Remarks By

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to

ARMED FORCES EPIDEMIOLOGICAL BOARD'S

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The history of the use of asbestos in the Navy is well known, I'm sure, to all members of this group. The fact that asbestos can be still found in most of our ships and many of our buildings won't be news to you either. That asbestos is still an essential element in many devices, such as brake-pads, cannot be overlooked in our treatment of the question.

The records of the Ancient Romans show they recognized the health problems of asbestos. So the health hazard of asbestos isn't a new factor. During the early 1930's regulations were imposed for the safe handling of asbestos in accordance with the hazards that were known at that time. Unfortunately, but not surprisingly, the regulations were allowed to fall by the wayside during the general mobilization of World War II. To compound a bad situation the laxness of the war era turned into indifference in the post-war era.

And so the sleeping giant lay, unnoticed by all but a few until the problems began to appear in the 60's.

The Navy's reaction to the problem has, I think, been more firm than many of our civilian counterparts. While many are arguing the merits or demerits of various reports, the Navy recognizes that asbestos presents a hazard to health. The exact dimensions are as yet to be determined. So while some debate the degree of risk, we feel that based on what we know at this time, whatever the risk is, it is not acceptable.

Consequently, the Navy has banned the use of asbestos in most cases and has turned to substitute materials in new construction or refitting. In the cases where asbestos is being torn out, and occasionally

used or replaced, strict control measures requiring respirators, dampening procedures and disposable clothing are enforced.

The environmental controls which have been effected in the shipyards are extensive and thorough. The safety inspectors and industrial hygienists resporsible for these environmental controls in the shipyards have developed methods of protection including monitoring equipment and engineering controls, as well as methods of employee education and, on the whole, these represent more than adequate safeguards for the very small amount of asbestos which is used in current shipyard refitting endeavors. These same controls and monitoring have not been extended to the thousands of sailors who are potentially exposed in the fleet. Due to the fact that these individuals did not have specific known exposures and were not involved in refitting operations the same degree of attention had not been paid to their exposure.

The practice on board ship of having the ship's company tear out old lagging in order to speed up shipyard overhauls has been stopped. An instruction to the fleet prohibits the crew from doing any asbestos work except procedures that may be necessary in an emergency to keep the ship operational.

Although the controls seem adequate on paper, there is a definite need for oversight inspection to give evidence of compliance and to reinforce the regulations. We are now in the final stages of initiating our Navy Occupational Safety and Health Inspection Program under the new Navy Environmental Health Command. This inspection program will plug the

last hole in our system and provide the means for insurance of program compliance.

In other words, the Navy's attitude toward asbestos is to confine the use of the material to absolute minimum levels and to impose and enforce the strictest of handling procedures where asbestos is still handled.

Medical surveillance of individuals in the shipyards has been in effect for some years and for individuals exposed to asbestos there has been a substantial increase in these efforts in the last year or two. A standardization procedure for this monitoring is in order, however. The lag time of 25 years or more from time of initial exposure to time of disease development makes the case-finding process quite difficult.

The Navy, like the other military services, I'm sure, is faced with a shortage of trained personnel who can properly read pulmonary x-rays and detect asbestos related diseases. To this end the Navy is taking steps to develop a cadre of certified "B" readers among our radiologists. We have also initiated a series of pneumoconioses workshops. The first workshop was held just a few weeks ago in Norfolk, VA.

The identification of individuals with abnormal pulmonary function tests or abnormal x-ray findings is of value when there are functional limitations suggesting disability. Although this may not help in treatment or arresting of the disease process, the individual so identified can be dealt with in his needs for disability considerations.

To identify and assess our civilian and military populations at risk we have established the Harmful Exposure Analysis Panel. Although

still in an embryonic stage, this panel has already started to assemble extensive data to determine the size and distribution of populations in various job categories. This information will increase our effectiveness by focusing our medical surveillance and industrial hygiene intervention programs in the areas of most critical need.

In addition the new Environmental Health Command is tasked to set up a registry of all "asbestos workers." This registry will help us maintain the continuity of our medical surveillance program for individuals even if they move from one job to another, one employer to another, or one geographic location to another. The registry will also provide a base of information for further studies being planned by the Navy. One such study which we are presently developing is the study of personnel x-rays of one entire shipyard by certified "B" readers.

All such studies must be carefully evaluated as to source and content, and ongoing efforts of data collection must be scrupulously inspected to insure objectivity.

Certain facts must be considered which have not always received a great deal of attention in the current information we have available to use, most of which are epidemiologic. We have no idea of what the level of exposure is in our general population. I am not particularly referring to families of shipyard workers or families of active duty Navy personnel, but rather to people who have no known or expected degree of exposure to asbestos. We are familiar with the fact that it has been widely used in our environment and many commercial and consumer products contain asbestos and thereby produce asbestos exposure. It has been

postulated that heavily traveled urban corridors produce asbestos exposure of significant import by virtue of the brake lining particles which are released into the environment as free-flowing air around the heavily traveled roadways.

In the current state of knowledge, we are absolutely at a loss to identify or define what representas an "asbestos exposure." Relatively short exposures in an industrial situation have been deemed by some experts as sufficient to cause disease (mesothelioma). Similar examples have been given where individuals have had no concentrated exposures; however, we don't know the source of asbestos exposure. They may have lived in the environs of a shipyard or of a quarrying operation. This latter source of exposure, namely in the areas where the mining of this material is performed, represents a primary source of exposure over which few controls have been instituted until very recently. It has also been found that asbestos-bearing rock is used in road-beds and the extent of asbestos in the gravel and cushed rock was unknown to the people involved in the operation until recently.

These examples reinforce the problem of ubiquitous exposure and inability to identify a lower limit of safety. We know that the effect of smoking is important, but we are uncertain as to exactly the degree. It is has been represented that exposure of smoking cigarettes added to asbestos exposure increased one's potential for lung cancer up to 900 percent. Other pulmonary problems such as previous exposure to hard rock dust, coal dust, pre-existing allergic or asthmatic disease, silica or infectious disease have not been reported in relation to asbestos

exposure.

To guide our actions and help us develop effective systems to deliver our programs the Chief of Naval Operations, at the suggestion of the Surgeon General, has established an Asbestos Task Group. Not only is the group studying problems and procedures but it is also addressing the resource needs and the interface among the various Navy and Marine Corps components required for implementation.

In our view: past, present, and future epidemiological studies, as well as on-going medical monitoring procedures, have three primary payoffs:

(1) To define the extent of the problem. I stated earlier that after World War II the giant slept unnoticed by all except a few. But the truth is we don't know if we have a midget, a giant or something even bigger on our hands. Are all cases of asbestos diseases in Navy personnel due to employment factors? To what do we compare? How do we know if our engineering safeguards are really adequate? Would a 5, 10, 15 percent incidence rate indicate employment exposure or urban exposure? While we struggle to cope with the problem we do not have adequate measuring tools to tell us how well we are doing. We need this information not to excuse ourselves but to measure our effectiveness.

(2) The detection and treatment of asbestos related diseases: Although asbestosis and mesothelioma are uncurable at present, one still has hope for the findings of the future. We cannot overlook the possibilities of significant gains in scientific know-how twenty years from now.

and that is the time that current exposures will result in disease recognition. In the meantime other asbestos related diseases and cancers are treatable.

(3) The creation of a model program. Asbestos is not totally unlike other airborne health hazards that exist in our living and working spaces. The current concerns with asbestos which have resulted in so much activity must be viewed as an opportunity to create an ideal program for handling hazardous substances, medical monitoring of personnel, establishment of standards, measuring environmental contamination, identification of high risk occupations by use of adequate cohort data, and education of personnel at all levels.