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Minutes of Meetings
Organization Resources Counselors, Inc.
And
Manufacturing Chemists Association
Washington, D. C.
On
Vinyl Chloride
December 11 and 12, 1974

ORGANIZATION RESOURCES COUNSELORS *Hait - 0400*
VINYL CHLORIDE MORTALITY STUDY STEERING COMMITTEE

A status report on the study is attached. Progress is much slower than planned, but it continues to move forward and should give good data in the resin fabricating area. The study will be expanded to cover all liver neoplasms rather than only angiosarcoma. Classification of exposure by type of resin used will be attempted. The list of companies declining to participate is misleading; these companies simply feel that their records are of no significant value. GAF's records should be of value and some assistance is needed to obtain their cooperation (Mr. William Faciliotis of GAF's Safety Department is not convinced that the study is worthwhile).

MANUFACTURING CHEMISTS ASSOCIATION
TECHNICAL TASK GROUP ON VINYL CHLORIDE RESEARCH

- I. Minutes of the September 19, 1974 meeting are attached. The delay of the preceding meeting minutes was attributed to Dr. K. D. Johnson's illness.

II. Confidentiality Agreement with European Vinyl Chloride Researchers

This agreement will be formally terminated since it is serving no useful purpose at the present time.

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III. MCA Transportation Committee

NIOSH, Jerry Fleisch, agreed to do a series of tests on bulk handling of vinyl chloride and polyvinyl chloride in cooperation with National Tank Truck Carriers. Six tests of monomer shipments, six tests of pelleted resin shipments, and six tests of resin shipments will be made to determine if there is a need for personal monitoring of these shipments.

Mr. Sam Watts, MCA Transportation Committee, reports close cooperation with Tom Smith of S. P. I. MCA plans no work in the transportation area.

IV. Epidemiological Studies

Tabershaw/Cooper Associates report progress in locating additional people in the current study. One hundred additional death certificates have been obtained and thirty-three more are being sought. This will yield 96% followup of the current study population.

Proposals for additional work by Tabershaw/Cooper are attached. The primary proposal is to incorporate approximately 1,500 more workers from Union Carbide Corporation's South Charleston, West Virginia plant in the study at a cost of approximately \$50,000. Objection was made to the TCA proposal in that they propose to not use data prior to 1946. This eliminates 16 years out of a possible 44-year history. In general, the proposals are recommended for management approval and MCA will poll the companies.

TCA will provide an updated study report to the sponsors sometime in March, 1975. TCA also published an article in the Journal of Occupational Medicine (August 1974, Volume 16, pp 509-518).

Epidemiology studies by the Center for Disease Control have not been reported.

Status of epidemiology studies in Europe are not known.

V. Industrial Bio-Test Studies

A twelve-month status report of the study is due to be delivered to the sponsors soon. This report will include cytology work by Dow and IBT.

IBT has requested \$20,000 in excess of their contract to cover extra costs related to meetings with numerous governmental people. The request was endorsed for payment with the proviso that all future extra costs are specifically authorized by MCA. A recommendation that \$50,000 be requested from the sponsors to cover the \$20,000 plus future contingencies was approved. MCA will poll the sponsors.

A proposal by Dr. R. S. Brookman that Dr. Jeffrey Kent of Northwestern University be used as a consultant in pathology studies was tabled.

VI. Studies Under SPI Sponsorship

The vinyl chloride feeding study requested by FDA has been outlined. The study will involve feeding rats vinyl chloride dissolved in water. Two studies are planned — One a 90-day study of acute toxicity to determine MTD; the second study calls for feeding rats over a two-year period with vinyl chloride in water with the highest concentration equaling the MTD concentration in the preceding study. The basic study will cost \$200,000. Variations and problems could increase this cost to \$511,000. The work will be done by Food and Drug Research.

Reports indicate that SPI has requested Bernard Goldberg, a UNC statistician, to develop a human dose response curve for vinyl chloride. The method for achieving this curve without data on vinyl chloride concentration is not clear.

VII. Dow Metabolic Studies Status

Metabolism study — additional data is appended to the September MCA minutes. Additional pages to complete this appendix are promised.

A report on teratology will be given at the Society of Toxicologists in March, 1975. Dr. T. R. Torkelson was reminded that the sponsors should receive this report first.

Mutagenesis studies are under way. To date, there is no apparent effect on lymphocytes.

Dow has requested \$150,000 to continue its best-effort study on vinyl chloride metabolism another year. This expenditure is recommended to the sponsoring companies.

VII. Dow Metabolic Studies Status (cont'd.)

4.

Mellon Institute, Dr. C. P. Carpenter, reports good progress on the in-vivo and in-vitro study of vinyl chloride metabolism after overcoming the problems resulting from instability of radioactive vinyl chloride. Pilot runs on rat and human tissue have been completed and comparative studies of animal and human metabolism will start after the first of 1975. Initial results are expected in the first quarter.

VIII. Future Research Programs

Studies of low level chronic exposure and acute inhalation exposure in laboratory animals were discussed with members of the Rall Committee (a committee of assorted governmental carcinogen experts headed by Dr. David Rall of NIEHS). The Rall Committee members saw no merit in further inhalation studies on animals at this time. This opinion was endorsed by the TTGVCR members and further inhalation studies were postponed indefinitely.

IX. Financing of Ongoing Research

Additional money will be sought from sponsoring MCA companies as follows:

Dow Metabolic Studies	\$150,000
TCA Epidemiology (approximately)	50,000
Industrial Bio-Test Study	<u>50,000</u>
TOTAL	\$250,000

MCA will seek approval by the sponsoring companies and subscriptions. UCC's share of this expenditure will be approximately \$15,000. Approval of this expenditure is recommended.

X. Research on Photochemistry of Vinyl Chloride

The Photochemistry Subcommittee, under Dr. R. L. Maycock of Shell, recommended that no work be done until the extent of EPA's activities in this area are known. A written inquiry will be forwarded to EPA.

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XI. Research Activities of Federal Agencies

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Consumer Product Safety proposes a study at Edgewood Arsenal on Vinyl Chloride. The protocol has been circulated to MCA members for comments. This study appears to be a rehash of the VC aerosol situation and has little merit.

Environmental Protection Agency plans work at the University of Cincinnati under Dr. E. Bingham. The protocol has been circulated to MCA members for comments.

NIOSH's Doctor Groth has requested access to animal tissue from the IBT study. Doctor Groth will be asked to supply details and to define his needs better.

NIEHS is funding some research on vinyl chloride. No specifics are known. Additional data will be sought.

XII. Federal Agency Reports

EPA: Environmental Aspects of Vinyl Chloride/Polyvinyl Chloride
Analysis of Air Pollution Regulatory Alternatives for
Vinyl Chloride

MCA member companies are encouraged to comment directly to EPA on these reports.

NIOSH: Angiosarcoma of the Liver Case Registry

This will be distributed by MCA to members.

EPA is advertising for bids on a proposal for a chemiluminescent monitor for vinyl chloride. This is to be sensitive to 10 ppb.

XIII. Miscellany1. Unidentified Report*C.D.C. - Univ. of Houston*

There is evidence of significant occurrence of lung adenocarcinoma in vinyl chloride workers. The normal ratio of adenocarcinoma to bronchiogenic carcinoma is one to four except in VC workers.

2. Cheminord is restarting their PVC plant, using air jets to move air to outside plant, a so-called air curtain. This operation was editorially applauded by Chemical Week as a technical breakthrough. The views of EPA were not obtained.

3. Norsk Hydro operates a PVC plant in a large chemical complex employing 4,000 people. They elected to shut down to avoid a strike in the whole complex. They expect to restart after labor negotiations.

4. Dr. R. S. Brookman of Firestone will provide a list of countries and their regulatory actions on vinyl chloride.

5. MCA is currently administering or planning to administer toxicological studies on the following:

- (a) Vinyl Chloride
- (b) Vinylidene
- (c) Phosgene
- (d) Ethylene Dichloride
- (e) Phthalate Esters
- (f) Fluorocarbons
- (g) Styrene
- (h) Acrylonitrile
- (i) Chlorobenzenes.

RNWJr/ra

R. N. Wheeler, Jr.

Attachments

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