Tr. E G Tanner

AMERICAN SMELTING AND REFINING COMPANY
CENTRAL RESEARCH LABORATORIES
SOUTH PLAINFIELD, N.J. 07080

VAL KUDRYK
MANAGER, MINERALS RESEARCH

RECEIVED

TO READ BY ANSD

RDW
EAF
LAB
FILE

PLAINTIFF'S EXHIBIT
ASA-182

October 10, 1968
Ref. 609

Mr. R. P. Gagnon
BLACK LAKE

Asbestos Textile Institute Meeting, Hershey, Pa.
October 2-4, 1968

An interesting and timely four-hour seminar on "Asbestos and Health" was included in the General Meeting. This was sponsored by Johns-Manville with C. L. Sheckler, Manager of Occupational Environmental Control, J-M Corp., as the Chairman. The seminar agenda, notes, and comments are as follows:

(A) News Headlines and Public Relations.

W. P. Raines, Director of Public Relations, Johns-Manville Corporation -

Presentations of "scare" newspaper and periodical headlines were made, including a recording of the audio portion of the CBS TV news presentation of June 7, 1968, in which asbestos in spray-up insulation on new building construction in New York City was being accused of being a potential health hazard to millions of people in the metropolitan New York area.

Johns-Manville Corporation has issued a set of three "Position Papers" on the subject, under the following titles:

1) "Asbestos - A Family of Minerals"

2) "Asbestos and The General Public"

3) "Asbestos and Human Health"

(B) Biological Effects of Asbestos

Dr. George W. Wright, St. Luke's Hospital, Cleveland, Ohio., Chairman, Institute of Environmental and Occupational Health.

The first cases reported in which asbestos was suspected of affecting the human lung were in 1900. In 1930 textile plants became concerned although the pathology was poorly described.

The first hard look at the problem concerned asbestosis and the second, the cancer producing proclivity resulting in bronchogenic cancer.

Asbestosis is associated with long-time exposure in which the lung shows scarring and inflammation. Biological effects show interference of movement of oxygen from gas phase of the lung to liquid phase in the blood. Measurement of this O2 movement is indicative of progress of scarring of the lung. Asbestosis results in lessening of elasticity of the lung and destroys the blood vessels of the lung.

The threshold limit value or maximum allowable concentration of dust particles has been 5 million particles per cubic foot of air, of particles less than 10 microns in diameter. This provisional limit is now inadequate and is being changed.

In Great Britain in 1950 it was found that the incidence of lung cancer was higher in asbestos workers suffering from asbestosis than in the non-asbestos workers. The asbestos producers in Canada had organized a study at the same time involving the mill workers of the Thetford area. This original study failed to show any undue frequency of lung cancer. However, it was shown that the only study data available were from relatively incomplete and sketchy death certificates.

This resulted in mandatory death certificate data showing detailed contrasting causes. Textile and friction material workers deaths were isolated, with both types showing earlier deaths than the rest of the population. Textile workers, because of high dustiness in textile plants,

showed higher incidences of earlier deaths. Cleaning up of textile mill dusty atmospheres in Great Britain resulted in a sharp decline in lung cancer.

A thin membrane covering the lung is the mesothelia. Abnormal calcification of the cells of the lining surface results in mesothelioma, classified as a rare tumor under ordinary circumstances. As few as two or three are seen in a lifetime by the average physician and only 1 in every 1000 lung tumors is a mesothelioma. But, in South African crocidolite and amosite workers, dozens of mesotheliomas have been found. Residents of the area, such as women not working with asbestos, have been found to be victims. Roads, in the crocidolite areas, contain fibers which filter through car windows are among the causative agents suspect.

Mesotheliomas are very rarely associated with chrysotile asbestos fibers for reasons not yet known.

It has been demonstrated that bronchogenic cancer is ten times as high in insulation workers as for equal age groups not employed in this type of work. Workers in the insulation trades exposed twenty or more years and who are cigarette smokers, are 90 times more susceptible than those not employed in the insulation industry and are non-smokers.

Fibers which stay in the lung and become tissue-coated are called "asbestos bodies". These are found in the lungs of the bulk of the population to a greater or lesser degree. The term may be misleading, however, in that the core of the asbestos body may be from a source other than asbestos, such as a manmade fiber, talc, or the like. Research is in progress to identify the origin of the "bodies" and to correlate this with disease and causes of death.

(C) Organizing and Engineering for Dust Control

E. M. Fenner, Director of Environmental Control, Johns-Manville Corporation -

Mr. Fenner discussed a typical method of improving dust control by illustration, showing the organizational make-up for improving the working conditions of textile workers at Manville, New Jersey.

a) Determine Composition of Task Unit

1. Development Manager
2. Production Manager
3. General Plant Engineer
4. Manville Plant Engineer
5. Environmental Control Director

b) Task Team Goals

1. Correction of all operator stations where dust content is above Threshold Limit Value.
2. Correction of operations which create visible dust.
3. Improvements in methods for handling fiber.

c) Action - Master List

1. Process revision
2. Raw material change
3. Equipment modification
4. Improved dust collection
5. Improved housekeeping

(D) Asbestos Research Progress

Dr. L. J. Cralley, Director of Epidemiological and Field Studies, U.S. Public Health Service -

Portable X-ray units are being used in contacting all textile mills. Data is being collected for study.

Laboratory studies are in progress on fibers of both synthetic and natural origins.

An enzyme of benzopyrene is a harmful product found in the lungs. Magnesium is thought to activate this ion, while nickel, hexagonal chromium, manganese, cobalt and ferric iron tend to inhibit it.

Talcum powder cosmetics are frequently high in quartz, nickel and cobalt.

(E) Legislation, Litigation and Action Programs

C. L. Sheckler, Manager of Occupational Environmental Control, Johns-Manville Corporation -

Several pieces of legislation are currently being debated. These are:

1) The Occupational and Safety Health Act of 1968
2) The Threshold Limit Value of Asbestos Dust.

The Occupational and Safety Health Act would grant special powers to the Secretary of Labor, establishing mandatory safety and health standards. The Secretary would not have to consult with employers, rather with other government committees only. Three hours of tesimony have already been heard dealing only with asbestos, which has been damaging to the industry and has been slanted in the direction of labor. No attempt has been made to differentiate between types of asbestos, kinds of application, etc. It is essential that the American Textile Institute keep informed of this legislation.

The Threshold Limit Value of Asbestos Dust legislation is a forerunner to statutory changes in the present laws. It will reduce the current maximum value in industrial air from less than 5 million particles per cubic foot of air to less than 2 million particles per cubic foot of air. Impingement dust particle count methods have been found to be less efficient than membrane filters and new methods of establishing particle counts are to be used which are entirely different than those used before.

Great Britain has introduced new threshold limits which are far more stringent than those used in the United States.

The Unites States has proposed 12 fibers per cc over 5 microns, maximum.

For chrysotile and amosite, Great Britain has proposed for air, 2 fibers per cc and not more than 10 fibers per cc. Where 4 fibers per cc, inspectors will insist standards be improved. Where 10 cc or more, atmosphere will be considered dangerous and the conditions will be held unworkable.

For crocidolite, Great Britain has proposed limits of 0.1 of those for chrysotile and amosite.

In the Unites States, four potentially damaging lawsuits are in litigation at present, which could seriously effect the asbestos industry. An example of one is the case of a former Johns-Manville employee who worked at

Manville for 18 months in 1941 and 1942 as a clerk. He then quit to go into the armed services and when finished with his service, entered other employment. In 1966 he died of bronchogenic cancer and his estate sued, claiming his condition was incurred during his J-M employment. Defense lawyers claim they have a backlog of similar cases awaiting the outcome.

It was recommended that The American Textile Institute:

1) Initiate an environmental control committee of four people including top level production, marketing, a physician and an engineer which would keep abreast of health problems and coordinate information with industry.

2) Sponsor programs with other outside groups relating to health, such as Insulation Manufacturing, ACPA, Pearlite Institute, etc.

3) Assist member companies when requested.

4) Report in detail to the ATI general membership at each meeting or whenever required.

Technical Committee Meetings:

A combined meeting was held by the Fiber Testing Committee with the Technical Committee to discuss results of the Mapes and T&N Magnetic Rating round-robin tests run on asbestos textile products. It was concluded from the tests that:

1) There was no discernable difference in results between the two methods.

2) On either test, some companies got odd results on some samples.

3) Test variation between companies may be due to differences in the products or to differences in test procedures used or to a variation in packing in the test cell.

It was decided to repeat the round-robin test program but to eliminate the test operator as a major variable. One man, familiar with both tests, will tour the member laboratories with test standards and test samples and instruct and observe the test procedures at each test location. A representative of Bell Mines will be used for this work.

Magnetite standards of the old 29A, Bureau of Standards material, has been used up. New standards are being checked against 29A and will be issued when tested.

The problem of determining objectionable grit in spinning fibers is being investigated by using wet cyclone separation methods. Results show good separation of the rejects from the long fiber, but it has not been determined that the long fiber is an acceptable spinning fiber by the trade. The textile companies will supply the committee with samples of objectionable portions of spinning fiber so that the test may be more closely controlled.

There is a need for more attention to the dust problem in fiber packaging such as bagging for overseas and domestic handling.

A sub-committee for color testing is required to more fully qualify terms, check new equipment, and investigate calibrating standards.

C. E. Stiefken

CES/lk

cc: M.J. Messel
L.C. Piuze
E.A. Farrell
K.W. Nelson
S.D. Weaver

ALU 0049745