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U.S. Navy - U.S. Maritime Commission - War Shipping Administration

Safety and Industrial Health Program

Report on Investigation

of

Asbestosis from Amosite Pipe Covering at Bath Iron Works

Bath, Maine

December 19, 1944

References: (a) Report of Industrial Health Survey of Sept. 26, 1942.
(b) " " " " Re-survey of April 9, 10, 1943.
(c) " " " " " " Sept. 20-23, 1944.

(d) "Minimum Requirements for Safety and Industrial Health in Contract Shipyards" approved by U.S. Navy, U.S. Maritime Commission and War Shipping Administration.

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BY

W. C. Dreessen, Surgeon, U.S. Public Health Service, Bethesda, Maryland

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Office of the Regional Director of Construction
U. S. Maritime Commission, East Coast

PLAINTIFF'S EXHIBIT 1054
ALL-STATE LEGAL SUPPLY CO.

Personnel interviewed:

Dr. E. W. Fuller, Jr.....In charge of pre-employment and periodic check-up physical examination

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This investigation was made at the direction of the Chief Health Consultant of the U. S. Maritime Commission, inasmuch as we had heard that there was concern among the pipe covering crews who feared that the amosite was causing some respiratory troubles.

Medical

There are about 120 workers engaged in handling asbestos in the Pipe Coverer's Shop and on board ships under construction. Chest X-rays are being taken first on those with the longest exposure, i.e. over two years, of which it is estimated that there are about 50 workers. In the near future all of the 120 will have a chest plate taken.

Of the 50 workers 38 have already been X-rayed and all of this group have been handling asbestos pipe covering from 2 to 9 years. It was interesting to note that the two individuals with the longest exposures of 8 and 9 years were in the older age group, being 59 and 65 years of age respectively. All of the 38 films were reviewed and 12 of these patients showed significant X-ray changes consistent with exposure to a dusty environment. History and physical examination by Dr. Fuller indicated that in all of the 38 patients respiratory symptoms and physical signs were minimal.

On X-ray interpretation these 38 patients could be divided into four groups:

1. The two older workers referred to above, the appearance of whose chest X-rays was consistent with the diagnosis of well established asbestosis. These plates also showed signs typical of advanced age, such as cardio-vascular changes, etc.

2. A group of four workers whose exposure was from two and a half to four years whose chest X-ray appearances were consistent with a diagnosis of asbestosis.

3. A group of six workers whose exposure was from two to two and a half years and whose chest films showed minimal changes but not sufficient for a definite diagnosis of asbestosis.

4. A group of 26 workers whose exposure was from two to two and a half years and whose chest films were considered negative.

It was considered significant that those workers with the most marked X-ray changes were those who presumably were exposed to the heavier concentrations of dust, such as operators of the band saw and small rotary power driven saws.

In those workers whose X-rays were consistent with a diagnosis of asbestosis, the changes consisted of bilaterally symmetrical increased reticulation of the lung fields resembling a ground glass appearance. Such lung field markings are indistinguishable from those induced by chrysotile asbestos. No evidence of active tuberculosis was noted on any of the films.

Description of Pipe Coverer's Shop

This shop occupies about half of a loft and is partially segregated from sheet metal workers at the other end of the loft. The more dusty phases of the work such as band saw cutting and the mixing troughs are located at the far end of the loft. Local exhaust ventilation was installed on the band saw several months ago and removes some of the dust arising during the cutting of pipe insulation. Respirators were being worn by several workers using the small rotary saws. It is anticipated in the near future, that the insurance carrier, American Mutual Liability Insurance Co., of Boston, Mass., will take dust samples throughout the shop. We know the personnel of the insurance carrier, have discussed the problem with them and would have complete confidence in their appraisal of this job.

Recommendations:

1. It is recommended that all of the remaining asbestos workers be given a chest X-ray in the near future.

2. Unless the dust exposure is controlled as outlined below, the workers in groups 1 and 2 above, should be transferred to a non-dusty occupation.

3. Groups 1, 2 and 3 should have a chest X-ray at yearly intervals.

4. If the dust exposure is not controlled all asbestos workers should have a chest X-ray at yearly intervals.

5. While the local exhaust on the band saw removes a considerable proportion of the dust, it is not considered adequate. This ventilation should be corrected so that the dust is removed.

6. Unless properly ventilated the band saw and mixing trough operations should be isolated from each other and from the rest of the shop. All workers on these operations should wear either approved air line respirators or respirators approved for pneumoconiosis-producing dusts.

7. If the dust counts taken by the insurance show, that after isolation of the above operations, the amount of asbestos dust in the general shop is sufficiently high to produce an asbestosis hazard, then the general ventilation of the shop should be improved.

Note: Reference (a) recommended as follows:

"The conditions in this shop present a very real asbestosis hazard and immediate steps should be taken to segregate the most dusty processes into a well ventilated area. Local exhaust systems of proper design should be installed however, if conditions cannot be completely controlled in this manner, then suitable dust respirators should be worn by the workers. Periodic physical examinations of the chests of all workers should be made."

SUGGESTED SAFETY PROGRAM FOR HANDLING ASBESTOS & DIATOMACEOUS EARTH PRODUCTS

1. Provide adequate ventilation at all points where dust is created in handling Asbestos Products and Diatomaceous Earth Products capable of producing Silicate Dust.

2. Require all employees to wear suitable approved respirator when engaged in any work where there could be exposure to Asbestos Dust.

3. Provide pre-employment medical examination and X-ray examination of the chest area for those who are to be employed in work there there is exposure to Asbestos Dust.
(The purpose of the pre-employment examination is to eliminate prospective workers who have respiratory ailments or who are susceptible to respiratory ailments.)

4. Provide periodic medical and chest X-ray examinations for all employees engaged in work there there is an exposure to Asbestos Dust. It is suggested that such periodic medical and X-ray examinations be made at intervals of at least every six months.

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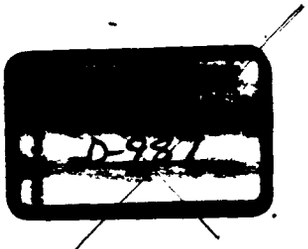
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