File Chemical File
Asbestos

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
ENGINEERING
BOUND BROOK, NEW JERSEY

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PLAINTIFF'S EXHIBIT
Union Carbide 168

MEMORANDUM

July 9, 1971

To:
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Mr. M. G. Ferri - 312
Mr. D. H. Frodey - 312
Mr. R. E. Graebert - 312
Mr. C. L. Higgins - 312
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Mr. L. J. LaFrance/ - 4th Floor
Mr. P. W. McDaniel
Dr. C. S. McKinley - 312
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Subject: Safety Meeting
Chemicals and Plastics Operations
General Electric Company, Hooker
Chemical Corporation and Union
Carbide Corporation

Attached are minutes of the General Electric/Hooker/Union Carbide Corporation Safety Meeting, prepared by Dr. Paff of General Electric.

Attention is directed specifically to Paragraphs I a, b and c - Asbestos.

R. W. Schwartz

RWS/jlb
Attachment

Purpose: To discuss the handling of asbestos and other health and safety problems in the manufacture of phenolic molding compounds.

Place: Hooker Chemical Corporation Headquarters;
Grand Island, New York

Date: June 18, 1971

Present: David Guilbault: Safety Administrator, Pittsfield area
General Electric Co., Pittsfield, Mass.

Louis Rohrdanz: Coordinator - Safety and Security (Corporate)
Hooker Chemical Corporation, Grand Island, N.Y.

David Paff, M.D. Associate Medical Director
General Electric Co., Pittsfield, Mass.

R. W. Schwartz: Engineering Department (Safety Engineering)
Union Carbide Corporation
Chemical and Plastics - Bound Brook, N.J.

I. Asbestos

a. A brief review of health effects was given by Dr. Paff.

Health effects of asbestos are difficult to determine because:

1. They are delayed (15) plus years from the time of exposure.
2. Asbestos is a family of silicates and not a pure chemical. Such factors as chemical makeup, impurities, and fiber length confuse the picture.

I. Asbestos (Cont'd)

a. (Cont'd)

Three diseases are generally attributable to asbestos:

1. Asbestosis: a fibrosis of the lungs generally felt to be due to mechanical irritation from the fibers.
2. Lung Cancer: Possible due to adsorption to deposited fibers by carcinogens such as Nickel and benza-o-pyrene.
3. Mesothelioma:

The first two have been attributed to both chrysotile and crocidolite while the last only to crocidolite.

b. Threshold Limit Value (TLV)

A discussion was held concerning the intended change in the TLV as recommended by ACGIH. The present TLV is 5 m.p.p.c.f. (million particles per cubic foot). The proposed change is 5 fibers/ml greater than 5 microns. Discussion was held concerning conversion from one type of units and was unresolved.

Note: A telephone call to Hervey B. Elkins, Ph.D. who is a member of the 1970 TLV committee and director of Occupational Hygiene for the Commonwealth of Massachusetts revealed the following:

1. It is generally felt that the fibers longer than 5 microns are responsible for the damage and not the fine dust. The old method of counting was a simple dust count which also counted any other dust in the area. The present method counts by phase contrast microscopy the actual asbestos fibers.

I. Asbestos (Cont'd)

b. (Cont'd)

Note:

2. Because of the change in technique it is impossible to directly convert from one recording method to the other. However an approximation where contamination from other dusts can be excluded under the old method is that 5 fibers/ml is equivalent to 1 m.p.p.c.f. This results in a projected change from 5 to 1.

c. Handling of bags; brief discussion concerning the various ways of handling of bags during dumping and afterward. Education as to the importance of keeping the dust down is important. Often they are dumped carefully and then thrown in a pile someplace to spread dust in unventilated areas.

d. Possibility of using 50# bags instead of the 100# bags was discussed. Lou Rohrdanz indicated that Hooker Chemical was doing this and said he would find out for sure and let the others know. The advantage is in preventing back injuries and <u>not</u> in preventing exposure to asbestos. It may cause an increase in exposure.

e. Asbestos disease at various plants.

Pittsfield: All employees x-rayed this year with no disease attributable to asbestos found.

Hooker Chemical: X-rays for a number of years on an annual basis with no disease attributable to asbestos found.

Union Carbide: Bob Schwartz was unsure of what had been done but knew of no disease attributable to asbestos.

I. Asbestos (Cont'd)

e. Cont'd

Dr. Paff said that he is not surprised that no asbestos disease has been found. Asbestos disease takes a long time to develop and does not even then affect everyone. Also, even though air concentrations probably exceed TLV's for asbestos the total exposure would not exceed one hour daily and the TLV is really meant for (8) hour exposures. This does not mean that the present levels will be tolerated as the TLV is now part of the Walsh-Healey and Occupational Health and Safety Laws. He also said that pulmonary disease simulating asbestos disease or lung cancer will most likely be compensable under W.C. Law in asbestos workers even with adequate protection.

f. Bob Schwartz talked briefly about Calidria Asbestos which is mined by Union Carbide and is now available in pelletized form. The advantage to the use of this type of asbestos is that it can be handled without exposure to respirable particles. The problem with its use at present is in depelletizing it. This is being worked on by Union Carbide's development people in Niagara Falls.

g. Hooker Chemical has a closed system for handling of wood flour. The possibility of such a system for asbestos should be investigated. The wood flour system is impeded by moisture. Ford Motor Co. has experimented with a closed bulk system with asbestos mined by Johns-Manville. G.E. has looked at this system but their supplier (Carey) has not developed such a system and Carey has the low-iron asbestos necessary for phenolic compounds. There have been problems with the Ford-Johns-Manville system in that asbestos compacts very easily and the tank-car must be entered to get much of the compacted asbestos out.

I. (Cont'd)

h. Dave Guilbault discussed an automatic bag-slitter and baler that he helped develop elsewhere. Dr. Paff suggested that an interlocked door could be used so that the door would have to be closed to activate the bag-slitter. The baler is somewhat like a trash-compacter and can give you a neat backage in a polyethylene liner.

i. A suggestion was made that asbestos be packaged in a bag made of a material compatible with the end product to eliminate disposal of the bag.

j. Use of respirators. It was agreed that it is difficult to supervise the use of respirators and that education of the employees is important so that they will know why. Dr. Paff suggested that they only need be worn during dusty operations such as opening the bags, dumping the contents, handling the bags, and clean up.

II. Methods of handling safety;

a. Engineering safety review prior to any construction whether it is the building of new plants or changing existing ones. This often saves a considerable amount of money as it is more expensive to make changes later than to incorporate the proper safety measures into the original design. This should not be thought of as an escape mechanism for the design engineers so that they can pass the responsibility to someone else if something goes wrong.

b. Administration of safety.

II. (Cont'd)

c. Staff vs line responsibility for safety: It was agreed by all present that safety is the responsibility of supervision. There is a tendency in many companies to expect that this is the responsibility of the Safety Engineer. The safety engineer should be a consultant to help supervision with difficult problems. He should not be an inspector and it should not be his job to tramp around the plant telling employees to put on their safety glasses, etc. Supervision may be reluctant to take on this responsibility and then it becomes the job of the Safety Engineer to educate them.

d. Inclusion of safety record in annual compensation review. Too often only lip service is paid to safety and only production is looked at when evaluating management. One way of combating this is to include a managers safety record along with his production record when it comes to evaluating him in terms of dollars.

e. Technical safety audit: A brief review of this procedure as developed by David Guilbault was given. This consists of an internal audit actually performed by supervision and engineering after instruction and guidance by the safety engineer.

III. Noise: A very brief discussion on the problems of Noise and Hearing Conservation was held. This is of particular interest at this time as it is probable that this will be the first area given attention under the new law. Dr. Paff discussed G.E.'s new molded silicone ear plug.

IV. Adjournment: It was the concensus that this first meeting was of benefit to all. It is planned to have another similar meeting during the fall probably in Pittsfield.

David S. Paff, M.D.

David G. Paff, M.D.
Associate Medical Director

6/29/71