

VOLUME II

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

C.A. No. 89-30201-F

ALICE L. WARREN, ADMINISTRATRIX
OF THE ESTATE OF JOHN H. WARREN,
DECEASED

vs.

THE DOW CHEMICAL COMPANY,
THE B.F. GOODRICH COMPANY,
WHITTAKER DEVELOPMENT CO.
(FORMERLY GREAT AMERICAN CHEMICAL
CORPORATION), UNION CARBIDE
COMPANY, AMERICAN CYANAMID
CORPORATION, AND CONTINENTAL
OIL COMPANY

CONTINUED DEPOSITION OF: RUTH G. GRIFFITH,
taken before Kathleen M. Houghton, Notary
Public, Stenographer, pursuant to the Federal
Rules of Civil Procedure, at the offices of
Robinson, Donovan, Madden & Barry, P.C., 1500
Main Street, Springfield, Massachusetts on
November 7, 1990, commencing at 10:00 a.m.

APPEARANCES:

(PLEASE SEE PAGE 2)

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Defendants Conoco, Union Carbide and Dow
Chemical.

BY: SHARON BURGER, ESQUIRE

1

INDEX

2

WITNESSDIRECTCROSSREDIRECTPE-CROSS

3

Ruth G. Griffith

5*

41**

136*

140**

4

5

6

* Rendini

7

** Burger

8

*** Minoff

9

10

11

12

13

EXHIBITS:DESCRIPTIONPAGE

14

15

16

17

18

19

20

21

22

23

S T I P U L A T I O N S

It is agreed by and between the parties that all objections, except as to the form of the question, are reserved to be raised at the time of trial for the first time.

It is further agreed by and between the parties that all motions to strike unresponsive answers are also reserved to be raised at the time of trial for the first time.

It is further agreed that the deponent will read and sign the deposition and that the sealing of the said deposition will be waived.

It is further agreed by and between the parties that notification to all parties of the receipt of the original deposition transcript is also hereby waived.

1 Ruth G. Griffith, the Deponent having been
2 previously sworn, deposes and says as follows:

3 CONTINUED DIRECT EXAMINATION BY MR. RENDINI

4 Q. Ms. Griffith, this is a continuation of
5 your deposition which was first taken -- which began
6 on May 9th, 1990. Do you understand yourself still
7 to be under oath?

8 A. Yes.

9 Q. Okay.

10 MR. MINOFF: Same stipulations
11 obviously as last time.

12 MR. RENDINI: Obviously.

13 Q. (By Mr. Rendini) Ms. Griffith, you said a
14 few minutes ago there was something you wanted to
15 clear up in terms of answers to -- from the previous
16 deposition?

17 A. Yes, I would like to correct one of my
18 responses. It appears on page 128 of the transcript,
19 9th line. Your question begins on the 9th line. The
20 question that begins: Have you ever made any claims
21 against Monsanto?

22 Q. Yes. Would you like to add something to
23 your answer or change something?

1 A. No. I would like to add something to my
2 answer and I would like to clarify. You asked the
3 question in two different ways and the operative
4 word, not -- as a layman for me is "claims."

5 "Have you ever made any claims against
6 Monsanto as a result of unsafe working conditions or
7 conditions which you feel threatened employee
8 health?"

9 And when I asked: "You mean personally,
10 my own health, or someone else's," you rephrased the
11 question: "You personally -- your health or someone
12 else's health -- have you ever made a formal or
13 informal complaint to Monsanto?"

14 Now, my answer: "My own health, no," is
15 in response to the question phrased using the word
16 "claims," which means to me a legal, you know,
17 something that's serious, written and way beyond the
18 word "complaint." That might not be a legal
19 distinction but to me the word "claims" means
20 something different. My response: "My own health,
21 no," is in response to the claims.

22 The correct answer, my corrected answer to
23 the second question: "Have you ever made a formal or

VOLUME II

1 informal complaint to Monsanto?" My own health, yes.
2 I've made complaints to Monsanto since -- from 1943
3 to 1982 on a regular basis.

4 Q. Are those complaints or were those
5 complaints all of the same nature or did they cover a
6 variety of different topics?

7 A. This involves health, safety and health.

8 Q. Okay. But did they -- Within the topic of
9 health, did they cover -- was it about one subject or
10 many different subjects?

11 A. No, mostly about inadequate ventilation
12 but involved several different chemicals and working
13 conditions.

14 Q. Can you describe these complaints or do
15 you remember any of them specifically?

16 A. I can describe the earlier one because
17 I'll never forget it. It was a long period where I
18 had headaches every day, which must have been in '44
19 or very close to that. I worked for many hours every
20 day on an open bench with ether and acetone, very
21 involved gravimetric tests.

22 I started going to the plant hospital to
23 get, not aspirin but whatever they were doling out

1 down there. And I think around the second week I saw
2 the doctor and he said, Well, if you have continual
3 headaches you should go to a doctor to take care of
4 it. And I was real irritated and I explained to him
5 exactly -- and I could find this in my medical
6 record. The only reason I got a headache was -- is
7 because of the job I was on and the job was
8 responsible for my headache. I didn't have any
9 headache outside of work and when I went out to get
10 fresh air even in a lab it disappeared. I said, If
11 you could improve the ventilation I wouldn't have
12 headaches. And then he asked me what I was working
13 on. The next day that operation was put inside of a
14 hood and my headaches disappeared.

15 Q. Did you have any complaints with regard to
16 health subsequent to that?

17 A. On the same problem of headaches?

18 Q. Well, on any health complaint, trying to
19 run through them sequentially?

20 A. Oh, yes. You see, one of the problems, we
21 were so well trained, we were spooked about the
22 dangers of everything we were working with,
23 principally, the fire hazards; however, not health

1 hazards, fire hazards. But most of us believed if we
2 got a headache or we got sick to our stomachs when we
3 were working with something that was the cause. We
4 associated one with the other whether it was true or
5 not.

6 So they hammered into us the dangers and
7 then when we confronted the dangers and suggested a
8 way of getting away from it, sometimes it was
9 resented but it was usually changed. If a remedy was
10 simple it was changed. It just needed pointing out
11 at the time. I can remember one about vinyl chloride
12 that occurred to me as I was reading this yesterday,
13 again, about ventilation.

14 As I mentioned before, we had to share a
15 downdraft hood with the men or the analyst who was
16 working on the vinyl chloride monomer and because
17 some of the excess monomer was poured on the screen,
18 the screen became clogged and up through towards the
19 motor became clogged through the ductwork. So the
20 draft was negligible. And other analysts who had to
21 work on that screen say with benzene or chloroform or
22 some other heavier-than-air solvents complained
23 because the hood wasn't operating right. So the

1 hood -- After a while the hood got cleaned out, had
2 to been cleaned out periodically or sometimes a cloth
3 put over the screen would obstruct it. I can
4 remember complaining about that several times.

5 Q. When was that?

6 A. It was in 3 Lab so that puts it before
7 '68.

8 Q. Can you describe for me the configuration
9 of the hood that you've been talking about?

10 A. It was a bench-top hood. It was designed
11 for heavier-than-air solvents, fumes. The working
12 area was a large screen. I think it was a sheet
13 metal frame and you worked on the hood and the
14 benzene or chloroform, whatever it was, from the
15 beakers would be pulled down through the screen and
16 from the exhaust they had extrusion through for out,
17 up to the top of the ductwork. It would be pulled
18 out up through the ductwork into the -- into the
19 Indian Orchard air.

20 Q. So the screen, in other words, formed your
21 work surface?

22 A. Yes.

23 Q. And the fumes were sucked out through the

1 screen?

2 A. Yes.

3 Q. And therefore away from you?

4 A. Yes. And it was about -- I don't know --
5 5 feet or 5 feet long.

6 Q. Okay. Now, you said before when you were
7 talking about the previous complaint that they
8 hammered the dangers of these various chemicals into
9 you?

10 A. Oh, yes, all the time.

11 Q. Who were you referring to?

12 A. Each department had safety meetings and I
13 think the lab was probably more conscious than any
14 other group because they worked with everything, not
15 only chemicals that were used in the plant but
16 re-agents, you know, that labs use. And it was so
17 easy to have an accident mixing them or something so
18 the lab really spent a lot of time trying to educate
19 the analyst who worked there.

20 Q. Now, aside from the one instance that
21 you've just described to me about vinyl chloride
22 monomer, did you ever make any other health
23 complaints that involved vinyl chloride monomer?

1 A. I may have when I got to 10 Lab, the new
2 lab, when we started doing monomer testing there
3 because the basement was so hot before they got the
4 air conditioning going the second year. But it
5 was -- it would have been a general -- I would have
6 to think about that. I probably -- We used to have a
7 safety log where people logged in suggestions or
8 complaints about specific safety hazards. In fact, I
9 started it.

10 Q. Where was that log kept?

11 A. In the 10 Lab.

12 Q. How recently?

13 A. Well, it started in '67 or so and went
14 just a couple years. It didn't last very long.

15 Q. Do you know if that log was maintained
16 anywhere?

17 A. No.

18 Q. Do you recall any other complaints either
19 by yourself or people that you knew complaining of
20 headache or nausea from exposure to chemicals?

21 A. You mean outside the lab?

22 Q. Anywhere really.

23 A. Yes.

1 Q. Okay.

2 A. Yes.

3 Q. Do you recall any of those incidents
4 specifically?

5 A. I recall being told of several occasions
6 where men had passed out inside the vinyl chloride
7 kettles. I remember one area mechanic, Bill Cook
8 Sr., who pulled out Jean Duprey, D-U-P-R-E-Y. That
9 was in the early fifties I think.

10 And then several other stories. I heard
11 most of these stories from Harold Williams who took
12 care of the safety problems over in that area. He
13 became the chief steward and he handled a lot of
14 safety complaints.

15 Q. So your knowledge about the difficulties
16 in the vinyl chloride kettles is from conversations
17 with Mr. Williams?

18 A. No, it's -- I heard that long before I
19 heard that from Harold. I heard it from his son I
20 think, Bill Cook, Jr.

21 Q. Okay. Bill Cook, Jr., is that his name?

22 A. Yes.

23 Q. And, of course, his father is the Bill

1 Cook, Sr. that you referred to before?

2 A. Yes. Bill Cook, Sr. is no longer living.
3 His son is retired.

4 Q. Do you know where the Jr. Mr. Cook is now
5 living?

6 A. He lives in I believe Belchertown. His
7 last Christmas card was from Belchertown.

8 Q. You wouldn't happen to have an address for
9 him, would you?

10 A. No. It's a box number I think.

11 Q. What about Mr. Williams, is he still
12 alive?

13 A. No, he isn't.

14 Q. Did you hear any stories about
15 difficulties with the kettles or men fainting in the
16 kettles from anyone else?

17 A. It seems to me every time you talked with
18 somebody who worked in that area you heard something
19 about someone being affected by it.

20 Q. Who were the individuals that you knew
21 that worked in that area?

22 A. Let's see. I have to look up a list of
23 people who worked there.

1 Q. Okay. If you --

2 A. (Interposing) Harold Murray was one of
3 them, Paul Cullinan, Vito Martea, M-A-R-T-E-A. Most
4 of them dead. Almost all of them are dead. Are you
5 looking for someone who is living?

6 Q. If there is anyone living.

7 MR. MINOFF: What area are we
8 talking about specifically?

9 THE WITNESS: Carl Rehm, R-E-H-M.

10 MR. RENDINI: Speaking about people
11 who worked in the kettles.

12 THE WITNESS: He was foreman of the
13 kettles.

14 Q. (By Mr. Rendini) Did you ever inspect the
15 kettles yourself?

16 A. Not really. The only time I remember
17 going into one of the kettles was -- was I think 92
18 and I just went in to the first floor.

19 I've seen kettles. If you've seen one
20 you've seen them all. And I saw the inside of 92
21 Building on TV. That's the first time I had ever
22 seen it. They had a news segment or a weekly series
23 on Monsanto and they included some shots inside. One

1 of them was inside 92 Building. It was the first
2 time I had ever been inside where the kettles are.

3 Q. Do you remember when that was, the
4 television --

5 A. I'd have to look it up. '79 maybe, I just
6 don't have a handle on that right date.

7 Q. Was this a local news report?

8 A. It was Channel 40. What are the call
9 letters? I can't remember the call letters.

10 MR. MINOFF: GGB?

11 THE WITNESS: GGB, yes.

12 By the way, 92 Building was used for two
13 entirely different processes.

14 Q. (By Mr. Rendini) Okay. I was just --
15 Thank you for reminding me. It was a question I was
16 thinking of asking.

17 A. Yes.

18 Q. I know we spoke in the last section about
19 the buildings you had seen and where the kettles were
20 located. Could you just refresh my memory, what
21 buildings were the kettles located?

22 A. The first one was 86 Building, then 88, 84
23 and 92.

1 Q. Now, during your employment were they
2 always located in all four buildings or did it change
3 over time?

4 A. It exchanged.

5 Q. How did it change?

6 A. Well, in the case of 86, which is the
7 first one, half of the building was polystyrene and
8 the other half was polychloride. And after they had
9 an explosion they hurried up building a separate
10 building for vinyl chloride, which was 88 Building.

11 Q. So when was the explosion if you recall?

12 A. '51 or '53, I forget which.

13 Q. Then Building 88 was built?

14 A. Yes, yes. I think they were about to
15 build it anyway or they were in the process but they
16 certainly hurried it up after that.

17 Q. So was Building 88 devoted entirely to the
18 VCM process?

19 A. Yes. And the others were also until PVC
20 closed. Then they converted 92 Building to what they
21 call barrier resins.

22 Q. So Building 88 came on board around 1953
23 or so?

1 A. Around there I would say.

2 Q. What about Buildings 84 and 92, when did
3 they start the VCM process in those buildings?

4 A. I would have to look that up. I don't
5 know. Around that same time I would say. 92
6 probably was the -- No, it was 84. 92 was the last
7 one I guess but it wasn't too many years after that.

8 Q. I believe we've mentioned Mr. Rehm's name
9 before but let me ask you this: Do you know where
10 he's located now?

11 A. He lives in Holyoke.

12 Q. Do you know his address?

13 A. No, I don't.

14 Q. Do you remember any other complaints of
15 any symptoms, be it fainting or headache or nausea,
16 involving VCM?

17 MR. MINOFF: From whom?

18 MR. RENDINI: Well, from anyone that
19 she knows.

20 MR. MINOFF: Complaints made to her
21 or to someone else?

22 MR. RENDINI: Okay. Well, let me --

23 MR. MINOFF: A little vague.

1 Q. (By Mr. Rendini) I mean the question to
2 be a broad one but the question is: Do you recall
3 ever hearing or ever being involved in an incident in
4 which there was a complaint of headache or nausea or
5 some other physical symptom because of physical
6 exposure to VCM other than the ones, of course, that
7 you've already described?

8 A. Well, I have my own. I got terrible
9 headaches when I was using the full face shield when
10 it was so hot in the basement. But all I did was
11 take it off and go away for a while and came back.

12 But I -- Every time I met somebody when I
13 was working in Saflex, which was 99 Building. During
14 my last ten years at Monsanto the building had
15 nothing to do with PVC but a lot of men who used to
16 work at PVC were transferred or bumped into jobs in
17 99 Building so we had practically half of the
18 population in 99 were ex-PVC workers. And it seems
19 every time we talked about working conditions,
20 whether it was 85 Building in processing or in the
21 kettles, somebody had a story about either somebody
22 passing out, getting high or getting sick. I mean
23 this was very -- this was common. I don't know

1 whether they were repeating the same single incident
2 but it seemed to me, getting it all at once, that it
3 was a common occurrence.

4 Q. Do you recall any specific person who told
5 you such a story?

6 A. I'd have to think about it. I'd have
7 to -- I can't recall. Some of the men I probably
8 didn't even know their names; we met in the smoking
9 rooms or something. Offhand, I can't picture any of
10 them specifically.

11 Q. During your employment at Monsanto did you
12 ever make any complaints about health affects caused
13 by exposure to any chemical other than vinyl chloride
14 monomer?

15 A. Probably.

16 Q. Do you remember such a complaint?

17 A. I can remember just one but there were
18 probably many of them that made me ill.

19 Q. Okay. What's the one you remember?

20 A. It was cresylic acid, C-R-E-S-Y-L-I-C, I
21 guess. My spelling isn't too good.

22 I was running a distillation range on it
23 and it went dry. And as I assembled -- disassembled

1 the apparatus I got a whiff of the fumes that were
2 left, just the fumes that were left on the bottom,
3 and it made my very ill. I had to go to the nurse's.

4 Q. When was that?

5 A. I don't -- I'd have to look it up. It's
6 in my medical record. A lot of the safety reports,
7 if you can remember them and you did report them, you
8 were supposed to report everything to the medical.
9 You weren't -- Now, even a headache, nausea, burn,
10 cut, anything. In fact, I know a man who got fired
11 because he didn't go. So that's a pretty good way of
12 checking updates. Offhand, I can't tell you. It was
13 in '67 maybe, around there.

14 Q. It was in the sixties sometime?

15 A. Yes, late sixties.

16 Q. Were you yourself exposed to any other
17 chemicals that caused you to have some sort of
18 painful or unpleasant symptom?

19 A. Many times, many chemicals.

20 Q. Do you recall any other specific instance?

21 A. DMF I remember. That's the last one I
22 remember, dimethyl formamide. That's the chemical I
23 was told was fetal toxic.

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1 Q. When did you come into contact with the
2 DMF?

3 A. The first time in 10 Lab before '70 but
4 the last time in Saflex Lab.

5 Q. What is the particular incident to which
6 you're referring?

7 A. I was use using it. We use to clean out
8 Fenske pipettes. It's a glass apparatus used to
9 pressure viscosities. And it spilled on the bench
10 and I got sick cleaning it up.

11 Q. Are you talking about nauseous?

12 A. Mm-hmm.

13 Q. About when did that occur?

14 A. Seventies, late seventies I would say.

15 Q. Do you recall any other such instances of
16 exposure that involved you personally?

17 A. There are so many. You ask anyone who
18 worked in the lab and there are just -- I couldn't
19 possibly recall all.

20 Q. Just the ones that actually stand out?

21 A. That is what I mean, yes.

22 Q. Are there any other -- Strike that.

23 Are there any others that stand out in

1 your mind? If there aren't, that's fine.

2 A. Well, I can remember quite a few but I
3 can't remember the name of the chemical. It was a
4 mercaptan (phonetic) something. I can't remember the
5 right name.

6 Q. All right. Do you ever remember any other
7 incidents that you witnessed involving someone else
8 in which there was a chemical exposure leading to
9 some physical symptom or sickness?

10 A. Yes. A man on a shift I was working on
11 passed out from fumes on, I think it was what they
12 call a bubble extruder.

13 Q. Do you recall what chemical was involved?

14 A. It was fumes from the PVC. No, wait. Was
15 it PVC then? No, it was styrene then, styrene of
16 some type.

17 Q. Do you remember who the man was?

18 A. His last name was Pittsley,
19 P-I-T-T-S-L-E-Y, Ralph.

20 Q. And do you remember what his job was?

21 A. He was same as mine, lab analyst.

22 Q. Do you recall where this incident
23 occurred?

1 A. It was the basement of 10 Lab. It was at
2 night.

3 Q. What was Mr. Pittsley doing at the time?

4 A. I'm not positive but I think he was
5 extruding polystyrene in what they call a bubble
6 extruder or some type of extruder. Either that or he
7 was extruding PVC. They did both down there.

8 Q. But you don't know which it was?

9 A. It was a very small lab-type extruder. I
10 just can't remember which product he was working on.
11 He normally worked on PVC but they had changed over.

12 Q. Do you remember approximately what year
13 this was?

14 A. Well, I was in 10 Lab so it had to be from
15 '65 to '70.

16 Q. Do you remember what happened to Mr.
17 Pittsley; was he given medical attention?

18 A. I think they called an ambulance finally.
19 In fact, I complained about the length of time it
20 took to get him attention.

21 Q. Was anything done to change the
22 conditions -- change working conditions because of
23 that incident?

1 A. I think there were some, yes. I think
2 there was some action.

3 Q. Do you know what that action consisted of?

4 A. I think they did a study. I can't
5 remember specifically. I guess he probably would
6 remember. I don't.

7 Q. Do you recall any other incidents that you
8 witnessed?

9 A. I can remember suggesting that people
10 go -- We were always told to go for a walk. I
11 remember that if we were getting woozy, I can
12 remember suggesting that to a couple of people who
13 looked like they were pale or gray or something but I
14 can't remember saying anything specific.

15 Q. Do you recall what caused you to say that
16 or what led up to their being pale and gray?

17 A. Usually it involved heat of some kind, if
18 I recall, sometime in the summertime where the
19 beginning of the fumes -- Well, the fumes were higher
20 in the summertime and I seemed to associate that.

21 Q. Do you recall any of these instances
22 specifically?

23 A. Not offhand. If I thought about it long

1 enough I probably could.

2 Q. All right. Ms. Griffith, it would seem so
3 from some of the previous answers but let me ask you
4 the question: Have you read through the transcript
5 of the previous session of this deposition?

6 A. Yes, I did yesterday.

7 Q. And do you recall the exhibits we referred
8 to in the previous deposition?

9 A. Mm-hmm.

10 Q. I'm going to call your attention again to
11 Exhibit Number 5 and especially the xerox pages of
12 your notebook. Do you recall that?

13 A. Yes, I do.

14 Q. All right.

15 MS. BURGER: You are referring to
16 the 13th page of that exhibit.

17 MR. RENDINI: Is this the 13th page,
18 okay.

19 Q. (By Mr. Rendini) Referring now to the
20 13th page of that exhibit in which on the left-hand
21 side of the page, those are some notes that we've
22 spoken about before, correct?

23 A. Yes, we have.

1 Q. And those are your notes, are they not?

2 A. Yes.

3 MR. MINOFF: Just hold on for a
4 second.

5 MR. RENDINI: Sure. (Pause)

6 Q. (By Mr. Rendini) Now, we have here, as we
7 discussed in the previous session, several names such
8 as Dow and Conco and what's the third name there?

9 A. Goodrich.

10 Q. Okay. We have several names followed by
11 numbers, correct?

12 A. Mm-hmm.

13 Q. And just so that it's very clear on the
14 record, could you tell me again where you got the
15 information that you recorded in your notes here?

16 A. That information came from individual data
17 sheets in the East Control Lab that had been filled
18 out by an analyst testing vinyl chloride monomer.

19 Q. And when did you go to those data sheets?

20 A. Well, it must have been '81.

21 Q. And the data sheets were kept where?

22 A. In the East Control Lab which was then in
23 10 Building.

1 Q. And were they kept in any sort of volume
2 or box or how were they kept?

3 A. At that time they had changed the format
4 to large, you know, regular letter-size pages that
5 were pink, from the small data books that were about
6 that size. (Indicating)

7 Q. The size of the "Faith Hope & \$5,000"
8 book?

9 A. Yes. It seems to me at the time I started
10 testing we were using these data sheets and then I
11 did get this information from the data sheet, '68.

12 Q. So the information that's on page 13 of
13 Exhibit 5 is from a data sheet?

14 A. Yes, whether it was in that form or on the
15 pink sheet, yes.

16 Q. And those data sheets were kept in the
17 East Lab?

18 A. Yes.

19 Q. And this was in 1981 that you went and you
20 made these notes?

21 A. Yes.

22 Q. Now, as I understand it, the data sheets
23 themselves were drawn from tags that were put on the

1 bombs?

2 A. Yes, yes. The identification that was on
3 the data sheet was from the tag.

4 Q. And the data sheets were created by the
5 analysts, lab analysts?

6 A. Yes.

7 Q. And at one time you were a lab analyst,
8 correct?

9 A. Yes.

10 Q. But do you have any way of knowing that
11 the notes you took from the data sheets that you took
12 from 1981 were taken from a data sheet that you had
13 created?

14 A. I don't think any of them were other than
15 the first entry which was "Earliest RGG VCM test in
16 file, April 26, 1968 or '69."

17 Q. And that refers to, what is an "RGG"?

18 A. That is Ruth Gladys Griffith.

19 Q. I see. So that refers to a --

20 A. (Interposing) That was the earliest one I
21 could find on the data sheets.

22 Q. So that was a data sheet that you yourself
23 had created?

1 A. Yes.

2 Q. The data sheet in which you got the
3 information that you recorded as "Dow, Conco and
4 Goodrich"?

5 A. Mm-hmm.

6 Q. Were those data sheets that you yourself
7 had created?

8 A. No, it was not my writing.

9 Q. So those are drawn from different data
10 sheets also?

11 A. Yes, they were all different data sheets.

12 Q. And data sheets that you had not created?

13 A. None of mine.

14 Q. What was your understanding of what the
15 words -- of what the word "Dow" meant?

16 A. The supplier.

17 Q. What was the function of a data sheet?

18 A. To identify the sample and the test
19 results.

20 Q. And the function of the -- Strike that.

21 And the information of the data sheet came
22 from the tags that were affixed to the bombs,
23 correct?

1 A. Yes.

2 Q. Who prepared the tags on the bombs?

3 A. The tank farm operator.

4 Q. Okay. So no lab analyst prepared the
5 tags?

6 A. No.

7 Q. Was it the normal practice to have the
8 name of the supplier on the tag?

9 A. Not in my experience, until later when
10 Texas City no longer supplied Monsanto in
11 Springfield.

12 Q. Do you recall when that was?

13 A. Well, it was around the time I was testing
14 vinyl chloride monomer.

15 Q. So at around the time you were testing
16 Texas City stopped supplying?

17 A. It might have stopped before, I just
18 wasn't that knowledgeable about it.

19 Q. Mm-hmm. But at the time you were testing
20 did you test any VCM that came from Texas City?

21 A. I -- Well, you mean, all I would know --
22 It wasn't marked Texas City. All I would know is if
23 it was an MONX or, as I said before, a GATX, I

1 assumed was Monsanto.

2 Q. Now, the letters you are referring to --

3 A. (Interposing) They were tank car
4 designations.

5 Q. Tank car designations?

6 A. On the tag, yes.

7 Q. But why did you assume that they came from
8 Monsanto if they had those letter designations?

9 A. MON sounded like Monsanto and GATX was
10 common enough that I thought so I just really didn't
11 think about it before I was told that Monsanto was
12 looking for other suppliers and we might get other
13 suppliers to test.

14 Q. Do you remember when you were told that?

15 A. It had to be the time that I was actually
16 in that group on 3 to 11 so it had to be after '68 or
17 after '67, somewhere around there when I went back on
18 shifts.

19 Q. So am I correct in interpreting what
20 you've told me that at sometime toward 1968 Monsanto
21 began, at least from what you understood, to have
22 different suppliers?

23 MR. MINOFF: Objection.

1 MR. RENDINI: Strike that question.
2 That's a bad question.

3 Q. (By Mr. Rendini) Did you understand
4 starting sometime around 1968 that Monsanto was
5 looking for other suppliers?

6 A. Yes.

7 Q. And you understood that because of
8 conversations you had had with people in the plant?

9 A. Yes.

10 Q. Was it ever the function of the tags to
11 identify the suppliers?

12 A. I don't think specifically in the lab. We
13 just had to have some identification for the sample
14 we received. The supplier designation was up to the
15 tank farm operator or his boss, how they wanted it
16 identified.

17 Q. So there was no reason why the lab had to
18 know who the supplier was?

19 A. No, none whatsoever.

20 Q. Was it unusual to see a supplier
21 designated on a tag?

22 A. In my past experience it was but I didn't
23 know at the time until I talked with Joe Zalewa that

1 he was aware of other suppliers many years before
2 that.

3 Q. When did you have that conversation with
4 Mr. Zalewa?

5 A. This was after I retired during the
6 Cullinan case I talked with him.

7 Q. At the time you were testing vinyl
8 chloride monomer in the lab during that time period
9 when testing was part of your function, was it ever
10 the function of the tags to designate suppliers?

11 A. Just tank car number.

12 Q. Now, with respect to the data sheets that
13 you drew the information from here in your notes and
14 on Exhibit 5, there were words that you understood as
15 indicating suppliers, correct?

16 A. Definitely, yes. I wouldn't have known
17 that tank car was Dow, for instance, unless it was on
18 the data sheet.

19 Q. Now, you no longer have those data sheets,
20 do you?

21 A. No.

22 Q. All you have is the notes?

23 A. Y s.

1 Q. When you went back to extract this
2 information from those data sheets did it surprise
3 you to see the name "Dow"?

4 A. It pleased me because it confirmed what I
5 had been told.

6 Q. Was it -- Did you find it unusual that you
7 saw something that to you meant a supplier?

8 A. Not for that time, no.

9 Q. At what time --

10 A. (Interposing) It would have been unusual
11 I think before that time.

12 Q. I see. So and what was the time when you
13 saw -- when the data sheet with the word "Dow" on it
14 was created?

15 A. Well, it was -- I associated it probably
16 wrongly with the period when Monsanto was using other
17 suppliers or looking for other suppliers.

18 Q. Why do you say "probably wrongly"?

19 A. Well, I just assumed that when I was told
20 it had something to do with the designation on the
21 tag for the first time.

22 Q. Okay. Looking at your notes here, is
23 there a date next to the number that's next to the

1 word "Dow"?

2 A. Yes.

3 Q. What is that date; where did you get that
4 date?

5 A. The date is the date the analyst had put
6 on the data sheet, that was the date he tested the
7 sample.

8 Q. Is that the same for all these entries
9 here, that the date came from the data sheet?

10 A. Yes.

11 Q. At the time of these dates, which are all
12 in 1968 --

13 MS. BURGER: Objection. You ought
14 to look. They aren't all 1968.

15 MR. RENDINI: Okay.

16 THE WITNESS: The confusion about
17 the first entry, as I recollect, '68 or '69 is
18 because on the data sheet my eight sometimes look
19 like nine. I'm almost positive that's an eight but
20 it really could be confused with a nine on the data
21 sheet that I copied it from.

22 Q. (By Mr. Rendini) Let's refer to the
23 entries which begin, "Dow, Conco, Goodrich." Are you

1 certain that the dates that you recorded were all
2 1968 for those?

3 A. Yes.

4 Q. Referring to those three entries, at the
5 time of those three entries was it the usual practice
6 for such a name as Dow, Conco or Goodrich to be
7 recorded on the data sheets?

8 A. I don't honestly -- I can't answer that
9 question because I didn't -- I would just notice the
10 ones probably I was testing.

11 Q. Did you -- When you went back to look at
12 the data sheets did you notice if it was the usual
13 practice for the data sheets generated in 1968 to
14 have such a name?

15 A. Well, as I was saying, in my experience it
16 would have been unusual but then I didn't -- I didn't
17 find any that I had tested that were identified this
18 way.

19 Q. Now, just a few minutes ago you referred
20 to Mr. Joe Zalewa?

21 A. Yes.

22 Q. And after you retired you had certain
23 questions for Mr. Zalewa?

1 A. Yes, I did.

2 Q. And you talked about suppliers of VCM to
3 the Indian Orchard plant?

4 A. Yes, I did.

5 Q. And what did he tell you in those
6 conversations?

7 A. Well, he remembered several suppliers not
8 just from the time period that I was talking about,
9 the '68 period but he remembered them all through the
10 time he was testing them and he identified them by
11 their tank car designation.

12 Q. What suppliers did he remember?

13 A. He remembered Goodrich, Union Carbide and
14 I don't remember that he mentioned Dow. I'd have to
15 look up my notes but those two he remembered. And I
16 asked him if he could tell me when he remembered
17 testing them and he said almost as far back as he had
18 been testing raw materials, which would be in the
19 1950's.

20 Q. All right. Did you have your conversation
21 with Mr. Zalewa before or after you created the notes
22 here in Exhibit 13? (sic)

23 A. Oh, a long, long time after. It didn't

1 occur to me to ask people those questions at that
2 time when I was doing that.

3 Q. And you are referring to the notes?

4 A. To the notes, yes.

5 Q. Other than the data sheet that you saw and
6 from which you recorded these notes and your
7 conversation with Mr. Zalewa, do you have any other
8 reason to believe that Goodrich might have
9 supplied -- and by -- Strike that question.

10 Other than your conversation with Mr.
11 Zalewa and other than on the data sheets you referred
12 to in creating the notes in Exhibit 5, do you have
13 any other reason to believe that B.F. Goodrich
14 supplied vinyl chloride monomer to the Indian Orchard
15 plant?

16 A. It seems to me I talked to another analyst
17 who gave me Goodrich. I can't remember, I talked to
18 so many. I'm positive Joe's not the only one who I
19 talked to who gave me Goodrich.

20 Q. Do you remember anyone also that you
21 talked to?

22 A. It might have been a tank farm operator, I
23 just can't remember. It might have been Harold or

1 Carl Rehm. I just can't remember who it was. I
2 would have to check my notes to see.

3 Q. Well, aside from conversation -- Do you
4 have other notes? Strike that.

5 Do you have other notes that you have not
6 produced?

7 A. Well, they are all in the Cullinan case.
8 I wouldn't have anything since the Cullinan.

9 Q. Aside from your conversations with
10 whomever, be it other tank farm operators or lab
11 analysts or Mr. Zalewa, and aside from the data
12 sheets that you drew your notes from, do you have any
13 other reason to believe that B.F. Goodrich was a
14 supplier?

15 A. Well, it had occurred to me not too long
16 ago that the tank car designation GATX might be
17 Goodrich but it just began with a G or it might be
18 General Aniline or whatever but that's just a theory
19 I have. I have no -- When Joe told me he remembered
20 Goodrich he didn't tell me Goodrich was GATX, I don't
21 think. Now, he might have. My understanding, to
22 me -- and I have forgotten -- but that's the only
23 other connection I have that the possibility that

1 that might be the designation.

2 Q. Mr. Zalewa, do you know where he is
3 currently living?

4 A. He died two years ago.

5 MR. RENDINI: I have no more.

6 MS. BURGER: Do you need to take a
7 break before we go any further?

8 THE WITNESS: Yes.

9 (A recess was taken.)

10 *****

11 CROSS EXAMINATION BY MS. BURGER

12 Q. Ms. Griffith, although I've been sitting
13 here today and was here on May 9th, let me take a
14 moment to formally introduce myself to you. I am
15 Sharon Burger and I represent three of the defendants
16 in this lawsuit, Union Carbide Chemical and Plastics,
17 Conoco Chemical and the Dow Chemical Company. I know
18 I've heard this but if you don't understand anything
19 that I've asked you, please ask me to rephrase it and
20 I will do my best to ask you a question you do
21 understand. And if you need a break or anything just
22 let us know and we'll be happy to accommodate you.

23 We were delayed, Ms. Griffith, in getting

1 this deposition going because recently you had an
2 injury to your wrist. Is it your left wrist?

3 A. Wrist, mm-hmm.

4 Q. I just wonder, are you presently on any
5 medication because of your injury?

6 A. No.

7 Q. Are you on any medication for any other
8 reason?

9 A. Yes, you know, for a chronic problem, has
10 nothing to do with my wrist, no pain medication.

11 Q. What type of medication is it?

12 A. Thyroid.

13 Q. What is the name of it, of the medication?

14 A. Synthroid.

15 Q. Do you take that daily?

16 A. I'd rather not answer questions about my
17 health if it doesn't have anything to do with my
18 presence here.

19 Q. Do you know if that medication has any
20 affect on your memory at all?

21 A. No, I don't know.

22 Q. The reason -- and I don't mean to be
23 unnecessarily personal --

1 A. (Interposing) If it's affected my memory
2 it would have affected my memory for eight or nine
3 years. I've been taking it that long.

4 Q. Are you on any other medication?

5 A. No, I'm not.

6 Q. Okay. Ms. Griffith, you've been asked a
7 lot of questions about your notes that are the 13th
8 page of Exhibit 5 and I will ask you some more
9 questions about that if I may. Do you have that in
10 front of you now?

11 A. Yes.

12 Q. Did you go back to the data book -- Is
13 that the right word for it?

14 A. Yes.

15 Q. So you went back to a data book in 1981 or
16 1982?

17 A. Yes. I'm not sure if it was '81 or '82.
18 Oh, shortly before I retired.

19 Q. And the purpose for which you went back
20 was to determine when you personally had first been
21 exposed to, amongst other chemicals, VCM?

22 A. Yes.

23 Q. And the specific reason you wanted to do

1 that at that time in 1981 or 1982 was because
2 Monsanto had listed chemicals to which you had been
3 exposed but excluded, among others, VCM from the
4 list?

5 A. That's correct.

6 Q. And you, being confident that you had
7 tested VCM, wanted to check that out?

8 A. Yes.

9 Q. When you proceeded to do your search, did
10 you have to ask anybody at Monsanto for permission to
11 examine the data books?

12 A. No.

13 Q. Did you at that time have personal access
14 to the data books?

15 A. Anyone in the lab did, yes.

16 Q. So you did?

17 A. Yes.

18 Q. You were still employed then?

19 A. Yes.

20 Q. Where did you go within East Lab
21 physically to get these data books that you examined?

22 A. It was the first floor of 10 Building lab.

23 Q. And was that the ordinary place in which

1 you would find stored data books?

2 A. Yes. Well, I correct that, not stored
3 really. They weren't very old. The storage area was
4 in the storeroom. This was the lab itself, a part of
5 the lab that had recently stored data books. I
6 didn't go into the storage area.

7 Q. So the place that you went was in the
8 basement of 10 Lab.

9 A. No, no.

10 Q. First floor?

11 A. First floor.

12 Q. When you went into the first floor of 10
13 Lab you were able to get books that had not been
14 moved off-site into storage?

15 A. Yes.

16 Q. And you said they were recent data books,
17 correct?

18 A. Well, fairly. They would just store them
19 until they did not have anymore room over the bench
20 tops. They were stored over the bench tops and I
21 don't know, I didn't notice how long they had been
22 stored there.

23 Q. Were they stored alphabetically?

1 A. I think they were stored by group maybe,
2 like raw material group would have their storage area
3 and resinenes would have theirs. It's not clear in
4 my mind.

5 Q. In what category or area did you search
6 for the VCM data books?

7 A. Vinyl chloride monomer.

8 Q. Is vinyl chloride monomer a category of
9 its own?

10 A. I would have found it under the raw
11 materials section of data books.

12 Q. The data books containing information
13 about VCM contained data about no other chemical; is
14 that right?

15 A. That's correct.

16 Q. Did you have in mind before you began your
17 search a year in time that you wanted to begin your
18 search?

19 A. I don't recall how I did it.

20 Q. Do you recall what year you started your
21 search with?

22 A. No, I don't.

23 Q. Do you recall whether you started at an

1 earlier year and moved forward in time?

2 A. Well, if I had been thinking properly I
3 would have started with an earlier time. I don't
4 know whether I did or not, I just don't recall.

5 Q. Were you specifically looking for your
6 earliest exposure?

7 A. I was.

8 Q. Were you concerned with any subsequent
9 exposure you may have had?

10 A. I probably was looking -- Also, it
11 occurred to me at the same time I could find out
12 about other suppliers, which was another question we
13 had, another question at the same time.

14 Q. Well, when you say, another question that
15 we had, who was the "we" to which you refer?

16 A. Well, the group of us that was concerned
17 about people who were dying.

18 Q. Who is the group to whom you are
19 referring?

20 A. The KOSHA.

21 Q. Who are the people in KOSHA to whom you
22 refer?

23 A. The people like me that were just

1 interested people.

2 Q. Ms. Griffith, what are their names?

3 A. I can't tell you who the names are because
4 I'm the only one who knows who KOSHA is and part of
5 our agreement was that no one would of ever be
6 identified and our agreement was that no one would
7 ever be identified.

8 Q. You understand that you are under oath?

9 A. I'm not lying to you. I'm telling you
10 what I promised, that I wouldn't reveal the source of
11 my information and I have never broken my promise.

12 Q. So you are refusing now to tell me --

13 A. (Interposing) No, I'm not refusing.

14 Q. Wait a minute. Let me finish my question,
15 please.

16 Are you refusing now to identify the
17 people other than yourself who are associated with
18 KOSHA?

19 A. I can't do it.

20 Q. So you are refusing to answer?

21 A. No, I'm not refusing. It just is an
22 impossibility for me to do it. I'm not refusing.

23 Q. Why is it an impossibility?

1 A. I've given names freely whenever I was
2 asked of people who I contacted. I've answered every
3 question so far that has been asked me, who gave me
4 the information, who I found, who told me this. I
5 have not refused to answer one specific question or
6 give names that I could remember but I can't answer
7 your question. I can't. It is a physical
8 impossibility for me to answer that question.

9 Q. It is a physical impossibility?

10 A. Yes, it is just an impossibility for me to
11 answer the question.

12 Q. Ms. Griffith, what is the physical
13 restraint?

14 A. Will you ask the question again?

15 Q. Yes.

16 Please identify the names of the
17 individuals other than yourself who were or are
18 associated with KOSHA?

19 A. There are no members of KOSHA. There are
20 no associates of KOSHA. There are sympathizers and
21 people who I worked with, who helped me, so I can't
22 identify specifically because I listen carefully to
23 your question and I just can't answer it.

1 Q. Ms. Griffith --

2 A. (Interposing) I don't know of any such
3 people.

4 Q. Ms. Griffith?

5 A. Yes.

6 Q. Earlier when I asked you essentially the
7 purpose for your search, you said we were also
8 interested in determining other suppliers of VCM or
9 something to that effect; do you remember that
10 testimony?

11 A. Yes, I do.

12 Q. And I asked you who "we" referred to; do
13 you remember that question?

14 A. Yes. I was using an editorial "we." I
15 always speak of KOSHA as we.

16 Q. So at that point you were speaking only of
17 yourself?

18 A. Yes.

19 Q. And your testimony here is that there are
20 no other people who you can identify as being in any
21 way associated with KOSHA?

22 A. Not -- sympathetic, helpful, helpmates,
23 interested, caring.

1 Q. Where did the name --

2 A. (Interposing) But not associates. I mean
3 no way -- You are trying to get me to do something
4 that's an impossibility because there were no
5 associates, no members.

6 Q. Where did the name KOSHA come from?

7 A. I don't even remember that really.

8 Q. Did you create the name?

9 A. I did and I can't remember. It seems to
10 me it was to distinguish it from OSHA.

11 Q. Did you publish the name any place?

12 A. I used the name several times in
13 correspondence.

14 Q. In correspondence with whom?

15 A. Oh, whoever I happen to be writing to, a
16 lot of different people. NIOSH I think was the
17 earliest.

18 Q. Who were the people who were sympathizers
19 of KOSHA?

20 A. You mean who worked at Monsanto?

21 Q. No, I mean anyone who you would identify
22 as a sympathizer of KOSHA.

23 MR. MINOFF: What time period?

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1 MS. BURGER: Any time period that
2 KOSHA existed.

3 THE WITNESS: I can't remember now
4 who the first ones were. These names are people who
5 assisted in anything that we were interested in as
6 KOSHA.

7 Q. (By Ms. Burger) "We" being you?

8 A. "We" editorial, KOSHA was interested in.
9 "We" meaning I was doing it because I was concerned
10 and I couldn't do it alone. There were some things
11 that I just could not do alone and I got help from
12 people like Harold Williams, who is not a member of
13 KOSHA, never was.

14 Q. Well, you've testified that there are no
15 members of KOSHA, correct?

16 A. No members. So in your question to me I
17 cannot --

18 Q. (Interposing) Hold on. There is no
19 question.

20 There are no members of KOSHA?

21 A. No, never.

22 Q. You have used the word sympathizer to me
23 and I would like to know who the sympathizers were?

1 MR. MINOFF: I believe she was
2 continuing to answer that question.

3 THE WITNESS: Harold Williams.

4 Q. (By Ms. Burger) Is there any other person
5 besides Harold Williams that you can identify?

6 A. There are dozens of them. I don't have a
7 list of people. They change. Most of them, in fact,
8 almost all of them are dead.

9 Q. Ms. Griffith, would you do me the favor of
10 letting me finish the question, primarily so that the
11 court reporter can get it?

12 A. I thought you finished the question.

13 Q. Are you able to identify by name any
14 sympathizers of KOSHA other than Harold Williams?

15 A. I am able to.

16 Q. Will you do that?

17 A. May I have a word with you?

18 MR. MINOFF: Sure.

19 (A recess was taken.)

20 MS. BURGER: Would you read the last
21 question?

22 (Reporter read back as
23 requested.)

1 MR. MINOFF: I think the question
2 is: Will you do that? Ruth?

3 THE WITNESS: I don't want to
4 prolong this anymore than I have to. I know your
5 time is valuable too and mine certainly is but there
6 are several points that I'd like to stress:

7 Number one, it is true that information I
8 received from some people was received on the
9 condition that they be anonymous.

10 Number two, I cannot at this time recall
11 even probably one-hundredth of the people you asked
12 for, namely, sympathizers of KOSHA. To single out a
13 few people among those hundred is not fair, whether
14 they are dead or alive except Harold Williams. I
15 think he'd like to be singled out. I think he'd like
16 to be remembered in that way.

17 Number three, I am concerned about the
18 well being of people who are still employed at
19 Monsanto. I am concerned about people worried about
20 their pensions from Monsanto and I would do
21 absolutely nothing to increase their worry or
22 anxiety, whether it is real or imagined. And naming
23 a few people out of hundreds of people would do that

1 or it might do that.

2 I am also not impressed with your need to
3 know. I don't understand what this has to do with
4 John Warren. So I have answered specific questions
5 about vinyl chloride and the people that gave me
6 information about vinyl chloride. I've given
7 addresses. If you go through and pick out the names
8 that appear in the deposition of May and this
9 morning, those would be probably the sympathizers of
10 KOSHA. I cannot rattle off names because I just
11 don't have those names in my head. I would have to
12 sit down and think very, very carefully and what I
13 came up with -- Say you gave me ten minutes to come
14 up with a list, if I came up with a list they would
15 be a small list and their importance would be
16 exaggerated because they are only the ones that I
17 spoke with maybe recently or had something to do with
18 this particular case. So I think the question is
19 very unfair and I don't see a need for it.

20 If you insist that I answer it, I would
21 say I cannot answer it as I told you before. I
22 cannot physically answer the question. I cannot give
23 you sympathizers, all the sympathizers. And there

1 are other sympathizers of KOSHA who are not
2 affiliated with Monsanto that I don't even know --
3 whose names I don't even know. There are other
4 sympathizers that I have never known that did so, so
5 that I don't even know who they are.

6 If you would like to rephrase the question
7 I might be able to answer it. Your question said
8 sympathizers of KOSHA. I cannot answer that
9 question. I do not know the answer to that, fully,
10 to that question.

11 Q. (By Ms. Burger) Ms. Griffith,
12 respectfully, I would ask that your answer that
13 you've just given be stricken because it wasn't
14 responsive to the simple question of will you
15 identify people or whatever the precise question was
16 which was very limited.

17 MR. RENDINI: If you are making a
18 motion to strike, I join.

19 MR. MINOFF: They have been reserved
20 and I think she's answered your question and more.

21 MS. BURGER: The question was will
22 you do that.

23 MR. MINOFF: I think the answer is

1 no, unless Ms. Griffith has a different answer.

2 Q. (By Ms. Burger) I gather the answer to
3 will you do that is no, Ms. Griffith?

4 A. The answer is I cannot. I told you I
5 couldn't. I do not have that information in my head
6 at this time.

7 Q. You've just spoken for approximately ten
8 minutes with Mr. Minoff in the hallway about this
9 issue, correct?

10 A. I didn't notice how long it was.

11 Q. You just had a conversation with him?

12 A. Yes, I did.

13 Q. Out in the hall?

14 A. Yes.

15 Q. Does Mr. Minoff represent you in any
16 capacity?

17 A. No, he does not.

18 Q. Would you tell us generally what your
19 conversation with Mr. Minoff was?

20 A. About your question.

21 Q. And what was your conversation; what did
22 you say and what did he say?

23 A. Do you have a tape recorder on you?

1 MR. MINOFF: She's just asking you
2 for your best memory, Ruth.

3 THE WITNESS: I told Mr. Minoff
4 approximately, not in the order that I just gave to
5 you, what I just said what my reservations were,
6 especially since I had promised in some cases
7 anonymity. I also did not understand what this had
8 to do with John Warren's death and since the
9 connection to his death in this case wasn't clear to
10 me, I wondered if any information that I gave could
11 be used in some other way at some future time.

12 I went over every point that I just gave
13 to you about not -- not knowing the names of the
14 hundreds, not being able to bring them out of my head
15 at this time and if I did try, the fact that I could
16 remember today, it would be unfair to all of the
17 others. It would seem to exaggerate perhaps the
18 importance of the few that I could recall.

19 Q. Ms. Griffith, did Mr. Minoff say anything
20 to you during the course of your conversation with
21 him?

22 A. He said he understood what I was saying
23 but he could not advise me since he was not my

1 counsel. He said that in a case of my refusal, I
2 could be ordered to answer the question in a court.
3 He said other things generally trying to clarify I
4 guess what I had just told him.

5 Q. Do you understand that part of the process
6 of taking a deposition in a civil lawsuit is to
7 gather information which may lead to the discovery of
8 evidence for trial?

9 A. Are you telling me that now?

10 Q. I'm asking you if you understand that as
11 one of the purposes?

12 A. I understand it as you say that now, yes.

13 Q. That is one of the purposes. I represent
14 to you that one of the purposes of the deposition is
15 to gather information which may lead to the discovery
16 of evidence that would be admissible at trial. Were
17 you unaware of that purpose of the deposition
18 previously?

19 A. No, not really.

20 Q. You have said that there are specific
21 people to whom you promised anonymity with respect to
22 their sympathizing with KOSHA or providing
23 information to you; is that right?

1 A. Yes.

2 Q. Will you identify those people now?

3 A. No.

4 Q. How many people are there --

5 A. (Interposing) I have no idea.

6 Q. Let me finish the question, please.

7 How many people are there to whom you
8 promised anonymity who you will not identify now?

9 A. I give you the same answer, I don't have
10 that information in my head.

11 Q. Are there more than five such people?

12 A. I don't -- I would have to think about it.
13 I just don't happen to have a photographic memory.

14 Q. Is KOSHA -- Withdraw that.

15 I believe you have described KOSHA as an
16 ad hoc committee, correct?

17 A. It was always one ad hoc after another,
18 yes.

19 Q. What do you mean by "one ad hoc after
20 another"?

21 A. We were always interested over long time
22 periods, depending upon the circumstances in the
23 special project usually.

1 Q. Who is "we" in that context?

2 A. "We" is KOSHA. "We" is me and people like
3 me.

4 Q. Did anyone suggest to you that you form an
5 ad hoc committee which would investigate issues
6 relating to chemical exposures?

7 A. I don't recall if anyone did.

8 Q. Did anyone direct you to do it?

9 A. No.

10 Q. Did you at some time form such a
11 committee?

12 A. No.

13 Q. When is the first time you used the
14 terminology KOSHA?

15 A. I would have to look that up. I really
16 don't remember the first time.

17 Q. What source of information do you use as
18 KOSHA in order to go to people to find information
19 out?

20 A. I use my name, Ruth Griffith.

21 Q. How do you know to whom to speak if you
22 want information?

23 A. Well, if we're talking about a vinyl

1 chloride problem, safety problem, I go to people who
2 have worked with vinyl chloride.

3 Q. Talking to people only at Monsanto?

4 A. No.

5 Q. Do you go to people at other chemical
6 companies?

7 A. I don't recall ever going to another
8 chemical company.

9 Q. Where else are the people located other
10 than at Monsanto to whom you go for information?

11 A. Libraries, books, organizations that are
12 similar like the COSH groups, MASSCOSH in particular.

13 Q. Which group is that?

14 A. MASSCOSH.

15 Q. What did that stand for, do you know?

16 A. Massachusetts Coalition of Occupational
17 Safety and Health.

18 Q. And is that actually a group with a
19 telephone number?

20 A. Well, they are in Boston now. They did
21 have branches all over the state at the time I was
22 active in it.

23 Q. You were active in MASSCOSH?

1 A. Yes, I was.

2 Q. Does KOSHA have a telephone number?

3 A. No.

4 Q. Does it have a mailing address?

5 A. Well, it did have a mailing address
6 briefly in the Orchard, Box 122 I think it was.

7 Q. When did it have that mailing address?

8 A. '80, in the mid-eighties.

9 Q. For how long did it have that address?

10 A. About a year.

11 Q. Was it at Monsanto?

12 A. No.

13 Q. Was it at someone's home?

14 A. Indian Orchard post office.

15 Q. Who was the person who collected that
16 mail?

17 A. I collected it.

18 (The lunch recess was taken.)

19 Q. (By Ms. Burger) Miss Griffith, I have
20 just a few more questions.

21 A. Ms. please.

22 Q. I'm sorry, Ms.

23 A. Ms.

1 Q. Okay. I'd be happy to use that.

2 With respect to KOSHA, is that funded in
3 any way?

4 A. How -- I don't understand the question,
5 "funded."

6 Q. Does KOSHA ever have any expenses?

7 A. Yes.

8 Q. And who pays the expenses?

9 A. I usually do.

10 Q. Are there occasions when somebody other
11 than you pays the expenses of KOSHA?

12 A. I've had donations. They don't pay
13 really. I've had donations of paper and envelopes
14 and things like that.

15 Q. Have you ever told either Mr. Minoff or
16 Mr. Tourtelotte the names of the helpers or
17 sympathizers of KOSHA?

18 A. They've never asked.

19 Q. What is the purpose -- Well, let me
20 withdraw that.

21 My question isn't whether they have ever
22 asked. My question is whether you've told them the
23 names?

1 A. They have never asked and I never told
2 them.

3 Q. What is the purpose for which KOSHA
4 exists?

5 A. The purpose changed over the years. I'm
6 trying to remember the original. The original
7 purpose was to facilitate the NIOSH study. I think I
8 mentioned that last time. That was an ad hoc
9 situation where we were concerned with helping the
10 NIOSH proportionate mortality study and to establish
11 a connection with the epidemiologist in charge of the
12 study so that we could supply them with alternate
13 names of deaths among our local, that is, Local 288
14 members, not KOSHA members.

15 Q. Roughly what year are you referring to in
16 terms of the NIOSH study?

17 A. The NIOSH study would have been '78 or
18 '79, I'm not sure which.

19 Q. So to the best of your present
20 recollection it was 1978 or 1979 when NIOSH or --

21 A. (Interposing) No. That's when they
22 published the study. It must have been earlier when
23 they started it, '76.

1 Q. "They" being NIOSH?

2 A. Yes. I would say they started when I was
3 on the negotiating committee so it must have been --
4 or before, 1975 maybe, 1975.

5 Q. Now, you've referred to providing
6 information through KOSHA of Local 288 members'
7 deaths; is that correct?

8 A. We could only provide them with the hourly
9 people's deaths because we didn't have any list or
10 any information or little information on salary
11 people.

12 Q. What was the source of information to
13 KOSHA about deaths of Local 288 members?

14 A. Well, at that time all our -- I wish you
15 wouldn't use the word "members" -- but all the people
16 who cooperated were members of the Local 288 at the
17 time. They were the same people. They were both
18 Local 288 members and people who cooperated with our
19 ad hoc committee.

20 Q. That is back in the mid-1970's?

21 A. Yes, '75 or so.

22 Q. Is there any relationship between KOSHA
23 and Local 288?

1 A. No, except that fact.

2 Q. Except what fact?

3 A. That at that time all of the people
4 helping the ad hoc committee were also union members.
5 That suspended later and was no longer the case but
6 at the time the first people were all members of the
7 Local 288. There was no official connection with
8 KOSHA and Local 288 and there never has been. Even
9 though I was an union officer at the time there was
10 no official connection.

11 Q. And the NIOSH study that these people were
12 supporting or providing information to was about
13 what?

14 A. It was a proportionate mortality study of
15 production workers I believe at Monsanto, Indian
16 Orchard from 1950 through 1976.

17 Q. Going back to the 13th page of Exhibit 5,
18 may I ask if we have that handy?

19 MR. MINOFF: Here. (Indicating)

20 Q. (By Ms. Burger) Before we got off on a
21 tangent I was asking you about the period of time
22 during which you reviewed records -- Withdraw that.

23 I'll just ask a question instead of trying

1 to go back to what we were talking about earlier.

2 What was the time period which you
3 reviewed in coming up with the information that is
4 contained on page 13 of Exhibit 5?

5 MR. MINOFF: I'll have to object to
6 the form. I think it's pretty ambiguous the way you
7 phrased it.

8 MS. BURGER: I'll rephrase it and do
9 it in smaller pieces I hope.

10 MR. MINOFF: Okay.

11 Q. (By Ms. Burger) Ms. Griffith, you've
12 explained that you have looked at data books for VCM
13 sometime in 1981 or 1982, correct?

14 A. Yes.

15 Q. And your primary purpose at least in doing
16 that was to determine when you personally had first
17 been exposed to VCM?

18 A. Yes.

19 Q. As I understand it, you also had a
20 secondary purpose, did you not?

21 A. Yes.

22 Q. And that secondary purpose was to
23 determine the identity of suppliers of VCM to

1 Monsanto other than Monsanto?

2 A. Yes.

3 Q. And that secondary purpose was the result
4 of your involvement with KOSHA?

5 A. More or less. It wasn't specifically
6 KOSHA but it did involve my interest in KOSHA.

7 Q. Why did you care personally in what
8 suppliers there had been of VCM to Monsanto?

9 A. Well, most of KOSHA or most of my work I
10 will say, if I might use the personal pronoun, most
11 of my work involved answering questions and I was
12 asked this question so many times and got so many
13 answers, I wanted to get an answer that I could
14 believe. And the only way I could do it was to get
15 something in writing. My memory wasn't that good.
16 This happened in '68 and I was doing it in '81 or '82
17 and I was told first that Monsanto was the only
18 supplier then -- after Texas City -- this was after
19 Texas City. Then I was told that Dow was the only
20 one after that and there were conflicting opinions
21 about who supplied more, if Union Carbide supplied
22 any at all. Some thought that they had and some
23 didn't remember. These were all questions that I was

1 trying to answer. And 90 percent of my work was
2 involved with answering all kinds of safety
3 questions. That happened to be a question that kept
4 coming up and I was just curious about what the right
5 answer was.

6 Q. Who is it -- Who told you that Dow was the
7 only supplier after Texas City?

8 A. I can't remember whether it was a tank
9 farm operator or who. It was while I was still at
10 work though. It wasn't after. See, I'm trying to
11 separate the knowledge that I was able to obtain
12 after I retired and the knowledge I had at the time I
13 got this information from the lab. At the time I got
14 this information from the lab I really didn't know
15 much of anything about suppliers except what I was
16 told, that Monsanto was getting other suppliers, to
17 check to see whether their quality was okay. I
18 didn't know that that they picked any or they used
19 any because I had left the lab before the PVC units
20 shut down in '75.

21 So I think the answer to your question is
22 I got the answer about Dow after I -- after 1981.
23 After I retired when I was asking about it.

1 Q. Ms. Griffith, my question --

2 A. (Interposing) I don't remember. The
3 answer to your question is I don't remember who told
4 me.

5 Q. And you don't recall for certain when you
6 were told of that?

7 A. No, I don't.

8 Q. Do you know whether it was true or false,
9 that Dow is the only supplier of VCM after Texas
10 City?

11 A. I don't know that it is true or false.

12 Q. You stated in your last answer something
13 about looking to other suppliers to check if their
14 quality of VCM was okay?

15 A. Yes. I'm sorry, go ahead.

16 Q. What were you referring to?

17 A. If I recall right, the first information I
18 received as a lab analyst from a supervisor or
19 another analyst was we were going to check several
20 suppliers for quality including running some tests
21 that we wouldn't normally run on Monsanto. My
22 original idea or impression was that the lab was
23 going to receive samples from a lot of these

P&SI59626

1 suppliers and then the company was going to decide on
2 a supplier or a prime supplier. I never knew whether
3 that was true or false. I suspect it might have had
4 some truth to it but that's what I meant by Monsanto
5 was going to check out the quality of the VCM.

6 Q. And who is it who told you while you were
7 a lab analyst that such sampling of suppliers'
8 products was to occur?

9 A. I don't remember. I don't even remember
10 whether it was another analyst or a supervisor.

11 Q. Do you remember when you were told that?

12 A. Well, it would have had to have been about
13 '68 or about that.

14 Q. Do you know whether any of the samples
15 that are referenced on page 13 of Exhibit 5
16 constitute samples from suppliers which were being
17 tested for quality in order to select a new supplier?

18 A. I have no knowledge. That would have
19 represented an entire tank car now, that's a pretty
20 big sample.

21 Q. What?

22 A. Each one of those samples tested
23 represented an entire tank car.

1 Q. What is the basis of your knowledge that
2 those samples represented an entire tank car?

3 A. Well, I don't have any. I just assume
4 that.

5 Q. Did you go back and look at the data books
6 for the year 1967 in order to search for your
7 earliest exposure to VCM?

8 A. As I told you, I don't remember how I did
9 it. I assumed I picked an early date if I did find
10 my first one I would have gone back. In other words,
11 if I found my initials on a page in 1968 I would have
12 gone backwards to see whether I would have found an
13 earlier one.

14 Q. Do you know as you sit here whether you
15 looked at data books for the year 1967 to search for
16 VCM tests which you conducted?

17 A. I'm sure I did.

18 Q. Did you look at data books for VCM for the
19 year 1966 to determine any testing you did on VCM?

20 A. Probably not.

21 Q. And why would you assume you looked at
22 1967 but did not go back as far as 1966?

23 A. I don't think I was testing VCM but I'd

1 have to check for that but I don't think I was
2 testing VCM in '66.

3 Q. What would you check to determine that?

4 A. Oh, at that time I might have remembered.

5 Q. No, but what would you have checked today
6 if you wanted to find that out?

7 A. Oh, now, my work history.

8 Q. While looking at the data book for 1967
9 did you see any entries for tank car identifications
10 which were for suppliers as you understood it other
11 than Monsanto?

12 A. I can't answer that yes or no because I
13 don't remember specifically whether I was looking for
14 that in '67.

15 Q. Were you looking for the information about
16 suppliers for 1968?

17 A. I think I was trying to match them up,
18 looking for the suppliers at the time that I knew I
19 was testing so that I went from '68 beyond.

20 Q. Did you examine data books for VCM for all
21 of 1968?

22 A. I don't remember if I went all through
23 '68.

1 Q. Did you examine data books for all of
2 1969?

3 A. I couldn't tell you that either but I
4 assume that I did. It wasn't that difficult. You
5 know, it wouldn't take that long to go through a year
6 but I couldn't say for sure whether I did or not.

7 Q. Did you examine data books for VCM for the
8 year 1970?

9 A. For my signature or the suppliers?

10 Q. Either.

11 A. Not for my signature and I don't really
12 know whether I did for suppliers or not.

13 See, the suppliers were secondary at the
14 time. I just sort of jotted those down. The primary
15 one that I was interested in was my own earliest
16 test. I didn't check for any of my later testing.

17 Q. Do you know who the lab analyst was who
18 performed the tests on the entry that you have for
19 Dow X 3337, July 19, 1968?

20 A. No, I don't.

21 Q. Do you know whether that test passed
22 specifications?

23 A. No, I don't. I didn't write down any test

1 results.

2 Q. Do you know whether the VCM from which the
3 sample was taken ever made it into a storage tank?

4 A. I have no idea.

5 Q. Do you have idea whether the VCM from
6 which the sample was taken reflecting Dow X 3337 ever
7 made it into any kettle?

8 A. I don't have any information on anything
9 that I ever sampled of what happened after.

10 Q. I take it if I ask you the same
11 question -- And I hope you will bear with me on the
12 next question but I do want to ask them.

13 With respect to the entry under Conco --

14 A. Yes.

15 Q. -- CONX 9066, dated October 14, 1968, do
16 you know the name of the lab analyst who performed
17 that test?

18 A. No.

19 Q. Do you know whether that sample passed
20 specifications?

21 A. No.

22 Q. Do you know whether the VCM from which
23 that sample was taken ever made it into a storage

1 tank at Monsanto?

2 A. No.

3 Q. Do you know whether the sample from which
4 that test was taken ever made it into any kettle at
5 Monsanto?

6 A. No.

7 Q. I'm going to ask the same question for
8 Goodrich, which is the next question.

9 Do you know the identity of the lab
10 analyst who performed the test on the sample
11 identified as Goodrich V8 2527, dated October 14,
12 1968?

13 A. No.

14 Q. Do you know whether that sample passed
15 specifications?

16 A. I do not.

17 Q. Do you know whether the VCM from which
18 that sample was taken ever made it into any storage
19 tank?

20 A. No.

21 Q. Do you know whether the VCM from which the
22 sample was taken ever made it into any kettle?

23 A. I do not.

1 Q. Do you have any records in your possession
2 of shipments of VCM by Union Carbide?

3 A. No.

4 Q. Did you in your search of the data books
5 come across any entry which reflected a sample from a
6 tank car with Union Carbide's name on it?

7 A. Nothing with Union Carbide's name on it.

8 Q. Did you come across any other entry in
9 your review of the data books which suggested to you
10 that Union Carbide was the supplier?

11 A. No, because I didn't know that Union
12 Carbide was a supplier then.

13 Q. At some point after 1981 or 1982 when you
14 searched the data books did someone tell you that
15 Union Carbide had been a supplier?

16 A. Yes.

17 Q. And who told you that?

18 A. Joe Zalewa.

19 Q. And he is now diseased?

20 A. Yes.

21 Q. And what is it that he told you about
22 Union Carbide?

23 A. He said he remembered that Union Carbide

1 was a supplier of the monomer he tested.

2 Q. And he was another lab assistant?

3 A. Yes.

4 Q. An analyst?

5 A. He was 5 lab analyst at the time.

6 Q. Did he tell you the basis of his knowledge
7 that Union Carbide had been a supplier of the VCM he
8 tested?

9 A. He said he was told and he recognized a
10 car identification. It was either UCX or something
11 like that. He said he was told that that was Union
12 Carbide.

13 Q. That UCX stood for Union Carbide?

14 A. I don't remember the designation but he
15 was told a certain car designation was always Union
16 Carbide.

17 Q. Did he tell you who told him that?

18 A. No.

19 Q. When did you have this conversation --

20 A. (Interposing) Yes, he did tell me. He
21 told me supervision told him. Supervision -- I can't
22 remember whether it was lab supervision or production
23 supervision, someone he talked to though but --

1 Q. Did he give you the name of the person who
2 told him that?

3 A. No.

4 Q. Did you ask him about this in your
5 capacity as a KOSHA sympathizer?

6 A. No.

7 Q. Was it in your own personal capacity?

8 A. Yes.

9 Q. Why were you interested?

10 A. I was -- I was checking information for
11 the Cullinan case.

12 Q. When did you --

13 A. (Interposing) Supplier information.

14 Q. When did you have this conversation with
15 Mr. Zalewa?

16 A. Well, I had several conversations with him
17 over several years.

18 Q. Specifically, I'm interested in the
19 conversation you said you had with him about Union
20 Carbide being a supplier of VCM?

21 A. First time, I'm sorry. It might have been
22 before the Cullinan case. I can't remember when that
23 was.

1 Q. Do you recall the conversation the first
2 conversation you had with them about suppliers of
3 VCM?

4 A. It was a telephone conversation.

5 Q. And did you call him in order to speak
6 with him about the subject?

7 A. I think it came up. I think we were
8 talking, you know, general terms about a lot of
9 different things and I didn't call him for that
10 specific reason. I did call him later for that
11 specific reason but years -- maybe over a year at
12 least.

13 Q. And the reason for your subsequent call is
14 because you were investigating about suppliers of VCM
15 for a case called Cullinan?

16 A. Yes, but it seemed earlier -- when we
17 talked about it earlier we weren't talking about the
18 Cullinan case when we were just talking about vinyl
19 chloride cases in general.

20 Q. Cases meaning lawsuits?

21 A. Lawsuits, that's why the supplier came up.

22 Q. Are you aware of any lawsuits involving
23 VCM other than the Cullinan case and this case

1 involving Mr. Warren?

2 A. Not any lawsuit. Maybe it was the other
3 angiosarcoma case. I just can't put a handle on the
4 year that I talked to him about it. We were talking
5 about the legal aspect of suing in Massachusetts, not
6 being able to -- most people who asked us assumed you
7 could sue Monsanto so we had to look up just to
8 explain why they couldn't sue Monsanto on the state
9 level.

10 Q. Who do you mean when you say "we" in that
11 context?

12 A. Well, Joe was one of the ones who was
13 asked because he worked on monomer. He was supposed
14 to be an expert. When you work on something I guess
15 you are supposed to be an expert on it, so I guess
16 that was maybe one thing we were discussing.

17 Q. What role did you play in the Cullinan
18 case in terms of investigating?

19 A. Well, I wouldn't say I investigated it
20 but --

21 Q. What did you do in connection with that
22 case?

23 A. I tried to answer questions that were

1 asked me about suppliers and about any other
2 questions that came up about his working conditions.
3 I had taken notes of a long conversation I had with
4 Paul before he died and I tried to get people who
5 would be reliable witnesses to tell me what would be
6 helpful in his case.

7 Q. Did Mr. Cullinan's attorney ask you to
8 help find information?

9 A. I think I volunteered because I had -- I
10 had been involved in his case long before he had an
11 attorney. He didn't have an attorney at the time I
12 talked with him.

13 Q. At the time that you talked with Mr.
14 Zalewa was that on behalf of Mr. Cullinan without
15 regard to any lawsuits that he had?

16 A. The first time was without a lawsuit, yes,
17 the earliest time.

18 Q. You've mentioned earlier today about notes
19 that you had taken of conversations with, I believe,
20 Mr. Zalewa and perhaps Mr. Williams; do you have
21 personal notes that reflect telephone conversations
22 or in-person conversations that you had with either
23 of those people on the subject of VCM supply to

1 Monsanto?

2 A. I gave all my notes to Attorney Halpern.

3 Q. Attorney who?

4 A. Keith Halpern, the Cullinan family's
5 attorney.

6 Q. Can you spell his last name?

7 A. H-A-L-P-E-R-N.

8 Q. Where is he located?

9 A. Boston.

10 Q. Do you know the name of his firm?

11 A. No, it changes so often I couldn't tell
12 you.

13 Q. You gave Mr. Halpern all of your personal
14 handwritten notes?

15 A. On telephone conversations relating to
16 what I was doing for Paul's family.

17 Q. Did you keep a copy of those notes?

18 A. I don't recall that I sent him the
19 original or -- I probably did send him the copies.

20 Q. Where are the originals?

21 A. It's a good question. Somewhere in the
22 files.

23 Q. In what files?

1 A. Well, somewhere in the file that I keep.

2 Q. At your home?

3 A. Well, would be mostly in my home, yes.

4 Q. Where else do you keep files?

5 A. I think I have some in a barn in
6 Southwick. I think I might have some. No, I threw
7 those away. No, I threw those away.

8 Q. You threw what away?

9 A. The ones in Southwick.

10 Q. In a barn?

11 A. Yes.

12 Q. So the only place you have them would be
13 at home?

14 A. Yes, I forgot. I did take care of those.

15 Q. When did you throw notes away that you
16 kept in Southwick or materials?

17 A. I think shortly after I retired, maybe
18 '83.

19 Q. When is the last time you saw your own
20 notes reflecting telephone conversation or other
21 conversations you had with anybody about VCM supply?

22 A. Well, the last time I looked something up
23 for Mrs. Warren I couldn't find all of them so the

R&S159640

1 ones I found were a couple years ago.

2 Q. What did you do --

3 A. (Interposing) Three years ago.

4 Q. What did you do with those notes?

5 A. I think they are in either her file or the
6 PVC file somewhere.

7 Q. What do you mean by "her file"?

8 A. The file I have for Mrs. Warren.

9 Q. Did you look in that file when you were
10 asked to produce documents at this deposition?

11 A. No, because I assumed you had everything
12 that the Cullinan case had and that would have been
13 included in the Cullinan case. I really couldn't
14 take the time to duplicate work I had already done.

15 Q. You understand that this case and the
16 Cullinan case are separate legal actions?

17 A. No, but I assume they are available and
18 the amount of time it would take me to not only find
19 it but research it -- You know, if you want me to
20 produce everything I have for the Cullinan file that
21 I can find it would take me a long time and a lot of
22 copying and I just don't have time for it. And I was
23 told that you had available to you everything in the

R&S159641

1 Cullinan case so all of the material that I provided
2 to Keith Halpern would also be available to you.

3 Q. Who told you that?

4 A. I don't know, somebody I was talking with.

5 Q. You don't know who told you that?

6 A. I don't know who it was.

7 Q. And you just assumed it was true?

8 A. Well, I guess I assumed it was true
9 because every time I asked the question about do I
10 have to produce this or -- not in this case but in
11 several other -- in one other case, the Cullinan case
12 I guess it was -- and if they could they could get it
13 through some other means, you know, through another
14 attorney, you know, they did.

15 Q. Ms. Griffith, I'm going to read to you one
16 of the paragraphs in Exhibit Number 1, which is the
17 notice of taking your deposition. Paragraph seven
18 asks you to bring to the deposition any and all
19 photographs, drawings, papers, records, notes, books,
20 and other writings relating to or identifying the
21 names and addresses of suppliers of vinyl chloride to
22 Monsanto facilities in the Springfield area during
23 the years 1947 to 1983. My question to you, having

1 read that, is: Have you, in fact, not provided us
2 with all documents which fall within that category?

3 A. You mean notes specifically? I don't know
4 of anything else. I've given you all that I have as
5 far as documents, that one page from my notebook.
6 That's the extent of my documents that I have. As
7 far as my personal notes, I assumed that you had
8 those. If my assumption was wrong I'm sorry.

9 Q. Your assumption is wrong and what I would
10 ask because I don't want to take up your time any
11 more than necessary is -- so I don't want to ask you
12 to come back for another deposition -- I would ask if
13 you would find the notes and provide them either
14 directly to me and to other counsel or to Mr. Minoff
15 who could then provide them to us?

16 A. I would like to see the notes you have. I
17 don't have all of them. I tried to provide them to
18 Mrs. Warren and I couldn't tell -- I just have some
19 of them.

20 Q. When did you try to locate them for Mrs.
21 Warren?

22 A. I don't know, a couple years ago.

23 Q. Did you locate some of the notes for Mrs.

1 Warren at that time?

2 A. Yes, some of them.

3 Q. Did you supply them to Mrs. Warren at that
4 time?

5 A. No, I don't think I did.

6 Q. All we can ask you to do is to provide
7 copies of that which you do have. If you have
8 discarded them or given some to Mr. Halpern and not
9 retained copies, whatever, my only request to you is
10 to look for notes that you do have and provide us
11 with a copy. Will you do that?

12 A. I understand.

13 Q. Will you do that?

14 A. I understand and I will try.

15 MR. MINOFF: What notes are these so
16 we have it clear on the record exactly?

17 MS. BURGER: What I understand to
18 exist are notes that Ms. Griffith has taken of
19 telephone conversations or perhaps in-person
20 conversations she has had with people like Mr.
21 Zalewa, perhaps Mr. Williams or others, where they
22 have identified the names of suppliers of vinyl
23 chloride to Monsanto; and as I understand it that is

1 requested in Paragraph seven. I certainly appreciate
2 Ms. Griffith's not having provided them earlier.

3 THE WITNESS: I put all that stuff
4 away.

5 MR. MINOFF: As long as you
6 understand what it is specifically that she's looking
7 for.

8 THE WITNESS: I understand exactly
9 what she's looking for.

10 MR. MINOFF: Okay.

11 Q. (By Ms. Burger) Okay. Do you have any
12 records in your custody or possession of shipments of
13 VCM by Dow?

14 A. What records are you talking about?

15 Q. Records of shipments of VCM by Dow to
16 Monsanto?

17 A. You mean other than this? (Indicating)

18 Q. Yes, other than page 13 of Exhibit 5?

19 A. Well, obviously I don't have any with me,
20 no.

21 Q. Not with you today, Ms. Griffith, but in
22 your possession or custody in your home or any place
23 else that you have control over?

1 A. Well, if you call notes, records, I
2 probably do, yes.

3 Q. Those are the notes to which we just
4 referred?

5 A. Yes.

6 Q. Do you have any records in your custody or
7 possession of shipments of VCM by Conoco to Monsanto
8 of VCM?

9 A. I believe I do, yes.

10 Q. Other than page 13 of Exhibit 5?

11 A. I believe so, I'd have to look.

12 Q. And other than the notes that we've been
13 talking about?

14 A. No, no, just the notes.

15 Q. Just the notes?

16 A. Mm-hmm.

17 Q. Did somebody tell that you Conoco was at
18 any time a supplier of VCM to Monsanto?

19 A. The man who told me -- I'd spell it wrong.

20 Q. And that was who?

21 A. Joe Zalewa.

22 Q. And what is it that he told you about
23 Conoco's supply of VCM?

1 COMMONWEALTH OF MASSACHUSETTS

2 COUNTY OF FRANKLIN

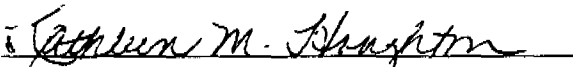
3 I, Kathleen M. Houghton, a Notary Public within
4 and for the Commonwealth of Massachusetts at large,
5 do hereby certify that I took the deposition of RUTH
6 G. GRIFFITH, pursuant to the Federal Rules of Civil
Procedure, at the offices of Robinson, Donovan,
Madden & Barry, P.C., 1500 Main Street, Springfield,
Massachusetts 01115 on November 7, 1990.

7 I further certify that the above-mentioned
8 deponent was by me first duly sworn to testify to the
9 truth, the whole truth, and nothing but the truth
10 concerning her knowledge in the matter of the case of
11 ALICE L. WARREN, ADMINISTRATRIX OF THE ESTATE OF JOHN
H. WARREN, DECEASED vs. THE DOW CHEMICAL COMPANY, ET
ALS, now pending in the United States District Court
for the District of Massachusetts.

12 I further certify that the within testimony was
13 taken by me stenographically and reduced to
14 typewritten form under my direction by means of
COMPUTER ASSISTED TRANSCRIPTION; and I further
certify that said deposition is a true record of the
testimony given by said witness.

15 I further certify that I am neither counsel for,
16 related to, nor employed by any of the parties to the
17 action in which this deposition was taken; and,
18 further, that I am not a relative or employee of any
attorney or counsel employed by the parties hereto,
nor financially or otherwise interested in the
outcome of the action.

19 WITNESS my hand and seal this 26th day of
20 November, 1990.

21 
Kathleen M. Houghton
Notary Public
Shorthand Reporter

22 My commission expires
23 April 17, 1992.

R&S159698

SIGNATURE PAGE - ERRATA SHEET

I, the undersigned, Ruth G. Griffith, do hereby
certify that I have read the foregoing transcript of
my testimony given in the matter of WARREN vs. THE
DOW CHEMICAL COMPANY, et als, and that to the best of
my knowledge, said transcript is true and accurate
(with the exception of the following corrections
listed below):

Page	:	Line:
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DEPONENT'S SIGNATURE: _____ DATE _____

kmh

EXHIBIT

"A"

<u>DATE</u>	<u>CAPTION</u>	<u>COURT</u>	<u>DOCKET</u>
1976	Romero, Antonio v. The Dow Chemical Company	Superior Court of California, Co. of Los Angeles	NC C 12127 B
1977	Arthur, Helen v., Individ. and on Behalf of the Estate of Her Husband, Charles E. Arthur vs. B. F. Goodrich Chemical Company, et al.		
6/23/78	Rinkus, August, et al. v. General Electric Company, et al.	Cook County Circuit Court, Illinois	77 L 3506
7/8/78	Kozlowski, Irene B., Administrator of the Estate of George J. Kozlowski, deceased, v. General Electric Company, et al.	Cook County Circuit Court, Illinois	77 L 12075
8/15/78	Sehner, Michael v. General Electric Company, et al.	Cook County Circuit Court, Illinois	78 L 1753
1979	Grasso, Grace M., Executrix of the Estate of John C. Grasso, deceased V. The Dow Chemical Company, et al.	U. S. District Court, New Jersey	CA 78-1561
1979	Fealey, Joseph J. v. Union Carbide Corp., et al. Incl. Dow	Superior Court of New Jersey, Union County	CA L-49093-77
1981	Wade, Richard E. v. Resin Systems Engineering, et al. (& Dow)	Circuit Court, County of Wayne, MI	81-117-507-NP
1981	Pilligian, Mary, Admin. of the Estate of Monug M. Pilligian v. Atlas Chem. Ind. Inc., et al. & Dow	Superior Court, Worcester, MA	15960
1/5/83	Bell, Dewey, et ux. v. Dow Chemical Co., et al.	S. D. Texas, Galveston Division	CA G-83-48
7/27/83	Sailors, Dale E. v. Diamond Shamrock, et al.	District Court, 293rd Judicial District, Maverick Co., TX	7163
10/20/83	Stillo, Carol A., et al. and Arthur Stillo and Charles H. Berry v. Dow Chemical Co., et al.	Court of Common Pleas, Cuyahoga County, OH	52270
5/16/84	Kingsbury, Thelma O., Ind. & as Rep. of the Estate of Thomas Page Kingsbury, deceased v.	S. D. Texas, Galveston Div.	CA G-83-48

<u>DATE</u>	<u>CAPTION</u>	<u>COURT</u>	<u>DOCKET</u>
3/10/84	Raines, Walter v. Dow Chemical and Frantz Co., Inc.	District Court of Grayson Co., TX	103,341
4/25/85	Neff, Sally V., et al. v. Celanese Piping Systems, et al.	Court of Common Pleas, Franklin County, OH	85 CV-04-2279
4/25/85	Whitmer, Andrew v. Celanese Piping Systems, et al.	Court of Common Pleas, Franklin County, OH	85 CV-04-2288
4/25/85,	Perkins, Charles v. Celanese Piping Systems, et al.	Court of Common Pleas, Franklin County, OH	85 CV-04-2289
4/25/85	Sheppard, Sinda L. v. Celanese Piping Systems, et al.	Court of Common Pleas, Franklin County, OH	85-CV-04-2290
4/30/85	Morris, Vera v. Dow, et al.	Superior Court of California, Co. of Los Angeles	C-409 257
8/6/85	Cullinan, Paul M., et al. v. Monsanto, et al.	U.S. District Court of Massachusetts	85-0378-F
8/6/85	Dunn, Eileen A., et al. v. Monsanto, et al.	U.S. District Court of Massachusetts	85-0377-F
3/8/86	Memice, Lottie, Inc. and as Executrix of the Estate of Joseph Memice, Dec'd v. PPG, Industries, Inc., et al.	Superior Court of New Jersey Law Division, Passaic County	L-20509-86

EXHIBIT

"B"

DOWN POSITION STATEMENT - VINYL CHLORIDE

There is much work going on relative to assessing the toxicity of vinyl chloride monomer (VCM) and to translating the data available into appropriate work practices which will permit the material to be manufactured, handled and used with a high degree of safety.

The most pertinent toxicological data available may be briefly summarized as follows.

1. A few humans who were exposed to VCM years ago have developed cancer of the liver (angiosarcoma). The intensity and duration of the exposures they received are unknown except that they are believed to be high, even to the extent of causing dizziness and unconsciousness.

2. Examination of all the medical records available on persons who have worked with vinyl chloride at Dow have revealed no cases of angiosarcoma of the liver. Exposures that occurred prior to about 1960 in the Midland facility were in the range of 200-300 ppm on a time-weighted average (TWA) basis with peaks of short duration (minutes) ranging up to 1000-2000 ppm on a few particular jobs where documentation is available. Since 1960, when continuous monitoring was initiated along with a 50 ppm guideline, TWA exposures, with one exception, have been below 50 ppm with rare short excursions into the 1000-2000 ppm range. The one exception is a location where concentrations range from 100 to 150 ppm and respiratory protection is required. In recent years, personnel monitoring at outdoor plants in other locations has revealed TWA exposures to be controlled within the existing Dow guideline.

3. The toxicological studies on animals in the Italian laboratories of Professors Viola and Maltoni have revealed numerous cancers of the liver (angiosarcomas) and other malignancies in rats exposed 4 hours/day, 5 days/week, for extended periods of time to VCM concentrations of 250 ppm and higher. At 50 ppm, one angiosarcoma and one nephroblastoma have been observed in rats that survived for 135 weeks, well beyond the normal life span. Mice exposed for 35 weeks to 2500 ppm have developed angiosarcomas of the liver, mammary carcinomas (possibly too few to be significant) and adenocarcinomas of the lung. At concentrations of 500 and 250 ppm, mice have developed adenocarcinomas of the lung but at 50 ppm no cancers have been reported. Intermediate and lower concentrations are being studied.

4. Toxicological studies on animals sponsored by American industry through the MCA are being conducted at Industrial Bio-Test Laboratories (IBT), of Northbrook, Illinois. In these studies, rats, hamsters and mice have been exposed 7 hours/day, 5 days/week, for up to 7 months at concentrations of 2500, 200 and 50 ppm. No angiosarcomas have been observed among the rats or hamsters, but tumors have been observed in the livers (angiosarcomas), lungs and subcutaneous tissue of the mice at all

three levels of exposure. The subcutaneous tumors tentatively are considered to have originated from mammary tissue or Zymbal's gland of the ear canal. The incidence of tumors appears to be dose-related.

The findings of tumors in mice and rats exposed to 50 ppm VCM has increased the political pressure in Washington for a downward revision of the limits as specified in the OSHA's Emergency Temporary Standard for Exposure to Vinyl Chloride published in the Federal Register, Friday, April 5, 1974, Vol. 39, No. 67, pages 12342-4. We also feel that it is desirable to increase the margin of safety but not to the extent called for in the proposed permanent standard published in the Federal Register, Friday, May 10, 1974, Vol. 39, No. 92, pages 16896-16900.

Area Monitoring. Work areas in which VCM may reasonably be expected to exist should be monitored continuously using an automatic sampler, analyzer and printout, if feasible. Other detection devices may also be used for spot or routine repeated sampling as needed. An analytical sensitivity of 1 ppm must be required. Monitoring records are to be summarized, verified and permanently stored in a retrievable manner.

If monitors show the concentration in the work area to exceed 25 ppm, all persons must don appropriate respiratory protection if their exposure is expected to last more than 10 minutes. If monitors detect a concentration of 50 ppm or more, they shall automatically activate an alert which requires all persons to evacuate the area. Reentry shall be allowed only when appropriate respiratory equipment is being worn.

If some event occurs from which there is a potential for 50 ppm or more in the work area, an alert shall be sounded and action as described immediately above must be taken. If work must be done in areas which consistently approach or exceed 25 ppm as determined by sound industrial hygiene studies, workers shall always wear appropriate respiratory protection when entering such an area. These areas shall be well identified.

Personnel Monitoring. Personnel monitoring shall be conducted so that an evaluation of the actual exposure of individuals by inhalation can be calculated; i.e., the samples must be taken from the breathing zone of the person. A person wearing appropriate respiratory protection in a contaminated area as determined by area monitoring may not be exposed at all and this must be taken into account in the assessment of the individual's total exposure as determined by proper industrial hygiene practices.

Recommended Dow Guidelines for Vinyl Chloride. The TWA exposure for an 8-hour day shall not exceed 10 ppm for an individual, the short-term limit for 10 minute exposures shall not exceed 25 ppm, and no peaks greater than 50 ppm shall be permitted.

Liver and Biliary Tract Cancer Among Chemical Workers

Gregory G. Bond, PhD, MPH, Elsie A. McLaren, RN, Fred L. Sabel, MS,
Kenneth M. Bodner, MSPH, Thomas E. Lipps, MD, and
Ralph R. Cook, MD, MPH

A recent cohort mortality study of male, hourly wage employees of a large Michigan chemical production and research facility had found a greater than expected number of deaths coded to liver and biliary tract cancer. In response, an additional investigation was then undertaken of the 44 liver and biliary tract cancer deaths observed between 1940 and 1982. A random sample ($N = 1,888$) of subjects was selected from the total cohort ($N = 21,437$) to serve as referents. Company work history records were used to classify cases and referents by work area assignment and potential for exposure to 11 selected chemical agents which have been shown to produce cancer of the liver or biliary passages in experimental animals. Statistically significant associations in both positive and negative directions were found for several work areas within the facility. A suggestive association was found for vinyl chloride monomer, based on five cases with presumed exposure.

Key words: carbon tetrachloride, epidemiology, methylene chloride, retrospective studies, vinyl chloride

INTRODUCTION

A recently conducted cohort study of the more than 37,000 male employees from Dow Chemical's Midland/Bay City, Michigan, production, research, and headquarters units showed more deaths than expected from cancer of the liver and biliary passages ($SMR = 140$, 95% $CI = 99-191$) among hourly workers [Bond et al., 1987]. No data relating to personal or occupational exposures were collected as a part of the original study. This was by design since it was not feasible to collect such comprehensive information on all workers. This paper describes the results of a follow-up investigation which used a hybrid study design involving a modification of the traditional case-control method [Kupper et al., 1975].

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Accepted for publication February 7, 1990.

METHODS AND MATERIALS

Death certificates of all male, hourly employees who died during 1940–1982 ($N = 6,259$) were reviewed for a statement of primary liver cancer, cancer of the liver not specified as primary or secondary, or cancer of the gallbladder or bile ducts (ICDA-8 codes 155–156 and 197.8) mentioned anywhere on the document. This identified 44 cases, of which 11 were coded to primary liver cancer, 14 to cancer of gallbladder or bile ducts, and the remaining 19 to cancer of the liver not specified as primary or secondary. From the cohort of male, hourly employees ($N = 21,437$) who composed the original study population [Bond et al., 1987], a random sample ($N = 1,888$) was chosen to serve as referents.

Company work history records were used to classify employee exposures by work area assignment [Bond et al., 1985, 1986] as well as by potential for exposure to 11 chemical agents chosen because they had been shown to produce cancer of the liver or biliary passages under experimental conditions in animals [Chu et al., 1984; Haseman et al., 1984; NTP, 1985; Wilbourn et al., 1986]. Visits to the Medical Department by the cases were reviewed by a nurse co-investigator (E.A.M.) to ascertain a history of excessive alcohol use or hepatitis, as they are established risk factors for primary liver cancer [Falk, 1982]. This exercise was of limited usefulness, however, owing to: 1) the unavailability of medical records for those subjects who terminated their employment prior to 1947 ($N = 24$); and 2) a lack of information concerning any post-employment illnesses among the workers.

Risk ratios were computed adjusted for birthyear by using the Mantel-Haenszel (1959) procedure. Analyses which additionally controlled for period of hire showed similar results to those which controlled only for birthyear and are not presented. Likewise, analyses of the primary liver cancers separate from the gall bladder/bile duct cancers did not reveal additional information and are not shown. Ninety-five per cent test-based confidence intervals were calculated about the risk ratio estimates [Miettinen, 1976].

RESULTS

Analyses by work area assignments (Table I) showed the cases were significantly less likely to have held assignments in electrochemicals or organic chemical production, but were more likely to have held assignments in office maintenance ($RR = 3.6$; 95% CI = 1.4–9.1). A positive association with assignment to polyvinyl-polyvinylidene chloride production did not reach statistical significance ($RR = 2.0$; 95% CI = 0.9–4.6).

There were no statistically significant trends apparent when analyses were made of duration of assignment within work areas; however, the odds ratio for an assignment of five or more years to polyvinyl-polyvinylidene chloride production was 3.7 (95% CI = 0.9–14.6) based on the contribution of two cases.

Assignment to polyvinyl-polyvinylidene chloride production areas was explored further in Figure 1 via a plot of the "attributable fraction" [Goldsmith et al., 1980] for each year during the period 1940–1980. The peak "attributable fraction" occurred in 1952, a year in which four of the seven cases assigned to these areas were all employed, no two in the same plant, however.

None of the chemical agent comparisons revealed statistically significant dif-

TABLE 1. Age-Adjusted Risk Ratios for Analyses by Major and Minor Work Areas: Study of Liver and Biliary Tract Cancer Among Chemical Workers, Midland, Michigan, 1940-1982*

Major/minor work areas	Exposure frequencies (%)		RR	95% CI
	Cases (N = 44)	Referents (N = 1,888)		
Administration	0.0	5.8	—	0.0-1.5
Manufacturing	68.2	75.7	0.7	0.4-1.3
Agricultural chemicals	9.1	26.2	0.4	0.1-1.0
Herbicides	6.8	17.1	0.5	0.2-1.6
Insecticides	4.6	9.7	0.6	0.1-2.4
Inorganic chemicals	47.7	40.0	1.1	0.6-2.0
Ammonia	0.0	1.0	—	0.0-8.4
Brine	6.8	4.6	0.9	0.3-3.0
Brominated products	4.6	5.9	0.9	0.2-3.7
Calcium/magnesium	9.1	12.5	0.7	0.2-1.8
Caustic	4.6	1.9	2.1	0.5-9.5
Cellulose products	2.3	7.6	0.4	0.1-2.5
Electrochemicals	0.0	10.2	—	0.0-0.8
Metal fabrication	22.7	16.8	1.1	0.6-2.2
Organic chemicals	36.4	56.8	0.5	0.3-0.9
Acrylamide	0.0	2.1	—	0.0-4.0
Alkyl benzenes	0.0	3.9	—	0.0-2.2
Chlorinated benzenes	0.0	3.6	—	0.0-2.3
Dyes	6.8	6.1	0.7	0.2-2.3
Fabricated plastics	6.8	16.5	0.6	0.2-1.9
Glycols	0.0	1.8	—	0.0-4.7
Halogenated hydrocarbons	4.6	7.7	0.4	0.1-1.6
Ion exchange resins	2.3	2.0	1.2	0.2-8.7
Latex	2.3	2.7	0.8	0.1-6.2
Olefins	4.6	2.5	1.5	0.3-6.7
Phenol derivatives	6.8	13.0	0.4	0.1-1.4
Polystyrene	6.8	15.0	0.5	0.1-2.0
Polyvinyl-polyvinylidene chloride	15.9	10.1	2.0	0.9-4.6
Unknown manufacturing	0.0	1.0	—	0.0-8.4
Research	15.9	22.8	0.8	0.3-1.8
Service	65.9	59.8	1.1	0.6-2.0
Animal handling	0.0	0.6	—	0.0-14.0
Boiler shop	4.6	3.4	1.0	0.2-4.1
Construction	13.6	13.6	0.7	0.3-1.7
Electric shop	2.3	2.8	0.9	0.1-6.4
Engineering	2.3	1.6	1.7	0.2-12.5
Garage	0.0	2.5	—	0.0-3.4
Lead shop	0.0	0.3	—	0.0-28.0
Lubrication	0.0	0.4	—	0.0-21.0
Machine shop	4.6	4.2	0.9	0.2-3.5
Maintenance	4.6	8.6	0.4	0.1-1.6
Material handling	11.4	8.1	1.4	0.5-3.7
Office maintenance	11.4	3.3	3.6	1.4-9.1
Paint shop	4.6	7.9	0.6	0.1-2.5
Pipe shop	9.1	10.3	0.8	0.3-2.3
Plant protection	9.1	5.6	1.1	0.4-3.2
Power	2.3	7.1	0.2	0.0-1.3
Road and yard mtc.	4.6	2.0	2.2	0.5-9.6
Shops-steel & instrument	6.9	2.3	2.2	0.7-7.5
Waste management	0.0	1.2	—	0.0-7.0
Well services	0.0	0.1	—	0.0-83.8

*Workers may have been assigned to more than one work area during their employment and thus may be counted more than once in the table.

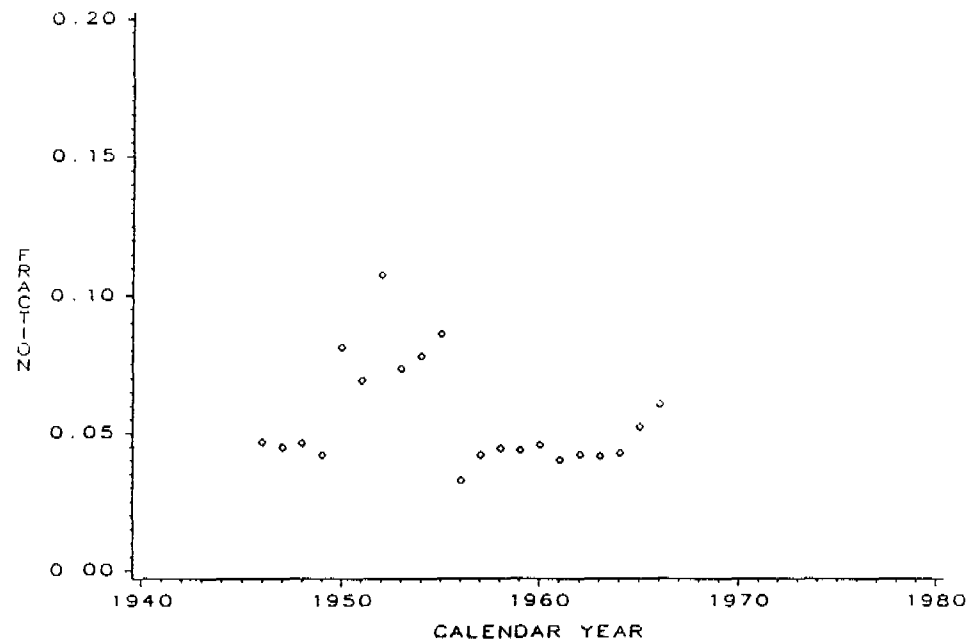


Fig. 1. Study of liver and biliary tract cancer. Attributable fraction for assignment to polyvinyl-polyvinylidene chloride areas in each year during 1940-1980.

ferences (Table II). The highest risk ratio ($RR = 2.2$; 95% $CI = 0.9-5.8$) was for presumed exposure to vinyl chloride based on the contribution of five cases. There were no statistically significant trends for analysis by duration of exposure to any of the 11 agents, although in many instances there were too few exposed cases to permit meaningful conclusions. Likewise, there were no statistically significant trends apparent when analyses were made by estimated dose of exposure.

DISCUSSION

The present investigation revealed a statistically significant positive association with assignment to office maintenance, and some marginal associations with polyvinyl-polyvinylidene chloride production. The association with an assignment in office maintenance is curious, since this type of work is not generally considered hazardous. In fact, it was a common practice to assign to that department any workers who were not considered medically fit to work in more strenuous jobs. Company medical records were available to review for four of the five cases assigned to office maintenance, and revealed that two of the men had been hospitalized for chronic alcoholism, suggesting that this finding may have resulted from confounding.

High levels of vinyl chloride exposure have produced a specific hazard of angiosarcoma of the liver in some work forces [Doll, 1988]. In the present study, five of the seven cases of liver and biliary tract cancer who held assignments in the polyvinyl-polyvinylidene work area were considered to have had the opportunity for exposure to vinyl chloride monomer. There was no evidence that any of the five cases experienced angiosarcoma; however, pathology reports and/or medical records were

TABLE II. Age-Adjusted Risk Ratios for Analyses by Selected Chemical Agent Exposures:
Study of Liver and Biliary Tract Cancer Among Chemical Workers, Midland,
Michigan, 1940-1982*

Agent	Exposure frequencies (%)		RR	95% CI
	Cases (N = 44)	Referents (N = 1,888)		
Carbon tetrachloride	11.4	20.0	0.5	0.2-1.4
Chlorodibenzo-(p)-dioxins	2.3	9.1	0.2	0.4-1.4
Chloroform	4.6	6.7	0.6	0.2-2.7
Ethylene dibromide	2.3	7.3	0.4	0.1-3.0
Ethylene dichloride	6.8	14.6	0.4	0.1-1.3
Methylene chloride	4.6	8.9	0.8	0.2-3.6
Perchloroethylene	13.6	11.3	1.8	0.8-4.3
Polychlorinated biphenyls	0.0	1.2	—	0.0-7.0
1,1,2-Trichloroethane	0.0	0.5	—	0.0-16.8
2,4,6-Trichlorophenol	0.0	0.9	—	0.0-9.3
Vinyl chloride	11.4	7.8	2.2	0.9-5.8

*Workers may have been exposed to more than one agent during their employment and thus may be counted more than once in the table.

available to confirm the diagnosis for only two of them. Table III presents some descriptive information concerning these cases. By virtue of the time period in which they worked and the nature of their jobs, each of the men was considered to have had the opportunity for high levels of exposure to vinyl chloride monomer, with peak exposures probably exceeding 1,000 ppm. Although two of the cases had spent more than 20 years each in areas of potential vinyl chloride monomer exposure, the other three had very brief exposures on the order of one to several months.

Of interest, none of the other chemical agents suspected a priori as potential risk factors was shown to be statistically significantly associated with liver or biliary tract cancer. It may be that some of the agents are weak carcinogens, but this study could not explore that hypothesis. An examination of the upper limits of the 95% confidence intervals about the risk ratios presented in Table II shows that the study apparently had sufficient power to rule-out modest increases in risk for several chemicals (i.e., carbon tetrachloride and ethylene dichloride), but only relatively large increases in risk could be excluded for others.

Some misclassification of exposure may have occurred; however, the availability of industrial hygiene data from the distant past for many of the plants at this production site should have reduced this possibility considerably. If misclassification did occur, and was non-differential, the tendency would be to diminish the strength of the associations.

ACKNOWLEDGMENTS

The authors gratefully acknowledge technical assistance from Tom Bradley, Wendy Dahar, Mike Dupuis, Stan Gorgacz, Harold Hoyle, Bruce Houtman, Carl Mueller, Gordon Roush, Dan Schmidt, Belinda Scortichini, Tricia Stirrett, and Mike Strieter. They also thank Diana Diamond for help with preparation of the manuscript.

TABLE III. Descriptive Data on Five Cases Presumed to Have Been Exposed to Vinyl Chloride Monomer: Study of Liver and Biliary Tract Cancer Among Chemical Workers, Midland, Michigan, 1940-1982

Case no.	Year first exposed	Year last exposed	Duration of exposure (yr. mo)	Year of death	Job classification	Best diagnosis (source) ^a
1	1943	1943	0; <1	1960	Assistant operator	Adenocarcinoma of common bile duct (DC)
2	1943	1943	0; 3	1964	Janitor	Carcinoma of liver (DC)
3	1950	1970	20; 0	1976	Operator	Hepatocellular carcinoma (PR)
4	1946	1967	20; 8	1980	Operator	Intrahepatic bile duct cancer (MR and PR)
5	1952	1952	0; 2	1972	Handyman/packager	Cancer of liver (DC)

^aDC = death certificate. MR = medical record. PR = pathology report.

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1 A. That he remembered testing it, the
2 monomer.

3 Q. Did he tell you how he happened to
4 remember testing Conoco's VCM?

5 A. No, he didn't tell me. I might have said
6 something about a tank car designation but I don't
7 remember specifically.

8 Q. Did he tell you how many samples of
9 Conoco's VCM he recalled testing?

10 A. He might have said quite a few or
11 something like that and I said what and -- It's not
12 clear at this time, it happened so long ago. I can't
13 remember the precise conversation. It's been so long
14 ago.

15 Q. Is this something that you believe you
16 have notes on some place?

17 A. I probably took notes, yes, on one of our
18 conversations, probably not the earliest ones.

19 Q. Do you have any records of receipt of VCM
20 by Monsanto from Union Carbide?

21 A. Other than this? (Indicating)

22 Q. Other than Exhibit 5, page 13 or your
23 personal notes of conversations?

1 A. No.

2 Q. You don't, for example, have any invoices
3 to show that shipments were made by any supplier,
4 right?

5 A. I do not.

6 Q. And you don't have any Monsanto documents
7 that showed it received VCM from any supplier?

8 A. No.

9 Q. Is that true for Dow as well as Union
10 Carbide?

11 A. It is.

12 Q. And is that true as well for Conco as well
13 as Union Carbide?

14 A. Yes.

15 Q. Page 13 of Exhibit 5 you've described as a
16 page from a personal notebook that you've maintained
17 for a certain period of time; is that right?

18 A. Yes.

19 Q. Can you describe for us what this personal
20 notebook was?

21 MR. MINOFF: You mean physically
22 what kind of notebook it is?

23 THE WITNESS: What it looked like?

1 Q. (By Ms. Burger) I would like to know --

2 A. (Interposing) It was black with white
3 pages, blue lines and a red outline. It was about
4 three inches by five maybe.

5 Q. So it was a small notebook?

6 A. Yes.

7 Q. Was it a loose-leaf notebook?

8 A. It was a bound notebook.

9 Q. What was the purpose for which you
10 maintained or took notes in this notebook?

11 A. This was the one I started I think in 1974
12 for safety and health notes in the plant. I didn't
13 use it very long. I went to some other type of
14 notebook so only a few of the pages were used.

15 Q. Were there any references in this personal
16 notebook to Union Carbide?

17 A. No.

18 Q. Were there any references to Dow Chemical?

19 A. No.

20 Q. Were there any references to Conoco Oil?

21 A. Conoco Oil, no.

22 Q. To Conoco?

23 A. No.

1 Q. To Conco?

2 A. Just this -- Oh, you are talking about
3 this page again? (Indicating)

4 Q. I'm sorry. Other than page 13?

5 A. No, there are no other references.

6 Q. Just to try and bring closure to this
7 issue, Ms. Griffith, can you identify for us the
8 period of time over which you reviewed the data books
9 to find references to VCM testing?

10 A. You mean the entries that are in this
11 notebook? (Indicating)

12 Q. Yes.

13 A. I'd say it was one evening.

14 Q. I don't -- My question I gather was
15 ambiguous. I'm not referring to how long it took you
16 to make a review. I'd like to know the years over
17 which the review covered.

18 A. Oh, it was only after Monsanto refused to
19 give me the complete list of chemicals that I was
20 exposed to so it was after the '81 letter. It must
21 have started sometime in '8- --

22 Q. We'll try again.

23 A. You want a date? April something, 1982?

1 Q. No, no. Let me ask the question another
2 way.

3 A. I'm sorry, I misunderstood the question.

4 Q. I understand that. I'm trying to find a
5 way that the question can be understood in a third
6 way.

7 A. Well, it is afternoon and I do tend to
8 slow down in the afternoon.

9 MR. MINOFF: It also has been asked
10 before.

11 THE WITNESS: Okay, try again, maybe
12 I'll get it this way.

13 Q. (By Ms. Burger) Going back to 1960, which
14 covers the time period when you were looking at --
15 Withdraw that.

16 What was the time period covered by the
17 records which you reviewed in the data books?

18 A. Oh, that's what you wanted to know.

19 Q. I finally got it right I think.

20 A. As I said before, I'm not clear on the
21 subject..

22 Q. Your best estimate or memory of the
23 period?

1 A. Well, I would say, if I had to guess I
2 would say it was from '67 through '70 or so. I might
3 have been curious and got carried away and gone to
4 '72, I don't know.

5 Q. Is it fair to say that you looked roughly
6 at a three- to five-year period?

7 A. I would say yes, three, five. I just
8 couldn't say accurately what I did.

9 Q. For that period of your review did you
10 record in your notes that are here on page 13 of
11 Exhibit 5 all of the entries reflecting a supply of
12 VCM other than Monsanto?

13 A. I tried to but unfortunately I must have
14 missed some because I didn't understand the tank car
15 designations.

16 Q. What do you mean, unfortunately you must
17 have missed some?

18 A. Well, I understood later through Joe and
19 other people that Conoco was CONX and Goodrich was V
20 or something else and GATX -- I still don't know what
21 that is but if I had been looking at tank car
22 designations I would have done a better job.

23 As it was, I was looking for Dow, Goodrich

1 and Conco Company on the designation so I think I
2 missed a lot. And, as I said, I wasn't primarily
3 interested in that anyway. At the time I was wasn't
4 primarily interested in suppliers.

5 Q. Did you mark down every supplier and tank
6 car number from the data sheets you reviewed for that
7 period?

8 A. No, I'm sure I didn't.

9 Q. And that's because you would not -- you
10 were not able to identify them at that time?

11 A. Yes.

12 Q. Did you personally ever write a tank car
13 number on a string tag?

14 A. No.

15 Q. Did you ever personally see a designation
16 on a tank car?

17 A. Yes, several times.

18 Q. And were those tank cars VCM designated?

19 A. I don't know.

20 Q. Do you know whether or not the designation
21 that you saw on tank cars were tank cars which were
22 carrying VCM?

23 A. I think I assumed they were because the

1 configuration of the tank car but I couldn't tell you
2 that I knew absolutely it was a VCM tank car.

3 Q. When was the --

4 A. (Interposing) Well, they were
5 compressurized.

6 Q. I'm sorry?

7 A. They were compressurized.

8 Q. What was the configuration of the tank
9 cars?

10 A. They were the only ones that I knew of
11 that were, so they looked -- their silhouette was a
12 little different but I'm not an expert so I couldn't
13 tell you.

14 Q. What identifications did you observe on
15 any tank cars?

16 A. I don't remember any of them.

17 Q. Absolutely no memory?

18 A. None of them at all.

19 Q. Did you personally ever write a number
20 from a string tag on a data sheet?

21 A. Yes.

22 Q. And with respect to the entries on page 13
23 of Exhibit 5, none of those were instances where you

1 had written the number from the string tag to the
2 data sheet, correct?

3 A. The four entries are you talking about
4 now?

5 Q. The four entries that start with M 33010
6 that go down Dow, Conco and Goodrich?

7 A. That's correct.

8 Q. If the data said April 26, 1968 or '69,
9 you would have been the one to write that number from
10 the tag to the book number?

11 A. Yes, I would.

12 Q. Do you personally know where the East
13 Control Lab file -- Withdraw that.

14 What is the East Control Lab file to which
15 you referred in our last deposition, do you remember?

16 A. I don't know what lab file you are
17 referring to. Do you mean where we filed data books?

18 Q. Does calling something East Control Lab
19 file have any meaning to you as you sit here today?

20 A. I would have to know the context. It
21 might have been a general term I used when I was
22 talking about a lot of different sources.

23 Q. After you examined the data books that

1 we've been talking about, did you return them to the
2 same location from which you had gotten them?

3 A. Yes. There were data books and there were
4 data sheets in loose-leaf notebooks. And the format
5 had changed, well, I think just before I left so I
6 returned everything that I had used to its former
7 place.

8 Q. Okay. Did you bring with you today the
9 list of chemicals to which you say you were exposed
10 and which you mentioned to us the last time you were
11 with us?

12 A. No, I didn't.

13 Q. Where were you physically when you
14 reviewed the data books and made the entries that
15 you've put on page 13 of Exhibit 5?

16 A. I was on the first floor of the 10 Lab.

17 Q. When you had the discussion with Mr.
18 Zalewa regarding Conoco's supply of VCM to Monsanto,
19 was anyone else present other than you and Mr.
20 Zalewa? Let me withdraw that.

21 Was the conversation that you had with Mr.
22 Zalewa regarding the suppliers of VCM in person or on
23 the telephone?

1 A. I think the earliest one might have been
2 in person.

3 Q. Was anyone else present during that
4 in-person conversation?

5 A. I don't recall I don't recall.

6 Q. Any subsequent conversations you had with
7 him on the subject of suppliers was on the telephone?

8 A. Yes.

9 Q. Was anyone else on the phone with you?

10 A. Not that I know of, you never know. I
11 didn't hear any static.

12 Q. Ms. Griffith, to prepare for the
13 deposition in May did you spend some time meeting
14 with Mr. Minoff or Mr. Tourtelotte?

15 A. Meeting with them?

16 Q. Yes.

17 A. Why would I meet -- They are not --

18 MR. MINOFF: Just answer the
19 question.

20 THE WITNESS: They are not my
21 attorneys.

22 Q. (By Ms. Burger) I understand that.

23 A. No. Simple answer to the question, no.

1 Q. Did you spend any time speaking with Mr.
2 Minoff or Mr. Tourtelotte over the telephone on the
3 fact that you were to be deposed?

4 A. I think I acknowledged receipt of the
5 letter when I called Keith. Yes, I did talk with him
6 then when I got the letter.

7 Q. Did you discuss what was going to take
8 place at your deposition?

9 A. Well, we talked briefly about it, you.
10 Know,

11 Q. Prior to having your deposition noticed in
12 May or April, had you, prior to that, had
13 conversations with either Mr. Minoff or Mr.
14 Tourtelotte about Mr. Warren's case?

15 A. I had no conversations with Mr.
16 Tourtelotte. I did have conversation with Mr.
17 Minoff.

18 Q. And do you recall when you first spoke
19 with him?

20 A. No, I don't.

21 Q. And do you recall the substance of your
22 conversations with him?

23 A. It was to do with the John Warren case

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1 that was our sole conversation.

2 Q. Did you discuss with him the suppliers of
3 VCM to Monsanto?

4 A. I believe we did.

5 Q. And do you recall what you told him about
6 the suppliers of VCM?

7 A. I think I tried to tell him what I have
8 told you today about what my notebook said and the
9 talks with Joe Zalewa.

10 Q. Were you approached by Mr. Minoff to speak
11 with him?

12 A. I can't remember whether it was Mrs.
13 Warren or Mr. Minoff, probably, yes. Since we met it
14 must have been that way.

15 Q. Did you actually meet with him in person?

16 A. Yes.

17 Q. And this was sometime before your
18 deposition?

19 A. Yes, yes.

20 Q. How long did you spend with him on that
21 occasion?

22 A. I have no idea.

23 Q. Did you meet with him here in his office?

1 A. No.

2 Q. He came to your home?

3 A. Yes.

4 Q. And you can't recall whether you met with
5 him for five minutes or an hour or half an hour?

6 A. Well, I could give you an idea, maybe an
7 hour.

8 Q. Was Mrs. Warren present?

9 A. No, no one else also was present.

10 Q. Was anyone else present?

11 A. Not that I know of, no, no.

12 Q. You've just said that you do not know Mrs.
13 Warren, correct?

14 A. I don't know her personally -- I do know
15 her personally, yes, but I've only spoken with her on
16 the phone and written to her.

17 Q. And you've never met her?

18 A. No.

19 Q. You have written to her?

20 A. Yes.

21 Q. About the death of your husband?

22 A. Yes.

23 Q. Did you retain copies of your

1 correspondence to Mrs. Warren?

2 A. No. Well, maybe one that had something to
3 do with, seems to me I did keep a copy of a letter.
4 There was some question she asked me. I can't recall
5 offhand but normally it was a personal, you know,
6 personal correspondence, Christmas card.

7 Q. When you speak of Mrs. Warren are you
8 speaking of, is it Louise, is that her first name?

9 A. I believe it's Louise, yes.

10 Q. Have you ever spoken with either of John
11 Warren's sons?

12 A. No, no, I never have.

13 Q. Have you ever met either of them?

14 A. No, I never have.

15 Q. When was the -- I think it's Alice Warren?

16 A. Alice Louise. She goes by the name
17 Louise, yes. Alice is her first name.

18 Q. I thought I was getting confused there.
19 When was the first time you spoke with
20 Louise Warren?

21 A. It was shortly after her husband died.

22 Q. What was the circumstance under which you
23 happened to speak with her?

1 A. She phoned me and asked me if I knew John
2 had died of angiosarcoma and I didn't.

3 Q. Do you know how she came to call you in
4 particular?

5 A. She said that somebody at Monsanto had
6 suggested that she might contact me for some
7 information about vinyl chloride. I think it was
8 someone John had worked with but I can't offhand
9 recall his name. I think impersonally I knew who he
10 was but I didn't know the man personally.

11 Q. You didn't know John Warren personally?

12 A. Well, I didn't know John personally but I
13 knew who he was, you know, to say hi to.

14 Q. You didn't know the person who Louise
15 Warren identified as having referred her to you?

16 A. Yes. I didn't know him personally.

17 Q. And you say you did not personally know
18 John Warren either other than that you could identify
19 him?

20 A. Yes. I -- The last time I saw him I
21 didn't recognize him because he had changed so much
22 but I would have recognized him, you know, a few
23 years earlier.

1 Q. Was he a friend of yours?

2 A. No.

3 Q. Was he simply a business acquaintance of
4 yours?

5 A. He was in the same union on the picket
6 line, occasionally brought samples over to the lab.
7 During his last few years he visited the Saflex lab.

8 Q. Have you spoken with Mrs. Warren about her
9 husband's illness?

10 A. Yes.

11 Q. And can you tell us generally what those
12 conversations have been?

13 A. Well, what any widow likes to talk about,
14 how difficult the last few weeks were, the last
15 months, and regretting the fact that she didn't have
16 really a chance to spend time with him while he was
17 still John Warren and all kinds of guilt, that he
18 couldn't enjoy his retirement.

19 Q. Did you discuss with her the illness
20 itself in terms of it being cancer as opposed to a
21 heart condition or anything like that?

22 A. Yes, when she did bring it up. I didn't
23 bring it up, she did.

1 Q. What was the substance of that
2 conversation?

3 A. I didn't know whether I should mention the
4 connection between angiosarcoma and vinyl chloride if
5 she didn't know but it was obvious right away that
6 she knew more about it than I did because she had
7 been aware of it before John died I guess. And I
8 think she did most of the talking but she did tell me
9 that she had an attorney. She told me the attorney's
10 name and I volunteered my assistance if she should
11 need my help or anything in my file about PVC, I
12 would be glad to help her or her attorneys at any
13 time and to talk to them at any time.

14 (A recess was taken.)

15 (Reporter read back as
16 requested.)

17 Q. (By Ms. Burger) Ms. Griffith, would you
18 be equally happy to help Union Carbide or Dow
19 Chemical or Conoco Oil in this case?

20 A. No.

21 Q. Would you be in, in fact, reluctant to
22 help them in this case?

23 A. Yes.

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1 Q. And is that because you personally feel
2 that the chemical industry has been irresponsible?

3 MR. MINOFF: Objection to form.

4 THE WITNESS: I didn't say that. I
5 don't even imply that. That's a strange jump.

6 Q. (By Ms. Burger) Fine. Then you don't
7 feel that way?

8 A. I don't feel that way.

9 Q. Are you angry with the chemical industry?

10 A. I was very angry at Monsanto and all the
11 other companies but you can't be angry very long.
12 I'm no longer angry but I wouldn't waste my time when
13 my time is limited. I wouldn't waste my time trying
14 to help entities that don't need help. A lot of
15 people don't have a million bucks and need help.
16 Those are the people that I'm trying to offer help
17 to.

18 Q. So your sole differentiation between
19 helping Mrs. Warren and helping the defendants in
20 this case is that she doesn't have money and the
21 chemical companies do?

22 MR. MINOFF: Objection to the form.

23 THE WITNESS: No, I didn't say that.

1 I said I don't have the time. If I had time to help
2 everyone I probably would for the experience alone, I
3 probably would be glad to sit down with Mr. Dow or
4 whoever the guy is and say what the hell have you
5 guys been doing for 40 years. You know, we've got a
6 lot of people dead. I think I would enjoy it. I
7 don't have the time. It's an indulgence, you know,
8 with the limited time and limited resources and
9 limited abilities I have I would rather put limits on
10 people that I can probably not help but at least
11 listen to.

12 Q. Do you personally hope to see Mrs. Warren
13 win this lawsuit?

14 A. I certainly do.

15 Q. Do you, in fact, Ms. Griffith, have any
16 personal knowledge about who the suppliers of VCM
17 were to Monsanto?

18 A. My personal -- I don't understand the
19 question, personal knowledge.

20 Q. In other words, personal knowledge meaning
21 that which you saw with your own eyes or heard with
22 your own ears as opposed to somebody telling you
23 something or your reading it some place?

1 A. Or reading it?

2 Q. Yes.

3 A. I -- At the time I didn't know what I was
4 looking at. I was completely ignorant and I know now
5 that I probably should have recognized some other
6 tank car numbers but I didn't at the time so I don't
7 have any personal knowledge of the time either when I
8 was testing VCR -- VCM or when I was assisting
9 testing VCM. I have no knowledge, personal
10 knowledge, of suppliers other than Monsanto.

11 Q. And what is the basis of your personal
12 knowledge that Monsanto was a supplier of VCM to
13 itself?

14 A. Well, I really don't know that I worked on
15 vinyl chloride. I'm beginning to doubt, you know,
16 whether I really worked on vinyl chloride. I
17 couldn't prove it to you, you know, in court. How
18 can you prove it? I can't. I can't prove it was
19 vinyl chloride monomer.

20 Q. Ms. Griffith, truly, I'm not trying to
21 trick you. I'm only trying to exhaust your personal
22 knowledge.

23 A. You are exhausting me.

1 Q. But am I exhausting your personal
2 knowledge; that's the question.

3 Let me just clarify or make certain of one
4 thing: With respect to the entries you've put on
5 page 13 of Exhibit 5 where it says, for instance, M
6 33010, then the date 9/10/69, did you copy down
7 specifically that which you saw on a data sheet?

8 A. Yes.

9 Q. And with respect to the entry that said
10 Dow X 3337 and the date 7/19/68, were all of those
11 words and numbers on the data sheet that you looked
12 at?

13 A. Yes.

14 Q. So both the word "Dow" was there and the
15 number "X 3337" was on that sheet?

16 A. That's correct.

17 Q. And the same for Conco where it said
18 either Conco, C-O-N-C-O, a misspelling, or Conoco,
19 C-O-N-O-C-O, on it, also with the letters CONX 9066
20 and the date 10/14/68 on the data sheet?

21 A. Yes.

22 Q. And the Goodrich V8 2527, dated 10/14/68,
23 that entry also was in that form on the data sheet?

1 A. Yes, it was.

2 MR. MINOFF: With the word
3 "Goodrich"?

4 MS. BURGER: Yes.

5 MR. MINOFF: I don't think you said
6 that in your question.

7 MS. BURGER: Let me ask the question
8 again.

9 THE WITNESS: Ask the question
10 again, please.

11 Q. (By Ms. Burger) You looked at a data
12 sheet from which you wrote down the information,
13 "Goodrich V8 2527, 10/14/68," correct?

14 A. That's correct.

15 Q. Did that data sheet have on it the word
16 "Goodrich"?

17 A. Yes, it did.

18 Q. It also had the number "V8 2527"?

19 A. It did.

20 Q. Is it now your understanding that the
21 letter V, for instance, in this Goodrich entry
22 standing alone connotes Goodrich?

23 A. No, not necessarily. I've never been told

1 that.

2 Q. So you don't have that understanding now
3 either, correct?

4 A. No, no. I just copied what I saw down
5 there. I don't know whether it does or whether it
6 doesn't.

7 Q. Is it your understanding that the prefix
8 CONX designates Conoco in any way?

9 A. No, just happened to be there.

10 Q. Is it your understanding that the prefix
11 X, as in the Dow entry you have on this page 13,
12 Exhibit 5, in any way designates Dow?

13 A. No.

14 Q. How long did a typical VCM test take on a
15 sample?

16 A. Most of the tests took a long period.
17 Actual working time you mean or how long you had to
18 wait for the answers?

19 Q. Both.

20 A. Oh, probably close to eight hours I think,
21 about one shift.

22 Q. Eight hours to do what, perform the test
23 or wait for the results?

1 A. Well, before you could complete the test I
2 think there was one that had to be -- Let me see. We
3 rarely did them.

4 You are talking about a single test now?
5 Was your question about a single test, one tank car?

6 Q. My question relates it one bomb.

7 A. One tank, one tank. We rarely did one at
8 a time. I actually can't recall what the overall
9 period -- I know it was a full night's work when we
10 had a few bombs but if you had one, I can't even
11 remember what the longest test was right now.

12 If it's important I could look up my
13 notebook for my test procedures and maybe refresh my
14 memory.

15 Q. We can go forward. I appreciate that.

16 Did you ever observe personally on any
17 string tag the word Conco or Conoco?

18 A. I don't think I did. I couldn't be sure
19 but I don't think I did.

20 Q. Did you ever observe on any string tag the
21 word Dow?

22 A. I'm not sure whether I did or not.

23 Q. You have no present memory about whether

1 you did or not?

2 A. No.

3 Q. So you also couldn't tell me how many you
4 would have seen with Dow on it?

5 A. No, I just have no recollection of ever
6 seeing that company name.

7 Q. Then I take it --

8 A. (Interposing) Although something about
9 this does look familiar but I just don't remember
10 that clearly. (Indicating)

11 Q. Did you ever observe the letter M as an
12 initial letter before a number on any string tag?

13 A. Yes.

14 Q. And did you have any understanding about
15 what the M stood for?

16 A. I just assumed it was Monsanto or maybe
17 someone told me, I don't remember.

18 Q. Did you ever see a string tag with the
19 word or words Union Carbide on it?

20 A. No.

21 Q. Did you ever see a string tag with the
22 prefix MONX on it?

23 A. Yes, many times.

1 Q. What does MONX represent?

2 A. Well, I was told Monsanto.

3 Q. Who told you that?

4 A. I don't recall.

5 Q. And did you see so many string tags with
6 the prefix MONX on it that you couldn't count them
7 for us now?

8 A. No, there are so many, GATX, MONX.

9 Q. Did you see many string tags then with
10 GATX on it?

11 A. Yes.

12 Q. Other than GATX or MONX do you recall any
13 other letters or prefixes which you observed on
14 string tags?

15 A. Not on string tags but I seemed to
16 remember the tank car number SH somewhere and I
17 seemed to be the only one that remembers it so it
18 probably wasn't vinyl chloride monomer but something
19 keeps coming back about SH, I saw it somewhere.

20 Q. Do you know what SH represented?

21 A. No, no, I have no idea what SH means.

22 Q. Why did you ask Joe Tierney or somebody
23 who was working in the tank farm whether the MONX

1 symbol on the string tag identified a supplier?

2 A. I think we had a question -- Well, this
3 was the time when Monsanto was -- we were told it was
4 getting other suppliers and the question came up
5 about identifying the contents by car number, the
6 tank car number. And there was discussion in the lab
7 and no one could agree about whether you could tell
8 what was inside by the tank car number. I don't
9 remember ever asking Tierney specifically about MONX.
10 I mean if you are going to identify your own tank car
11 you would probably use your own name and Monsanto is
12 pretty close to MONX. I don't remember the --
13 Someone probably told me years ago, I mean not just
14 when I --

15 Q. (Interposing) Let me --

16 A. -- worked on it.

17 Q. Let me try and narrow this down for you so
18 you understand why I'm asking. When you were deposed
19 last time --

20 MR. MINOFF: (Interposing) What
21 page is that?

22 MS. BURGER: I'm going to try to get
23 to the beginning of it before I state a page. Page

1 84.

2 Q. (By Ms. Burger) I'm going to read you the
3 answer that starts at page 83. If you need to go
4 back and review or have me read more to you I will
5 but I think this will be enough.

6 You were answering: "Yes, Attorneys for
7 Defendant B.F. Goodrich. Now, it made me think about
8 my -- the response I got to a question I had about
9 how do you know what's in the tank car by the name.
10 I asked this either to Joe Tierney or somebody who
11 was working on the tank farm.

12 "If it's labeled MONX or some other number
13 are you sure you know who the supplier is. And he
14 said, No. And I said, Why not. He said, It's
15 because they lease cars sometimes. You know, if you
16 have extra cars or you're down or something, so if
17 somebody incoming in a GATX might be a Monsanto car
18 and at the time I accepted that."

19 I've read that to you just for a frame of
20 reference; that's where my question comes from, which
21 is: Why did you ask Joe Tierney or somebody who was
22 working on the tank farm why the MONX on the string
23 tank identified the supplier?

1 A. Well, as I say, my concern then was if we
2 could tell any of these other suppliers by the tank
3 car numbers.

4 Q. And this was back in the late 1960's?

5 A. Well, in this case it was the sixties when
6 I was actually working on them. It wasn't earlier I
7 don't believe.

8 Q. Why were you concerned about who the
9 supplier was at that time?

10 A. Because we were told we were testing
11 something different, you know, this was different,
12 something we had never done before. And it seems to
13 me the qualitative control lab was involved because
14 they were doing extra testing. They were doing
15 special testing of some of the suppliers so it was,
16 you know, if the name of the company wasn't on the
17 tag, was there any way -- I'm just surmising this is
18 why I asked the question. I'm not sure I asked Joe
19 Tierney about it but I asked somebody working on the
20 tank farm, either an operator or Joe or some foreman
21 or something.

22 Q. Ms. Griffith, you said in the answer that
23 I've just read to you that at the time you were told

1 that you couldn't necessarily know who the supplier
2 was from the number that was on the tank car?

3 A. Mm-hmm.

4 Q. That you accepted that?

5 A. I did, yes.

6 Q. And later on in your testimony, about
7 another page or so, you said -- Question on page 85.

8 Question: "And that indicated -- As a
9 result of that conversation you came to believe that
10 not all of the tank cars containing VCM were from
11 Monsanto?"

12 Answer: "Well, I was concerned -- I
13 didn't believe that. To answer your question: I did
14 not believe the answer but that was the answer I got.
15 I answered your question: I did not believe the
16 answer."

17 A. Yes, that is confusing. Do you have the
18 question?

19 Q. Yes. The question is: Did you believe
20 Mr. Tierney or whomever it was when you were told
21 that you could not identify the supplier of the VCM
22 by the number on the tank car?

23 A. Yes, at first I did. At the time I was

1 told that I believed it.

2 Q. At some later time did you come to
3 disbelieve it?

4 A. Yes.

5 Q. When did you come to disbelieve it?

6 A. Shortly after if I remember correctly.

7 Q. Why did you come to disbelieve it?

8 A. I don't remember why. Some conversation
9 or some information I got. It was something from
10 inside Monsanto.

11 Q. As you sit here today do you have any
12 basis for disbelieving that you cannot identify the
13 source or supplier of VCM from the number on the tank
14 car?

15 MR. MINOFF: Objection to form. I
16 couldn't follow the negatives.

17 MS. BURGER: I'll ask the question
18 over.

19 Q. (By Ms. Burger) As you sit here today
20 do you have any reason to doubt what Mr. Tierney or
21 someone else from the farm, tank farm, told you?

22 A. Yes.

23 Q. And what is that reason?

1 A. Well, I doubt anything I was told now.
2 You know, I have no reason to doubt and I have no
3 reason to believe. I just don't know the answer to
4 that question and I probably will never know the
5 answer to that question.

6 Q. Do you know whether in fact you can
7 identify for certain the supplier of VCM by the
8 designation on the tank car?

9 A. As a fact, no.

10 Q. Do you know whether samples of VCM were
11 taken from tank cars on the same day that the tank
12 cars arrived at Monsanto?

13 A. No.

14 Q. Do you have any idea the period of time
15 which a tank car would sit at Monsanto before a
16 sample was taken?

17 A. No.

18 Q. Do you know how long VCM, once it got from
19 a tank car into a storage tank, would be held there?

20 A. No.

21 Q. Do you know how long it took to get VCM
22 from a storage tank into a kettle for processing?

23 A. I have no idea.

1 Q. Do you know how long the processing took
2 once the VCM got into a kettle?

3 A. A few hours. I really have no idea. I
4 don't know.

5 Q. Aside from your entry on page 13 of
6 Exhibit 5 and now the conversations which you've told
7 us you had with Mr. Zalewa --

8 A. (Interposing) Zalewa.

9 Q. -- Zalewa and Mr. Williams, is there any
10 other basis which leads you to believe that Conoco
11 was a supplier of VCM to Monsanto?

12 A I can't recall that there are any. There
13 might be but at this moment I can't recall any
14 others.

15 Q. Okay. Other than page 13 of Exhibit 5 --

16 A. Yes.

17 Q. -- and conversations that you had with
18 either Mr. Zalewa or Mr. Williams, is there any other
19 basis that you have to believe that Dow was a
20 supplier of VCM to Monsanto?

21 A. Yes. There are others that told me that
22 Dow was involved.

23 Q. And who were the others?

1 A. Well, Carl Rehm was one. There was
2 another analyst. I think the Dow name came up quite
3 often in the latter part of, you know, what this time
4 is -- that I'd have to check my notes. I really am
5 not clear on who told what.

6 Q. When you say you have to check your notes,
7 are those the ones that I've asked you to look for?

8 A. The telephone notes.

9 Q. Is there anyone else besides Mr. Zalewa,
10 Mr. Williams and Mr. Rehm that told you that Dow had
11 been a supplier?

12 A. As I said, I can't remember.

13 Q. Okay. Other than conversations you had
14 with either Mr. Zalewa, Mr. Williams or Mr. Rehm, is
15 there any other basis for you to believe that Union
16 Carbide was ever a supplier of VCM to Monsanto?

17 A. As I said, I can't recall the names of
18 these people and who told me what company.

19 Q. Okay. Was every tank car of VCM tested
20 before it was used?

21 A. That was my impression. I was told that.
22 Whether it was or not, you will have to ask Monsanto.

23 Q. And it was your understanding that if a

1 VCM sample failed to pass the specs it would be sent
2 back to the supplier?

3 A. Well, ideally but usually it was blended
4 off or used in junk, a junk batch which could be used
5 in 85 Building. I think it was rare that they
6 actually returned it because it was expensive.

7 Q. What do you mean by "blended off"?

8 A. Well, if you have -- They made several
9 different products of PVC and some you needed better
10 raw material than others. So if you got a bad batch
11 you could blend it with some good batches and some of
12 these less demanding formulas and if the batch didn't
13 take -- turn out right -- then you could ship it
14 right next door to 85 Building and they could make
15 film or compound out of it.

16 Q. Do you know what the prefix CVX stands for
17 before a tank car or other number?

18 A. No.

19 MR. MINOFF: CVX?

20 THE WITNESS: I have seen it but I
21 have no idea what it stands for. I assume it stands
22 for a supplier.

23 Q. (By Ms. Burger) Do you know how many

1 storage tanks there were for VCM at Monsanto?

2 A. No.

3 Q. Do you know if it was more than five?

4 A. No.

5 Q. Do you know how many kettles there were in
6 which VCM was processed?

7 A. I did know at one time but I have
8 forgotten.

9 Q. Do you know whether it's more than five?

10 A. I would say more than five, yes.

11 Q. Do you know whether it's more than ten?

12 A. No.

13 Q. When did Louise Warren send you a picture
14 of John Warren?

15 A. Sometime this year.

16 Q. Why did she do that?

17 A. I asked her for it.

18 Q. Why did you ask for a picture?

19 A. Well, I was -- I was thinking about it and
20 I wasn't sure if I got the right man. I knew I knew
21 John Warren but I wasn't sure so she sent me a
22 picture.

23 Q. Have you spoken with Mrs. Warren since

1 your deposition was taken in May?

2 A. Yes, I have.

3 Q. Did you call her or did she call you?

4 A. I don't remember which.

5 Q. And what was the substance of the
6 conversation you had with her after your deposition?

7 A. Oh, I guess we talked about how it went
8 and I said it was eight hours and I didn't think we
9 accomplished anything. No offense.

10 Q. Did you discuss with her the lawsuit and
11 how it's going at any time?

12 A. Well, there wasn't anything to discuss.

13 Q. So the answer is no?

14 A. No. Well, we might have said, you know,
15 how is it going and it's been this long and, you
16 know, we discussed it but not at any great length
17 because there wasn't anything to say.

18 Q. When you were deposed last you identified
19 four buildings, 86, 88, 84 and 92, which were all in
20 Department 80; do you remember that?

21 A. Yes.

22 Q. And you told us that John Warren was in
23 Department 80?

1 A. Yes.

2 Q. And the basis of your knowledge that he
3 was in Department 80 was your reference to union
4 materials; is that right?

5 A. That was one -- that was one of means.

6 Q. And other sources of that information were
7 what?

8 A. Harold Williams worked with him so he knew
9 he worked in Department 80.

10 Q. Do you have any personal knowledge of when
11 in time Mr. Warren, in fact, worked in Building 86?

12 A. Our records. You are talking about our
13 seniority records, which started in '51 so if he
14 started -- I wouldn't have -- I'd have a department
15 number, I wouldn't have a building designation.

16 Q. And my question simply is: Do you have
17 any knowledge of whether, in fact, Mr. Warren worked
18 in Building 86?

19 A. I think Harold told me he was there when
20 Harold worked there, which would have been '49.
21 That's the only knowledge. I don't have any direct
22 knowledge.

23 Q. And, Ms. Griffith, that would be

1 specifically that he worked in Building 86 in 1949?

2 A. Yes, because Harold worked there. That's
3 the only --

4 Q. Okay. Other than the 1949 do you have any
5 information which would tell you whether Mr. Warren
6 worked in Building 86?

7 A. No.

8 Q. Do you have any basis for knowing that Mr.
9 Warren worked in Building 88 at any specific time?

10 A. No.

11 Q. Do you have any basis for knowing that
12 John Warren worked in Building 84 at any specific
13 time?

14 A. Just through Harold and people he worked
15 with.

16 Q. Did Harold Williams tell you that John
17 Warren worked in Building 84 at some specific time?

18 A. All he told me was that he worked in all
19 of them but, you know, I didn't look it up or check
20 it with anyone or ask Mrs. Warren.

21 Q. I take it then you also don't know
22 specifically of any time when Mr. Warren worked in
23 Building 92?

1 A. Well, I know he worked in 92 when it was
2 changed over from PVC.

3 Q. Okay. With respect to exposure to VCM?

4 A. VCM, no.

5 Q. Do you know of any time when Mr. Warren,
6 if ever, actually worked in Building 92?

7 A. No, no.

8 Q. What caused you to ask Harold Williams
9 where John Warren worked?

10 A. I think I was comparing John's record with
11 the other angiosarcoma case. I wanted to know if
12 they had worked in PVC, the same building, same time,
13 for the length of time and the only way I could do it
14 was to ask someone who had worked for John for a long
15 period.

16 Q. Ms. Griffith, what is the other
17 angiosarcoma case to which you refer?

18 A. Another Monsanto worker --

19 Q. (Interposing) And who is that?

20 A. -- whose name escapes me.

21 Q. You knew I was going to ask.

22 A. No. A French name.

23 Q. Did you say a French name? Did this

1 person die?

2 A. Yes.

3 Q. Do you recall when he died?

4 A. Oh, he died a long time ago, in the late
5 seventies.

6 MR. MINOFF: Messier?

7 THE WITNESS: No, no. That wasn't
8 cancer.

9 Q. (By Ms. Burger) Has Mrs. Warren ever told
10 you in which buildings Mr. Warren worked?

11 A. I don't know whether we mentioned building
12 numbers or not. I don't know whether the numbers
13 meant much to her. She knew he worked in more than
14 one.

15 A. Charles Giroux, G-I-R-O-U-X, Charles.

16 Q. Can you spell that again?

17 A. G-I-R-O-U-X.

18 Q. What were the dangers associated with VCM
19 about which you were warned?

20 A. Flammability mostly, explosions, narcotic
21 effect, heavy doses but primarily explosion. I think
22 we were told time and time again about that.

23 Q. Were you directed to wear any type of

R&S159688

1 respiratory protection when working with VCM?

2 A. No, I never was.

3 Q. Were you told to wear any type of eye
4 protection when working with VCM?

5 A. Oh, yes. Protective goggles and
6 protective shield, rubber gloves.

7 Q. What's a protective shield?

8 A. A curved plastic that goes from the top of
9 the head to about below the neck.

10 Q. So that covered both your eyes and the
11 rest of your face?

12 A. Yes, but you had to wear goggles
13 underneath because you are working with bottles that
14 are under pressure and glass under pressure that
15 could break. The protective equipment was because it
16 was not only under pressure but extremely cold. We
17 had to keep it cold, keep the pressure down.

18 Q. So is that the full face shield that you
19 were referring to when Mr. Rendini asked you
20 questions this morning?

21 A. Yes, yes.

22 Q. One thing about the labeling that we
23 talked about already, you said that it was not the

1 usual practice to write the name of a company like
2 Dow or Conoco or Goodrich on a tag?

3 A. Well, in my experience, I can only say in
4 my experience. The time after '68 or so that I
5 remembered seeing tags.

6 Q. So commencing in roughly 1968 through the
7 early seventies, were you testing VCM samples?

8 A. Well, not -- I don't remember when I
9 stopped testing it. Couple two or three, maybe three
10 years or so.

11 Q. At least commencing in roughly 1968
12 through the time that you did sample VCM it was
13 unusual for you to see the name of a company written
14 out on the string tag, correct?

15 A. Yes.

16 Q. You said to Mr. Rendini this morning that
17 later when Texas City stopped supplying VCM you then
18 observed company names on tags; is that correct?

19 A. As I say, I am not sure when Texas City
20 stopped supplying Monsanto. We were -- We were not
21 told the exact date that Monsanto stopped supplying
22 our monomer, so I assume it was around that period
23 but I don't know the exact date.

1 Q. You assumed it was around that period,
2 meaning 1968?

3 A. Yes, I assumed it was around the time I
4 started testing it.

5 Q. Nevertheless, to be sure I understand it,
6 once you started testing the VCM sample it remained
7 unusual for you to see the name of a company on a
8 string tag?

9 A. I would think so, yes.

10 MR. BURGER: Ms. Griffith, I thank
11 you. I don't have any other questions.

12 THE WITNESS: Thank you.

13 MR. RENDINI: I just have one or
14 two.

15 *****

16 REDIRECT EXAMINATION BY MR. RENDINI

17 Q. Ms. Griffith, a while back while you were
18 speaking to Ms. Burger you mentioned that you were
19 angry at Monsanto; do you remember that?

20 A. Yes.

21 Q. Why were you angry at Monsanto?

22 A. I don't like to be lied to, especially
23 about living and dying.

1 Q. And did you feel that you were lied to by
2 Monsanto?

3 A. I definitely did.

4 Q. What was the lie that you believe you were
5 told?

6 A. Well, there are hundreds of them but the
7 principal ones, that we were never warned about
8 cancer. I was never told benzene or any of the other
9 carcinogens were carcinogens, even long after they
10 knew it. We were never told about any chronic
11 long-term effects of any of the chemicals. We were
12 told that something will burn or it will explode and
13 be careful of fire. Fire was -- They were always
14 concentrating on fire because the record of fires
15 wasn't very good. And then everything changed when
16 the publicity of vinyl chloride came out in '72, '73,
17 angiosarcoma.

18 Q. How did it change?

19 A. Well, we started looking at it for the
20 first time. I started looking at it for the first
21 time and looking at the people dying around us.
22 There were some people who had died earlier perhaps
23 from vinyl chloride that we hadn't associated with

1 that exposure. Even after '74 the safety manuals
2 never changed much. They never mentioned cancer.
3 They were still talking about vague terms, about
4 handling it with care and we felt we should have
5 known everything that Monsanto had known. We trusted
6 Monsanto to know more than we did. We trusted them
7 to know that benzene was dangerous, styrene was
8 dangerous, not in ways that they told us it was
9 dangerous but in other ways. And the confidence we
10 had was misplaced.

11 Q. Were you ever led to believe by anyone at
12 Monsanto that any of these materials -- and I think
13 you've mentioned benzene, styrene and, of course,
14 polyvinyl -- Strike that -- VCM -- were you ever told
15 by anyone at Monsanto that these materials were not
16 dangerous, I mean other than for explosion or?

17 A. Yes, we were told -- the typical thing,
18 these are so safe you can eat it, like PVC. The
19 engineer said you could eat a sandwich of PVC it was
20 so safe. I think he was encouraged to eat one
21 several times after that.

22 Q. Who was the engineer?

23 A. I don't know, the late engineer.

R&S159693

1 Q. Was it a Monsanto engineer?

2 A. Yes, yes.

3 A. Everyone knew he was a dim ball but he
4 still was in a position of authority and he should
5 have known better. But I worked at Monsanto for
6 almost 40 years and I was never told that anything
7 would cause cancer until the time I retired in 1982,
8 never, ever.

9 Q. Did you ever have reason to believe that
10 Monsanto had such knowledge but did not release it to
11 you?

12 A. As I say, with -- I understood or accepted
13 that Monsanto knew more than we did, that was their
14 job. They were supposed to know all of these things
15 about the chemicals; that's what they had research
16 and medical research for and it would filter down to
17 us in a way that would protect us. They didn't have
18 to scare the hell out of us but you shouldn't get
19 stuff on your skin. They should say not only will it
20 burn but 20 years down the line you are going to get
21 melanoma or something.

22 If they had, if they had protected us or
23 protected anyone properly with their knowledge, like

1 in 1961 when they knew vinyl chloride caused liver
2 disease, even John Warren might still be alive today.

3 Q. Now, you just mentioned that Monsanto knew
4 in 1961 that VCM caused liver disease; is that
5 correct?

6 A. Well, Dow knew it. I think they shared
7 all that knowledge with the industry.

8 Q. Okay. Do you have any specific knowledge
9 that Monsanto had that awareness in 1961?

10 A. No, just what I read somewhere, that they
11 were instructed at a meeting of some kind that -- I
12 think they knew it, probably suspected it before.

13 MR. RENDINI: I have no further
14 questions.

15 MS. BURGER: I'll just ask hopefully
16 a quick question.

17 *****

18 RECROSS EXAMINATION BY MS. BURGER

19 Q. You say in 1961 you believed that Dow knew
20 that VCM caused liver disease; is that right?

21 A. Yes.

22 Q. What's the basis of your statement?

23 A. Well, there was a study they did of

RS159695

1 animals that caused severe liver disease in an animal
2 study that Dow sponsored. I don't have -- I don't
3 know who did the study. I don't have the study
4 itself.

5 Q. Have you seen the study?

6 A. I think I read the study or a summary of
7 it years ago. I don't have it, no.

8 Q. Do you know what it was called, the study?

9 A. No, I have no idea.

10 Q. Do you recall how the study came to your
11 attention?

12 A. Yes, because I was reading a chronology,
13 you know, of PVC. And then there was a big meeting
14 of industry at some time, they were invited to
15 discuss this, the impact of the these study results
16 on their industry. And it was after that that they
17 decided voluntarily to reduce their standards from
18 500 to 50 parts per million.

19 MS. BURGER: Okay. Thank you.

20 THE WITNESS: Okay.

21 MR. MINOFF: I have no questions

22 MR. RENDINI: I'd just like to point
23 out that there were some documents that were

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1 mentioned in the first deposition that we were
2 supposed to get copies of. What I'll do is just send
3 a letter.

4 MS. BURGER: I have the OSHA
5 complaint number that you asked for.

6 MR. RENDINI: What is that complaint
7 number?

8 MS. BURGER: Okay, the date was May
9 21st, 1982, CSHO No. G3644, Report 178. That was
10 Springfield, Massachusetts.

11 (The deposition was
12 concluded.)

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