend upon worldwide implementation of unprecedented controls. Without this demonstration that asbestos *will* be used with stringent safeguards, the industry is sure to suffer rapid declines as social opposition mounts. Anyone who doubts the swiftness with which such events can move should note West Africa's revulsion at being used as a dumping ground for hazardous wastes from the U.S. and Europe.

My own experience with the asbestos industry leads to the conclusion that the only way to assure that asbestos will stop killing people needlessly is to ban it. This approach, which is being taken in Sweden and the United States, is even more attractive in developing countries where stringent regulation is not really a viable alternative to a ban.

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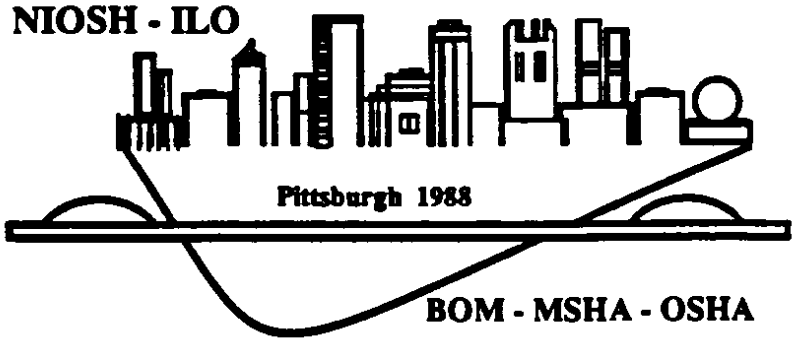

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