

Don

NIOSH Notes

FINDINGS OF JOINT NIOSH/OSHA WORK GROUP CONCERNING HEALTH EFFECTS OF ASBESTOS

At a news briefing in Washington on April 17, 1980, the findings of a joint NIOSH/OSHA Work Group were announced concerning the Group's review of recent scientific information about the health effects of asbestos.

Present for the briefing were Dr. Anthony Robbins, Director of HEW's National Institute for Occupational Safety and Health; Dr. Eula Bingham, the Assistant Secretary of Labor for Occupational Safety and Health; Dr. Bailus Walker, Jr., Director of Health Standards for OSHA; and two NIOSH scientists, Mr. Richard Lemen and Mr. John Dement.

Dr. Robbins said the Group had reconfirmed that:

- There is no safe exposure limit for asbestos.
- All commercial and several non-commercial forms of asbestos cause disease.

On the basis of the Work Group's findings and recommendations, which we endorse, we are today recommending to the Department of Labor that it promulgate a safer standard for workers exposed to asbestos and that it eliminate from the workplace all exposure from new non-essential uses

of asbestos.

We have asked that the new standard set a maximum workplace exposure limit of 100,000 fibers per cubic meter of air, the lowest level which can be accurately measured. The present level, set in 1972, is two million fibers per cubic meter of air.

Asbestos poses a grave danger in the workplace. At least 1.4 million workers are exposed to asbestos in the United States. In conducting a National Occupational Hazard Survey from 1972-74, NIOSH found that 45 percent of the occupations observed involve exposure to the substance. Nearly three quarters of a million tons are used annually in this country in a wide range of products including floor tiles, cements, acoustical products, brake linings, and roof coatings. Between 8 and 11 million workers have been exposed to asbestos since World War II.

Asbestos is ubiquitous and its effects, measured in disease and death, are staggering. Asbestos causes a very serious form of lung fibrosis known as asbestosis. It also causes lung cancer and mesothelioma, a cancer of the membrane that lines the chest and abdominal cavities. Exposure to asbestos has also been related to significant increases in lung, laryngeal, and gastrointestinal cancers.

In 1972, OSHA promulgated a workplace asbestos standard setting the maximum exposure level at 2,000,000 fibers per cubic meter of air. Since then both NIOSH and OSHA have monitored asbestos health effects research and the development of asbestos substitutes. In 1975, OSHA proposed lowering the standard to 500,000 fibers per cubic meter of air. In 1976, NIOSH recommended lowering the standard to 100,000 fibers.

NIOSH and OSHA established an Asbestos Work Group in the fall of 1979. Its charge was to review all health effects data since the 1976 NIOSH recommended standard was transmitted to OSHA and to determine whether any changes to that recommendation were warranted. Was there health damage occurring at the level of the current standard? The Work Group consisted of four experts from NIOSH and three from OSHA.

The Work Group has completed its report and NIOSH has formally recommended that OSHA adopt the Work Group's findings.

The Group reconfirmed that there is no safe exposure level for asbestos. Although data suggest that lower exposures result in lower risks of developing cancer, there is no known level below which asbestos-related diseases do not occur.

The Group reconfirmed that all commercial and several non-commercial forms of asbestos cause disease. There has at times been debate over which types of asbestos fibers cause disease. The Group found strong evidence that all forms are dangerous, including chrysotile; crocidolite; and fibrous cummingtonite-grunerite including amosite fibrous tremolite, fibrous actinolite, and fibrous anthophyllite. The Work Group found no basis for regulating one type of fiber and not another.

With these two premises in mind, let me enumerate some of the specific findings of the Work Group:

- Optical microscopy continues to be the most reliable and economically feasible method for determining airborne levels of asbestos. Its lowest reliable detection limit is 100,000 fibers per cubic meter.
- Substitutes for asbestos should be used whenever possible so that non-essential uses of the

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carcinogenic fiber are eliminated.

- The report contains recommendations for medical testing procedures including chest X-rays, pulmonary function tests, observation of respiratory and other clinical symptoms. The Group also recommends that sputum cytology be evaluated as a surveillance technique.
- Results of medical examinations should be reported directly to the employee, and aggregate medical information — without individual identifiers — should be reported to an employer's entire workforce.
- Asbestos workers showing respiratory problems should be afforded the opportunity to transfer to jobs where there is no asbestos exposure. They should suffer no cut in pay or benefits to do so. The Group suggests that this program should be similar to the one now enforced by OSHA for lead workers.
- Regulations should protect all workers exposed to asbestos, including those in the construction, shipbuilding, and maritime industries, where high exposures have historically occurred.
- Asbestos product manufacturers should perform air sampling in all possible processes involving their products to determine probable airborne asbestos levels. This information should be passed on to the products' potential users.

Dr. Bingham added the following remarks: For quite some time, a number of us in the public health community, both in and out of government, have expressed concern about the health effects of exposure to asbestos. In recent years, the substance has become the focus of public attention as well; asbestos is now perhaps the foremost symbol of this country's concern about toxic substances in the environment and in the workplace. Considerations of asbestos health effects and regulatory protection have always been complex and controversial. In this light, the current data and solid recommendations to come out of this NIOSH/OSHA project are especially welcome and important.

The report released today is certainly a cause for concern — concern for the

numbers of workers still exposed to dangerous levels of asbestos. But this report, and OSHA's response to it, should also be a cause for hope among American workers everywhere.

It should be a cause for hope because it confirms that occupational health research is not a static science. On the contrary, under Dr. Robbins' direction, NIOSH has demonstrated an ongoing commitment to the re-evaluation of all available data with only one thought in mind: the protection of the worker. The current workplace standard governing asbestos exposure was OSHA's first comprehensive health standard. It is based on data that was assembled and analyzed during the mid-sixties, if not the infancy certainly the childhood of occupational health. Much has been learned in the laboratory and in the workplace since then, as this report indicates. In view of what we know now, OSHA's current standard needs major improvements.

The report is cause for hope because, contrary to some of OSHA's critics, the agency's regulations are not carved in stone. They are instead a reflection of the best science available. As science continues to improve, so will OSHA's health standards, and worker protection. The report we are issuing today demands corrective action. We will begin immediately.

We have designated a team within OSHA to begin working on a proposed revision to the present OSHA asbestos standard. We will be developing that proposal pursuant to the OSHA cancer policy announced last January. I can't tell you yet what permissible level will be proposed or whether we will issue an emergency temporary standard or pursue the proposed permanent standard route. But the severity of the threat posed and the very high numbers of workers exposed to the asbestos hazard dictate that we move with all deliberate speed in amending the present standard of 2 million fibers per cubic meter, average over a workday. I am confident that the procedures set down by the cancer policy and the synthesizing effect of the rulemaking procedure will result in a much more protective standard so that we can finally move toward an end to fatal asbestos-related diseases such as lung cancer, asbestosis, and mesothelioma.



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July 30, 1980

Mr. John E. Zeitz
Victor Products Division
Dana Corporation
P. O. Box 462
1945 Ohio Street
Lisle, Illinois 60532

Dear Mr. Zeitz:

As per our phone conversation of 30 July, I am enclosing a few reprints of our work related to the action of certain chemicals and occupation-related dusts on the interferon system. I hope they will be informative for you.

When our paper on wollastonite is published, I shall send you a copy. If I can be of further assistance, please let me know.

With best regards,

Sincerely yours,

Nicholas Hahon
Research Microbiologist
Microbiology Section, LIB
DRDS

Encl.

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