

MCA VINYL CHLORIDE MEETING - March 21, 1979

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FL- PVC
Class

Present were: Ted Torkelson (Chrm. - Dow); John Stafford (ICI England); W. M. Busey (Exper. Pathology Labs., Herndon, VA - Consultant); Mike Utidjian (formerly at Equitable Environmental, now at Union Carbide); Maurie Johnson; Nick Wheeler; C. D. Kary; T. J. Benya; Kent Hatfield and one or two others whose names escaped me.

I. Brain Tumors

Dr. Utidjian filled us in on the brain tumor problem at Texas City. One of the workers who has a brain tumor brought the question to management's and OSHA's attention. There are now eleven cases mentioned of which only ten are legitimate. None seem to have been really exposed to VC. There are five cases at the nearby Monsanto plant and again VC does not seem to be the common denominator.

A meeting was held at Carbide's Texas City plant with Utidjian representing corporate management for Carbide, Wagoner and Alexander for OSHA and Leffingwell, Halperin and a Ms. Sullivan for NIOSH. The latter is a devout disciple of Wagoner who will soon be leaving NIOSH. It was agreed that work should proceed quietly with no need to publicize but the papers were full of it within 48 hours. It is doubtful that Carbide broke the silence.

A few facts are of interest:

- (1) None highly exposed to VC. They were mostly office workers, etc.
- (2) About half the cases have been examined histologically.
- (3) Not all are glioblastomas.
- (4) In spite of (1) above Wagoner is taking the stand that it is related to VC. He rationalizes this by saying that at higher levels those who are sensitive to VC get one of the other types which causes death before brain tumors develop enough to be noted.
- (5) None had angiosarcoma or acroosteolysis (not sure of this).
- (6) Carbide does not make or use acrylonitrile at Texas City but Monsanto does.

NIOSH wants to run a case control study. OSHA and NIOSH were meeting at the same time we were. It appears that there may be excesses in other plants in the area. It

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appears that Carbide has an excess.

They have 454 deaths.
Of which 110 had cancer.
If they have 10 primary brain tumors
And 2.16 would be the expected incidence
Then they have a 4-5x excess.

Wagoner is not only convinced VC is the cause but
he is also sure that all will turn out to be
glioblastomas.

The main problem here is that Wagoner has made up his
mind and Eula Bingham seems to listen to him. He is
prone to use the press to fan up an issue.

II. Industrial Bio-Test Study

Unfortunately, we never did receive a final report on the
large inhalation exposure study run by IBT. An audit
revealed that they never completed the histopathology,
but we are told tissues remain. I have in my files a
copy of a report of the tissues presumably available
yet at IBT for histological examination. It is not good
enough for further reproduction.

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We reviewed the various studies carried out to our
knowledge.

<u>Sponsor</u>	<u>Laboratory</u>	<u>Result (brain tumor only)</u>
NIEHS	Midwest Res. Inst.	Negative
European VC Ind.	Maltoni BTI	Excess brain tumors
EPA	U. of Cincinnati	Incomplete
CPSC	Edwood Arsenal	Not published
NIOSH	Hazleton	Aborted
NIEHS	NIEHS	Incomplete
European VC Ind.	CIVO (Ingestion of spiked resin)	Draft prepared
BIBRA	BIBRA 250, 25 and 2.5 ppm in water	Report nearing completion
IBT	MCA	3 of 6 brain tissues checked had tumors
Tabershaw-Cooper	MCA epidemiology	Some indication of excess brain tumors

John Stafford has a copy of the CIVO report which he was
not free to report. Although one would ordinarily
conclude that there was no significance with respect to
brain tumor incidence the data is such as to cloud the
issue.

Recognizing that the present administration of OSHA is readily convinced of carcinogenicity, we believe that we will be criticized severely if we do not examine tissues remaining from the IBT study and complete the report. Therefore, we have asked the audit committee to determine the details of what tissues are available and to report back what it would cost to read all brain tissues. We will take steps to insure that no remaining tissues are discarded.

III. PVC Related Pneumoconiosis

John Stafford reviewed a problem(?) which has been brewing in England.

There have been a few cases of pneumoconiosis (dusty lung) reported among French workers heavily exposed to PVC dust. Also an Italian union has had an epidemiological study of the Italian Solvay and Montedison plants. They claim a situation similar to the French. The plant doctors deny this. Only the British government seems concerned. Dr. Wagner of the British Medical Council has done work for the unions (especially the dock workers) who are concerned. He is trying to prove that PVC is like asbestos. The government wants to lower the PVC dust standard from 10 mg/M³ to 5. Industry opposes but is putting its efforts into minimizing exposure. The major PVC companies for the most part have TWA exposures down to 1-2 mg/M³. The government says it isn't worried about them - just their customers. We saw no need to do anything in the U.S. at this time beyond what we're already doing. My own feeling is that respiratory exposure to any dust should be minimized. If organic dusts which are hard for the macrophages to digest invade the bronchioles and alveoli, the macrophages flood in and engulf the particles but may not be able to digest them. Since the macrophages are relatively short lived, their breakdown in the alveoli can lead to digestion of the thin walls of the alveoli leading to emphysema, etc. This is theory, not proved.

Wheeler (U.C.) says they are beginning to feel pressure from suits by employees claiming PVC dust exposure related problems.

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IV. Epidemiology

- (1) Utidjian visited Equitable recently and says they are getting out of the epidemiology field. They have lost their competent people.
- (2) Falk at CDC has a paper in preparation which Maurie Johnson has reviewed which shows that at Goodrich's Louisville plant there were somewhat increased incidence of large clear cell tumors of the lungs. There seems to be an increase of these tumors among smokers at the expense of the usual smoking induced lung cancer. It didn't occur among those exposed to VC only but did occur among those exposed to PVC.
- (3) Waxweiler (NIOSH) would like to study PVC exposed workers. (He and Falk do not like Wagoner though Waxweiler worked with him.)

V. Question of Five Year Epidemiological Update

Equitable Environmental has the employee records from the previous study.

- (1) We agreed that we must at least explore the question of updating the study because of promises made to the government during the heat of 1974-5 period.
- (2) These records belong to the individual companies but could not easily be separated by company.
- (3) We will seek Equitable's agreement to give up the records when requested by MCA.
- (4) We will ask Gaffey (now at Stanford Research Inst.) and Tabershaw to submit proposals for an update study.
- (5) We will advise Equitable that both Tabershaw and Gaffey will have need to look at the records in order to submit a proposal. If we decide to have either make a study we will instruct Equitable to turn the records over to that party.

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- (6) Desirability of separating out those involved in dusty jobs, dispersion and emulsion PVC, by plant, etc. was discussed but no decision was reached.

VI. University of Louisville Studies

MCA is seeking support from the whole chemical industry since these studies go far beyond the PVC industry.

VII. Miscellaneous Items

- (1) The European groups are having difficulty getting data from Maltoni. He has now found angiosarcoma among control animals which raise problems in interpreting his very low VC exposure studies. He will attend this fall's Cold Spring Harbor symposium. He is presently in Vietnam on the dioxin problem.
- (2) There were no papers on VC at the recent Society of Toxicology meeting.
- (3) Solvay claims they are finding scleroderma among VC exposed workers in France.
- (4) Stafford says cases of acroosteolysis have been found "as late as 1969." I don't know now if he meant they started to work then and have just found it. There are also new cases in Spain. Dr. Kary says they (Shell) had one case in 1969 in Texas but it reverted.
- (5) There is one person in France who had acroosteolysis and also angiosarcoma. It was bound to happen.
- (6) A meeting is being held on March 22nd at SPI to decide whether SPI should publish a position paper on brain tumors. Torkelson is attending.

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W. D. Harris

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