

just because one sample showed low amounts of asbestos, this was not sufficient to prove that those levels existed at all times.

Instead, the EPA recommended that the health risk be determined by a subjective, visual inspection. If any asbestos-containing (“friable”) surfacing materials were found, the EPA recommended removal, enclosure, or deferred action. If a contractor came in and cleared out the asbestos, only then was an air sampling test allowed, and the contractor was relieved of liability only if the asbestos particle measurement were less than 0.005 fibers/cubic centimeter. The EPA published seven versions of this “Guidance Document” over the next 10 years, and the political pressure to ban asbestos kept growing. Only in its last report, in 1990, did it publish the long-proven facts that the asbestos hazard is dose-dependent, and that asbestos removal could potentially result in an *increase* in exposure to the building occupants.⁶

Not coincidentally, 1990 is the same year that Dr. Brooke Mossman and four colleagues published an article in *Science*, the magazine of the American Association of the Advancement of Science, which stated, “The available data and comparative risk assessments indicate that chrysotile asbestos is not a health risk in the non-occupational environment.”⁷ This article convinced the scientific community on the issue, and must have influenced the EPA, which published a report echoing such conclusions that same year. However, the lack of publicity and the continued bombardment of uninformed contrary opinions have prevailed.

The time has come to take a long, hard look at our society’s fear of this very useful mineral. All that the EPA has succeeded in doing with its anti-asbestos campaign, is to engender irrational fear in the population and to smother a natural excitement for new discoveries. This irrationality can no longer be accepted.

Interview: Malcolm Ross

Bringing sense to the asbestos issue

Dr. Ross is a research mineralogist with the U.S. Geological Survey in Reston, Virginia. He has worked closely with Dr. Brooke Mossman and others who have been instrumental in disproving the myth that “one fiber of asbestos can kill.” Ross was the recipient of the Distinguished Service Award from

6. Richard Wilson, et al., “Asbestos in New York City Public School Buildings—Public Policy: Is There a Scientific Basis?” *Regulatory Toxicology and Pharmacology*, 20 (1994), pp. 161-169.

7. B. Mossman, et al., *Science*, Vol. 294 (1990), p. 294.

the Department of Interior in 1986. He was interviewed by Elisabeth Pascoli.

EIR: Could you tell us the background of your work on asbestos?

Dr. Ross: I’ve been at this for 20 some years, trying to bring sense to the asbestos issue. I attempted as early as 1978 to get the abatement issue stopped. I was making real headway until 1984, and then things got turned around. The issue broke loose and the United States spent \$100 billion on this. Finally, in 1990 the EPA said that in most cases it is not necessary to remove asbestos from buildings, *but they didn’t publicize it. They still haven’t publicized it.* And we’re still spending several billion dollars a year.

I have written about this, as a lot of other people have. This is just one of these issues where the regulator says that there is a witch out there, and then they pour publicity and money into it, and then everybody believes it. We go through this ordeal year in and year out. That’s a nutshell version.

EIR: Ninety-five percent of the asbestos used in the United States is of the chrysotile type (see accompanying article). Do you believe that chrysotile is toxic?

Dr. Ross: If improperly used, where there is a lot of dust for years at a time, yes. The asbestos workers, the insulators, were exposed year in and year out to large amounts of dust. Over the years they were injured, there’s no doubt about it. But it’s a matter of amount. The difference makes the poison. And the small amount that we are exposed to in a non-occupational setting is of no account whatsoever.

EIR: What are the health dangers of asbestos, and especially chrysotile? It is said that the danger of asbestos is related to the size of the airborne fibers. Is it true that chrysotile, due to its serpentine structure and strong bonds, cannot break off in particles small enough to be dangerous?

Dr. Ross: Well, chrysotile in a way is the tiniest particles of the six types of asbestos crystals. It forms the tiniest particle and yet it is the least toxic. It is also somewhat soluble, and the magnesium part of the crystal structure leaches out in the lung. It is removed, and that sort of destabilizes the whole fiber. That’s one thought.

But really, there is no overall theory on just why some of these are more dangerous than others. As soon as you begin to say, “Well, it is because of the thickness of the particle,” then you have to say, “Well, chrysotile is the thinnest, and yet it is the least dangerous.”

So, you really can’t come up with one good reason why



chrysotile is less dangerous, but it certainly is. And it should be used in cement pipe, shingles, reinforced concrete. It's a marvelous use, because you have got to reinforce these products somehow. I think that chrysotile is the least dangerous of any of the products that we can use. And we can use worse materials.

EIR: Are you referring to fiberglass?

Dr. Ross: Well, it's not that simple. There are some very fine-fibered fiberglass, very thin fibers, as thin as the thinnest forms of asbestos, which appear to be dangerous. Lots of the fiberglass used in homes is real thick, and all that laying it does, is to give you itchy skin. I think that the fiberglass, at least, that has been used in the past, is not particularly dangerous. But if you were putting in this very fine-fibered stuff, yes, it would be. It's sprayed in loose—I would much rather have chrysotile sprayed in.

EIR: Is there still an active effort to ban all use of asbestos?

Dr. Ross: The courts threw out [the effort by the EPA to completely ban asbestos products by 1996] in the United States. But essentially, the anti-asbestos people are circulating throughout the world and getting other countries to ban it—particularly in Europe and countries like Lebanon. Greenpeace is agitating. It is just part of the craziness that is going on to get something banned and get rid of it, with no regard to what is going to replace it.

EIR: In 1964, Dr. Irving Selikoff published a study of asbestos insulation workers showing an abnormally high incidence of cancer, as well as the condition of asbestosis. Was this the first recognition of the danger of asbestos?

Dr. Ross: Well, the British were on to this, even before World War II. They were beginning to see asbestosis in their workers, and they were beginning to sense that this was causing lung cancer. But, just a few of the more astute physicians were seeing this lung cancer situation. Lung cancer wasn't really understood until the effect of smoking became apparent. So it was really in the middle 1950s that they understood that smoking caused lung cancer, and that asbestos caused lung cancer; and the two together were even more potent. That was only understood by about 1954-55. So, it was the British that first brought it out. Then, a little later, in the 1960s, Irving Selikoff and his colleagues were beginning to pinpoint it too. But he certainly wasn't the first.

EIR: He was a very strong advocate of a complete ban on asbestos and was very active in the camp that "one fiber can kill."

Dr. Ross: Dr. Selikoff was a rather interesting person. I think he did his job. He was seeing a lot of sick asbestos workers in the union. He was the union consulting physician for—I think it was the New Jersey Asbestos Workers Union. He saw a lot of sick men and he realized that there was a problem here. But then, I think he overreacted and pushed things too far.

But you have to give him credit for bringing attention to it, because there were undoubtedly a lot of hard-hit workers. They were working with the other types of asbestos also, which are much more dangerous—the crocidolite and amosite.

EIR: Why did the EPA launch the campaign all of a sudden?

Dr. Ross: Well, EPA will regulate at the drop of a hat. I think that they saw an opportunity. And they were going after radon and DDT and all sorts of other things, with a mission. I fought them tooth and nail. I almost lost my job over it.

I was working for the U.S. Geological Survey. One of my assignments was to look into this as a mineralogist. You had a lot of medical people who really didn't understand what they were working with. I briefed all sorts of people, particularly in 1984, trying to bring sense to it.

I was making some headway, but then the political push got so severe. The EPA started sending vans out all over the United States to teach people how to identify and remove asbestos. They were training lawyers how to sue. They just steam-rolled the thing.

A whole bunch of us wrote letters. One of the turning points was a paper by Brooke Mossman and four co-authors, all with medical backgrounds, which appeared in *Science* magazine in 1990. I had a very close relationship with Mossman, going back to 1978, when I briefed her on all of the mineralogy, and I got her attention. She carried the day with that very influential article in *Science*. And that began to turn the scientists around on the issue.

Then what really turned it around, was the Committee of Catholic Bishops met [EPA] Administrator [William] Reilly, and they told Reilly—this was in 1990—that if he didn't withdraw the requirement to remove asbestos from the schools, then they would have to close their schools, because they didn't have the money. And that political pressure got through to Reilly. He made a speech in June of 1990 stating that, generally, it was not necessary to remove asbestos. And they [the EPA] put out an advisory in July of that same year, and this was the fifth or sixth advisory that they put out to the schools in 10 years. With this one, they began reiterating that it was *not* necessary to remove asbestos.

But they never publicized it to the school administrators. So many of the school systems have never heard of the new advisory and went on willy-nilly, continuing the removal. This was partly because they were afraid not to, because of legal problems from mothers, teachers threatening to sue. So, its going to continue for I don't know how much longer too.

EIR: Is it still continuing?

Dr. Ross: I would say that contract abatement is still running at \$1 to \$3 billion per year. And, of course, the abatement work outside the formal contracts is probably much more.

Picture caption: Dr. Malcolm Ross, a USGS mineralogist who has fought to counter the misleading propaganda about asbestos since 1978.