

Presentation of the Distinguished Public Service Medal for 1990 to Malcolm Ross

DONALD H. LINDSLEY

Department of Earth and Space Sciences, State University of New York, Stony Brook, New York 11794-2100, U.S.A.

President Robinson, members of the Mineralogical Society of America, and guests:

Our awardee today is the most meritorious possible recipient of the Society's first Distinguished Public Service Medal.

The son of an eminent mineralogist, Malcolm Ross began a career similar to most of ours—that of a research mineralogist. Some years ago he even had the good taste to work in pyroxene phase equilibria. I recall a friendly argument we had over some fine point regarding the thermal stability of pigeonite. I was greatly impressed by his intransigence in sticking to his position, doggedly refusing to accept the obvious correctness of my views! Little did I know that 15 years later I would be honoring him in large part because he steadfastly refused to back down from a much more important argument. For shortly afterward, Mac began working on health hazards associated with minerals—especially asbestos.

Asbestos! The very word strikes terror into the hearts of most, evoking images of an invisible airborne poison that strikes silently and causes lingering, painful death decades later. But not so much in this group, for Mac has educated us. We all learned in beginning mineralogy that there are two main mineral forms of asbestos—chrysotile, the serpentine form, and a variety of amphibole forms. But Mac carried that knowledge much further. Upon checking medical records, he found that the health hazards of asbestos (which are all too real) are very unequally distributed between these groups. By far the worst effects

are associated with one or more of the amphibole forms, while chrysotile, which is much more abundant and widely used, is far less dangerous and may, in small doses, be almost benign. These results were immensely important because health regulations had already been drawn up lumping all forms of asbestos together, and our country was beginning an incredibly expensive program to remove virtually all asbestos from public buildings. Mac tried to convince those in charge that chrysotile and amphibole asbestos should be regulated very differently. He soon enough found that fact, reason, and scholarly presentation utterly failed to convince the bureaucrats. After all, what did a mere mineralogist know? But Mac, knowing that truth was on his side, steadfastly stuck to his guns. With the persistence of a pit bull, he took the establishment by the throat and refused to give up.

The battle is still not won. For example, my own university, in a time of austere budgets, has earmarked \$50 million for the removal of asbestos—most of it chrysotile—from its buildings. But there are encouraging signs of progress. This past spring and summer saw a series of articles and letters in *Science* debating the health hazards of chrysotile: at last the battle is being fought in the appropriate arena. Malcolm Ross deserves the lion's share of the credit for this progress.

Mr. President, it is with great joy that I present Malcolm Ross as the first recipient of the Distinguished Public Service Medal of the Mineralogical Society of America.