

TO: Mr. H. E. Keasem - East Chicago Plant
December 23, 1968

FROM: #186, G. R. Krug

SUBJECT: Asbestos and Cancer.

Based upon increased adverse publicity and medical attention given to health effects of inhaling asbestos dust, we feel it is appropriate to familiarize you with terminology, current medical and legal approaches and our Company approach relating to asbestos.

Terminology

Asbestosis is a form of pneumoconiosis, which means any change in the lungs induced by prolonged inhalation of dust particles. Asbestosis is a form of pneumoconiosis caused by the prolonged inhalation of asbestos fibers.

Asbestos is a generic name applied to a group of fibrous minerals composed of long flexible fibers that can be subdivided longitudinally into filaments of very small diameter.

The asbestos minerals are silicates and they belong either to the serpentine or to the amphibole group of minerals. The most

important variety is Chrysotile (white asbestos), a member of the serpentine group. This form is the prime type used by us.

Other important forms are amosite (brown) and crocidolite (blue).

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both of which belong to the amphibole group. Only one of our plants uses one of these.

Most of the chrysotile comes from Quebec, though smaller amounts are produced in Vermont, Arizona and California. Africa is the source of all of the amosite and most of the crocidolite. Australia and Bolivia supply small quantities of crocidolite.

The following medical terms are often used in relationship to lung disorders and asbestos:

Pulmonary Fibrosis - A progressive degeneration of the lung walls of undetermined origin leading to deficient aeration of the blood. In other words, the chemical function of the lungs (exchange of gasses) is impaired.

Mesothelioma - Is a rare malignancy which infiltrates the lung cavity or the abdominal cavity, spreads rapidly and is incurable.

Carcinogen - Any cancer-producing substance. Asbestos is believed to be a carcinogen or carcinogenic agent.

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Current Medical and Legal Approaches

Extensive study of the relationship between degree and length of exposure and the development of the lung diseases, has been documented by the U.S. Public Health Service in the textile industry.

One alarming feature of at least two studies, reported in the British Journal of Industrial Medicine, is the fact that persons living in the vicinity of mines and mills processing asbestos have developed mesotheliomas without any occupational exposures.

While several of the published studies relating asbestos to lung cancer are impressive, the group studies made by Dr. Irving S. Selikoff have probably had the greatest impact on the general public. He indicates asbestos industry and users may possibly be causing widespread carcinogenic air pollution. The news media has picked this up and played it to the hilt.

Our previous concern had always been asbestosis which requires exposure to large dust concentrations in excess of 5,000.000 particles per cubic foot over a period of several years. The cancer scare, which may or may not be well founded, opens a whole new area of concern. The indication is that certain people are predisposed to lung cancer and such agents as

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tobacco smoke, asbestos dust, and about 18 others, etc., find a fertile ground for growth and destruction.

One major asbestos producer, based upon some members of the medical profession, takes the position that lung cancer and asbestosis take about 20 to 25 years to develop and that there is no risk to the general public. It is acknowledged that asbestos workers who smoke have 92 times the incidence of lung cancer as the public. It is felt that asbestos workers who do not smoke have no greater incidence of lung cancer than the general public. The theory here being that asbestos may act as a holding agent of other harmful dusts, mists or gases without asbestos itself being harmful.

It is our understanding that the American Conference of Governmental Industrial Hygienists has reduced the Threshold Limit Value (TLV) for asbestos dust exposure from 5 million particles per cubic foot (m.p.p.c.f.) to 2 million particles per cubic foot effective in 1968. *

Company Approach

American Mutual Liability Insurance Company is just completing airborne and settled dust studies at all Company properties using asbestos or other toxic ingredients.

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Department 186 is presently in the process of recommending an overall Company hygiene program to Management which will include such items as:

- 1) Establishment of Threshold Limit Values for all toxic dusts. Where TLV's are exceeded, despite all practical steps being taken to reduce same, exposed employees shall be required to wear approved respirators. This will entail a comprehensive daily cleaning procedure on the part of the Plant so each exposed employee is issued a thoroughly cleaned unit each day.
- 2) At those locations where toxic dusts are known to be in use, dust samples will be taken and analyzed frequently until overall dust hazard levels are established. Then a normal fixed test cycle will be followed for monitoring purposes.
- 3) No new uses of asbestos should be introduced into our plants without first clearing through Department 186-2, Loss Prevention Manager.
- 4) Annual X-rays, as required in General Order Bulletin 4-6-B, shall be taken.

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- 5) It is urged, if at all possible, that only non-smokers be hired for areas of asbestos exposure. Regarding present personnel, smokers should be relocated to less hazardous exposures, where feasible.

If Management approves the hygiene program, your obligation will be to assure that any uses of asbestos or other toxic dusts within the plants, comply with our Company approach and that each and every operating facility be made aware of the foregoing.

Attached is some background material which will illustrate the magnitude of the problem and confusion that exists.

We will keep you abreast of any major changes that occur. Any articles you may happen upon should be sent to Department 165-3, Loss Prevention Manager.

We feel this subject is too controversial to be sent directly to each plant by us for fear it may get into the hands of persons who will misuse or misinterpret it.

GRK:plb

Att.

Distribution: All General, Manufacturing and Production Managers;
G.H. Huntley, W.W. Holloway and C.P. Kipp.

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