

Manufacturing Chemists Association

Minutes of Meeting

VINYL CHLORIDE RESEARCH COORDINATORS

MCA Headquarters

October 12, 1976

Washington, D.C.

Chairman Torkelson convened the meeting at 2:00 p.m.
The record of attendance is:

MEMBERS PRESENT:

T. R. Torkelson, Chairman	The Dow Chemical Company
W. D. Harris	UNIROYAL, Inc.
M. N. Johnson	B. F. Goodrich Chemical Company
H. L. Kusnetz	Shell Oil Company
W. M. Smith	Air Products & Chemicals, Inc.
R. N. Wheeler	Union Carbide Corporation
M. Freifeld	MCA Staff

MEMBERS ABSENT:

Z. G. Bell, Jr.	PPG Industries, Inc.
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GUESTS PRESENT:

R. K. Hinderer	Ethyl Corporation
R. W. Laundrie	The General Tire & Rubber Company

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1. Minutes of Last Meeting

The minutes of the April 27 meeting were approved as distributed.

2. Finances

The statement of October 1, 1976 was review d by the Project Manager and a copy will be attached to the minutes of the Panel meeting of October 13.

3. Projects Completed or in Progress

3.1 Industrial BIO-TEST Laboratories, Inc.

We have been unable to obtain a draft of a final report although the work has been done for some time and both Dr. Torkelson and the Project Manager have requested one from IBT several times. It is recognized that IBT is under heavy pressure in defending their reputation. Also, there is some hesitancy about forcing a work product before they are ready and receiving a report put together in haste.

3.2 Equitable Environmental Health, Inc.

The final report has been in the hands of Research Coordinators only a few days which is not considered sufficient time to review it thoroughly. The delay came about because of a UPS strike and was not the fault of Equitable.

The most serious problem found with the report was the grouping of PVC plants in one category and all others in a second category when reporting causes of death. The latter apparently includes vinyl chloride monomer plants in combination with co-polymer polymerization plants and this is thought to be an unrealistic combination. In monomer plants the VC is usually entirely enclosed within the system and the worker exposure is minimal. Hence, it would be more logical to combine PVC with co-polymer plants and show monomer plants separately. The data in question is shown in table 5, page 13.

It was also felt the classification "all other certified causes" from the same table required further investigation. For example the question was raised whether connective tissue disorders were an important factor here. A related question is whether acroosteolysis progresses to malignancy.

In view of the short time Research Coordinators had for reviewing this report and the tentative conclusions about it, the following actions were decided on:

1. Project Manager to write Equitable reminding them both Dr. Torkelson and he had requested a draft of the report rather than a final version when they considered it ready.
2. Recommend to the Panel that this report not be accepted or distributed further until changes have been made.

5. Other U.S. and European Studies

Dr. Torkelson briefly reviewed the list of "other" projects he is aware of. As soon as he prepares a list of such VC projects and critical information about them, it will be distributed to the group.

Recently, Professor Maltoni released information about his inhalation studies at low VC exposure levels. It appeared to show even at 1 ppm there was an excess of tumors over controls. However, it is felt this data needs additional analysis and clarification. The study in question is being supported by European companies and The Society of the Plastics Industry. We have been informed that the SPI has notified the U.S. government agencies they thought should be aware of this development.

6. Revision of Safety Data Sheets

Mr. Nick Wheeler agreed to be Chairman of a work group on the captioned subject and to select members of the group to work with him.

7. Review of Government Regulations

No changes in OSHA regulations are anticipated.

Long awaited EPA regulations limiting emissions to 10 ppm are expected to be issued shortly. This figure is to remain as planned. However, Maltoni's new data will probably be taken into account by modifying the introduction to say that the regulation will be reviewed if additional information becomes available.

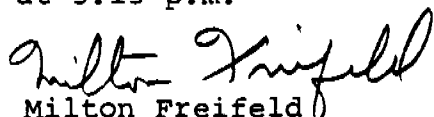
It has been reported that FDA plans to ban rigid and simirigid containers.

8. Next Meeting

This was set for November 30 at 9:00 a.m. in Washington, D.C.

The meeting was adjourned at 5:15 p.m.

MF:cc
Minutes Subject to Approval
November 2, 1976


Milton Freifeld
Project Manager
Vinyl Chloride Research

CMA 013999

3. The Research Coordinators should meet again soon after adequate time to review the report and discuss the items cited above plus any others that may arise. The time chosen for such a meeting was 9:00 a.m. on November 30.
4. The group agreed that names of supporting companies should appear on the fly leaf of the report.

3.3 Dow Studies

The teratology work has been done for some time and indeed the final report has been in the Panel's hands for several months. The Panel also has reports on metabolic work completed to date.

4. Planned Studies

4.1 Completion of Metabolism Work

All preliminary steps have been taken and an agreement with Dow can now be formalized. Dr. Torkelson mentioned informally that the work had actually been started.

4.2 University of Louisville

In this case also an agreement is being prepared for signature. It will cover only one year of a three year study and is expected to be effective as of September 1. In view of the lengthy lead time to arrange funding, early consideration of this matter was urged to insure continuity next September. The Project Manager informed the group that the proposal to support this work beyond the first year was presented to the Occupational Health Committee. By this route there is the ultimate possibility of getting MCA Board approval and thus, wide industry support. However, this is considered unlikely in view of the other projects the Occupational Health Committee is planning to present to the Board this year.

Another possibility mentioned was to suggest to the Chemical Industry Institute of Toxicology that they consider underwriting this project.

In order to be prepared for the eventuality, which now appears most likely, that the VC Panel will be asked to continue their support, it was suggested that Dr. Tamburro be invited to the next meeting probably in January, to give the Panel an oral report. It was felt his travel expenses should be reimbursed if he indeed comes at the Panel's request.

ATTENDANCE SHEET

CMA 014000 WMD

(PLEASE PRINT)

COMMITTEE: Karel Chloudek
Rebranch Coordinators

DATE: October 12, 1976

IF NOT PREVIOUSLY SUBMITTED FOR THIS COMMITTEE'S RECORDS,
PLEASE ALSO COMPLETE THE FOLLOWING:

R. or MR.	NAME	COMPANY	TITLE	ADDRESS	TELEPHONE NO.
	R.W. LAUNDRIE	GENERAL TIRE		ONE GENERAL ST AKRON, OH 44329	1-216-798-3327
	H. L. KUSNETZ	SHELL OIL			
DR	P K HINDERER	ETHYL	TOXICOLOGIST	451 FLORIDA ST BATON ROUGE, LA 70808	1-504-388-7856
	Mayo Smith	Air Products			
	W.D. Harris	Uniroyal, Inc.	Ind. Toxicologist	Oxford Mgt. & Res. Center Middlebury, Conn. 06749	1-203-573-2139
	R W WHEELER JR	UNION CARBIDE		PO BOX 8004 UNION CARBIDE CORP SOUTH CHARLESTON WVA 25303	304-717-2167
	T.R. TORRISON	THE DOW CHEMICAL CO			
	M N JOHNSON	BF Goodrich		500 So Main Akron, OH 44308	216-379-36

Manufacturing Chemists Association

Minutes of Meeting

TECHNICAL PANEL ON VINYL CHLORIDE RESEARCH

MCA Headquarters

October 13, 1976

Washington, D.C.

Chairman Torkelson convened the meeting at 10:00 a.m.
The record of attendance is:

MEMBERS PRESENT:

T. R. Torkelson, Chairman	The Dow Chemical Company
T. R. Aalto	Tenneco Chemicals, Inc.
F. C. Dehn	PPG Industries
(for Z. G. Bell, Jr.)	
A. W. Fuhrman	Great American Chemical Corporation
R. L. Gibson	Gulf Oil Corporation
W. D. Harris	UNIROYAL, In.
R. K. Hinderer	Ethyl Corporation
C. A. Johnson	The Goodyear Tire & Rubber Company
M. N. Johnson	B. F. Goodrich Company
F. Kennedy	Continental Oil Company
H. L. Kusnetz	Shell Oil Company
R. W. Laundrie	The General Tire & Rubber Company
R. O. Park	Firestone Plastics Co.
(for R. S. Brookman)	
H. L. Schmidt, Jr.	Borden Chemical
W. M. Smith	Air Products & Chemicals, Inc.
R. N. Wheeler	Union Carbide Corporation
M. Freifeld	MCA Staff

MEMBERS ABSENT:

R. J. Abramowitz	Hooker Chemicals & Plastics Corp.
B. W. Duck	British Petroleum Co. Ltd.
R. E. Eckardt	Exxon Corporation
J. E. Ertel	Robintech Incorporated
W. S. Ferguson	Allied Chemical Corporation
M. R. Gasque	Olin Corporation

J. G. Heil	Certain-Teed Products Corporation
S. K. Law	Keysor-Century Corporation
A. B. Lindquist	Stauffer Chemical Company
A. B. Magram	W. R. Grace & Co.
R. W. McBurney	Diamond Shamrock Corporation
G. Roush	Monsanto Company
H. A. Russell	The Pantasote Company
H. M. Zimmerman	Georgia-Pacific Corporation

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1. Minutes of Last Meeting

The minutes of the April 28 meeting were approved as distributed.

2. Finances

The Project Manager briefly reviewed the financial status as shown in the statement of October 1 attached.

3. Projects Completed or In Progress

3.1 Industrial BIO-TEST Laboratories, Inc. (IBT)

Despite concerted efforts by the Project Manager and Dr. Torkelson, we have been unable to obtain a draft of a final report from IBT. It is recognized that they currently face some serious problems, hence, there is hesitancy about applying so much pressure that a report is written in haste resulting in an inferior product.

3.2 Equitable Environmental Health, Inc.

Research Coordinators received copies of a final report only a day or two before their meeting the previous day. The report had been mailed considerably earlier by the contractor but delayed due to a UPS strike. At any rate, Research Coordinators felt they did not have sufficient time to study the report carefully and comment on it adequately.

Nevertheless, it was noted that a serious potential for misunderstanding existed in the way data was presented in Table 5 on page 13. In reporting causes of death the total was shown to be made up of "only PVC" plants and "other and mixed". The latter category includes monomer as well as copolymer plants. At monomer

facilities the VC is usually completely enclosed and worker exposure is extremely low. Hence, it would be more realistic to list these plants separately and combine copolymer plants with PVC if only two groups are to be shown.

In addition, it was felt further investigation was needed for the heading "all other certified causes". In particular, interest was expressed in determining whether connective tissue disorders were an important segment of this grouping. In this vein there was a question as to whether acroosteolysis progresses to malignancy.

The Panel accepted the Research Coordinators recommendation, without dissent, that the report not be distributed to the Panel or anyone else until necessary changes were made. These should obviously include not only the points cited above but any others the Research Coordinators noted following more intensive review. A meeting has been scheduled by the Research Coordinators for November 30 to further discuss this report. It was suggested that in the interim, Equitable be notified that we had expected a draft rather than a finished product, as previously agreed, and that we would contact them again after the Research Coordinators have listed their comment.

In the interest of saving time since additional funds may be required to make the changes desired in the report, the Panel voted without dissent to authorize the Research Coordinators to commit up to \$20,000.00 for this purpose contingent on management approval.

3.3 Dow Studies

The Panel has accepted reports on the completed teratology study and metabolic work done so far.

4. Planned Studies

4.1 Completion of Work on Metabolism

An Agreement between MCA and Dow to complete the metabolic studies is being readied for signature. Dr. Torkelson indicated that the work had actually been started.

4.2 University of Louisville (UL)

An Agreement is also in preparation with UL. It is

expected to be effective as of September 1 and will provide funds only for the first year of a three year study. Early consideration of continuing support was urged to insure continuity next September since such a long lead time is required to arrange funding. The Project Manager reported that in an attempt to obtain a wider industry base via MCA, the proposal to support the UL work beyond the first year was presented to the Occupational Health Committee. It is thought unlikely however, that broad MCA funding can be achieved this way since the Occupational Health Committee already has plans to present other projects to the Board this year.

Another possibility mentioned was to suggest to the Chemical Industry Institute of Toxicology that they consider underwriting this project. Dr. Torkelson is to pursue this.

It appears most likely at this point, that the VC Panel will be asked to continue their support although the above leads will be followed-up. In preparation for such possible action it was suggested that Dr. Tamburro be invited to give the Panel an oral report and that reimbursement for his travel expenses be offered. Hopefully, this can be scheduled for the next meeting, probably this coming January.

5. Other U.S. and European Studies

A listing of such projects including their key features, is being prepared by Dr. Torkelson and was reviewed by him. It will be distributed to the group when ready.

Information released recently by Professor Maltoni appeared to show excessive tumors compared to controls even at very low levels. The sponsors of this work, European companies and the Society for the Plastics Industry feel this data needs additional analysis and clarification. We have been informed that SPI has notified the concerned government agencies about Maltoni's findings.

6. Revision of Safety Data Sheet

There was general agreement that revision of this SDS should be undertaken and completed promptly. Mr. Nick Wheeler agreed to chair this group and select those who would work on it with him. The Panel voted unanimously in favor of this arrangement and suggested the first of the year as a target for

completing the task.

7. Review of Government Regulations

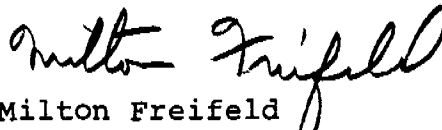
NIOSH is looking into Maltoni's data but no changes are anticipated in OSHA regulations at this time.

EPA regulations limiting emissions to 10 ppm are due to be published very shortly. This is the figure that has already passed agency review. It is expected that Maltoni's new data will be taken into account by modifying the introduction to the regulation by including provision for review as additional information becomes available.

8. Next Meeting

This is to be held at the discretion of the Chairman. A suitable meeting frequency was thought to be roughly three times per year.

The meeting was adjourned at 3:30 p.m.


Milton Freifeld
Project Manager
Vinyl Chloride Research

MF:ec
Minutes Subject to Approval
November 11, 1976

Manufacturing Chem. Association

VINYL CHLORIDE RESEARCH PROGRAM

Financial Statement - October 1, 1976

	Invoiced	Received	Research Contracts	DISBURSEMENTS				Balance on Contract
				Time	Travel	Misc.	Research Contracts	
1. <u>Epidemiology Study</u> Equitable Environmental Health	\$ 91,940	\$ 91,940						
(a) Health Study of VC Workers (6/13/73)			\$ 71,340				\$ 91,895	
(b) Adjustment/-Travel (8/16/73)			\$ 3,950					
(c) Adjustment/- Extension (3/12/74)			\$ 5,250					
(d) Retabulation of Data (7/13/74)			\$ 1,000					
(e) Study of Workers/ 4 plants (11/5/74)			\$ 10,350					
(f) Extended Epidem- iology Study (4/22/75)	\$ 52,597	\$ 52,597	\$ 32,000				\$ 28,764	\$ 3,236/1
2. <u>Chronic Inhalation Studies</u> Industrial BIO-TEST Labs	\$190,281	\$190,281						
(a) Original-Protocol (2/1/73)			\$149,000				\$130,375	\$18,625/1
(b) Additional Animals - 100 rats (5/22/73) (Restart-Agreement) (8/31/73)			\$ 15,000				\$ 10,000	\$ 5,000/1
(c) I B-T L Contract Adjustments	\$ 50,000	\$ 50,000						
(d) Holding 4 chambers for 14 weeks			\$ 7,840				\$ 7,840	
(e) Holding Animals beyond 2 years			\$ 1,610				\$ 1,610	
(f) Overrun			\$ 20,000				\$ 20,000	
<u>Dow Studies</u>	\$101,250	\$101,250						
(a) Metabolic			\$ 50,000				\$ 50,000	
(b) Teratology			\$ 20,000				\$ 20,000	
(c) Extension of Studies	\$149,990	\$149,990	\$154,090				\$154,090	
Total Disbursements:	\$532,700							
Balance on Hand:	\$103,358			\$14,532	\$2,665	\$929	\$514,574	\$26,861

Note: 1. Due Receipt of Final Report

4. <u>University of Louisville</u> <u>Diagnostic Study</u> 8/19/76	\$100,000	\$ 92,235						
5. <u>Dow Metabolic Study</u> 8/19/76	\$ 57,500	\$ 56,045						

CMA 014006

ATTENDANCE SHEET

(PLEASE PRINT)

COMMITTEE: Veget. Chemicals
Tobacco Board

DATE: October 3, 1971

IF NOT PREVIOUSLY SUBMITTED FOR THIS COMMITTEE'S RECORDS,
PLEASE ALSO COMPLETE THE FOLLOWING:

R. or MR	NAME	COMPANY	TITLE	ADDRESS	TELEPHONE NO.
Dr. ✓	T.R. Torkelson	The Dow Chemical Co	Occupational Health Assoc	2030 Dow Center Corp Med Dept	317 835-1354
MR ✓	H.L. Schmidt	Borden Chemical	-	-	-
Dr. ✓	W.O. Harris	Uniroyal, Inc.	Ind. Toxic	Uniroyal Mgt. & Res. Center Middlebury, Conn. 06770	207-573-2139
Dr. ✓	T.R. Harbo	Tenneco Chemicals	Mgr. Product Safety	P.O. Box 365 Piscataway, N.J. 08854	201-981-5176
✓	H.L. Kusnetz	Shell Oil			
✓	A.W. Fuhrman	GREAT AM. CHEM	V.P.	650 WATER ST FITCHBURG MASS 01420	617 343 6973
DR ✓	RR HINDERER	E.I. HYL	TOXICOLOGIST	451 FLORIDA ST BATON ROUGE, LA 70801	504-384-7456
Dr ✓	Henry Smith				

CHN 014007

ATTENDANCE SHEET

(PLEASE PRINT)

COMMITTEE:

Vincent J. ...
General Board

DATE:

November 11, 1976

IF NOT PREVIOUSLY SUBMITTED FOR THIS COMMITTEE'S RECORDS, PLEASE ALSO COMPLETE THE FOLLOWING:					
R. OF MR.	NAME	COMPANY	TITLE	ADDRESS	TELEPHONE NO.
DR ✓	FRED C. DEHN	PPG IND. INC	DIR. ENVIRONMENTAL AFFAIRS	ONE GATEWAY CENTER PITTSBURGH, PA 15222	(412) 434-2357
DR ✓	FLYNT KENNEDY	Continental Oil Company			
MR ✓	M. N. JOHNSON	BF Goodrich			
MR ✓	R. W. LAUNDRIE	UNION CARBIDE			
✓	R. W. LAUNDRIE	GENERAL TIRE			
MR ✓	C. A. ...	Goodyear	Asst. Dir. Health and Safety Services	Akron, Ohio	(216) 790-7676
MR ✓	B. D. ...	First Interstate &	Special Project Coordinator, Tel. Dept.		
DR ✓	E. L. Gibson	Gulf Oil Corp	Associate Marketing Director	2 Hammett Center Houston, TX 77001	713-226-3862

CMA 014008