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1 IN THE COMMONWEALTH COURT OF PENNSYLVANIA

2 PENNSYLVANIA DEPARTMENT OF GENERAL: NO. 284 M.D. 1990

3 SERVICES, PENNSYLVANIA :

4 DEPARTMENT OF TRANSPORTATION, :

5 PENNSYLVANIA PUBLIC UTILITY :

6 COMMISSION, PENNSYLVANIA EMERGENCY:

7 MANAGEMENT AGENCY, PENNSYLVANIA :

8 DEPARTMENT OF STATE :

9 Plaintiffs :

10 Vs. :

11 UNITED STATES MINERAL PRODUCTS :

12 COMPANY, CERTAINTIED CORPORATION, :

13 COURTAULDS AEROSPACE, INC; :

14 CHEMREX, INC; PHILIPS ELECTRONICS :

15 NORTH AMERICA CORPORATION, :

16 ADVANCE TRANSFORMER COMPANY and :

17 MONSANTO :

18 Defendants :

19 Witness: Paul Benignus

20 Date: May 6, 1998

21 ESQUIRE DEPOSITION SERVICES

22 15th Floor

23 1880 John F. Kennedy Boulevard

24 Philadelphia, Pennsylvania 19103

ESQUIRE DEPOSITION SERVICES

1 Oral Deposition of
2 Paul Benignus, taken pursuant to Notice, held at
3 Fischer's Restaurant, 2100 West Main, Belleville,
4 Illinois, on Wednesday, May 6, 1998, at
5 10:05 a.m., before John W. Begley, a Registered
6 Professional Reporter - Notary Public there being
7 present.

8 APPEARANCES: HUMPHREY, FARRINGTON & MC CLAIN, P.C.

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Letter to Dr. L.S. Birnbaum

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ESQUIRE DEPOSITION SERVICES

1 THE COURT REPORTER: Usual
2 stipulations?

3 MR. ZIEGLER: That's fine.

4 MR. NICHOLS: That's fine.

5 MR. GFELLER: That's fine.

6 MR. MANNINO: That's fine.

7 MR. GOUTMAN: That's fine, but I
8 would like the witness to read and sign the
9 transcript.

10 - - -

11 (It is hereby stipulated by and among
12 counsel for the respective parties that the
13 sealing, filing and certification are waived,
14 and that all objections, except as to the form
15 of the questions, be reserved until the time of
16 trial.)

17 - - -

18 Paul Benignus, after having first been
19 duly sworn, was examined and testified as
20 follows:

21 - - -

22 EXAMINATION

23 - - -

24 BY MR. ZIEGLER:

ESQUIRE DEPOSITION SERVICES

1 Q. Could you state your full name and your
2 address for the record, please.

3 A. Paul George Benignus, spelled B E N I G N U S,
4 47 Metcalf, M E T C A L F, Drive, Belleville,
5 Illinois, 62223.

6 Q. Mr. Benignus, how long did you work for
7 Monsanto Company?

8 A. I started in 1934 and I retired in '74, so it
9 is 40 years.

10 Q. And how old are you presently?

11 A. 89. Well, that will be in August. I'm 88.
12 I'm sorry.

13 Q. Have you ever had your deposition taken
14 before?

15 A. Yes.

16 Q. How long ago was it? Do you remember?

17 A. Well, the latest one was about a week ago.

18 Q. Do you know what case that was in?

19 Let me ask you this: Do you know if it
20 involved a personal injury?

21 A. No.

22 Q. Do you know what the nature of the case was?

23 A. Tell me the case and I'll tell you what it
24 was.

1 Q. Let me ask you this --

2 A. Excuse me. I don't document these in my mind.
3 I have been in several cases. I know what they were
4 about, etc., etc., but this is unusual. I feel
5 rather strange here. It was recent and I can't
6 differentiate this from anything else.

7 Q. Well, really, my only question to you, the
8 deposition that you gave a week ago, was that on
9 behalf of or in a case involving Monsanto
10 Corporation?

11 A. Well, yes.

12 Q. Can you tell me about how many times that you
13 have been deposed in cases involving Monsanto
14 Corporation?

15 A. I would guess six, seven times over the years.

16 Q. Have you ever actually had an opportunity to
17 go to court and testify in a courtroom for Monsanto?

18 A. No.

19 Q. Have all of your depositions been taken in the
20 St. Louis metropolitan area?

21 A. Essentially, yes, but there's an exception to
22 this. Two exceptions. Two exceptions. The rest
23 were right here. St. Louis or at Fischer's.

24 Q. Why did you pick Fischer's for your

1 deposition?

2 A. It is handy and it's not overly expensive.

3 Q. When you traveled out of town before to have
4 your deposition taken, do you remember where you went
5 to?

6 A. Yes.

7 Q. Where was that?

8 A. Once to San Francisco and once to Houston,
9 Texas.

10 Q. Do you have copies in your possession of your
11 deposition transcripts that you gave in those other
12 cases?

13 A. I have some, yes.

14 Q. You retired in 1974?

15 A. 1974.

16 Q. And do you get a pension from Monsanto?

17 A. Yes.

18 Q. And does that constitute a substantial source
19 of income for you since you retired?

20 MR. GOUTMAN: Objection to the form of
21 the question.

22 You may answer.

23 THE WITNESS: What?

24 MR. GOUTMAN: You can answer if you can.

1 THE WITNESS: No.

2 BY MR. ZIEGLER:

3 Q. You wish it was higher. Is that what you are
4 telling me?

5 A. Yes.

6 Q. Was your employment with Monsanto beginning in
7 1934, was that the first job you had out of college?

8 A. Yes.

9 Q. Where did you go to school?

10 A. Let me tell you I worked for, I believe it was
11 three months prior to this, at Western Cartridge in
12 Alton, where I manufactured a detonator and then I
13 heard from Monsanto, who offered me a job and I left.
14 Shortly after I left a detonator exploded.

15 Stop laughing.

16 Q. Before you worked at Western Cartridge where
17 did you go to school?

18 A. OSU. Graduate school.

19 Q. You went to graduate school.

20 A. Yes.

21 Q. Did you get your Ph.D.?

22 A. No, this was the height of the depression. I
23 got a job and you went.

24 Q. What did you do your graduate work in?

1 A. Organic synthesis of potential medicinals.

2 Q. Where did you get your undergraduate degree
3 from?

4 A. Illinois College.

5 Q. Was that a B.S.?

6 A. Yes.

7 Q. In what?

8 A. Chemistry.

9 Q. Where is Illinois College?

10 A. Jacksonville.

11 Q. When you first started working for Monsanto
12 where did you go to work every morning?

13 A. South 2nd Street.

14 Q. Is that in St. Louis?

15 A. Yes.

16 Q. Is there a manufacturing facility located
17 there or is it business offices?

18 MR. GOUTMAN: This is in 1934?

19 MR. ZIEGLER: Yes.

20 THE WITNESS: It was the main plant of
21 the Organic Chemicals Division.

22 BY MR. ZIEGLER:

23 Q. Did the place where you worked, did that ever
24 change from South 2nd Street?

1 A. Yes.

2 Q. Can you tell me when you left South 2nd Street
3 where you went to go to work?

4 A. Olive and Lindbergh. That was in 1957.

5 Q. Was there a manufacturing facility located at
6 Olive and Lindbergh?

7 A. No.

8 Q. Just offices?

9 A. Just offices.

10 Q. Did you go anywhere, did you ever change your
11 offices from Olive and Lindbergh after you started
12 working there in '57?

13 A. No.

14 Q. When you first started in 1934 what was your
15 job title?

16 A. Analytical chemist.

17 Q. How would you describe your responsibilities
18 as an analytical chemist for Monsanto?

19 A. To run routine analysis on the chemicals that
20 were manufactured there.

21 Q. Did they manufacture PCBs at the South 2nd
22 Street location?

23 A. No.

24 Q. Did you ever have any occasion to analyze PCBs

1 as an analytical chemist while you worked at the
2 South 2nd Street location?

3 A. No.

4 Q. After you were an analytical chemist what did
5 you do for Monsanto then?

6 A. Oh, I spent some time as a plant process
7 control laboratory chemist. That was out in the
8 plant.

9 Q. Do you know what years those were?

10 A. This would have been 19 -- until 1938.

11 Q. And how long did you function as a lab control
12 chemist?

13 A. Oh, I suppose a year.

14 Q. About a year?

15 A. Yes.

16 Q. Did you do any work with PCBs during that
17 time?

18 A. No.

19 Q. What did you do after you were a control lab
20 chemist?

21 A. Then I was moved to research, specifically
22 application research.

23 Q. How long were you in application research?

24 A. I would say a year-and-a-half. At the most

1 two years.

2 Q. What did you do after that?

3 A. After that I was moved, requested, to be the
4 chemist for the development part of the Organic
5 Chemicals Division.

6 Q. And for how long did you work in that capacity
7 as a chemist for the development department?

8 A. Until 1947. I believe October.

9 Q. How did your job responsibilities change in
10 1947?

11 A. Well, I was invited to join the Inorganic
12 Chemicals Division. That occasioned the move. And
13 my specific assignment was to pursue non-electrical
14 uses for PCBs.

15 Q. When you say "pursue non-electrical uses", are
16 you saying that part of your job was to discover new
17 applications for PCBs?

18 MR. GOUTMAN: Objection to the form of
19 the question.

20 You may answer.

21 THE WITNESS: I don't think we ever
22 discovered anything. Pursue. That doesn't say
23 invent or discover; it says pursue. Okay.

24 BY MR. ZIEGLER:

1 Q. You were in marketing.

2 A. I was associated with marketing, in those days
3 called sales department, and people outside of
4 Monsanto found interest in PCBs and developed their
5 use for their particular purpose interest, and I
6 tried to be informed what was going on to keep
7 posted, but the uses for PCBs didn't emanate from
8 Monsanto is really the bottom line.

9 Q. Your job was then to participate in the
10 marketing of the PCBs.

11 A. No, I had nothing to do with marketing.

12 Q. Were part of your responsibilities
13 communicating with Monsanto customers in regard to
14 PCBs?

15 A. Really not, but there was no blockage if such
16 occurred.

17 Q. Did you communicate with governmental agencies
18 in regards to PCBs that you recall?

19 MR. GOUTMAN: During what time frame?

20 THE WITNESS: Not at that time. Not at
21 that time.

22 BY MR. ZIEGLER:

23 Q. Did your assignment at Monsanto change over
24 time so that you started communicating with

1 government agencies in regard to PCBs?

2 A. Later on.

3 Q. When was that?

4 A. Well, I would nominate the early 1950's.
5 Maybe 1951 or 1952. Call it the mid-fifties.

6 And that reference, incidentally, is a
7 very incidental way in those days.

8 Q. Was there a time -- you are talking about the
9 mid-fifties now. Was there a time later on that you
10 started to have greater contact with governmental
11 agencies?

12 A. I would say so.

13 Q. When did that happen?

14 A. Well, I would say over this period, from the
15 mid-fifties on until I retired I had contact. I was
16 informed of things that were going on until I
17 retired.

18 Q. Can you think of a particular event that
19 happened after the mid-fifties that triggered a much
20 greater amount of contact on your part with
21 governmental agencies with regard to PCBs?

22 A. I'll answer your question in a different vein.
23 I told you when I went with the Inorganic Division,
24 who manufactured PCBs at Anniston, and a plant was

1 started at Monsanto, Illinois, and I told you that I
2 went with the Inorganic Division, Inorganic Division
3 there, in 1947. And I told you my specific
4 assignment was to handle non-electrical applications
5 for PCBs, to pursue those. That's where we left it
6 off.

7 Now, to answer your question, there was
8 a significant change. Up until this change Dr.
9 Jenkins, Director of Research at Anniston, handled
10 all technology with the industry, particularly I
11 refer to the electrical use of PCBs, which was a big
12 use.

13 Now, it was 1951, I believe,
14 thereabouts, it's not critical, that handling the PCB
15 business was moved from the Inorganic Chemicals
16 Division into the Organic Division, and it was
17 assumed that I would go along with it, and I did.
18 And I was back in the Organic Division. The
19 pertinent thing here is that at that specific point
20 in time Dr. Jenkins was transferred from the
21 Inorganic Division to the Organic Division, and he no
22 longer handled PCBs, and the pertinent thing is I was
23 tapped on the shoulder not by Monsanto but by General
24 Electric Company, the inventor. Paul, I want you.

1 He knew Jenkins was out of the picture. I want you
2 to be active with my people. I want you to join this
3 ^{ASTM}~~ASM~~, American Society For Testing and Materials; IEC,
4 International Electrotechnical Commission; IEEE, the
5 Institute of Electrical and Electronic Engineers.

6 Now, I, in essence, in simple terms,
7 took over what Russell Jenkins, Dr. Jenkins, did with
8 GE, who up to this time had use patents. You
9 couldn't use it unless you got a license from them.
10 And those patents expired about this time, in this
11 general time. Monsanto's manufacturing patents had
12 expired earlier, so that is the tenor of the
13 situation. And the electrical industry, the use for
14 capacitors and transformers was by far the major part
15 of the business.

16 Q. I see. Do you recall, during your employment
17 with Monsanto, whether you had any communications
18 with Gustin Bacon Manufacturing Company?

19 A. No.

20 Q. Do you know whether Monsanto sold PCBs to
21 Gustin Bacon?

22 A. I wouldn't be surprised. I have heard the
23 name.

24 MR. GOUTMAN: Don't speculate.

1 THE WITNESS: Don't speculate. I heard
2 the name.

3 MR. GOUTMAN: I think it is a matter of
4 record that we have produced documents that
5 would suggest sales, but, in any event, this
6 witness has indicated he has no personal
7 knowledge.

8 BY MR. ZIEGLER:

9 Q. What about Courtaulds? Do you know if --

10 A. What?

11 Q. Courtaulds. Have you ever heard of that
12 company?

13 A. No.

14 Q. What about Products Research and Chemical
15 Company?

16 A. No.

17 Q. Have you ever heard of a company called
18 Products Research Corporation?

19 A. No. Sounds like the same thing.

20 Q. It is close.

21 What about ChemRex? Have you ever
22 heard of ChemRex?

23 A. No.

24 Q. Sonneborn. Does that ring a bell?

JURIST-BEGLEY REPORTING SERVICES

1 A. No.

2 Q. How about Philips Electronics North America
3 Corporation?

4 A. That's a big corporation. I didn't know
5 anything about them back in those days.

6 Q. You don't know, just sitting here today,
7 whether Monsanto sold PCBs to Philips?

8 A. I would say no, they didn't.

9 They were British, weren't they?

10 Q. I'm not sure, actually.

11 A. Yes, that's a British company. Philips, the
12 electrical, big electric corporation. Yes, it is
13 Britain.

14 Q. What about Advance Transformer Company?

15 A. Oh, I have heard of that name.

16 Q. Do you know whether Monsanto ever sold PCBs to
17 them?

18 A. Yes.

19 Q. Your own knowledge. Do you know?

20 A. Yes.

21 Q. And did they?

22 A. Yes. Advance Transformer.

23 Q. Do you know whether Monsanto ever sold PCBs
24 for use in roofing mastics?

1 A. No.

2 Q. You don't know whether or --

3 A. No.

4 Q. Same question regarding floor tile mastics.

5 A. No.

6 Q. Do you know whether Monsanto sold PCBs for use
7 in carpet mastics?

8 A. No. I wasn't in that area at this point in
9 time, what you are referring to. I wasn't there.

10 Q. I understand.

11 A. Okay.

12 Q. What about building insulation materials? Do
13 you know if --

14 A. No.

15 MR. GOUTMAN: You have to wait until he
16 finishes his question.

17 THE WITNESS: I thought he was finished.

18 Excuse me.

19 BY MR. ZIEGLER:

20 Q. These questions, if you could just wait,
21 because I don't want there to be any misunderstanding
22 regarding whether you knew about it or whether they
23 ever sold it.

24 A. I didn't know about it.

1 Q. Do you know whether Monsanto sold PCBs for use
2 in air ducts?

3 A. No.

4 Q. How about caulk or caulking materials?

5 A. I don't know of any commercial, specific
6 commerce. No. I wasn't in that area.

7 Q. Who in the Monsanto Company would have been
8 responsible for that area, to your knowledge?

9 MR. GOUTMAN: When? You are talking
10 about a long time.

11 BY MR. ZIEGLER:

12 Q. We are talking about the period after you
13 started in 1951.

14 A. In 1951.

15 Q. Yes.

16 A. Well, this was the Organic Chemicals Division.
17 Now, the Organic Chemicals Division had a plasticizer
18 section and laboratory.

19 Q. In 1951 do you know who headed that up? Do
20 you remember?

21 A. I would say Joe Darby.

22 Q. Do you remember when Mr. Darby retired about?
23 Do you remember who replaced him?

24 A. No, but he would have retired maybe a little

1 before I retired. We are about the same age.
2 Started at about the same time. Joe had been at
3 Monsanto maybe six months or a year before I got
4 there, so he must have started in '34 or 1933.

5 Q. As we sit here today, between 1947 and 1974,
6 when you retired, do you know whether Monsanto ever
7 conducted any toxicity tests on PCBs?

8 A. Yes.

9 Q. What about during the decade of the forties?
10 Do you know whether any toxicity tests were
11 conducted?

12 A. Yes.

13 Q. Can you tell me what kind of tests those were?

14 A. Let me put it this way; the man I reported to,
15 Lynn Watt, you are talking about the early 1940's, he
16 was the head of this development department that I
17 told you about in the Organic Chemicals Division.
18 And he hired Dr. Kelly and provided the funds and the
19 monies needed for this toxicity work. That was done
20 outside of Monsanto. I don't think anything was done
21 within Monsanto. We weren't so set up. So being
22 there in the group I heard about toxicity studies,
23 yes. Yes, I heard about it. I wasn't involved in it
24 in any way. I heard about studies.

1 Q. Do you know what form those studies took?

2 A. Generally, in a very general way, and that's
3 all I can say. There was exposure to animals, vapor
4 exposure to mice and rats, and I heard of rabbits and
5 I believe there was exposure to skin on, I believe,
6 rabbits. That's about as far as I can go with this.

7 Q. Do you know, as a result of those studies that
8 were conducted in the 1940's, whether Monsanto had
9 any information in its possession that would indicate
10 that PCBs could be a potential cause of chloracne?

11 A. Yes.

12 MR. GOUTMAN: Let me just interpose an
13 objection, since the witness spoke too soon.
14 Objection to the form of the question.

15 Go ahead.

16 THE WITNESS: Excuse me for talking.

17 Yes.

18 BY MR. ZIEGLER:

19 Q. Can you tell me, and I just want to think
20 about in the 1940's for right now --

21 A. All right.

22 Q. -- but can you tell me what other source of
23 problems that Monsanto suspected might result from
24 PCB exposures?

1 MR. GOUTMAN: Objection to the form of
2 the question.

3 You can answer it.

4 THE WITNESS: None.

5 BY MR. ZIEGLER:

6 Q. Chloracne was the only one, to your knowledge.

7 A. Yes.

8 Q. Now, let's think about the decade --

9 MR. GOUTMAN: I'm sorry. The witness is
10 indicating -- do you want to speak to me?

11 Go ahead.

12 BY MR. ZIEGLER:

13 Q. Do you want to add something to your prior
14 answer?

15 A. Well, I don't know if it is worthwhile, but
16 all right. Is it all right for me to talk?

17 Q. Yes.

18 A. Okay.

19 Q. And I'm assuming now that my last question,
20 you want to add to your last answer.

21 A. Yes, about chloracne.

22 Q. Yes.

23 A. I wish to clarify this so you will understand
24 what I knew about it. Indirectly I had heard, very

1 indirectly, and this was of no consequence one way or
2 another. It didn't mean anything to me. But to
3 answer your question, going back, you see you asked
4 about the 1940 frame work. Going back earlier are
5 you asking was there chloracne?

6 Q. Well --

7 A. In the 1940 frame work --

8 Q. And I'm assuming that since you didn't have
9 any responsibilities for PCBs prior to 1940, I'm just
10 going to assume that you weren't concerning yourself
11 with PCBs.

12 A. I sure wasn't. I certainly was not. But I
13 had heard there had been an incident of chloracne in
14 the 1930's at Anniston where there was an aberration.
15 All of a sudden some workers did get chloracne. That
16 was a surprise because they hadn't had trouble
17 before. Now, this was never clearly pinpointed, but
18 all the best judgment was it was due to an aberration
19 in the benzene, which is a raw material for making
20 biphenyl. And in those days benzene was sourced from
21 coal tar. Coal tar benzene. Their best assessment
22 was that there was an aberration in the benzene and
23 it went away just as unexpectedly as it appeared, but
24 that was evidence of chloracne. The only one --

1 Q. When you say "the only one", that's the only
2 one that you can remember during your employment with
3 Monsanto?

4 MR. GOUTMAN: Objection to the form of
5 the question.

6 You can answer.

7 THE WITNESS: No.

8 BY MR. ZIEGLER:

9 Q. When you said "the only one", the only -- what
10 are you confining your answer to there?

11 A. About what I'm talking about. The plant at
12 Anniston.

13 Q. I see.

14 A. This abnormal aberration, this glitch that all
15 of a sudden showed up and went away, and that was
16 chloracne. I heard about that many years later. I
17 wasn't there.

18 Q. I see. Let's talk about the 1950's for a
19 second.

20 A. Okay.

21 Q. Was Dr. Kelly still doing research work for
22 Monsanto in the 1950's?

23 MR. GOUTMAN: Objection to the form of
24 the question.

1 THE WITNESS: He was not a research man;
2 he was a medical director. Dr. Kelly?

3 BY MR. ZIEGLER:

4 Q. Okay. I'm sorry. I thought -- I
5 misunderstood your prior answer. Dr. Kelly was an
6 employee of Monsanto.

7 A. He was a medical director.

8 Q. And let's go back to the forties for just a
9 second. Can you tell me, if you know, who Monsanto
10 hired to do the toxicity tests?

11 A. I heard names. Kettering Laboratory. I heard
12 that name. I heard Kehoe, ~~Hole~~. I heard that name.

13 Q. Those are the two that you remember.

14 A. Yes.

15 Q. And let's move up to the 1950's now. Do you
16 know if Monsanto was still using Kettering
17 Laboratories in the 1950's to do toxicity studies?

18 A. I don't know, but so if they were, they were.
19 I don't know whether they were.

20 Q. That's my question. If you don't know --

21 A. Specifically I wasn't involved with any of
22 this at that time. Then. I was in a different area.

23 Q. And that's my question. If you don't know --

24 A. I just don't know. If I knew I would sure

1 tell you.

2 Q. Do you know, sitting here today, what sort of
3 toxicity studies that Monsanto was doing in the
4 1950's?

5 A. The answer is no because I wasn't in the area,
6 but what else do you do?

7 You know, you guys are enjoying this.

8 MR. GOUTMAN: Just answer the question.

9 THE WITNESS: I did.

10 BY MR. ZIEGLER:

11 Q. All right. And as I understand your answer,
12 you are saying that from your understanding you
13 wouldn't know of any other toxicity studies that you
14 would want to do at that point in time?

15 MR. GOUTMAN: Objection to the form of
16 the question.

17 You may answer.

18 THE WITNESS: Yes. That's it. Yes.

19 BY MR. ZIEGLER:

20 Q. Did you talk to anybody at Monsanto during the
21 fifties regarding whether, and I'm asking you this if
22 you know or if you recall, whether Monsanto had
23 complete knowledge with respect to PCB toxicity in
24 the decade of the fifties?

1 MR. GOUTMAN: I object to the question
2 because at least one meaning of that question
3 is whether this witness knows, knew, what
4 everyone at Monsanto may have known.

5 MR. ZIEGLER: I just want to know if he
6 talked to anybody in that regard.

7 MR. GOUTMAN: Objection to the form of
8 the question for that reason because this
9 witness obviously would not, could not, speak
10 for every Monsanto employee.

11 MR. ZIEGLER: And I'm not asking you to
12 speak for all of the Monsanto employees. We
13 will have somebody else come in and do that.
14 I'm just asking you if you talked to anybody at
15 Monsanto during the fifties that you recall as
16 to whether Monsanto had sufficient or complete
17 knowledge regarding PCB toxicity.

18 MR. GOUTMAN: I'll also object to your
19 use of the word "complete". I don't know what
20 that means, but in any event, you can answer if
21 you can.

22 THE WITNESS: Yes. How can I answer
23 this? You are saying me to say what Monsanto
24 knew about the complete knowledge? I can't

1 really do this. To begin with, I wasn't
2 talking to anybody about it.

3 MR. ZIEGLER: That was a poorly worded
4 question.

5 MR. GOUTMAN: I'm glad you agree with
6 me.

7 THE WITNESS: Yes.

8 BY MR. ZIEGLER:

9 Q. Did you have any discussions with anybody at
10 Monsanto regarding whether additional toxicity tests
11 should be run on PCBs?

12 A. No. No.

13 Q. You never overheard any discussions of that
14 nature?

15 A. No.

16 Q. In the decade of the sixties do you know
17 whether Monsanto was conducting any toxicity studies
18 during that decade?

19 A. Monsanto never conducted these, per se
20 Monsanto. You mean out --

21 Q. Did they commission them or did they fund
22 them?

23 A. And what time in the sixties are you talking
24 about?

1 Q. Any time in the sixties.

2 A. Any time?

3 Q. Yes.

4 A. Well, towards the end of the sixties toxicity
5 studies were more active than any time I know of.
6 End of the 1960 time frame.

7 Q. Do you know what triggered Monsanto's
8 commissioning of the toxicity studies in the later
9 1960's?

10 MR. GOUTMAN: Objection to the form of
11 the question.

12 You can answer.

13 THE WITNESS: I'll answer it to the best
14 I can. I wasn't involved in this. In the
15 1960's I was traveling around the world, but I
16 was informed of things and based on what I knew
17 I'll answer your question to the best of my
18 ability. PCBs were found in a seagull off the
19 coast of Sweden in parts per million or
20 billion.

21 And another example of this was a
22 peregrine falcon off the coast of Baja,
23 California. Some environmental people, with
24 the government, I assume, found minute amounts

1 of PCBs in that bird. What this deals with,
2 they were in the process of banning DDT and
3 PCBs were showing up as an interference, and
4 now you are in a time frame, if you are with
5 me, when very sophisticated analytical
6 procedures came to be. In fact, a friend at
7 Monsanto, he was a physical chemist, I was
8 close to this man, he was only a laboratory
9 man, but he didn't invent vapor phase
10 chromatography, but he did a lot to enhance
11 vapor phase chromatography and others, experts,
12 in the academia and so forth, and enhanced this
13 methodology which you need. Take something
14 like any PCB. It's not one compound; it is a
15 mixture. Aroclor 1260, why that may have ten,
16 20, is it 30, maybe 40 different things in
17 there. That's a very complex thing. This is
18 complex, sophisticated analysis. You never
19 heard of any of this when I was telling you
20 when I was in the laboratory. Moreover, it
21 gets to be very important. They were going to
22 be talking in terms, in the seagull, in parts
23 per million and parts per billion, and talk is
24 over an authority on this. We damn well better

1 have very sophisticated spectral
2 autometric capability and other analytical,
3 physical analytical instrumentation
4 that I never used.

5 BY MR. ZIEGLER:

6 Q. This individual that you were telling me
7 about, do you remember his name?

8 A. Sure, Ralph Munch.

9 Q. And how do you spell his last name?

10 A. M U N C H.

11 Q. Did Mr. Munch --

12 A. Dr. Munch.

13 Q. I'm sorry. Did Dr. Munch still work with
14 Monsanto at the time you retired?

15 A. Yes.

16 Q. As I understand your answer, tell me if I'm
17 right or wrong, but as you understand it the reason
18 for the toxicity studies in the latter part of the
19 1960's came about as a result of the discovery of
20 PCBs in the environment?

21 A. Yes, but I don't know if this is all
22 comprehensive here that they found it in a bird. I
23 can't answer to that. I'm telling you what I know,
24 what I heard.

1 Q. But you are aware, though, that in the second
2 half of the decade of the sixties that PCBs were
3 being discovered around the world?

4 MR. GOUTMAN: Objection to the form of
5 the question.

6 You can answer it if you can.

7 THE WITNESS: PCBs were being discovered
8 around the world?

9 BY MR. ZIEGLER:

10 Q. Yes.

11 A. They were used around the world.

12 Q. I mean in the environment.

13 A. In the environment.

14 Q. Do you understand my question?

15 A. Yes.

16 Q. I'm sorry.

17 A. And in these very minute amounts my answer is
18 positive. I have no reason to question the
19 methodology that was being used, although there's
20 plenty of reason, wonder, if the guy using it knows
21 what the hell he's doing. It's not funny. A part
22 per million and a part per billion? To analyze this
23 and speak of it in a positive manner, you better be
24 a Nobel prize winner in the analytical area. All I'm

1 trying to say to you, this was very sophisticated and
2 analytical work, and I have no basis whatever to
3 question it.

4 Q. Let me ask you this: Let's say before 1965 do
5 you know whether Monsanto had conducted or
6 commissioned any studies with respect to the
7 biodegradability of PCBs?

8 MR. GOUTMAN: Objection to the form of
9 the question.

10 You can answer it.

11 THE WITNESS: Whether Monsanto had
12 commissioned someone?

13 BY MR. ZIEGLER:

14 Q. Had they done any studies or commissioned
15 anyone to do studies on the biodegradability of PCBs?

16 A. I can't pinpoint this myself because I wasn't
17 involved in 1965, so I can't answer your question in
18 that specific term. I can say that I saw
19 biodegradable studies, attempts to understand this
20 more at Monsanto. Now, the point in time where I'm
21 confused, was it '65? I don't know. Somewhere.

22 Q. Do you know if it was before or after 1965?

23 A. I can't be specific. This is why I'm saying
24 what I mean. I can't be specific by telling you that

1 it was before, but my inclination is that it was
2 probably after.

3 Q. If I just ask you about the decade of the
4 fifties, do you remember seeing any biodegradability
5 studies in the 1950's?

6 A. No. No. Definitely no.

7 Q. With respect to the decade of the fifties, do
8 you remember seeing any studies on the ability of
9 humans or animals to metabolize PCBs?

10 A. I specifically, my best answer is no, but --

11 MR. GOUTMAN: If that's your answer
12 that's your answer.

13 BY MR. ZIEGLER:

14 Q. Is it possible for you sitting here today to
15 go back to the fifties and could you tell me what you
16 knew or what you understood about animals' ability to
17 metabolize PCBs?

18 MR. GOUTMAN: Objection. No foundation.

19 You can answer it if you can.

20 THE WITNESS: No.

21 BY MR. ZIEGLER:

22 Q. Is that a tough one?

23 A. Pardon?

24 Q. Is that a tough question?

1 A. I have no knowledge of animals eating PCBs.
2 Why would they eat it?

3 Q. I don't know. Why would a falcon eat PCBs? I
4 don't know.

5 MR. GOUTMAN: Excuse me. Let's not get
6 into a back and forth.

7 You have answered the question.

8 Is there another question?

9 BY MR. ZIEGLER:

10 Q. He thinks you are doing fine.

11 A. Is that what he thinks? Well, what you think
12 is what counts.

13 Q. During the decade of the fifties did you ever
14 have an occasion to review any medical journals or
15 any sort of publication regarding PCBs and health?

16 MR. GOUTMAN: Objection to the form of
17 the question.

18 You can answer.

19 THE WITNESS: Really not. Not I.

20 BY MR. ZIEGLER:

21 Q. Was there somebody in your section who had the
22 responsibility of keeping up to date on scientific
23 literature regarding health effects and PCBs?

24 MR. GOUTMAN: Do you mean in his

1 section or at Monsanto?

2 BY MR. ZIEGLER:

3 Q. In your section.

4 A. Not specifically in my section I was in. I
5 want to answer this, but by this time they had an
6 industrial hygienist working in conjunction with Dr.
7 Kelly, so we had an industrial hygienist that would
8 be active along the lines you are referring to.

9 Q. Do you remember the name of the industrial
10 hygienist?

11 A. Elmer Wheeler.

12 Q. Do you recall whether Elmer Wheeler -- was he
13 a doctor?

14 A. No.

15 Q. Do you know whether Mr. Wheeler maintained a
16 library of any sort in which he catalogued
17 information regarding PCBs and health effects?

18 A. I would hope so.

19 Q. Do you know for a fact that he did?

20 A. I think I answered the question.

21 Q. And that's --

22 A. I didn't go in there and see what files
23 Wheeler has got, but I would expect to find files on
24 what you are talking about, sure.

1 BY MR. ZIEGLER:

2 Q. Do you have knowledge of anyone else at
3 Monsanto who may have maintained such files or
4 information regarding PCBs and health effects?

5 MR. GOUTMAN: In the 1950's are we
6 still talking about?

7 MR. ZIEGLER: In the 1950's, yes.

8 THE WITNESS: No, this was the center of
9 it by now. It was Kelly, the medical director,
10 and Wheeler, and other people there. The
11 department expanded. I remember when it was
12 only Emmett Kelly.

13 BY MR. ZIEGLER:

14 Q. And Mr. Kelly was hired about --

15 A. Dr. Kelly. He was an M.D.

16 Q. And Dr. Kelly was hired in about 1951 or so.

17 A. Oh, no, he was hired in -- I would say 1935.

18 Q. Much earlier.

19 A. Yes.

20 Q. During the fifties can you remember any other
21 people that Dr. Kelly had on staff there at Monsanto?

22 A. In the 1950's?

23 Q. Yes.

24 A. No, I was rarely in the medical department in

1 the 1950's. I don't think I was there at all.

2 Q. What about the 1960's?

3 MR. GOUTMAN: The question is who

4 worked under Dr. Kelly in the 1960's?

5 BY MR. ZIEGLER:

6 Q. Do you know who else he had there working with
7 him?

8 A. No, I don't.

9 Q. What about in the 1970's? Can you remember
10 anybody?

11 A. I don't know it then either.

12 Q. Did you make it part of your job at Monsanto
13 in the 1950's to monitor literature, scientific
14 literature or scientific information, regarding PCBs
15 and health effects?

16 A. No. No.

17 Q. That, at least as far as you understand, would
18 have been Dr. Kelly or Dr. Wheeler's job.

19 A. Yes.

20 MR. GOUTMAN: Dr. Kelly and Mr. Wheeler.

21 THE WITNESS: Right.

22 BY MR. ZIEGLER:

23 Q. Do you know what kind of health precautions
24 Monsanto employed in its Anniston plant to protect

1 from PCB exposure, other than what you have already
2 told me?

3 A. No.

4 Q. Do you know if Monsanto ever monitored its
5 employees for PCB health effects?

6 MR. GOUTMAN: Objection to the form of
7 the question. What do you mean by monitoring?

8 BY MR. ZIEGLER:

9 Q. Do you know whether the employees ever
10 underwent any sort of medical surveillance for
11 effects of PCB exposure, for example?

12 A. The answer is no, I never heard of any
13 illness. And chloracne didn't appear again. The
14 answer, as far as I know, is no. You are looking at
15 one.

16 Q. Were you exposed to PCBs regularly during your
17 employment at Monsanto?

18 A. Not regularly, no, but I was exposed.

19 Q. Do you know whether there are any specific
20 warnings that were given to employees who were
21 exposed, either periodically or regularly, to PCBs?

22 MR. GOUTMAN: Objection. What time
23 frame are you talking about?

24 MR. ZIEGLER: I guess now I'm thinking

1 workers from PCB exposure?

2 MR. GOUTMAN: At what point in time?

3 BY MR. ZIEGLER:

4 Q. Let's say in the 1950's and 1960's.

5 A. Well, I was at the plant one time. I didn't
6 go there to answer your question. I'll do my best.
7 At that point in time, as I understand it, the
8 workers were provided with a locker and with a shower
9 and I believe they changed their clothes, that they
10 didn't go home in the same clothes they worked in.
11 And if need be, used gloves and hard hats. That was
12 it.

13 Q. In terms of the workers that worked with PCBs,
14 you never saw them using respirators, for example?

15 A. I anticipated this. No.

16 Q. Why did you anticipate that question?

17 A. It is a logical question. It is a good
18 question.

19 Q. Thank you.

20 A. And it should be given a good response.

21 Q. When you were at the Anniston plant, with
22 respect to the workers who were working with PCBs, do
23 you recall that they were provided any special safety
24 clothing or any other safety devices to protect them

1 at any time during his employment.

2 THE WITNESS: At any time? Please
3 repeat the question.

4 BY MR. ZIEGLER:

5 Q. At some point in time did Monsanto begin
6 giving warnings to employees who were potentially
7 exposed to PCBs?

8 A. Not to my knowledge. They never warned me.

9 Q. And you never, at least where you worked at
10 Lindbergh, you never saw any signs hanging up saying,
11 to the effect, Warning. PCB exposure or anything
12 like?

13 MR. GOUTMAN: He's already said there
14 were only offices at Lindbergh. It wasn't a
15 plant. PCBs weren't manufactured there.

16 THE WITNESS: Can I start?

17 MR. GOUTMAN: I object.

18 THE WITNESS: At Lindbergh it was called
19 the campus. It was an office complex. There
20 obviously wouldn't be anything about PCBs
21 there. No.

22 BY MR. ZIEGLER:

23 Q. With respect to the Anniston plant, did you
24 ever see any warning signs there when you visited

1 regarding PCBs?

2 A. I was at Anniston one time. I saw nothing.

3 There was nothing like that.

4 Q. Do you remember what year you visited

5 Anniston?

6 A. I'm pretty sure, it would be logical, I'm
7 pretty sure it would have been 1948.

8 Q. Did you ever go to any other Monsanto
9 facilities at which PCBs were either being
10 manufactured or used?

11 MR. GOUTMAN: Objection. I mean, PCBs
12 are used in electrical equipment all over the
13 place. You really mean manufactured?

14 MR. ZIEGLER: Or used.

15 MR. GOUTMAN: Well, I object to the
16 question. It is overly broad.

17 THE WITNESS: Would you repeat it,
18 please, so I get this right?

19 BY MR. ZIEGLER:

20 Q. Outside of Anniston --

21 A. Right.

22 Q. -- did you ever go to any other Monsanto
23 factories --

24 A. Yes.

1 Q. -- where PCBs were being either manufactured
2 or used in the manufacture of other Monsanto
3 products?

4 MR. GOUTMAN: Objection.

5 You can answer if you can.

6 THE WITNESS: All right. I went to the
7 Krummrich plant. I have been there.

8 BY MR. ZIEGLER:

9 Q. When did you go there?

10 A. This would have been -- I didn't go there to
11 begin with relative to PCBs. That wasn't the reason
12 I was there. I would say it was during the war
13 years. The war ended in 1945. I would say I was
14 there in the forties, early forties. I was at the
15 Krummrich plant. By that time that plant had been
16 built at the request of the government's insistence.
17 This was a critical material for winning the war and
18 we had to have two independent sources of supply.
19 The one at Anniston no longer satisfied the
20 government's military requirements. They built this
21 facility at Krummrich in case something went wrong at
22 Anniston, so I was there at that point in time. Not
23 relative to PCBs at all, but they manufactured PCBs
24 at that time I'm talking about.

1 Q. Could you spell the name of that plant?

2 A. W. G., William G., Krummrich,
3 K R U M M R I C H, plant.

4 Q. Was that plant still open at the time you
5 retired?

6 A. Well, I would say yes. I retired in 1974 and
7 the business wasn't shut down until 1977, so, yes.

8 Q. Did you ever go visit any other Monsanto
9 factories at which PCBs were either being
10 manufactured or being used to manufacture Monsanto
11 products?

12 MR. GOUTMAN: Objection to the form of
13 the question.

14 You can answer it.

15 BY MR. ZIEGLER:

16 Q. Outside of Anniston and Krummrich.

17 A. I visited our plant at Ruabon, Wales where
18 Monsanto made PCBs.

19 Q. What year was that?

20 A. Well, it would had to have been, to the best
21 of my ability, in the late fifties.

22 Q. Can you recall, sitting here today, whether
23 during that visit you saw any PCB warnings that were
24 being given to workers at that plant?

1 A. No.

2 Q. At least as you recall, there were no warnings
3 being given of potential chloracne or anything?

4 MR. GOUTMAN: Objection to the form of
5 the question.

6 You can answer.

7 THE WITNESS: No, there was no illness
8 reported. There was no chloracne ever
9 experienced, to my knowledge, at Ruabon. No.
10 I wasn't there --

11 BY MR. ZIEGLER:

12 Q. Can I have you spell that? The Wales plant.
13 Can I have you spell that?

14 A. It was at Ruabon, R U A B O N, I think it is.
15 R U A B O N. South Wales, W A L E S. England. It
16 was essentially England.

17 Q. Off the record.

18 (Off the record discussion)

19 BY MR. ZIEGLER:

20 Q. Back on the record.

21 Let's mark this as Benignus 1.

22 (Indicating).

23 (The above-referred to document was
24 marked as Benignus Exhibit 1 for

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1 identification)

2 BY MR. ZIEGLER:

3 Q. Mr. Benignus, I will ask you to look at
4 deposition Exhibit Number 1. If I could just have
5 you read that.

6 MR. GOUTMAN: Okay. We are ready.

7 THE WITNESS: Okay.

8 BY MR. ZIEGLER:

9 Q. Have you had a chance to look at Exhibit
10 Number 1?

11 A. Yes.

12 Q. Could you identify Exhibit Number 1 for me.

13 A. I wrote it.

14 Q. It is a letter, then, from you to
15 Dr. E. W. Leaks dated June 17, 1948.

16 A. Yes.

17 Q. And this letter, you wrote this letter while
18 you were with the Inorganic Chemicals Division; is
19 that right?

20 A. You are right. It is 1948. Exactly.

21 Q. And you are talking about non electrical uses
22 of PCBs.

23 A. Exactly.

24 Q. On the second page -- let's look at the first

1 page, if you could. You talk a little bit there
2 about using PCBs in pesticides. If you could look at
3 the second paragraph, and in particular the last
4 sentence of that paragraph, you state, "Because of
5 their unusual chemical stability, the Aroclors may
6 give longer lasting value as" -- is that pronounced
7 miticides?

8 A. Miticides.

9 Q. "And larvicides than obtained from the other
10 toxicants."

11 My question to you is in writing that
12 sentence, when you use the word "toxicants", are you
13 meaning to classify Aroclors as a toxicant?

14 A. No, and it is good you are pointing this thing
15 out. I didn't always -- this is a good -- there's a
16 lot of stuff in here. You got something interesting
17 here.

18 Q. Yes.

19 A. Now, I wasn't always the best. I said
20 something here that is a bit whacky. Now, I'll
21 explain this. This -- oh, to begin with, as I told
22 you earlier, we didn't invent anything, but we did
23 pursue it. This is a good example of this, an
24 excellent example of my trying to keep posted and

1 pursuing what somebody else is interested in. Now,
2 what this really, the Department of Agriculture, they
3 were really interested in using Aroclors, possible
4 use of Aroclor, PCBs, as an additive to active
5 pesticides, such as DDT. PCBs have no biological
6 activity at all. From that standpoint I wish to
7 clarify. PCB is not an active miticide, insecticide
8 or fungicide; it is neutral. They were interested in
9 this as a binder, a fixer, to make DDT and maybe
10 other active toxicants to these insects remain longer
11 on where they are going to put them on, bushes,
12 trees, so on and so forth. That was their interest.
13 We were trying to pursue this thing. What are they
14 going to want to do? As you see here, we sent them
15 samples of everything they wanted. And then we were
16 going to try to keep posted. Let me tell you this.
17 Nothing ever came of it. PCBs were not used
18 commercially in any way to my knowledge ever for
19 this. That was originated in the Department of Texas
20 Experiment Station. In fact, I think the thing
21 originated in the Department of Agriculture somewhere
22 else.

23 MR. GOUTMAN: Here it is. (Indicating)

24 THE WITNESS: This is Experiment Station

1 in Texas, but I think there was something along
2 these lines that came to my attention prior to
3 this. But definitely I was, as you said, after
4 1947 I was in the Inorganic Division and my
5 assignment was to pursue what somebody is doing
6 with PCBs. (Indicating)

7 BY MR. ZIEGLER:

8 Q. If I could ask you to turn over to the second
9 page of your letter and look at the second full
10 paragraph, the first sentence there says, "The
11 toxicity of Aroclors appears to vary considerably
12 with reference to the individual chlorinated biphenyl
13 or terphenyl compound."

14 Sitting here today can you tell me what
15 that means?

16 A. Well, with the knowledge at hand, with the
17 knowledge I had, the statement does say that the
18 toxicology seems to vary. Now, there is a variation
19 in the toxicology of one PCB. You realize that these
20 are complex things to the other. We can start with
21 things as thin as this water. Then, to cut this
22 short, go through viscous things. Solids. Now, to
23 be active, to be active, the thing has to contact
24 the, if we are talking about insects -- no, you are

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1 talking about what?

2 MR. GOUTMAN: He's just asking, I
3 guess, what the meaning of this first sentence
4 was.

5 BY MR. ZIEGLER:

6 Q. I think --

7 A. I'll let you lead.

8 Q. In the next sentence you say, "From an
9 industrial standpoint, the greatest concern deals
10 with the vapors emitted from Aroclors when the
11 materials are heated to higher temperatures."

12 Can I ask you, can you tell me what you
13 meant when you said the greatest concern in the
14 context of that sentence?

15 A. Yes. I don't know how great the concern was.
16 But, anyhow, it is the greatest concern. Now, do not
17 breathe the vapors or fumes from PCBs that are
18 generated at elevated temperatures. I generated such
19 fumes myself. I know what it is. This is very, very
20 unusual that a PCB is used at elevated temperatures,
21 but in industry they go to moderate increased
22 temperatures, above the room where we are sitting.
23 We could have the PCBs here and you wouldn't --
24 nothing. 1260 you wouldn't smell. If you had 1260

1 in this glass instead of water and turn the glass
2 upside down nothing would happen. It wouldn't drop
3 out because -- you know why? The temperature in the
4 room here isn't high enough for the pour point. The
5 pour point is when you turn it over and you barely
6 see a movement on the surface of this. So it stays
7 in the glass. That's just in passing. (Indicating).

8 Now, high temperatures, we are not
9 going to heat this to high temperature in this room.
10 And in industry that's what was looked at. Do not
11 breathe the vapors or the fumes. And the capacitors
12 are impregnated at 130 degrees Centigrade. That's
13 above the temperature of boiling water. Sure there
14 are going to be fumes. But from an impregnating
15 chamber, after they have been impregnated, what are
16 you going to do; open the chamber and pull the
17 capacitors out? They don't necessarily cool at the
18 same time. There would be some vapors. This is the
19 point of concern. Do not expose anybody to the
20 vapors, and that is what is being said here. That
21 was the concern. Other than that, and another way to
22 answer your question, I never heard of any concern of
23 any use of PCBs, but vapor? Do not -- that's the
24 first thing I ever said about them in toxicology. Do

1 not breathe the fumes.

2 Q. Are you done?

3 A. Yes.

4 Q. Tell me, at the time you were writing this,
5 what were your toxicological concerns about breathing
6 PCB vapors.

7 A. Should I now start?

8 MR. GOUTMAN: I object. Do you mean
9 what ill health effect did he have in mind? Is
10 that what you mean by "toxicological concerns"?
11 That's fairly vague.

12 MR. ZIEGLER: He's talking about
13 toxicological, whether something is toxic or
14 something is non-toxic, so I would like to
15 understand those statements better, in terms of
16 what did you mean when you said that.

17 MR. GOUTMAN: Said what? That's my
18 problem with your question. If you can direct
19 him to a specific sentence he will be happy to
20 try to interpret it.

21 BY MR. ZIEGLER:

22 Q. Well, as I understand your last answer, you
23 said PCB vapors should not be inhaled.

24 A. Right.

1 Q. And what were the toxicological effects that
2 you feared might result if somebody inhaled PCB
3 vapors?

4 A. Well, good question. It does refer to
5 toxicological studies that have been made at this
6 point in time. And in 1948 -- will you bear with me?

7 Q. I'll bear with you.

8 A. Will you? I was new, but I knew about
9 toxicological studies having been made before I was
10 in the Inorganic Division. I knew that from having
11 been in the, as we already discussed, when I was
12 reporting to Mr. Watt, the Director of the
13 Development Department, who was in charge and
14 sponsored this toxicological work. Reference is made
15 to this here and I do refer, I see here, I saw it a
16 minute ago, one half -- here. Half milligram per
17 cubic meter of air is a maximum amount permissible
18 for safe workrooms. That had been established as a
19 benchmark. I didn't establish that. I had my own
20 benchmark long before that was established.

21 Q. I understand that, but if you are recommending
22 that chlorinated Aroclors should not be breathed,
23 what is the potential that you are concerned about
24 that might happen if somebody were to breathe

1 Aroclors?

2 MR. GOUTMAN: Objection to the form of
3 the question.

4 BY MR. ZIEGLER:

5 Q. We are not talking about chloracne here, are
6 we?

7 A. No.

8 Q. Can you tell me what we are talking about.

9 A. Are we talking about an incidental exposure?
10 Are we talking about exposure on a continuous basis?
11 Could you clarify? Maybe both.

12 Q. We are talking about the exposures that you
13 are referring to in this letter, when you say that
14 you don't want somebody breathing Aroclor vapors.

15 A. All right. That can be today or it can be for
16 as long as a guy is working in the place. We already
17 noted .5 milligram. That is the parameter for
18 continuous exposure.

19 So let's talk about my own personal
20 exposure. Maybe that's the best thing to explain
21 this with. Before I was here, when I was still in
22 the Organic Development Department, I was asked to
23 determine the melting point of a material. I don't
24 remember what it was. But it was very high,

1 relatively very high melting. Out of the ordinary.
2 And I was asked in my lab to determine what's the
3 melting point of this material. Somebody needed to
4 know that. So in my laboratory I set up a melting
5 point bath. I had a hood. Do you understand what a
6 melting point bath is?

7 Q. No.

8 A. No? Okay. Well, it is like -- it has got to
9 be clear. You have got to see the melting point.
10 Say you fill that glass with mineral oil and in the
11 glass -- well, first of all, the glass is sitting on
12 a ring stand under which is a Bunsen burner. We are
13 going to heat this thing. And there's a thermometer
14 sticking into the mineral ^{oil} ~~water~~. And then in a
15 little capillary there is, I would have put this
16 material and had a stirrer there, and since we are
17 going to high temperature I would have had this thing
18 in the hood in my laboratory. Now, mineral oil is a
19 commonly used melting point bath medium. Well, at
20 the temperatures I was going to I knew mineral oil
21 was going to catch -- there was a good chance to have
22 a fire. I didn't want a fire in the middle of
23 Monsanto's new office building. Well, glycerin.
24 That would be better. But glycerin is an organic

1 that's subject to combustion and burn. I never had
2 glycerin at these high temperatures. Well, what will
3 I use? Sulfuric acid. I heard that you could heat
4 sulfuric acid pretty high temperature. Even to
5 boiling. If that glass is going to break and I have
6 got it full of sulfuric acid, near the boiling point
7 of sulfuric acid, I don't want to be around it. I'm
8 going to have a hell of a corrosive experience.
9 Well, what do I use? I didn't know. This was a
10 laboratory, and I had samples of PCBs in bottles. I
11 thought, Well, PCBs don't support or sustain
12 combustion. PCBs, I understood, were considered to
13 be stable to their boiling point. These boiling
14 points were high. Unusually high. Well, I got to
15 run this damn melting point. I put PCB in there. I
16 got the burner going. And we started getting hotter
17 and hotter and well, when you get to elevated
18 temperatures, as it says, fumes. And before long, as
19 we are going up, more fumes. The hood was on, but I
20 pulled the hood down. I didn't want to breathe these
21 fumes. Why? They were irritating my nose and my
22 mucous. My lips. My eyes started to water. That's
23 the first thing. But I needed that melting point.
24 So we went higher. I generated a hell of a lot of

1 fumes. Finally I got the melting point. These other
2 agents I couldn't have seen when the thing melted.
3 The Aroclor stayed clear. It didn't go black like
4 mineral oil would have. I could still see the
5 melting. If I couldn't see it I had to shut it down.
6 I had the hood down. I ~~got under,~~ ^{knelt down,} I looked and I
7 could still see. Okay. Get that melting point. I
8 got it. By then I was going this way to try to
9 breathe. I didn't want to breathe these fumes. They
10 were irritating. (Indicating)

11 Now, as soon as I got my melting point
12 ~~I pushed that~~ -- first I shut the burner off. I
13 shoved that hood down and then the exhaust fan was
14 taking the fumes out. I got out of the laboratory.
15 Now, that's my first experience with fumes with PCBs.

16 Now, on the outside, where these
17 secretaries were, it was in the middle of an office
18 building. Now, they knew me. I was the only guy
19 around in a white uniform. I started talking to
20 these girls. Paul, you are making quite an odor here
21 today. I agree, I guess, yes. I lit a cigarette,
22 got a drink, and stood out there and finally went
23 back into my lab. By then the exhaust fan had pulled
24 the fumes out.

1 Now, that is where I learned first
2 hand, regardless of any medical experiments or
3 writings or anything else, I learned first hand do
4 not breathe the fumes, the vapors, from PCBs at
5 elevated temperatures.

6 Q. And my question to you, in Exhibit 1, when you
7 were saying don't breathe Aroclor vapors, is that
8 what you had in mind?

9 MR. GOUTMAN: At elevated temperatures?

10 BY MR. ZIEGLER: Right.

11 BY MR. ZIEGLER:

12 Q. I take it you get vapors only at elevated
13 temperatures.

14 A. Yes. Whether fumes or vapors. Is that what I
15 had? Your question --

16 Q. That's my question.

17 A. Was that in my mind? You better believe it
18 was.

19 Q. Did you have anything else in your mind?

20 A. Yes.

21 Q. What else?

22 A. Now, here it says .5 milligram per cubic meter
23 of air is the maximum amount permissible for safe
24 work rooms. Now, that isn't the one time melting

1 point; that is a continuous eight hour exposure.

2 This is based not on my experience, no; this is based
3 on the toxicological studies that had been made.

4 Q. All right. And are we talking about chloracne
5 toxicological studies?

6 A. No.

7 Q. Tell me what kind of toxicological studies are
8 those.

9 A. The toxicity of the vapor in the fumes emitted
10 from the PCB at elevated temperature is what we are
11 talking about.

12 Q. What kind of health effect are we concerned
13 about?

14 A. At this point --

15 MR. GOUTMAN: In the toxicologic
16 studies?

17 BY MR. ZIEGLER: What he's referring to
18 in Exhibit 1.

19 THE WITNESS: I don't read in here, but
20 in connection with this toxicological work that
21 was going on, I am sure I had heard that
22 continuous exposure to the fumes, which ^{sound} ~~is on~~
23 their own warranty, anybody would be a dunce to
24 stay, but it was determined from studies,

1 toxicological studies, on animals, not on
2 humans, but on mice and rats and rabbits and I
3 think by this time some monkeys, it was
4 investigated. The work that Monsanto farmed
5 out, Kettering or whatever, that the toxic
6 effect of PCB would be on the liver and the
7 kidney, the fatty tissue of the animal. That
8 was known.

9 BY MR. ZIEGLER:

10 Q. What can you tell me about the effects that
11 PCBs might have on the livers of the animal?

12 MR. GOUTMAN: Objection. No foundation
13 as to this witness's expertise. Background.

14 BY MR. ZIEGLER:

15 Q. To the extent that you can give me any
16 information on that.

17 MR. GOUTMAN: Is the question what were
18 observed in these animal tests?

19 MR. ZIEGLER: No, I said what can you
20 tell me about the effects of PCBs on the livers
21 of the animal.

22 MR. GOUTMAN: Objection.

23 You can answer. Go ahead.

24 THE WITNESS: Well, I have never had any

1 effect. I'll try to answer your question. I'm
2 not a medical person.

3 BY MR. ZIEGLER:

4 Q. I understand.

5 A. It was on the liver and the kidney. Now, what
6 goes wrong with the liver and kidney? I think you
7 better ask a doctor. I'm not trying to avoid your
8 question, but you get atrophy in it? I don't know.

9 MR. GOUTMAN: If you don't know, say you
10 don't know.

11 BY MR. ZIEGLER:

12 Q. You understood that potentially something bad
13 might occur in the liver or kidney.

14 A. Yes.

15 MR. GOUTMAN: In the laboratory animals.

16 THE WITNESS: May I say something?

17 BY MR. ZIEGLER:

18 Q. Let me ask you this: When you wrote this were
19 you worried about laboratory animals?

20 MR. GOUTMAN: When he wrote what?

21 BY MR. ZIEGLER:

22 Q. You weren't writing about laboratory animals
23 when you wrote Exhibit 1, were you?

24 MR. GOUTMAN: Objection. Objection.

1 The document talks about laboratory
2 animals.

3 BY MR. ZIEGLER:

4 Q. When you were worried about breathing vapors,
5 were you worried about the laboratory animals --

6 A. No.

7 Q. You were worried about human health, weren't
8 you?

9 A. Myself.

10 Q. Now --

11 A. I'm not finished.

12 Q. I'm sorry.

13 A. I told you why. Because those vapors were
14 noxious. Not that I knew what they were going to do,
15 if anything, but because they are noxious to breathe
16 and I assumed the Lord put us here to breathe this
17 air. The Lord didn't put us here to breathe PCB
18 vapors. Well, from that standpoint I was -- I
19 objected to it. I didn't do it again.

20 Q. I understand. Now, with respect, in this
21 letter, this paragraph that we have been talking
22 about, how you didn't want, you didn't think that
23 vapors should be breathed because we have already
24 shown you thought they might be noxious and you

1 contemplated also liver damage and kidney damage. My
2 question to you is was there any other sort of effect
3 that you were contemplating when you wrote this
4 statement that PCB vapors should not be breathed?

5 MR. GOUTMAN: Objection to the form of
6 the question.

7 Go ahead. You can answer.

8 THE WITNESS: I didn't contemplate
9 anything to begin with. Now --

10 BY MR. ZIEGLER:

11 Q. Did you have in mind any other sort of
12 toxicological effects other than what we have already
13 discussed?

14 A. No. This was the extent of my knowledge. I
15 was not a medical man. I am commenting on what had
16 been common knowledge, I suppose you call it, in the
17 medical literature.

18 Q. Let me ask you this: You talk about lower
19 chlorinated Aroclors. Later down in that paragraph
20 you refer to a highly chlorinated Aroclor, such as
21 Aroclor 1268. Am I assume from that that when you
22 refer to lower chlorinated Aroclors you are talking
23 about something that has a lower chlorination than
24 1268?

1 MR. GOUTMAN: Objection.

2 THE WITNESS: Right.

3 BY MR. ZIEGLER:

4 Q. And as I recall, about this time you thought
5 that Aroclor 1268 was virtually non toxic. Do you
6 remember holding that belief?

7 MR. GOUTMAN: Objection.

8 THE WITNESS: I wouldn't say that. I
9 was no authority on that. Aroclor 1268, first
10 of all, was very difficult to make. You go to
11 1270. You run into solids. These aren't even
12 liquids; they are solids. The vapor pressure
13 of these things is very low.

14 MR. ZIEGLER: This will be Benignus
15 Exhibit 2. (Indicating).

16 (The above-referred to document was
17 marked as Benignus Exhibit 2 for
18 identification)

19 BY MR. ZIEGLER:

20 Q. I just have one or two questions about that
21 document.

22 MR. GOUTMAN: Note my objection to the
23 use of a document Bates stamped to indicate
24 that it was produced in the Scott litigation as

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1 per my prior objections on this issue.

2 BY MR. ZIEGLER:

3 Q. Do you know if exhibit --

4 MR. GOUTMAN: I don't think he has read
5 it yet.

6 MR. ZIEGLER: This is a question for
7 you. Did you produce this document to us?

8 MR. GOUTMAN: I don't know. We produced
9 48 boxes of documents.

10 MR. ZIEGLER: And you don't know if that
11 document was included?

12 MR. GOUTMAN: As I said, I don't have a
13 memory of every single, of the thousands and
14 thousands of documents produced, whether this
15 was one of them.

16 We are ready.

17 THE WITNESS: Okay.

18 BY MR. ZIEGLER:

19 Q. For the record, there is some highlighting on
20 Exhibit 2 that my office put on there.

21 I'm primarily interested on the first
22 page, and in particular paragraphs two and four,
23 where the topic of liver damage is discussed. Would
24 you agree with me that in Exhibit Number 2 that you

1 write about possible liver damage occurring from
2 Aroclor 1254?

3 MR. GOUTMAN: Objection to the form of
4 the question.

5 You can answer.

6 THE WITNESS: I'm sorry. What was the
7 question?

8 BY MR. ZIEGLER:

9 Q. Do you write about possible liver damage
10 occurring from exposure to Aroclor 1254?

11 MR. GOUTMAN: Objection.

12 THE WITNESS: Do I?

13 BY MR. ZIEGLER:

14 Q. Did you write about it in that document?

15 A. I wrote this. (Indicating).

16 MR. GOUTMAN: The document speaks for
17 itself. Do you want him to characterize the
18 document in some way?

19 THE WITNESS: Let me make something
20 clear here. I was not a doctor, I was not an
21 industrial hygienist. This is dated December
22 30, 1947. I had arrived. I told you that. We
23 know I was on hand. Now, Dr. Jenkins and these
24 other people, the medical people and so forth,

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1 have other things to do than to write to
2 Celanese. Now, I was called on to transmit the
3 information and consensus, that that is what
4 our people wish to say. So while I'm the
5 signature on this, it merely passes on the
6 information that came to me from these people.

7 BY MR. ZIEGLER:

8 Q. These people, you are talking about people
9 from within Monsanto?

10 A. Yes, and I mentioned the medical department.
11 Now, this was in 1947. And the work, this is an
12 Inorganic Division document; right?

13 Q. Yes.

14 A. Now, the toxicological studies that are
15 referenced here, that is a work, as I told you, was
16 done by my boss, was sponsored and paid for by my
17 boss when I was in the Organic Division. I was, in
18 general terms, familiar with the name Drinker, as we
19 said and so forth, so I don't -- I'm merely telling
20 you what this is.

21 Q. I understand. You have answered my question.
22 Thank you.

23 A. Okay.

24 MR. ZIEGLER: Let's go ahead and mark

1 this document as Benignus Exhibit Number 3.
2 (Indicating).

3 (The above-referred to document was
4 marked as Benignus Exhibit 3 for
5 identification)

6 BY MR. ZIEGLER:

7 Q. Ready?

8 A. Yes.

9 Q. Apparently you had some communications with
10 the State of California regarding warning labels on
11 PCB products.

12 A. I didn't, but yes.

13 Q. Tell me, did you have communications with the
14 State of California in regard to PCB warnings?

15 A. I, personally, no.

16 Q. Could I see that document?

17 MR. GOUTMAN: I don't know that that
18 document says that there were communications
19 with California regarding labeling.

20 BY MR. ZIEGLER:

21 Q. In the second paragraph it says that, "Paul
22 Benignus has agreed that Pyranol and Inerteen
23 containers."

24 Do you know what agreement that they

1 are talking about in that particular letter?

2 A. Sure.

3 Q. Tell me about that. That's what I want to
4 here about.

5 A. The memo was written by Sido. He was in
6 charge of labels. And I'm in this indirectly. Now,
7 what happened --

8 Q. How did you get into this situation regarding
9 warning labels?

10 A. "Paul Benignus has agreed that Pyranol and
11 Inerteen containers shall carry the caution
12 statement."

13 They shouldn't have had to come to me
14 to ask about this and if they do come to me they know
15 damn good and well they should have them on there.
16 Why? Because we have agreed to do this. Now,
17 Pyranol is a GE trade name. It's not our trade name
18 Aroclor. Inerteen is a Westinghouse trade name.
19 Now, because these products were shipped by Monsanto
20 on behalf of, in this case it was Pyranol 1481, I
21 remember this, we should have had the warning label
22 on that container. Now, Gerard Hopkins, there in San
23 Francisco, and a very small user of Pyranol 1481.
24 This is how many years ago? 1959? Well, that's

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1 recent. This guy didn't use more than -- I don't
2 know what. It couldn't have been more than ten drums
3 a year. So he got a shipment, maybe four or five of
4 these drums, and at this point in time the State of
5 California, somewhere here that it mentions -- yes,
6 California labor law should have toxic labels. The
7 inspector from the State of California, I'm telling
8 you what I learned, was going around the factories,
9 Do you have things in here that should be marked with
10 warning labels? Well, on the whole he finds Gerard
11 Hopkins. Well, there are some drums of this Pyranol
12 1481 and there is no warning label, but the guy
13 said -- I don't know this. Somehow or other they
14 found out it should have a warning label. Somebody
15 forgot to put the warning label on. And I assure you
16 as soon as this came to light they sent the district
17 manager, I guess, labels. Put them on these drums.
18 This was a glitch. There was no injury, nothing
19 happened. Labels were put back on. That was the end
20 of it. Yes, they should have warned.

21 Q. Now, when they found out that the warning
22 labels had not put on the drums, was that something
23 that would have been brought to your attention in the
24 first instance? Was that your responsibility somehow

1 to make sure that those warning labels were on those
2 drums?

3 A. No, it was not my responsibility.

4 Q. Can you tell me whose responsibility it was?

5 A. I would say G. Robert Sido, who underneath him
6 was Carl Sigler, whose name I mentioned somewhere.

7 He was in the shipping end of it.

8 MR. GOUTMAN: S I G L E R.

9 THE WITNESS: S I G L E R.

10 MR. GOUTMAN: And Sido is S I D O.

11 THE WITNESS: That's right. This is it.

12 Now, I wondered why did they come to me with
13 this? We always had had warning labels. They
14 should have been on. It was a glitch. There
15 was no ill effect or nothing happened.

16 MR. GOUTMAN: You answered the question.

17 THE WITNESS: I answered then.

18 BY MR. ZIEGLER:

19 Q. Actually, though, you had been in, before
20 that, you had been involved in warning issues with
21 respect to PCBs, hadn't you?

22 MR. GOUTMAN: Objection to the form of
23 the question.

24 You can answer.

1 THE WITNESS: Yes.

2 BY MR. ZIEGLER:

3 Q. And you were aware that having warnings could
4 be desirable, putting warnings on PCB containers
5 could be desirable in case Monsanto was sued;
6 correct?

7 MR. GOUTMAN: Objection to the form of
8 the question.

9 THE WITNESS: No, I never thought of
10 that.

11 BY MR. ZIEGLER:

12 Q. Are you certain?

13 A. Yes.

14 MR. ZIEGLER: Let me ask you to read
15 what will be marked as Exhibit Number 4.

16 (Indicating) (The above-referred to
17 document was marked as Benignus Exhibit 4 for
18 identification)

19 BY MR. ZIEGLER:

20 Q. I'm particularly interested in the last
21 paragraph on the first page. I will let your counsel
22 see it first.

23 MR. GOUTMAN: You want him to read the
24 whole document?

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1 MR. ZIEGLER: I'm primarily interested
2 in -- he probably should read the whole
3 document so that he can know what it is about.

4 THE WITNESS: I wrote it and I know what
5 it is about.

6 MR. GOUTMAN: Make sure you know.

7 THE WITNESS: Make sure I know.

8 MR. GOUTMAN: Okay.

9 THE WITNESS: I wrote it.

10 BY MR. ZIEGLER:

11 Q. And who were you writing to in Exhibit Number
12 4?

13 A. I was writing to Tom Smith.

14 Q. And who was Mr. Smith with?

15 A. He was with Monsanto. He was the business
16 manager of the Inorganic Chemicals Division.

17 Q. If I were to ask you your purpose in writing
18 that letter to Mr. Smith what would your answer be?

19 A. That we had agreed with U.S. Department of
20 Health to put a warning label on void inhalating
21 fumes and, I want to repeat it, it was repeated.
22 Skin contact. Yes.

23 Q. And at least by, we looked at some earlier
24 documents, but at least by -- when was that document?

1 MR. GOUTMAN: 1952.

2 THE WITNESS: I'm looking at that.

3 February. Early 1952.

4 BY MR. ZIEGLER:

5 Q. At least by 1952 you thought that the
6 toxicity hazard of Aroclor fumes was well
7 established; correct?

8 MR. GOUTMAN: Objection.

9 You can answer.

10 THE WITNESS: Well, yes.

11 BY MR. ZIEGLER:

12 Q. And you had also had some information about a
13 relatively large number of chloracne cases that
14 occurred during the war, didn't you?

15 A. I knew about the chloracne situation,
16 incident, specifically during the war on this cable
17 operation, yes.

18 Q. And when you said a relatively large number,
19 can you tell me, sitting here today, do you remember
20 how many chloracne cases we are talking about?

21 A. No, but a relatively large number. There
22 hadn't been any, so relatively, is it two? Three?
23 It was more than two or three.

24 Q. And where did those chloracne cases occur?

1 A. This was at Hastings-on-Hudson. Anaconda, who
2 made the wire cable for the Navy during the war.

3 Q. And you also state in this document that
4 misuse of Aroclors, especially at higher
5 temperatures, has lead to lawsuits. Can you tell
6 me -- do you see that there, where you say that?

7 A. No. I read it.

8 Q. Can you tell me what kind of lawsuits had
9 resulted from the misuse of Aroclors?

10 A. In 1952 -- first I want to go back to this.
11 February of 1952. I think it was 1951 that I went to
12 the Organic Division. And I'm thinking, the reason
13 I'm bringing this up, Tom Smith was manager of
14 marketing. Marketing. In the Inorganic Division.
15 I'm trying to think was Tom moved to the organic at
16 this point in time or what? It really doesn't
17 matter. Tom Smith was there and this was a
18 transition period. And I wrote to Tom Smith. Maybe
19 he had moved to the Organic Division. Well, the *Aroclor*
20 *(PCB)* ~~Aroclor business went out. That doesn't mean the~~ *was moved out of the Inorganic Chemicals*
21 *into the Organic Chemicals Division* ~~Organic Division shut down. Their main business was~~
22 ~~inorganic.~~ I think he stayed with the Inorganic.
23 And he came to me. By that time I was in Organic
24 with this thing, so I think that's the background on

1 that.

2 And lawsuits. I had not heard of a
3 lawsuit. If I had I would sure tell you. I had not
4 heard of a lawsuit.

5 Q. Do you know why you wrote about lawsuits in
6 that particular letter?

7 A. I think it was in the vein of if there were
8 such a thing it would be nice to have a label on
9 there, a warning label.

10 Q. As you read that memorandum -- the document
11 will speak for itself.

12 With respect to the phrase especially
13 at higher temperatures, we have been talking about
14 that phrase, haven't we?

15 A. Yes.

16 Q. And does that indicate to you that the
17 lawsuits referenced in your memorandum pertained to
18 some sort of personal injury resulting from the
19 misuse of Aroclors?

20 MR. GOUTMAN: He just testified that he
21 doesn't recall any such lawsuits.

22 You can answer if you can. Objection.

23 THE WITNESS: Let me answer. I'm sure
24 there were lawsuits. Now, to further answer

1 your question, at higher temperature a person
2 had made a heat transfer system using Aroclor
3 1248 as the indirect heat transfer medium in
4 this high temperature, elevated high
5 temperature heat exchanger or, if you will,
6 boiler, to simplify it. In this boiler. Now,
7 the man made this thing and it was to be
8 shipped out of his -- he was a very small
9 person. I don't know what you call it. Barn
10 or plant or what. I don't know. Garage. He
11 didn't button it up. When you are going to
12 high temperatures you better have that system
13 closed because we discussed vapors. And in
14 Aroclor heat transfer, I wrote that 1248 can be
15 used under proper conditions up to 300
16 Centigrade, 572 Fahrenheit, and that's high.
17 And the guy didn't have his small unit buttoned
18 up. And he was very loyal. He tested this
19 thing and ran the temperature up and the thing
20 leaked. Vapors. And the story is -- I didn't
21 go there. I think Emmitt or Wheeler certainly
22 did. The guy got nauseated. He spilled his
23 cookies. He was nauseated.

24 BY MR. ZIEGLER:

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1 Q. From the vapors.

2 A. From the vapors. Do not breathe the vapors at
3 elevated temperature. He violated this. And there
4 was no lawsuit from it, but I have answered your
5 question.

6 Q. And you say sitting here today you don't think
7 there were any lawsuits as of 1952?

8 A. To the best of my knowledge, yes.

9 Q. If that's the case, can you tell me what your
10 intent was in writing that misuse of Aroclors has
11 lead to lawsuits? What was your intent in writing
12 that particular sentence?

13 A. Maybe it had lead to lawsuits. Things get
14 lead to lawsuit, but they don't go anywhere. And
15 that is what would have been in my mind.

16 Q. I see.

17 A. And I was passing along --

18 Q. You would agree with me that when you were
19 writing that memorandum you recognized that having a
20 warning label on a product might be able to protect
21 Monsanto in the event of a potential lawsuit;
22 correct?

23 MR. GOUTMAN: Objection.

24 THE WITNESS: I'm not qualified to

1 answer that. I'm qualified to say to you a
2 warning label should be on. It is on there for
3 a reason. If that is going to protect against
4 a lawsuit, go ahead. I'm not qualified to
5 answer that.

6 BY MR. ZIEGLER:

7 Q. May I see that again.

8 When you wrote, "It was highly
9 desirable and protective to us in having our current
10 label on the Aroclor packages" -- strike that. Let
11 me read the whole sentence.

12 "On the other hand, in the very few
13 instances where misuse of Aroclor (especially at
14 elevated temperatures) has lead to lawsuits, it was
15 highly desirable and protective to us in having our
16 current label on the Aroclor packages."

17 When you wrote that statement isn't it
18 true that you recognized that having, at the time you
19 wrote that statement, you recognized that having a
20 label on your Aroclor packages might be desirable to
21 Monsanto in the event it would be sued?

22 MR. GOUTMAN: Well, objection. He just
23 answered that question. You have just
24 rephrased it. Do you want anything over and

1 above what he already said?

2 MR. ZIEGLER: Just if you can answer my
3 question.

4 MR. GOUTMAN: Objection. Asked and
5 answered.

6 THE WITNESS: Fine.

7 MR. GOUTMAN: If you have anything to
8 add, please do so.

9 THE WITNESS: I think I answered it.

10 MR. ZIEGLER: And that was --

11 MR. GOUTMAN: We can have the Court
12 Reporter read it back.

13 BY MR. ZIEGLER:

14 Q. As I understand your answer is yes.

15 MR. GOUTMAN: Objection. His answer was
16 his answer. His answer was that he isn't a
17 lawyer.

18 MR. ZIEGLER: Well, he's a lawyer. I
19 don't expect you to be --

20 THE WITNESS: Are you a lawyer?

21 MR. ZIEGLER: Inspite of my attire
22 today, I'm a lawyer.

23 One of the reasons why you wanted
24 warning labels on packages in 1952 was to help

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1 protect Monsanto in case of a lawsuit over
2 PCBs; right?

3 MR. GOUTMAN: Objection. Asked and
4 answered.

5 You can answer it again.

6 THE WITNESS: A label is supposed to be
7 on it. There are no lawyers around. I wish
8 you had been there, but you weren't. There were
9 no lawyers around. I wasn't thinking about any
10 lawyers. Look. There was no trouble, but
11 people think, I thought at times, I believe,
12 and so I write this to Smith because labels
13 should be on our drums. Whether a lawsuit or
14 not a lawsuit or whatever.

15 BY MR. ZIEGLER:

16 Q. I think maybe you misunderstand my question a
17 little bit. There are potentially numerous reasons
18 why you might put warning labels on a PCB container.

19 MR. GOUTMAN: Objection to the form of
20 the question.

21 BY MR. ZIEGLER:

22 Q. Right?

23 A. I don't know what you are saying.

24 Q. There might be numerous reasons why Monsanto

1 would put a warning label on a PCB container.

2 MR. GOUTMAN: That's the question that
3 you have just asked and the witness said I
4 don't know what you mean by that.

5 BY MR. ZIEGLER:

6 Q. You don't understand --

7 A. I don't understand your question.

8 Q. Do you --

9 A. I'm not --

10 MR. GOUTMAN: That's your answer.

11 BY MR. ZIEGLER:

12 Q. What I'm trying to do is I'm asking you what I
13 think is a pretty simple question. I'm not sure you
14 really understand my question.

15 In 1952 one of the reasons, and you
16 understood one of the reasons why Monsanto would put
17 warning labels on a PCB container was because of
18 potentially toxic effects from exposure to PCBs.

19 A. Yes.

20 Q. There's one reason. You also understood in
21 1952 that a separate reason why Monsanto should put
22 warnings on container packaging was because of
23 potential lawsuits.

24 MR. GOUTMAN: This is the fourth time

1 that same question has been asked. He's given
2 you an answer to it. You are not entitled to
3 keep on asking the question until you get an
4 answer that you like.

5 BY MR. ZIEGLER:

6 Q. Can you say yes or no to that question?

7 MR. GOUTMAN: Objection. He's going to
8 answer the question any way he wants to. He
9 has already answered the question three times.
10 Do you have anything to add from what
11 you already said, sir?

12 MR. ZIEGLER: Well, actually he hasn't
13 and that's why I'm pursuing this.

14 MR. GOUTMAN: Well, with all due respect
15 he has.

16 THE WITNESS: Now I forgot the question.
17 I think --

18 BY MR. ZIEGLER:

19 Q. We are talking about different reasons for
20 placing warning labels on packages.

21 A. Yes.

22 Q. And the second reason was, and I'm talking
23 about what you understood in 1952, one of the other
24 reasons for putting a warning label on a package was

1 to help protect Monsanto in the event of a lawsuit
2 over PCB exposure.

3 MR. GOUTMAN: Objection. That's the
4 sixth time. He has already answered the
5 question.

6 THE WITNESS: I have not heard of any
7 lawsuit, but at the time this was a, what do
8 you call it, a conjecture?

9 BY MR. ZIEGLER:

10 Q. Conjecture?

11 A. Possibility. It made sense to say it. Why
12 not?

13 Q. That's all I'm asking.

14 So, in your mind, that made sense, to
15 have a warning label in case there was a lawsuit.

16 MR. GOUTMAN: Objection. That's now the
17 seventh time you have asked that question.
18 That's it. He's not going to answer it again.
19 I'm instructing the witness not to answer.

20 MR. ZIEGLER: We will take this up with
21 the court, and that's something that we will
22 deal with. I'll look back at the record and
23 if, I'll take a look at what you have said
24 about that particular item and we will decide

1 whether to take that up with the court.

2 BY MR. ZIEGLER:

3 Q. We have looked at two documents in which you
4 discuss warning labels on packaging. How would you
5 describe your involvement in terms of warning labels
6 on PCB product containers?

7 MR. GOUTMAN: At what point in time?

8 MR. ZIEGLER: I'm primarily interested
9 now in the decade of the sixties.

10 MR. GOUTMAN: Go ahead.

11 THE WITNESS: They should be on there,
12 the warning label.

13 BY MR. ZIEGLER:

14 Q. Did you have any responsibilities with respect
15 to what the contents of the warning labels were?

16 MR. GOUTMAN: In the 1960's?

17 MR. ZIEGLER: Yes, in the 1960's.

18 THE WITNESS: It wasn't my
19 responsibility, but if someone had asked me I
20 would have told them what I told you.

21 BY MR. ZIEGLER:

22 Q. And your understanding was that if Monsanto
23 sent out any packages containing PCBs, that those
24 packages should have a warning label on them;

1 correct?

2 MR. GOUTMAN: Objection.

3 THE WITNESS: Correct.

4 BY MR. ZIEGLER:

5 Q. So that anybody receiving that package would
6 be able to look at the warnings contained on the
7 vehicle.

8 A. If it is on the container they can look at it,
9 yes.

10 Q. Can you tell me, during the decade of the
11 sixties, whether Monsanto ever put any warnings on
12 its PCB product packaging to the effect that PCBs
13 were an environmental contaminate?.

14 MR. GOUTMAN: Objection to the form of
15 the question.

16 You can answer.

17 THE WITNESS: I don't know.

18 MR. GOUTMAN: If you don't know you
19 don't know.

20 THE WITNESS: I don't know.

21 BY MR. ZIEGLER:

22 Q. You don't know one way or the other?

23 A. I don't know one way or the other.

24 Q. Who would be the best person, if I wanted to

1 go talk to somebody about that, who would you point
2 me to to talk to?

3 THE WITNESS: Tom Bistline.

4 BY MR. ZIEGLER:

5 Q. Do you know how to spell his last name?

6 A. Bistline.

7 MR. GOUTMAN: Mr. Bistline is in the
8 General Counsel's office of Monsanto and was
9 not so employed in the 1960's and certainly
10 won't be produced for deposition in this case.

11 THE WITNESS: May I say the ones that I
12 knew that are dead?

13 MR. GOUTMAN: You can say that.

14 BY MR. ZIEGLER:

15 Q. Sure. The ones that you knew are deceased.

16 A. It is shocking --

17 Q. Or as a lawyer would say they are currently
18 deceased.

19 A. They are dead.

20 MR. GOUTMAN: Objection.

21 THE WITNESS: They are dead.

22 BY MR. ZIEGLER:

23 Q. Can you tell me who those people were.

24 Remember, we are talking about the decade of the

1 sixties.

2 MR. GOUTMAN: Those people being whom?
3 Who would know about the contents of the labels
4 that we have already produced in discovery?
5 You want to know who these people are?

6 MR. ZIEGLER: Yes.

7 THE WITNESS: The people that would have
8 final say were the medical department, and then
9 the thing would be carried out and handled
10 accordingly by the people we have talked about,
11 as far as Sido, who was the head of the
12 labeling department, and Carl Sigler, who was
13 in shipping. So that is the lineup.

14 BY MR. ZIEGLER:

15 Q. Did the medical department ever bring a
16 proposed warning label to you and ask you for
17 comments on its adequacy?

18 MR. GOUTMAN: This is in the 1960's?

19 MR. ZIEGLER: Yes.

20 THE WITNESS: Not at any time except --

21 MR. GOUTMAN: Go ahead. Finish your
22 answer.

23 THE WITNESS: Except this memo by Sido
24 -- all right. It was this Hopkins thing.

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1 MR. GOUTMAN: You are referring to
2 Benignus 3.

3 THE WITNESS: Yes, I was mentioned here.
4 "Paul Benignus has agreed". They came to me at
5 this point in time, 1959, and --

6 MR. GOUTMAN: Okay. That's the answer.

7 BY MR. ZIEGLER:

8 Q. Do you recall having discussions in the
9 decade of the seventies regarding drum breakage of
10 capacitor Aroclor and transformer askarel?

11 MR. GOUTMAN: Objection. Vague.

12 You can answer it if you can.

13 THE WITNESS: Well, you are up to where
14 there were scrap, there were drums containing
15 scrap at this point in time. You say the
16 seventies?

17 BY MR. ZIEGLER:

18 Q. Yes.

19 A. We shut down non-electrical in '70 and the
20 electrical, Monsanto wanted to shut that down in '70.
21 We weren't allowed to. Congress authorized Monsanto
22 to continue to supply to the electrical industry
23 because there was no fire resistant dielectric. No
24 one knew of one. And if we had precipitously shut

1 down the electrical supply as we had in non
2 electrical, it was made very clear to Congress; it
3 would have shut the country down. I'm not over
4 stating this, incidentally. This is a fact. So we
5 continued to supply.

6 MR. GOUTMAN: Now, the question was
7 about drum breakage and what you know about
8 that in the 1970's.

9 MR. ZIEGLER: I think he is giving me
10 some background.

11 THE WITNESS: Where did it come from?
12 Okay.

13 BY MR. ZIEGLER:

14 Q. Capacitor Aroclors and transformer Askarel.

15 A. He said capacitor. I had heard that by this
16 time due to the environmental commotion Monsanto
17 wanted to be the hell out of that business, but
18 people who had "scrap", put that in quotes, where
19 were they going to go with it? So Monsanto at this
20 point in the seventies, I don't know exactly when you
21 are talking, they had agreed to take back some scrap.

22 In an effort to answer your question, I
23 wasn't connected with this anymore, but I heard that
24 some of these people returned their scrap, and this

1 wasn't horrible stuff, but they returned it in used
2 drums. Monsanto never employed a used drum. It had
3 to be a new drum. And we instructed it be sent back,
4 if it is going to be sent back, in a new drum. Well,
5 hell, most of those drums aren't cheap. So the drums
6 came back and some of them, as I understand it, I
7 never saw it, but there were some unsatisfactory
8 drums that arrived and there was some leakage.

9 Q. And that leakage, you are talking about PCB
10 leakage from the drums.

11 A. Yes.

12 Q. And that PCB leakage was of concern to you, I
13 assume, because, one, the customer was losing
14 product.

15 MR. GOUTMAN: Objection.

16 BY MR. ZIEGLER:

17 Q. That was one of the reasons; correct?

18 A. No.

19 Q. What was the reason?

20 A. Because they used PCB for capacitors. This is
21 a potential bomb. And if you are going to make this
22 you better have an exceedingly high quality of
23 ~~PCBs;~~ ^{PCBs;} otherwise, you are going to blow it up. Now,
24 things can get -- my work, as long as I was with the

1 electrical, was not concerned about the environment;
2 my concern was protecting PCB from the adverse
3 influences of our environment. Now, what this is
4 saying, in the factory in making capacitors there are
5 ways a guy could contaminate PCB, and he didn't dare
6 make a capacitor with that, and he would want to
7 dispose of it and you are talking about in the
8 seventies -- prior to this we never took anything
9 back. There was no need to take anything back. But
10 now, you must be referring to a specific case,
11 somebody wanted to send some scrap back and Monsanto
12 offered to take it back.

13 MR. ZIEGLER: Let's mark this as
14 Benignus Exhibit 5. (Indicating).

15 (The above-referred to document was
16 marked as Benignus Exhibit 5 for
17 identification)

18 BY MR. ZIEGLER:

19 Q. Just so we are clear, and I haven't
20 specifically asked you this question yet, one of the
21 reasons why you were concerned about drum breakage --
22 strike that.

23 One of your concerns over drum breakage
24 of capacitor Aroclor and transformer Askarel was PCB

1 pollution; correct?

2 MR. GOUTMAN: Objection to the form of
3 the question.

4 THE WITNESS: It wasn't my concern. I
5 wasn't concerned with this. I wasn't involved
6 with it.

7 BY MR. ZIEGLER:

8 Q. If I ask you the same question, one of your --
9 okay. Here.

10 I would ask you to read it after counsel
11 have had a chance to look at it.

12 A. Well --

13 Q. Maybe I misunderstand that document, but as I
14 read that document aren't you expressing a concern
15 that drum leakage might result in the release of PCBs
16 into the environment?

17 A. Yes.

18 Q. And you didn't want that to happen.

19 A. Didn't want to spill it.

20 Q. You said earlier in 1970 or 1971, I don't
21 recall when it was, you said that Monsanto wanted to
22 get the hell out of that business, meaning the PCB
23 business.

24 MR. GOUTMAN: Objection. He said that

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1 in 1970 they discontinued non electric
2 applications.

3 BY MR. ZIEGLER:

4 Q. Do you recall saying that they wanted to get
5 the blank out of the business? Do you recall saying
6 that?

7 A. Yes.

8 Q. To whom did you speak to in order to arrive at
9 that conclusion?

10 A. It is more of who spoke to me. I got a phone
11 call from the electrical industry, an important
12 person in the electrical industry, who said, Paul,
13 don't let your company cut off our supply
14 precipitously as your company has done for non
15 electrical applications. He said, Paul, you know as
16 well as I do there is no fire resistant dielectric
17 replacement for PCB, and if we don't have reliable
18 capacitors and transformers, Paul, this can shut the
19 country down. Now, that may be somewhat exaggerated,
20 but it really is not. And my response was, Look.
21 You are calling on the wrong person. He was a good
22 friend of mine. Get your executives here to St.
23 Louis to talk to our executive committee. They do
24 want to get out of the business. They don't want to

1 be bothered with this anymore.

2 Q. And that's really my question. Can you
3 identify to me those persons from whom you learned
4 that Monsanto wanted to exit the business?

5 A. I really can't. This was generally
6 understood. I had known they did get out of the non
7 electrical and this was understandable, and it was
8 understandable they wanted to get out of the whole
9 thing. That's my answer.

10 MR. ZIEGLER: I don't have any further
11 questions for you, sir. I do appreciate your
12 time today.

13 THE WITNESS: You are welcome.

14 MR. ZIEGLER: Some of other counsel
15 seated at the table may have some additional
16 questions for you.

17 - - -

18 BY MR. NICHOLS:

19 Q. I have a few clarification questions. I
20 wanted to go back to your work history a little bit.

21 Going back to your work history, 1951,
22 I think, is where we left off by what you were doing
23 at Monsanto. Not to go through in detail, but in
24 1974, when you retired, what was your position at

1 Monsanto?

2 A. I was an employee emeritus. That's not a
3 facetious answer.

4 Q. And as such an employee, what were your
5 responsibilities?

6 A. In that point of time essentially I retired in
7 1974. That was the law of the land at 65. That's
8 the end. You retire. Well, I retired. But I would
9 say five years prior to that I was there. I was
10 informed, but I did nothing. On the shelf one would
11 call this.

12 Q. When was the last time you were an active
13 employee, so to speak, and what was your position?

14 A. I would say the last significant thing I was
15 active on was when, on behalf of the government and
16 everybody else, we formed the C-107 committee and the
17 technology that I, in conjunction with GE and the
18 electrical industry, had developed official
19 specifications. This was all official. Documented.
20 And in a sense reporting to the Bureau of Standards
21 who were directly under Congress. The law of the
22 land. Now, because of this situation, we formed or
23 was formed the C-107 IA committee to study and then
24 post what we think could be done. Now, I didn't do

1 any work. I was asked to be chairman of the
2 nominating committee. And my job, the reason I was
3 asked to do this, I knew the people in the industry.
4 We had to get people who understood this. Now, the
5 people at General Electric, at Westinghouse, they
6 certainly understood as much as Monsanto understood
7 all through this environmental thing. From the word
8 go. They knew when the part per million was found in
9 that seagull. They found that out as soon as --
10 before I heard it. So I, not that others couldn't
11 have done this, nominated people that would serve on
12 a capacitor manufacturing committee and then people
13 who made transformers Askarel type would serve on
14 this committee, and that lead to the publication on
15 behalf of everyone the results of this work of the C
16 committee, C-107. And that was the last thing that I
17 did. I didn't do any of the work myself.

18 Q. Going back to 1951, as I understand it, you
19 were in the Inorganic Chemistry Division.

20 A. In 1951 I had moved. I think at this time,
21 1951 or 1952, I left the Inorganic Chemicals Division
22 and went to the Organic Chemicals Division because
23 the PCB business was moved out of the Inorganic
24 Division and was moved into the Organic Chemicals

1 Division.

2 Q. And what were your responsibilities when you
3 were moved back into the Organic Division in 1951?

4 A. I went along, because I had been working on
5 PCBs up to that time, as we discussed, strictly on
6 non electrical applications and I was not an
7 inorganic technologist, ^{but} ~~so~~ I could have stayed where
8 I was ^{as} ~~if~~ they wanted me, ^{to} ~~to~~, but the company made this
9 move. I didn't challenge it; I just went along with
10 it.

11 Q. In your work experience, have you ever done
12 any testing to determine whether PCBs can migrate?

13 A. I, personally, didn't, but such work was done.

14 Q. Who did such work?

15 A. Scott Tucker in the laboratory. He had
16 percolating columns. I saw those. And they were
17 trying to determine -- the general consensus was that
18 PCBs stay where they are put. They are not ambient.
19 That's for sure. They are not reactive. That's for
20 sure. They are not influenced. They are not
21 corrosive. They are not influenced by acid or
22 alkali. Water doesn't hydrolyze anything. So
23 because of this environmental business, as time went
24 on, yes, there were studies, I saw those percolating

1 columns, and that's what they were probing. I really
2 don't know what the -- PCBs don't walk around, you
3 know.

4 Q. So it is your understanding that PCBs do not
5 migrate.

6 MR. GOUTMAN: Objection. Foundation.

7 THE WITNESS: I'm sorry.

8 MR. GOUTMAN: Objection. Overly broad.

9 THE WITNESS: The terms that you are
10 asking me about --

11 BY MR. GOUTMAN:

12 Q. Right.

13 A. They don't migrate, they don't walk around.

14 Q. When you say you saw these percolating
15 columns, what are you referring to?

16 A. Percolating columns. They had soils in them.
17 I don't know the detail of what was going on. I saw
18 the columns. I wasn't involved with this. It was in
19 research. Scott Tucker.

20 Q. Where was the research taking place?

21 A. That was at St. Louis.

22 Q. Do you know about what year?

23 A. What year did I see those columns?

24 MR. GOUTMAN: Don't guess. If you know,

1 tell him.

2 THE WITNESS: I'm guessing.

3 MR. GOUTMAN: Don't guess.

4 THE WITNESS: I'm trying to answer the
5 question.

6 MR. GOUTMAN: Don't guess.

7 BY MR. NICHOLS:

8 Q. How about what decade?

9 A. Pardon?

10 Q. Decade. Sixties?

11 A. The sixties.

12 Q. And did you ever see any written results from
13 any of that research?

14 A. I can't say that I did, but as you noticed,
15 they copied me on many things, so maybe so. I wasn't
16 concerned with it. I may have; I may not have.

17 MR. NICHOLS: That's all I have.

18 - - -

19 BY MR. MANNINO:

20 Q. Mr. Benignus, my name is Tony Mannino. I
21 represent Philips Electronics and Advance
22 Transformer.

23 A. Excuse me. Philips Electronics?

24 Q. Yes.

1 A. Good company.

2 Q. Thank you. Earlier you had talked about in
3 1951 you took over some responsibilities from Dr.
4 Jenkins in dealing with some of the electrical
5 applications?

6 A. Yes.

7 Q. For what periods of your remaining time at
8 Monsanto did you have responsibilities that related
9 to electrical applications of PCBs?

10 A. I was involved, I don't put it as having
11 responsibility, but I was close to the electrical
12 industry for the rest of my days there.

13 Q. And when you say close to the electrical
14 industry, what do you mean by that?

15 A. That's where my work was. It was not in non
16 electrical anymore. To answer your question, it was
17 in the electrical application for capacitors and
18 transformers, from the time -- oh, I would say from
19 certainly the mid fifties until I retired.

20 Q. Did you have any involvement with respect to
21 the sale of PCBs to electrical manufacturers?

22 A. We were the only place they could get it.

23 Q. Did you have any knowledge as to what specific
24 items were shipped to what specific manufacturers?

1 A. I think I can answer that as positive. I
2 would have an idea for capacitors. You wouldn't be
3 using a transform askarel, so in a general way, yes.

4 Q. But do you, in fact, know which specific
5 shipments were made to which specific customers?

6 A. At one time I did.

7 Q. And when would that be? About what time?

8 A. That would have been -- it would have been, I
9 would think, perhaps the late visits.

10 MR. MANNINO: That's all I have.

11 - - -

12 BY MR. ZIEGLER:

13 Q. I have one question which I forgot to ask you
14 earlier. Do you remember how long it took to finally
15 develop a fluid to replace PCBs in capacitors and
16 transformers?

17 A. Capacitors was a focal point. We shut down on
18 -- Monsanto shut down non-electrical in 1970. Now,
19 to answer your question, the day General Electric
20 Company capacitor division announced that they will
21 use dioctyl thalate with a stabilizer, the day that
22 was announced Monsanto closed. That day was some day
23 in 1977.

24 Q. Who was it that developed dioctyl thalate?

1 A. GE.

2 Q. Do you know what other companies were working
3 on potential substitutes for PCBs in capacitors?

4 A. Monsanto was. Yes.

5 Q. Do you know of any other companies besides
6 Monsanto and GE?

7 A. No.

8 Q. Do you know when GE began working on its PCB
9 substitute?

10 A. I assume the day they heard we shut down in
11 1970.

12 MR. GOUTMAN: Don't assume. Only talk
13 about your personal knowledge.

14 THE WITNESS: The day they started?

15 BY MR. ZIEGLER:

16 Q. Not necessarily the day. If you know the year
17 that they started working on a substitute or --

18 A. All through the years. They were looking for
19 dielectrics. They never found anything, number one,
20 that was fire resistant. There wasn't any such
21 thing. They never found anything that had the
22 thermal stability that PCBs offered. They never
23 found anything that had the capacitance that PCB
24 offered. They never found anything that had the low

1 cost that PCB offered. Their customers set the
2 selling price; we didn't. Monsanto didn't. The
3 customer told us what it will sell for. And when the
4 guy found out what he's going to have to do from an
5 area that I know a good deal about, technology, that
6 is economics, no thank you.

7 This, in a simple way, and it is very
8 true, I shouldn't say this to a lawyer, I'll put it
9 this way; nobody ever entered the business. They
10 sure could have. They chose not to. Regardless of
11 the monopoly or antitrust laws or what have you. We
12 were the only place to get it in our country.

13 Around the world for capacitors, other
14 people did exactly as in this country. Used PCB
15 exclusively for motor run capacitors, ballast
16 capacitors, air conditioning system capacitors, power
17 line capacitors, and if we had precipitously shut
18 down, it's not being facetious to say that there
19 would have been a big economic upheaval in our
20 country. I'm not exaggerating this.

21 MR. GOUTMAN: I think you have answered
22 the question.

23 BY MR. ZIEGLER:

24 Q. You don't recall any Japanese manufacturing

1 concerns coming up with a non PCB dielectric fluid as
2 early as 1971?

3 A. A non PCB?

4 MR. GOUTMAN: You mean --

5 THE WITNESS: For what application?

6 BY MR. ZIEGLER:

7 Q. For capacitors. What you are talking about.

8 A. Capacitors. I'm familiar with Japan. I was
9 over there. And the Emperor shut down Kanakafuchi,
10 K A N A K A F U C H I, shut it down. For short
11 K A N A K A does very well. The Emperor shut the
12 whole thing down in, I would say, 1968.

13 MR. GOUTMAN: I believe the question was
14 are you aware of the Japanese developing non
15 PCB capacitor fluid in 1971.

16 THE WITNESS: Oh, I wasn't concerned
17 with this. No. The answer is no, I wasn't
18 involved in this.

19 MR. ZIEGLER: No further questions.

20 MR. GOUTMAN: I just want to take a two
21 minute recess to discuss with counsel if we
22 have any questions.

23 MR. ZIEGLER: All right.

24 (Off the record discussion)

1 BY MR. GOUTMAN:

2 Q. Just a couple of follow-up questions while we
3 are at it.

4 You had mentioned earlier the
5 chloracne, Hastings-on-Hudson and the cable.

6 A. Yes.

7 Q. Do you know what the causative agent was for
8 that outbreak of chloracne?

9 A. Yes.

10 Q. What was it?

11 A. Well, this is all documented. Anaconda was
12 producing this cable in large quantity, much larger
13 than ever before, for the Navy. It was essential.
14 Essential. And the cable had a hot dip involved and
15 there was a wax, I believe it was earnauba wax. That
16 would have been a very good wax to use. And then, in
17 addition to that, there was a mixture used this was
18 Halowax. It is a trade name.

19 Q. H A L O W A X --

20 A. Yes, and that Halowax was used in combination
21 with one of the PCB products. My recollection is, I
22 may be a little off on this, it won't matter, my
23 recollection is that was a blend of biphenyl and
24 terphenyl base chlorinated to 65 percent by weight.

1 We had such a product in the line of things.

2 Q. What is Halowax?

3 A. Halowax is chlorinated naphthalene. Now, a
4 lot of this cable was needed. People rushed to make
5 it. And all of a sudden there was chloracne. No
6 doubt about it. And then this was investigated. And
7 they found when you have chlorinated naphthalene, in
8 combination with the chlorinated biphenyl, there's a
9 synergism that was spoken of, and additionally, more
10 to the point, they found that chlorinated naphthalene
11 was the culprit.

12 Q. Sir, other than having to occasionally hang
13 around lawyers, how is your general state of health?

14 A. Well, these are all doctors here.

15 Q. Lawyers.

16 A. Lawyers here. I don't have any problems or
17 illness. I play tennis. I'm not as good as I used
18 to be when I played with Jimmy Connors' mother. I
19 never played with him.

20 Q. Do you still play golf as well?

21 A. Golf, yes.

22 Q. You mentioned being exposed to PCB vapors.
23 Did you also get PCBs on your hands, on your clothes?

24 A. I washed my hands with transformer fluids.

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1 Q. Do you have any health concerns related to
2 your work place exposure to PCBs?

3 A. No.

4 MR. GOUTMAN: That's all I have.

5 MR. ZIEGLER: No further questions.

6 MR. GFELLER: No questions.

7 MR. NICHOLS: No further question.

8 MR. MANNINO: No further questions.

9 (Witness excused.)

10 (Deposition concluded at 1:15 p.m.)

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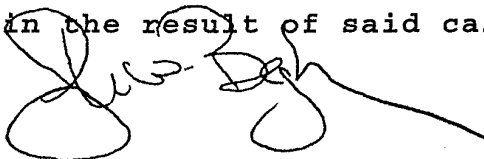
23

24

1 - - -
2 C E R T I F I C A T E
3 - - - - -

4 I, JOHN W. BEGLEY, a Registered
5 Professional Reporter and Notary of the State of
6 Pennsylvania, do hereby certify that I reported the
7 deposition of Paul G. Benignus in the foregoing
8 matter; that the foregoing is a true and correct
9 transcript of the stenographic notes of testimony
10 taken by me.

11 I FURTHER CERTIFY that I am not an
12 attorney or counsel of any of the parties; nor a
13 relative or employee to any attorney or counsel
14 connected with the action, nor am I in any way
15 interested in the result of said case.

16 
17

18 JOHN W. BEGLEY

19 DATE:

20 *NOTE: The certification appended hereto does not
21 apply to any reproduction of same unless under the
22 direct control and/or supervision of the certifying
23 court reporter.
24

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ACKNOWLEDGMENT OF DEPONENT

I, Paul H. Benjamin do hereby
certify that I have read the foregoing
pages and that the same is a correct
transcription of the answers given by me
to the questions therein propounded,
except for the corrections or changes in
form or substance, if any, noted in the
below ERRATA portion of this page.

7/16/98
DATE

Paul H. Benjamin
SIGNATURE

ERRATA

PAGE	LINE	CHANGE
<u>20</u>	<u>3</u>	<u>ASM to ASTM</u>
<u>20</u>	<u>12</u>	<u>delete "HOLE"</u>
<u>60</u>	<u>14</u>	<u>replace "Water with Oil"</u>
<u>38</u>	<u>2</u>	<u>replace "is on" with "sound"</u>
<u>64</u>	<u>21</u>	<u>replace "human" with "FCS"</u>
<u>96</u>	<u>23</u>	<u>replace "so" with "but"</u>
<u>103</u>	<u>7</u>	<u>replace "if" with "so", delete "to"</u>
<u>103</u>	<u>8</u>	

SUBSCRIBED AND SWORN TO BEFORE ME THIS
16th DAY OF July, 1998.

My commission expires:

Sheila K. Hayes
Notary Public

"OFFICIAL SEAL"

SHEILA K. HAYES

NOTARY PUBLIC - STATE OF ILLINOIS

MY COMMISSION EXPIRES JUNE 7, 1999

Witness: _____
In Re: _____ vs _____
Deposition Held: Date _____

ACKNOWLEDGMENT OF DEPONENT

I, _____, do hereby
certify that I have read the foregoing
pages and that the same is a correct
transcription of the answers given by me
to the questions therein propounded,
except for the corrections or changes in
form or substance, if any, noted in the
below ERRATA portion of this page.

7/13/98
DATE

Paul S. Benignus
SIGNATURE

ERRATA

PAGE	LINE	CHANGE
<u>67</u>	<u>6</u>	replace "I got under" with "I built down"
<u>67</u>	<u>17</u>	delete "I feared that"
<u>80</u>	<u>20</u>	replace lines 20, 21 and 22 with "The haploxy (PCB) business was moved out of the Inorganic chemicals Division, into the Organic Chemicals Division"
<u>96</u>	<u>23</u>	delete "furane" and replace it with "PCB's"

SUBSCRIBED AND SWORN TO BEFORE ME THIS,
____ DAY OF _____, 19____.

My commission expires: _____

Notary Public