



DOW CHEMICAL U.S.A.

2020 Dow Center
May 8, 1973

MIDLAND, MICHIGAN 48640

Mr. A. B. Steele
Operations Manager
Chemicals and Plastics
Union Carbide Corporation
270 Park Avenue
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Mr. Anton Vittone
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Mr. Dick Reynolds
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SHELL CHEMICAL COMPANY			
Industrial Chemicals Division			
Vinyl Chloride Business Center			
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ESS			
ERS			
KWW		LH	☒
Ans'd		By:	

Gentlemen:

Attached are the recommendations that I talked with you about today. I would appreciate your comments as soon as possible.

Sincerely,

G. J. Williams
Executive Vice President

llm
Attachment

OUTLINE OF PROPOSED PRESENTATION TO GOVERNMENT

I. Presentation

- A. Government - Dr. M. Key, Director of NIOSH and others he may suggest as a result of a preliminary contact to set up meeting.
- B. MCA - K. Johnson and/or G. Best of MCA.
- C. Industry:

	<u>Technical</u>	<u>Business</u>
Dow	V. K. Rowe	G. J. Williams
Goodrich		A. Vittone or T. Nantz
Shell	H. Kusnetz	
UCC	D. C. Dernehl	

II. What should be presented -

- A. U. S. companies represented by presentation.
- B. History of Toxicity Studies
 - 1) Review of past toxicity studies (lit.)
 - 2) Past epidemiological studies -
Acroosteolysis
 - 3) Work reported by Viola
 - 4) History of TLV's
- C. Toxic Work in Progress
 - 1) MCA toxicity studies
 - 2) MCA epidemiological studies
 - 3) Meaningfulness of work in progress.
(What questions will be answered or go unanswered.)
 - 4) Dow work in progress.

D. Assessment of the whole problem -

Review of vinyl chloride and PVC industry and how it relates to toxicity problem.

- 1) Production (U.S. and world)
 - a) Volume - past, present, future
 - b) Producers
 - c) Workers exposed - number
 - d) Exposure levels
- 2) Uses
 - a) PVC
 - i) Producers
 - ii) Uses and volume of each
 - iii) Number of workers
 - iv) Exposure levels
 - b) Copolymers
 - i) Uses and volume of each
 - ii) Number of workers
 - iii) Exposure level
 - c) Aerosol
 - i) Volume and use
 - ii) Exposure level in use
 - iii) Estimated number of people
 - d) Other
 - i) Intermediates

E. Recommendations for Action

- 1) Control
 - a) Discontinue use in aerosols
 - b) Lower TWA to ^{TLV 200} 50 ppm
(Reassess after work in progress is completed.)

2) Future Research

a) Toxicity studies (additional)

- i) Establish dose response for carcinogenic action. This will require large numbers of test animals in order to be statistically valid.
- ii) Determine mechanism of action
Investigate effect of high concentration of VCM on (-SH).
If (-SH) is reduced, then establish dose-response; then attempt to counteract by supplementation with (-SH).
(If action is as hypothesized, then strength of a no-effect concept is markedly enhanced.)

3) Establish working contact at NIOSH

Solicit NIOSH participation in whatever toxicology program is adopted. (Consultation, advice, support in whatever context seems more appropriate.)