

1 SUPERIOR COURT
2 FOR THE STATE OF CALIFORNIA
3 FOR THE COUNTY OF LOS ANGELES
4
5 TRANSWESTERN PIPELINE)
6 COMPANY,)
7)
8 Plaintiff,)
9)
10 vs.) NO. BC 026959
11)
12 MONSANTO COMPANY AND)
13 DOES 1 THROUGH 200)
14 INCLUSIVE,)
15)
16 Defendants.)

17
18 Deposition of PAUL RENIGNUS, taken on
19 behalf of the Plaintiff at the offices of
20 Bryan Cave, One Metropolitan Square, in the
21 City of St. Louis, State of Missouri, on
22 October 14, 1992 before Marsha Birenbaum,
23 Registered Professional Reporter and Notary
24 Public.

25

GORE REPORTING COMPANY ST. LOUIS, MISSOURI

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2

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1 PAUL BENIGNUS,
2 of lawful age, having been first duly sworn
3 to testify the truth, the whole truth, and
4 nothing but the truth in the case
5 aforesaid, deposes and says in reply to
6 oral interrogatories propounded as follows,
7 to-wit:

8 EXAMINATION

9 QUESTIONS BY MS. GRADY:

10 Q. Mr. Benignus, would you please
11 state and spell your name for the record?

12 A. Paul, B, as in boy,
13 B-e-n-i-g-n-u-s.

14 Q. And what is your current address?

15 A. 47 Metcalf, M-e-t-c-a-l-f, Drive.
16 Belleville, Illinois. 62223.

17 Q. Have you ever been deposed before?

18 A. Yes.

19 Q. How many times have you been
20 deposed?

21 A. Oh, I would say perhaps four.

22 Q. What was the first time you were
23 deposed?

24 A. The first period of time how many
25 years ago?

1 Q. When was the first deposition
2 taken of you?

3 A. Well, I would say that goes back
4 six years, something like that. It wasn't
5 recent.

6 Q. And what was the nature of the
7 litigation?

8 A. I don't know if this is in order.
9 I'm trying to think of it. There was a
10 case that involved Westinghouse workers.
11 There was a case that involved a
12 transformer in San Francisco. There was a
13 case that involved an insurance company. I
14 guess that's about it.

15 Q. Do you remember what the fourth
16 deposition involved? I have got
17 Westinghouse workers, a transformer in San
18 Francisco, and an insurance company.

19 A. I don't really know.

20 Q. Okay. Can we go off the record
21 for just a second?

22 (Discussion off the Record)

23 Q. Back on the record. Mr. Benignus,
24 what was the subject matter of your
25 testimony in the case involving

1 Westinghouse workers?

2 A. The subject matter was PCBs.

3 Q. And what was the allegation in
4 that litigation?

5 A. The allegation in this litigation
6 was that the workers were exposed to PCBs.

7 Q. And had the workers allegedly
8 suffered physical effects because of their
9 exposure to PCBs?

10 A. That seemed to be the idea.

11 Q. And what subject matters did you
12 testify about?

13 A. I'm a technical person, and it was
14 in connection with technical questions.

15 Q. Technical questions concerning the
16 manufacturing of PCBs?

17 A. No.

18 Q. Technical questions concerning
19 what subject?

20 A. The use of PCR. I would like to
21 expand on that.

22 Q. Please do.

23 A. The presentation of the physical
24 constance which describe PCBs; presentation
25 of their electrical characteristics;

1 presentation of their thermal stability.

2 Q. Was your testimony basically
3 concerning the chemical and physical
4 properties of PCRs?

5 A. Correct.

6 Q. Did you provide any testimony in
7 that Westinghouse case concerning the
8 environmental aspects of PCRs?

9 A. No.

10 Q. Did you testify at trial in that
11 case?

12 A. No.

13 Q. What was the resolution of the
14 case, if you know?

15 MR. PREUSS: You may answer that
16 but don't answer it if any information that
17 you have on that could have been received
18 from Monsanto lawyers.

19 A. I don't know.

20 Q. In your deposition concerning a
21 transformer in San Francisco, what was the
22 allegation in that litigation?

23 A. A transformer failed. One
24 Plaza -- some address downtown, One Plaza
25 something. In the event of such a failure,

1 gas is emitted; hydrogen chloride gas.
2 This gas was blown out through grills onto
3 the sidewalk. Some people outside of the
4 building were exposed to this.

5 Q. Did your testimony in that matter
6 involve in any way exposure to PCBs?

7 A. No.

8 Q. Did your testimony involve
9 clean-up of PCBs?

10 A. This is what it was all about.
11 Somebody cleaned it up. But my testimony
12 didn't contribute to that. I didn't tell
13 them how to clean it up.

14 Q. Did your testimony concern the
15 physical and chemical properties of PCBs?

16 A. Not that I recall, no.

17 Q. So it was primarily involved with
18 the release of these gasses?

19 A. Yes.

20 Q. Did you testify in that matter in
21 court?

22 A. No.

23 Q. Have you ever testified in court?

24 A. No.

25 Q. Let's turn to the third thing you

1 mentioned, which was the insurance company
2 litigation. What was the allegation in
3 that litigation?

4 A. May I say something?

5 Q. Sure.

6 A. I didn't really document these
7 things. I didn't really fix in my mind
8 these things. I have always testified to
9 whatever anybody wanted wherever, and it
10 gets somewhat confusing. So many law firms
11 are involved here, I get lost in this
12 thing. This isn't my business. And I like
13 to answer your question, but I'm confused.
14 I just don't remember. I haven't fixed
15 that in my mind. It's often insurance
16 companies get involved in these things.

17 Q. I understand. Do you recall if
18 this third time that you gave a deposition
19 your testimony involved the physical and
20 chemical properties of PCBs?

21 A. If I were asked to testify about
22 this, this is what I can do, and I would
23 have.

24 Q. But you don't recall one way or
25 another what the deposition concerned

1 itself with?

2 A. No, I don't.

3 Q. Okay. Mr. Benignus, I'm sure you
4 have had time to consult with Mr. Preuss.
5 Let me provide you with some instructions
6 so that we are both operating off of the
7 same page.

8 A. Okay.

9 Q. You understand that although we
10 are in a conference room in an informal
11 setting, that you are under oath, is that
12 correct?

13 A. That's correct.

14 Q. It's important that we get your
15 best testimony here today. If you do not
16 understand a question or think that you do
17 not understand a question, will you please
18 let me know?

19 A. Surely.

20 Q. You will have a chance to review
21 your testimony that you give here today in
22 the form of a booklet. I'm sure that you
23 have been through that process before.

24 A. Yes, I have.

25 Q. And you will have the opportunity

1 to make whatever corrections you believe
2 are appropriate to make the record
3 accurate. Do you understand that?

4 A. I understand that.

5 Q. It's important so that we get a
6 clear record that I try not to speak when
7 you're speaking and if you would do the
8 same, that would be most appreciated.

9 A. Yes.

10 Q. Mr. Benignus, could you summarize
11 for me your post high school education?

12 A. Yes. Post high school. I
13 graduated in 1927. And then in '29 I
14 entered Illinois College and graduated
15 there with a Bachelor degree in 1933. And
16 then I went to graduate school at
17 Washington University and got a Master's
18 degree in organic chemistry. Then I went
19 to work.

20 Q. What year did you receive your
21 Master's degree?

22 A. '34.

23 Q. Where did you take your first job?

24 A. Monsanto.

25 Q. And are you retired from Monsanto?

1 A. Yes.

2 Q. And what year did you retire?

3 A. '74.

4 Q. Between 1934 and 1974 was Monsanto
5 your only employer?

6 A. Yes.

7 Q. Did you take any classes during
8 your employment with Monsanto, and I'm
9 talking about university sponsored classes?

10 A. Yes, there were a few that I went
11 to Washington University at night and did
12 some more classes in the area of organic
13 chemistry.

14 Q. After your retirement from
15 Monsanto, have you been employed by
16 Monsanto in any way as a consultant?

17 A. Yes.

18 Q. And what was the nature of your
19 consultancy?

20 A. In the area of PCRs, dielectrics,
21 underscore dielectric.

22 Q. And when you use the term
23 dielectrics, what do you mean by that?

24 A. A dielectric is a resistance, an
25 insulator, against the electric current.

1 Now, the insulation we are speaking of
2 here, PCBs, that is liquid insulation as
3 versus solid insulation, which might be
4 cellulosic material, wood and so forth.
5 Now, these liquid dielectrics, we are
6 talking here about PCBs, to boil this down
7 and describe for you their specific use.
8 The two uses were in capacitors and in
9 transformers. Then there was some
10 incidental applications of dielectrics,
11 electromagnets, a few things. But that's
12 their primary use.

13 Q. As dielectrics?

14 A. As dielectrics.

15 Q. Mr. Benignus, did you have as part
16 of your employment with Monsanto any
17 responsibility for lubricating fluids?

18 A. No.

19 Q. Did you have any contact in your
20 employment with Monsanto with a company
21 called Texas Eastern Transmission Company?

22 A. No.

23 Q. What about a company called
24 Transwestern Pipeline Company?

25 A. No.

1 Q. Did you have any contact in your
2 employment with Monsanto, by that I mean
3 any discussion with anyone or any
4 correspondence, about the use of PCBs in
5 natural gas compressors?

6 A. No.

7 Q. Are you familiar at all with the
8 mechanics of natural gas compressors?

9 A. I know what a compressor is. I
10 know what a gas line is.

11 Q. Do you know what a liquid seal is?

12 A. I know what a liquid seal is from
13 the chemistry laboratory where I frequently
14 employed various types of liquid seals in
15 our research apparatus. Yes, I know a
16 liquid seal.

17 Q. What is a liquid seal?

18 A. A liquid seal is exactly what it's
19 saying. It seals.

20 Q. By means of a liquid?

21 A. By means of a liquid.

22 Q. And how is the seal accomplished?

23 A. How is the seal accomplished?

24 Q. How does a liquid seal something
25 in the use of a liquid seal?

1 A. Now, I'm speaking of laboratory
2 apparatus.

3 Q. I understand.

4 A. And as a liquid seal, we might
5 take mercury, that's a liquid. Now, where
6 you have a union, a joint, that are fitted
7 together that are not sealed, say, with
8 a -- you understand what a glass joint seal
9 is? Here, for one reason or another, you
10 seek a different arrangement and it's very
11 convenient to use mercury as a liquid to
12 seal in this vessel so that it is sealed
13 from the atmosphere.

14 Q. Did you have any familiarity in
15 your work at Monsanto with the use of PCBs
16 as liquid seals?

17 A. No.

18 Q. In your work as a consultant for
19 Monsanto after your retirement, have you
20 done any work concerning the environmental
21 effects of PCBs?

22 A. Not I.

23 Q. Has your consultancy been limited
24 to the physical and chemical properties of
25 PCBs?

1 A. Correct.

2 Q. Is your work -- was your
3 consultancy work related to the development
4 of new products?

5 A. Yes.

6 Q. Are you still working as a
7 consultant for Monsanto?

8 A. No.

9 Q. How long after you retired did you
10 act as a consultant?

11 A. I acted as a consultant for
12 Monsanto for six months. I will expand on
13 that. At that point in time people were
14 supposed to be thrown out at 65, period.

15 Q. And they wanted you for six months
16 after you turned 65 because of your value
17 to the company?

18 A. Well, you can put it that way.

19 Q. Were you working on any
20 particular, one particular project during
21 this six month period?

22 A. It dealt with PCB dielectrics for
23 the electrical industry, strictly. That's
24 what it was.

25 Q. Was it a part of your -- well,

1 let's back up. I haven't gotten your job
2 history. I want to go through your job
3 history. Obviously, with a forty year job
4 history, I'm sure that you held a number of
5 positions at Monsanto. So what I would
6 like to do is to go through it or have you
7 go through it job by job with just a brief
8 description of your basic job
9 responsibilities. If we can start in 1934,
10 what was the first job you had with
11 Monsanto?

12 A. They were all in the technical
13 area. The first, which was standard, all
14 new trainees spent time in the analytical
15 laboratory to get acquainted with
16 materials, the chemicals being
17 manufactured. After spending, say, two
18 years in that area, the trainee, if he's
19 engineering oriented, he goes towards
20 engineering. If he's marketing oriented,
21 he goes that direction. If he is
22 technically oriented, as I was, he goes
23 along the laboratory and research areas.

24 Now, after two years in the
25 analytical lab, I went into some advanced

1 analytical laboratory work. And then I
2 went into laboratories called plant
3 laboratories, more directly connected with
4 the manufacture. You want me to put in
5 time?

6 Q. Yes, that would be good.

7 A. Well, we are up to 1939. At this
8 point, I was assigned to research
9 development. Excuse me, scratch that.
10 Application research, application
11 research. Then by, I think, 1941 I was in
12 the organic chemical division development
13 department where I had my own laboratory,
14 and toward -- well, I would say 1946, I
15 went into what was called the sales
16 development department in a technical
17 capacity.

18 Now, in the interests of clarifying
19 this for you, this was all in the organic
20 chemicals division. Now, in October 1947 I
21 was invited to join the inorganic chemicals
22 division. Now, the inorganic chemicals
23 division happens to be the division that
24 manufactured the first PCBs.

25 Now, we will go to, oh, say, 19 --

1 the early part of 1951. PCBs are our trade
2 name Aroclor, you're familiar with that.
3 The hierarchy decided to move these organic
4 chemicals -- they are half in organic, half
5 inorganic -- they decided to move these
6 into the organic chemicals division. So
7 from this approximate time 1951 until I
8 retired, I did as I was told, to accompany
9 and go along with the aroclors and go into
10 the organic division. Now we are up to my
11 retirement.

12 Q. What was your position in the
13 organic division between 1951 and 1974?

14 A. The same thing. A technical
15 person.

16 Q. Did you have a title?

17 A. I had a title.

18 Q. What was it?

19 A. Doesn't mean anything.

20 Q. Tell me anyway.

21 A. Well, I was connected, even though
22 I was a technical person, realize, I was
23 connected with, now, the marketing people.
24 And I was given, I didn't request this, I
25 was given a card that said my name,

1 marketing manager. I wish to clarify
2 this. This was given as a nice gesture.
3 It was specifically on dielectrics. I
4 wasn't active anywhere else.

5 And to expand on this, marketing at
6 that time was a rather sophisticated,
7 dignified way that earlier we just said
8 sales department, sales manager. Now, if
9 someone had given me a card with my name on
10 it as sales manager, I assure you, I would
11 have given it back. It would have made no
12 sense at all. These things happen.

13 Q. So even though your title was
14 marketing manager, you had no
15 responsibility for sales, is that right?

16 A. No, I didn't have a responsibility
17 for sales.

18 Q. Was it your responsibility to
19 provide technical advice concerning the use
20 of PCBs to customers?

21 MR. PREUSS: Are you talking about
22 PCBs generally or dielectrics?

23 Q. Dielectrics PCBs.

24 A. Yes, we are talking about
25 dielectrics. Yes, that's what it was. I

1 would like to clarify -- I would like to
2 expand on this.

3 Q. Okay.

4 A. It wasn't that I advised them.
5 Rather, the other way around. The users
6 invented the use. It was their property.
7 At some periods originally it was
8 patented. No one could use it without
9 approval from the inventor. Now, they came
10 to Monsanto and asked Monsanto to
11 manufacture what they felt they wanted and
12 needed.

13 Now, in a situation like this, it's
14 the user, if you like the customer, that
15 has to specify what they think they need.
16 And not only this. They also have to
17 present the methodology to be used to make
18 this determination of these various
19 physical, chemical and electrical
20 properties. And this then arrives at an
21 agreement and understanding between the
22 supplier and the owner, the user. But
23 that's not the end of this process.

24 This thing that gets carried on and
25 in the case of PCR dielectrics, properly

1 established and documented, principally the
2 American Society For Testing and
3 Materials. Now, I was very active in these
4 technical organizations. I did a lot of
5 that. Not only then in our country, but
6 around the world. I think now you know
7 what I did.

8 Q. What was it about PCBs that made
9 them good dielectric fluids?

10 A. There were -- I don't know in what
11 detail you want this. But I will try and
12 answer it as short as possible. The
13 discoverer, I'm going back to 1929, the
14 discoverer and the inventor was the General
15 Electric Company. Mr. Frank Clark was the
16 discoverer.

17 Now, here is what he saw, expected
18 to see, what interested him in PCB
19 dielectric. I will address the capacitor
20 use because that is more definitive.
21 Prior, mineral oil was a dielectric. It
22 was not of consistent quality. Capacitors
23 can be a very good bomb and explode. The
24 mineral oil was not of consistent quality.
25 In contrast, a chemical manufacturer was

1 able -- Monsanto, was able to make PCBs to
2 an exceptionally high degree of purity and
3 refinement, and repeat this and reliably do
4 so supply.

5 Now, obviously, PCBs are one of the
6 very few things known to be fire
7 resistant. And there are certain other
8 fire resistance materials. However, they
9 do not have the electrical integrity and
10 stability as do PCBs. Additionally, from
11 an economic point of view, PCBs have a
12 dielectric constant roughly twice that of
13 the mineral oil. If you wanted the exact
14 numbers --

15 Q. No, that's okay.

16 A. This says that when you make a
17 capacitor with mineral oil, you come up
18 with a thing of this size. Now, why does
19 it have to be that size. I'm making a
20 comparison here. Well, you have to get the
21 heat out of it. This generates heat. You
22 can get the heat out through the surface,
23 the metal surface of the can. That's the
24 only place it can transfer the heat out of
25 it. If you don't do this, it will consume

1 itself. However, with PCBs, instead of
2 making a can this size, this red line here
3 is exact place. That's all you need. You
4 see this goes over. That's half the size.

5 Q. Mr. Benignus is pointing to a
6 coffee cup here that's on the conference
7 room table. So one advantage of PCBs as
8 used as a dielectric is that they dissipate
9 heat faster than other liquids?

10 A. No, I didn't say that.

11 Q. You need less of them than other
12 dielectric fluids?

13 A. What I said is this. To make a
14 capacitor with mineral oil, the thing has
15 to be twice as large, and that involves
16 heat transfer, as the size of a capacitor
17 that will do the same work with only half
18 the size. This is a tremendous economic
19 advantage. PCBs cost more than mineral
20 oil. But by the time you figure the saving
21 of materials, it's a lot cheaper. When you
22 figure the space saving, especially
23 nowadays with our modern buildings full of
24 computers and what have you, space is very
25 expensive. This is a tremendous space

1 saver.

2 Q. What about the chemical stability
3 of PCBs? Does that play a role in their
4 benefits as a dielectric fluid?

5 A. Yes. They are very stable
6 materials. They are very refractory
7 materials. They are not influenced
8 adversely. I'm speaking as a dielectric,
9 by water. They do not hydrolyze. It's not
10 an ester. They are resistant, highly
11 resistant, to corrosive influences, acids,
12 alkali and so forth.

13 Q. Do you have any familiarity with
14 the benefits of PCBs as opposed to mineral
15 oil when used as a lubricating fluid?

16 A. No.

17 Q. So your expertise or knowledge is
18 solely with PCBs as dielectrics?

19 A. Right.

20 Q. Was it part of your job in your
21 work with dielectrics to keep abreast of
22 toxicity information concerning PCBs?

23 A. Oh, I would say yes, but not from
24 the standpoint that I was an industrial
25 hygienist and certainly not a medical

1 person.

2 Q. What about your job required you
3 to keep abreast of toxicity information
4 concerning PCBs?

5 A. Because people using PCB -- now we
6 are talking about toxicology -- needed to
7 be given guidance as to how to go about
8 using them.

9 Q. And how did that fall under
10 your -- are you talking about basically
11 industrial hygiene considerations, Mr.
12 Benignus?

13 A. I'm talking about -- well, you
14 could call it that. I'm talking about
15 health considerations, and of course
16 industrial hygiene is this.

17 Q. Health considerations of people in
18 factories that came in contact with PCBs?

19 A. Correct.

20 Q. And how did that fall under your
21 job responsibilities, this concern?

22 MR. PREUSS: Well, I'm going to
23 object. I think you're mischaracterizing
24 it a bit. He said he did not have
25 responsibility as an industrial hygienist

1 or as a medical doctor, but that he was
2 generally acquainted with those
3 considerations because he worked with the
4 product.

5 Q. And I didn't mean to imply
6 anything different. I'm just interested in
7 what part of your job entailed keeping
8 abreast of toxicity information.

9 A. Just because I was in contact with
10 the users and disseminated the
11 information. And if I would write
12 anything, I took this into account.

13 Q. And what was your understanding of
14 the toxicity of PCBs, let's say, in the
15 1940's?

16 A. In the 1940's, please specify what
17 part of the 1940's.

18 Q. The early 1940's. All right. Let
19 me strike that. There was some
20 breakthrough in the toxicity, the knowledge
21 of toxicity of PCBs that occurred in the
22 1940's such that information concerning
23 their toxicity changed greatly during that
24 decade?

25 A. No, no.

1 Q. Then back to the question of what
2 was your understanding of the toxicity of
3 PCBs during the early 1940's?

4 A. All right. Whatever. My
5 first-hand knowledge and experience is
6 right down to earth. I worked with these
7 things. I can best explain it simply,
8 understandably, by saying, as we did say,
9 do not breathe the vapors and the fumes
10 that would be emitted by PCBs at elevated
11 temperatures. If spilled on the skin or
12 the clothing, remove it by ordinary washing
13 with soap and water. That's quite broad.

14 Q. Were PCBs produced by Monsanto for
15 use in dielectrics labeled with this advice
16 in the 1940's?

17 A. Yes.

18 Q. Where did the label appear?

19 A. The label appeared on the drums.
20 Now, let me --

21 MR. PREUSS: You have answered the
22 question. She will ask another one.

23 Q. I will ask another one. What was
24 the advice not to breathe vapors or fumes
25 of PCBs based on, what was the

1 substantiation for that advice?

2 A. Well, as I well knew, because I
3 was so exposed, they would irritate the
4 mucous and the eyes. They were
5 irritating. However, this did serve, if
6 you will, they served their own warning.
7 If somebody has any sense and are exposed
8 to harmful amounts, they will know it
9 rather than not know it, they will remove
10 themselves.

11 Q. Other than irritation, what was
12 your understanding of the harm caused by
13 exposure to PCB fumes?

14 A. According to my understanding of
15 the medical literature, the PCBs would be
16 harmful to specific organs, the kidney and
17 the liver.

18 Q. Were you aware of any evidence
19 that tied kidney or liver injury to -- I
20 don't know what the word for this -- if you
21 got it on your skin rather than breathed in
22 the fumes?

23 MR. PREUSS: Dermal exposure.

24 Q. Dermal, thank you.

25 A. Oh, dermal exposure. No --

1 MR. PREUSS: I don't mind him
2 answering as a lay person, but he's not
3 qualified to deal with medical issues, nor
4 qualified by his job responsibilities.

5 A. Well, as a lay person, I do not
6 know of cases where exposure to PCRs caused
7 excessive liver and kidney damage. This is
8 not to say that there have been a few
9 isolated instances where such was reported,
10 however. And I did know about that. Now,
11 that gets to be a complex subject. But I
12 was aware of a few such instances. But in
13 general, no.

14 Q. Were the instances that you were
15 aware of reported in research studies,
16 published research studies?

17 A. Oh, yes.

18 Q. What was your familiarity in the
19 1940's with the substantiation for the
20 advice not to get PCRs on your skin or, if
21 you did, to wash them off?

22 MR. PREUSS: You mean what was in
23 the literature as opposed to common sense
24 when you felt the irritation?

25 Q. I don't think that we have had

1 testimony concerning dermal irritation
2 yet. But let me go back and restate the
3 question. Maybe it was too complicated.
4 You suggested that or you testified that
5 the advice provided in the 1940's was if
6 you spill a PCB containing liquid on your
7 skin or clothing, you should remove it by
8 ordinary washing. What was the scientific
9 substantiation as you understood it at that
10 time for that advice?

11 A. Nothing more was required than
12 just washing it off the skin. No unusual
13 steps needed to be taken other than simply
14 laundering the clothes in the washing
15 machine, or if you had -- I have often had
16 it on my skin, and you just wash it off.

17 Q. What was your familiarity with the
18 published research concerning chloracne?

19 A. Chloracne?

20 Q. As it relates to PCBs rather than
21 other substances.

22 A. Right. In my, all my years,
23 chloracne never came up. Never heard of it
24 and never saw any evidence of it. However,
25 you're referring to published literature.

1 Now, there is published literature that
2 refers to chloracne. And at Swann
3 Chemical, which is in Anniston, Alabama,
4 they first made PCBs. When they first
5 began to make PCBs there was a brief
6 incident at Anniston of chloracne. Many
7 years later I learned about this in a very
8 incidental way. I wasn't concerned with
9 this.

10 Now, getting back to this incident,
11 what I was told, and I believe this, they
12 never knew really the basis for this
13 because it didn't recur. Now, there is
14 conjecture that's reasonable, they thought
15 it might have been a discrepancy in the
16 benzene. PCBs are chlorinated biphenyl,
17 which is made from benzene. That's a
18 reasonable thing. No one was ever sure.
19 It went away. They didn't quite know why
20 it went away.

21 What I would like to say about this
22 now, on chloracne, in all the years I was
23 connected with it, that I worked with it,
24 that friend of mine worked much more
25 intimately with it, they worked, open vats

1 as big as this table, PCB tub full of it.
2 Capacitor sitting in there under the liquid
3 about this far -- this is a liquid seal,
4 incidently, the PCB sealed the impregnating
5 hole through which the PCB entered the
6 capacitor, and that was not to be exposed
7 to such a thing as horrible as this air we
8 are sitting in here. So we have a liquid
9 seal. They were kept under the liquid
10 surface, and then they soldered it shut
11 under the liquid surface. These people did
12 this day in and day out. There was never
13 any toxicity problem. This was not at
14 elevated temperature. This was essentially
15 at ambient temperature.

16 Q. Was there, in your work at
17 Monsanto in the 1940's, was there a library
18 of published reports concerning PCB
19 toxicity?

20 A. Yes.

21 Q. There was a central location where
22 all the research was kept, is that right?

23 A. On toxicity?

24 Q. On health effects of PCBs.

25 A. Monsanto certainly had an

1 efficient medical department. They would
2 have had these publications, whatever. The
3 work was not done, the medical studies were
4 not done at Monsanto. Monsanto had
5 sponsored medical studies, oh, yes, they
6 looked into these things. The toxicology
7 of PCBs is published. Yes, there is a
8 central file of this.

9 Q. Did you receive published reports
10 concerning the toxicology of PCBs on some
11 sort of routing list? In other words, when
12 a new published report concerning health
13 effects of PCB came out, did you
14 automatically get it?

15 A. No, I wasn't in line with the
16 medical and so on and so forth. But I most
17 likely would have run across it, a report
18 by Drinker and others.

19 Q. Why don't we look at our first
20 exhibit, which is pre-marked as Exhibit
21 941. I will hand a copy to you, Mr.
22 Benignus, and to Mr. Preuss and I will
23 describe Exhibit 941 as consisting of Bates
24 range of TRAN 016789 through 016791. It
25 purports to be a letter dated December 30,

1 1947 from Mr. Benignus to Celanese
2 Corporation of America.

3 What I would like you to do with
4 this exhibit and the others that I will
5 provide to you is to look it over so that
6 you can answer the question whether you
7 have seen the exhibit prior to today.

8 A. Yes.

9 Q. Did you draft Exhibit 941?

10 A. Yes.

11 Q. And did you draft it as part of
12 your job responsibilities at Monsanto?

13 A. Yes.

14 Q. How did you determine what the
15 best possible information about the
16 toxicity of Aroclor vapors was?

17 MR. PREUSS: Make sure, that's a
18 fairly technical question, if you want to
19 read the whole letter before you answer it.

20 Q. Absolutely. If at any time you
21 want to read all or any portion of a
22 document, you should feel free to do so.

23 A. Okay.

24 Q. And my question is, how did you go
25 about determining what the best available

1 or published information was about the
2 toxicity of Aroclor or PCBs?

3 A. The date on this is December 30,
4 1947. I already told you that I came to
5 the organic division -- excuse me, to the
6 inorganic division in, I think I said,
7 October '47. Two months, I was there two
8 months. I'm surprised I could do such an
9 outstanding job in two months time. Now, I
10 was asked to write this at the
11 discussion -- at the request of Dr.
12 Jenkins. He had been the research or was
13 the research director. This is the
14 inorganic division -- yes, he was research
15 director at Anniston. He didn't think he
16 should do this.

17 Now, it's signed Development
18 Department. I was working under Paul
19 Logue, whose style was director of
20 development. In two months I was assistant
21 director of development. I was the
22 flunky. Now, when I read through this, I
23 had to be given guidance on such things as
24 the Journal of Industrial Hygiene and
25 Toxicology, which was in a file, and Dr.

1 Drinker, Warren, Bennett, and whatever.
2 That was in a file in Paul Logue's office,
3 not my office. I'm telling you, I received
4 guidance on this thing. It's well written,
5 isn't it?

6 Q. Yes, it is.

7 A. Now, for the rest of this -- well,
8 it gets into skin patch test. Well, this
9 is where it came from. I wasn't conversant
10 with this myself, in two months.

11 Q. So you believe that you were there
12 only two months, that it was likely this
13 Exhibit 941 was the product of you being
14 directed to where the information could be
15 found?

16 A. Exactly.

17 Q. And then you summarizing the
18 information?

19 A. Yes.

20 Q. Mr. Benignus, down at the bottom
21 of page one there is a reference that I'm
22 interested in. It's in the last sentence
23 there. I'm talking about the first page of
24 Exhibit 941, where it states, "In general,
25 the more highly chlorinated biphenyls are

1 less toxic than the lower chlorinated
2 derivatives, probably due to decreased
3 solubility."

4 Do you recall in your work at
5 Monsanto discussions or communications or
6 if you had the understanding that the lower
7 chlorinated PCBs were more toxic than the
8 higher chlorinated PCBs?

9 A. Specifically, no. However, for
10 something to be toxic, it has -- toxic to
11 humans or anything else, it has to be
12 soluble, let's say, in water or body fluid
13 or something. If it's like a rock, it
14 won't come in contact. This is just a
15 basic premise. In an insecticidal thing,
16 it's no good unless it gets into the
17 insect.

18 Now, as I say here, the less
19 chlorinated ones are more soluble than the
20 higher chlorinated ones, which are resins,
21 solids. The liquids would certainly
22 probably go through the skin more readily
23 than a resin will. That's all.

24 Q. What advice was provided to
25 customers of Monsanto, and I'm talking

1 about dielectric customers, your particular
2 area, concerning disposal of PCBs, and let
3 me focus in this question on the period
4 prior to 1965?

5 A. On disposal -- I'm trying to think
6 of the date when Monsanto offered to take
7 back PCB, that's what you're asking?

8 Q. No, not exactly. What I'm
9 interested in is whether any advice was
10 provided to customers about what they
11 should do with used or spent PCBs prior to
12 1965 or thereabouts?

13 A. I will begin this by saying no one
14 ever came to me in this regard. I was not
15 at all involved in this regard. So what
16 advice was given, to my knowledge, nobody
17 ever asked for advice. I'm talking about
18 the electrical industry. I can't think of
19 a single instance where anybody asked us,
20 how do you dispose of this, and they
21 certainly didn't ask me. I was on the
22 other side of the fence. I was trying to
23 protect PCBs from environmental -- adverse
24 environmental influences. Now, I wasn't on
25 the other side of the fence. But to answer

1 your question, I don't know that anybody
2 ever asked us, up to the time you're
3 saying, '65.

4 Q. Mid 1960's?

5 A. Yes. I'm not aware of anyone in
6 the dielectric area.

7 Q. Was there any discussion at
8 Monsanto that you participated in or heard
9 prior to the mid 1960's about the
10 environmental aspects of PCBs?

11 MR. PREUSS: I'm going to object
12 to it as vague. What do you mean by
13 environmental aspects of PCB?

14 Q. Let me clarify that. Was there
15 any discussion or communication that you
16 were aware of or participated in at
17 Monsanto prior to the mid 1960's about
18 whether PCBs posed any kind of threat to
19 the environment because they were a stable
20 chemical?

21 A. No.

22 Q. When did you first hear about the
23 research done, the environmental effects of
24 DDTs?

25 A. Of DDT? I can't give you this as

1 a specific answer. However, my estimate
2 would be perhaps around this time you're
3 talking about. I'm not supposed to ask
4 questions. That's my best guess. What I'm
5 saying is, I heard about the objection to
6 DDT long before anybody ever thought of any
7 objection to PCB.

8 Q. Why don't we take a break. We've
9 been going about an hour.

10 (Short recess)

11 Q. Back on the record. The next
12 exhibit I would like to show you, Mr.
13 Benignus, I have marked as Exhibit 942.
14 And I will describe it for the record as
15 consisting of Bates range TRAN 011867
16 through 011947. It purports to be dated
17 April 27, 1948 and is entitled Final Report
18 On Aroclor Data Book. Mr. Benignus' name
19 appears on the second page of the exhibit
20 as one of the recipients of the document.
21 Mr. Benignus, my first question is whether
22 you recognize Exhibit 942?

23 A. Yes.

24 Q. What is Exhibit 942?

25 A. Well, it's a report written by R.

1 R. Knight, April 27, 1948.

2 Q. Other than that, can you tell me
3 if this was a -- can you tell me what
4 Exhibit 942 was used for?

5 A. No.

6 Q. Doesn't look familiar to you?

7 A. Well, looking at here, the
8 contents look familiar. I have faint
9 recollection who R. R. Knight was.

10 Q. Well, let me ask you this. Was
11 there a -- was there a binder, a loose-leaf
12 binder system kept in the research
13 department that compiled information about
14 the various aroclors manufactured by
15 Monsanto?

16 A. Well, this was in one form or
17 another form kept, surely.

18 Q. But flipping through Exhibit 942,
19 you don't remember this particular format
20 as a compilation of information about
21 aroclors?

22 A. No.

23 Q. Let me direct your attention then
24 to first to the table of contents, which
25 starts on TRAN 011870, which is the number

1 down at the bottom. Up at the top of the
2 page it says page two. And then if you
3 continue over onto the next page, there is
4 a section called Uses Of Aroclors, followed
5 by a section called Physiological Effects.

6 A. Yes.

7 Q. And what I would like you to do is
8 to turn to what's marked at the bottom as
9 page 011938, which is where the uses of
10 aroclors section starts.

11 MR. FREUSS: 938?

12 Q. Am I wrong on that? I think that
13 was the first reference I saw up at the top
14 with a Roman numeral three, which
15 corresponds to the uses. But it doesn't
16 really matter, Mr. Benignus, because what I
17 would actually like you to look at, I'm
18 still kind of orienting you to the
19 document. What I would like you to look at
20 is TRAN 011942, which up at the top says
21 soil poison concentrate.

22 A. 942. Oh, yes, soil poison
23 concentrate.

24 Q. And your name is up there in the
25 right-hand corner, and on this particular

1 page it purports to be dated March 11,
2 1948. What I'm interested in, and perhaps
3 this page refreshes your recollection, is
4 the use of aroclors as soil poisons.

5 MR. PREUSS: What's the question?

6 Q. Whether he has any recollection of
7 such use.

8 A. They weren't really used for it.

9 Q. What is a soil poison?

10 A. Well, you see here is
11 pentachlorophenol. Pentachlorophenol use
12 was as a wood preservative, to protect wood
13 against termites. One way of doing this is
14 to pressure treat, or just dip treat it,
15 atmosphere, the untreated wood, say, a
16 two-by-four, into a solution of
17 pentachlorophenol. Now, the
18 pentachlorophenol protects the wood against
19 the attack by termites and other soil
20 mites. Now, versus this procedure, where
21 the wood is treated.

22 Another way it can be approached,
23 if for some reason you don't want to treat
24 the wood, you don't have facilities for
25 doing that, if you dig a hole and you just

1 pour this into the hole, then it approaches
2 it from that way as a protection against
3 termites. And that's what this thing is,
4 is a soil poison.

5 Now, the other things are just as
6 carriers for the pentachlorophenol.
7 Aroclor is not biologically active. It's
8 not an insecticide or miticide, fungicide,
9 so on and so forth. Pentachlorophenol,
10 that would be the active ingredient in this
11 thing. The rest are convenient carriers
12 for this, whoever got this thing up. This
13 was written, incidentally, at Anniston, not
14 by us in St. Louis.

15 Q. Do you recall in March -- well, do
16 you recall ever suggesting the use of
17 aroclors as a soil poison in the context
18 that you have described, the use of soil
19 poisons?

20 A. No. And it was never used that
21 way, to my knowledge.

22 Q. Could I direct your attention to
23 the last two pages of this exhibit, which
24 are 011946 and 11947.

25 A. 11946?

1 Q. Right. It's headed up at the top
2 Morphological Changes In The Livers Of Rats
3 Resulting From Exposure To Certain
4 Chlorinated Hydrocarbons.

5 MR. PREUSS: Do you want him to
6 read that?

7 Q. I don't want you to read the whole
8 thing, no. What I'm interested in, Mr.
9 Benignus, is whether you recall some sort
10 of compilation of -- if this refreshes your
11 recollection concerning whether there was a
12 compilation of toxicity information
13 available to members of the inorganic
14 division concerning aroclors?

15 MR. PREUSS: Well, just for the
16 record, on the top it says that it's from a
17 Journal Of Industrial Hygiene and
18 Toxicology, volume 20, number two, February
19 1938. So I object to the form of the
20 question as assuming facts not in evidence,
21 no foundation.

22 A. Is there a question open?

23 Q. Yes. I will ask it again,
24 though. Does seeing this document refresh
25 your recollection, cause you to remember,

1 whether or not there was some sort of
2 compilation of documentation concerning
3 toxicity of PCBs available to members of
4 the inorganic division?

5 A. I would have to say yes, sure.

6 Q. And was the information kept in
7 notebooks?

8 A. I don't know. Published reports
9 would be published report. I don't know
10 what you mean by a notebook.

11 Q. When I ask whether there was a
12 compilation, I guess what I'm asking is, do
13 you recall there being a handbook or one
14 source document in the inorganic division
15 that had all the information about aroclors
16 that staff members might need?

17 A. Not in that form, not to my
18 knowledge. I didn't. In fact, I don't
19 recall this thing.

20 Q. How were new uses of aroclors
21 approved in the inorganic division, do you
22 have knowledge of that?

23 A. Please say it again?

24 Q. Sure. How were new uses of
25 aroclors approved in the inorganic

1 division, if you know?

2 A. In the inorganic division?

3 Q. In the '40's you were still in the
4 inorganic division?

5 A. Right. How were new uses
6 approved. I suppose whoever wanted to use
7 these materials for their given purpose or
8 use, they would make that judgment, and if
9 we heard about it, we would be interested,
10 obviously. And the best thing I know of,
11 to answer your question, really goes before
12 my time, where somebody wanted to use PCBs
13 as a plasticizer in bubble gum. Well, we
14 didn't think that was a use that we would
15 approve of, and knowing the intention of
16 that use, we brought it to the attention of
17 these people and said no, we don't think
18 that that is a thing that we approve of.
19 In fact, we made it to the point, we are
20 not going to sell it to you for this.

21 Q. Do you recall during World War II
22 aroclors being used in the production of
23 cable by the Navy?

24 A. Certainly.

25 Q. And were there a number of

1 chloracne cases that were reported with
2 such use?

3 A. Yes. Would you repeat your
4 question?

5 Q. Sure. I'm referring you to
6 whether you recalled production of cable by
7 the Navy during World War II where they
8 used aroclors in the production of the
9 cable.

10 A. Aroclor was a component.

11 Q. And do you recall -- then the
12 second question that you have already
13 answered, I guess, was that you recalled
14 that there were reports of chloracne?

15 A. Yes.

16 Q. In the fabrication of the cable?

17 A. Yes.

18 Q. Did Monsanto ever determine what
19 the cause of the chloracne was?

20 A. Monsanto did not determine this
21 per se. This was done by medical people in
22 the state of New York. And you asked was
23 aroclor used, was that it? Aroclor was a
24 component, and I actually don't think or
25 recall that this was PCB. I'm pretty sure

1 it was in that term PCT, chlorinated turf
2 phenol, which is a resin, versus the liquid
3 aroclors. They were used in combination
4 with Halowax, chlorinated naphthalene.

5 Now, the medical investigation
6 brought out that the two things the
7 aroclor, and I think it was what we call
8 sanowax aroclor, this was before my time,
9 but that would be the resinous, not the
10 turf phenol base. That, in combination
11 with the chlorinated naphthalene, had a
12 synergistic effect that they spoke of and
13 it was worse than either one alone.

14 Now, the result of this, I do
15 recall from being told, was that
16 chlorinated naphthalene, Halowax, was
17 removed and not used. They continued,
18 however, to use the aroclors. And as I
19 told you, I think that was a turf phenol
20 Aroclor.

21 Q. Let me show you the next exhibit,
22 which I have pre-marked as Exhibit 946,
23 which I will describe for the record as
24 consisting of Bates range TRAN 054092
25 through 054094, which purports to be a

1 memorandum dated June 29, 1953 from Mr.
2 Benignus. Subject, Aroclor, extreme
3 pressure lubricating additive for greases
4 and gear oils. And if you could look over
5 Exhibit 946 so that you can tell me if you
6 drafted it, Mr. Benignus, that would be the
7 first inquiry.

8 A. Whether my name is signed -- yes,
9 my name is signed on here. Yes, I remember
10 this.

11 Q. You drafted Exhibit 946?

12 A. Yes, I drafted this.

13 Q. And Exhibit 946 relates to
14 possible sale of aroclors for use as -- in
15 conjunction with oils and greases used in
16 machinery to create animal feed, is that
17 right?

18 A. I'm reading this. I didn't listen
19 to your question. Let's get back to it.

20 MR. PREUSS: You're going to have
21 to read it to answer that question.

22 Q. That's okay, go ahead and read
23 it.

24 A. Okay.

25 Q. Mr. Benignus, do you recall

1 Monsanto marketing aroclors for use with
2 greases or oils in farm machinery?

3 A. No.

4 Q. No recollection of the events that
5 reflected in exhibit --

6 A. This "X"-disease in cattle, I
7 remember when that thing came up, and I do
8 recall that part of it. But that we sold
9 or that any was used in this, no. But the
10 Hallowax was used and the cattle got this --
11 well, like acne of the lips, and as I said,
12 they found that Aroclor doesn't do this.

13 Q. All right. Next document, exhibit
14 I have marked as Exhibit 948. I don't want
15 you to read the whole thing.

16 A. No, I know everything that's in
17 here. I will make it simple for you.

18 Q. This exhibit consist of Bates TRAN
19 017052 through 017036, and it purports to
20 be something called The Proper Handling Of
21 Aroclors And Their Mixtures In The
22 Electrical Industry. And it is dated
23 12-1-54, and it shows Mr. Benignus on the
24 first page of -- or the cover sheet, I
25 guess it is, which is 017054. And my

1 question is if you recall Exhibit 948?

2 A. Yes.

3 Q. And what is it?

4 A. This is a typewritten compilation
5 of information specifically on the subject
6 of askarel dielectrics. And this --

7 Q. Mr. Benignus is referring to
8 Exhibit 946.

9 A. All right. This -- and it's also
10 headed phosphate division. That was the
11 inorganic division. I think I told you I
12 transferred to the organic division, what
13 did I say, in '52, was it?

14 Q. I will check my notes. You said
15 1947.

16 A. That's when I went to the
17 inorganic division.

18 Q. Sorry. You indicated early 1951
19 is when you went back to the organic.

20 A. Cross that out and let's make
21 that -- what's the date of this thing?

22 Q. This purports to have a date of
23 December 1954 on it.

24 A. This is 1954? Maybe that is
25 reprint, however. 1954, December. Well,

1 you see here, I was in the organic
2 division. So maybe that 1951 was a little
3 earlier than it should have been, if you
4 want to make that correction.

5 Q. Okay. What is Exhibit 948, which
6 is the thick one there in front of you?

7 A. This is dated December 1954. What
8 occasioned this was General Electric, who
9 invented PCB dielectrics in 1929 or '30, by
10 this time 1954 their use patents had
11 expired. Because of this and since GE is
12 the owner and the people who license others
13 to use it and since their patent expired,
14 they made a change. They said, why should
15 we bother with arranging for our licensees
16 to get shipments of Aroclor, PCBs. When
17 actually they can go to Monsanto without
18 bothering us. In essence, GE turned over
19 to Monsanto the commercial handling and
20 distribution and billing of PCB
21 dielectrics, so people who formerly were so
22 served by General Electric.

23 Now, here at Monsanto in the
24 organic division there is a so-called sales
25 department and people are called salesmen,

1 and they go around to call on these users
2 who had bought in the past from GE. Well,
3 there is nothing quite as sad as a salesman
4 who is a bit nervous coming in with
5 something that he really never heard about,
6 knows nothing about. And the intent here
7 was to provide these people, salesmen, with
8 something to go in with when they would
9 call. And you see it's written up in the
10 typewriter, it was never put into print. I
11 visualized this thing as something that
12 maybe they would have need for, oh, maybe
13 25 copies. I was appalled at how many of
14 these things were printed. Who in the
15 world has need for this? It's very
16 specific. It's PCB dielectrics. But a lot
17 more went out than I ever realized. We had
18 to retype this thing.

19 And to further describe it, it
20 presents in great detail the methodology
21 posted at A.S.T.M. Now, if you're going to
22 talk about something in the dielectric
23 area, you better be thorough. That's a
24 very critical application. People have
25 asked, why do you go into all of this

1 detail. Well, I'm not about to sign my
2 name to something that gives a half-baked
3 discussion of it.

4 So these are essentially procedures
5 used in our laboratory, confirmed with GE,
6 used at GE, posted officially at A.S.T.M.
7 for everybody. That's essentially what
8 this is. So if someone wants to use it,
9 instead of having to get the A.S.T.M. book
10 and so forth, well, here it is.

11 Q. The next exhibit I would like to
12 show you is exhibit -- I'm going to hand
13 you two of them at the same time, Exhibit
14 939 and Exhibit 940. Exhibit 939, for the
15 record, is a one page document bearing
16 Bates number TRAN 053668. Purports to be
17 dated 3-16-55. Mr. Benignus is shown as
18 the submitter. It's a form that's labeled
19 at the top Agricultural Fungicide Screening
20 Report. Exhibit 940 is a single page
21 document bearing Bates number TRAN 053669.
22 It's a form at the top labeled Agricultural
23 Fungicide Screening Report. It purports to
24 be dated 3-16-55 and Mr. Benignus is shown
25 as the submitter.

1 And my question, Mr. Benignus is,
2 is this your handwriting at the bottom of
3 Exhibit 939?

4 A. No.

5 Q. And 940?

6 A. No.

7 Q. Do you have any recollection of
8 these exhibits?

9 A. Actually, not. Chemcal. If you
10 were to ask me what is Chemcal, I would say
11 I never heard of it. But here it says it's
12 chlorinated biphenyl 60 percent chlorine.

13 MR. PREUSS: I think it's
14 chemical.

15 A. Oh, the word chemical, okay.
16 Excuse me. No, I have --

17 Q. Do you have any recollection of
18 proposing the use of aroclor products or
19 products that contain aroclors for use as
20 fungicides?

21 A. No. It's not a fungicide to begin
22 with.

23 Q. All right. Let me show you the
24 next exhibit, which is Exhibit 949, which
25 is a one page document bearing Bates number

1 TRAN 053676. It purports to be dated June
2 30, 1955. It's labeled at the top
3 Technical Sales Report. And Mr. Benignus'
4 name appears up at the top as a Monsanto
5 representative. It's a long list of cc's
6 over on the right side. Mr. Benignus, do
7 you recall Exhibit 949, seeing it prior to
8 today?

9 A. My name is on it, so I should be
10 able to recall it.

11 Q. Did you visit the Department of
12 Agriculture in Beltsville, which is just
13 outside of Washington?

14 A. No.

15 Q. Did you have any involvement in
16 the use of aroclors as insecticides?

17 A. No. In fact, I just told you it's
18 not an insecticide.

19 Q. Do you recall Aroclor being used
20 in insecticides to extend the life of the
21 active ingredients?

22 A. Yes, there was an article
23 published to this effect. Now, again,
24 aroclor here, this is a turf phenol
25 aroclor, a solid. It's not a liquid; it's

1 a solid. And the idea here is sort of like
2 Advil; that's aspirin coated with something
3 that when it goes into the stomach it
4 dissolves more slowly. Do I have this
5 right?

6 Q. No.

7 A. Something else, whatever. And
8 here the idea, as I understood it, would be
9 that this resinous material would act as a
10 sticker around the Lindane, I think it was,
11 on Lindane, and that that would cause the
12 Lindane to be released more slowly. It was
13 not an enhancement of the potency of the
14 Lindane by any means. It was just a
15 thought of as something that would cause it
16 to be released more slowly. I don't recall
17 of anyone ever going commercial with this.
18 But someone obviously was investigating
19 this sort of thing. It came to my
20 attention. I just passed it along. That's
21 all. Mr. W. M. Sullivan.

22 Q. Do you recall any meetings with
23 the Department of Agriculture during your
24 employment at Monsanto?

25 A. No.

1 Q. Do you recall having any
2 responsibility for any aspect of the
3 marketing of products that contained
4 aroclors for agricultural uses?

5 A. No.

6 Q. This Lindane situation, where the
7 proposed use was to somehow use aroclors in
8 conjunction with Lindane as an
9 insecticide --

10 MR. PREUSS: Well --

11 Q. That is a preamble. I don't mean
12 to misstate. I'm just directing his
13 attention back to his testimony. I realize
14 that is at best a paraphrase. With regard
15 to the proposed Lindane product, do you
16 recall any discussions concerning toxicity
17 of aroclors?

18 A. On my part?

19 Q. Let me make myself more clear. In
20 this product proposed where aroclors would
21 be used with Lindane, do you recall any
22 discussions that you participated in or
23 heard with Monsanto employees concerning
24 the toxicity of aroclors?

25 A. No.

1 Q. All right. The next exhibit is
2 952, which is a one page document bearing
3 Bates number TRAN 054924, purportedly dated
4 August 18, 1959. Subject, California
5 requirement for Monsanto labels on pyranol
6 and inerteen. Author, Robert Sido,
7 S-i-d-o. Mr. Benignus is shown as a cc.

8 A. I remember this.

9 Q. So you recall Exhibit 952, is that
10 correct?

11 A. Correct.

12 Q. And you recall that there was an
13 issue concerning a California labeling law
14 that required certain information to be
15 provided on containers of pyranol and
16 inerteen, is that correct?

17 A. Correct.

18 Q. Did you have responsibility for
19 labeling of products that contained
20 aroclors?

21 A. No.

22 Q. Do you recall being asked to
23 approve the caution label for pyranol and
24 inerteen products?

25 A. I wasn't asked, no.

1 Q. There is a reference in this
2 Exhibit 952 to Paul Benignus has agreed
3 that pyranol and inerteen containers shall
4 carry the caution statement, and then there
5 is text that has a cautionary statement
6 concerning the use of the product and
7 includes the language "contains chlorinated
8 hydrocarbons." Do you have any
9 recollection of being asked to agree to the
10 use of this particular caution label that's
11 shown in Exhibit 952 on pyranol and
12 inerteen?

13 A. Certainly it needed to be on the
14 drums.

15 Q. So it's your recollection that it
16 was on the drums prior to 1959?

17 A. We used it in the past, yes.

18 Q. So do you have any recollection of
19 what the issue was in 1959 with regard to
20 the California labeling law?

21 A. No, this is the first I heard of
22 it by this memo.

23 Q. There is a reference in this
24 memorandum to the stenciling of pyranol and
25 inerteen containers. Was it the practice

1 at Monsanto with regard to at least
2 dielectric products that contained aroclors
3 to stencil product information on the
4 drums?

5 A. I really don't know. You see --
6 and this is now the organic division versus
7 the inorganic division, and I really can't
8 answer your question. I don't know. And I
9 didn't go out in the plant to look at any
10 drums. And most of the people I was
11 dealing with in dielectrics -- however,
12 this did mention the company. Most of that
13 I dealt with dealt in tank cars. But this
14 does -- oh, Gerald Hopkins. They did use
15 drums. Well, it says they used drums.
16 That's where this thing came up. Most of
17 the dielectric users used tank cars, not
18 drums. But here is a case where somebody
19 used drums and that label was supposed to
20 be on there. That's what I'm saying.

21 Q. How do you know that this label
22 was on drums of dielectric aroclors prior
23 to 1959?

24 A. Because that was -- well, prior to
25 1959? Let me answer it in general. In the

1 inorganic division we were religious about
2 this.

3 Q. About what?

4 A. About having the label on the
5 drum.

6 Q. So it was your understanding that
7 prior to 1959 --

8 A. It was.

9 Q. This label was on the drums?

10 A. Yes.

11 Q. Okay. The next exhibit is 953,
12 which is a one page document bearing Bates
13 numbers 054922. Purports to be a
14 memorandum from Robert Sido, dated August
15 19, 1959. Mr. Benignus is shown as a cc
16 and the subject is labeling aroclors,
17 pyranols, inerteens. Ask you to take a
18 look at Exhibit 953 and tell me if you
19 recall seeing it prior to today.

20 A. Well, I got a copy of this. I
21 understand what it says. It talks about
22 the same label that we are talking about
23 there. And it's dated August 19. This
24 other one was dated August 18. So it got
25 attention.

1 Q. Do you recall approving the use of
2 a warning that included the term "contains
3 chlorinated hydrocarbons" for all aroclor
4 products sometime in 1959?

5 A. Repeat that question, please?

6 Q. Sure. Do you recall sometime in
7 1959 agreeing to or approving the use of a
8 caution label that includes the terms
9 "contains chlorinated hydrocarbons" for all
10 aroclor products?

11 A. I didn't approve it, but I wasn't
12 in the labeling department. You're saying
13 chlorinated hydrocarbons?

14 Q. Right. That's the text shown on
15 Exhibit 953, "caution, contains chlorinated
16 hydrocarbons," followed by some
17 additional --

18 A. Well, the labeling people had a
19 reason for calling it chlorinated
20 hydrocarbons. Now, what went through their
21 minds on that, I don't know.

22 MR. PREUSS: The question was
23 whether you recall agreeing to this
24 particular label for all aroclor products.
25 I think it says all aroclors, pyranol and

1 inerteen containers, is what it says here.

2 A. Well, I have no record that I
3 formally disagreed with it. But I can see
4 this would be a broader connotation than if
5 one said chlorinated biphenyl and then you
6 had a separate label for chlorinated turf
7 phenol. Now, I don't ever recall having
8 separate labels to that extent.

9 Chlorinated hydrocarbons, incidentally,
10 can, under that heading, include things
11 that aren't PCBs to begin with. So it's a
12 matter of semantics that I wasn't called in
13 and asked about.

14 Q. What's a chlorinated hydrocarbon
15 that doesn't constitute a PCB?

16 A. Well --

17 MR. PREUSS: Or a PCT as he just
18 testified to?

19 A. Or a PCT.

20 Q. Well, I guess a PCT would be one.
21 A hydrochlorinated hydrocarbon that was not
22 a PCB.

23 A. That's correct.

24 Q. Can you give me another example
25 that would be a chlorinated hydrocarbon

1 that would not be a --

2 A. Trichlorobenzyl. Chlorinated
3 benzene is a chlorinated hydrocarbon.

4 Those are in the aromatic family than in
5 the oliphatic. Then in the aromatic, you
6 can have a whole variety of them;
7 hydrotetrachloride, a lot of things.

8 That's a rather broad connotation that I
9 don't object to now and I didn't object
10 then. But someone in labeling selected
11 that. And the only thought I can give you
12 is that, and I'm not sure this is what went
13 through their minds --

14 MR. PREUSS: Well, don't speculate
15 on what might be in their minds.

16 Q. Yes, you don't need to speculate.

17 A. I think I answered your question.

18 Q. You did, thanks very much. Let me
19 show you the next exhibit, which is Exhibit
20 955. Before I have you look at this, Mr.
21 Benignus, can you explain for me how an
22 askarel, the term askarel, differs from the
23 term aroclor?

24 A. Yes. That's an important thing.
25 Askarel is a generic name used officially

1 and so documented at the American Society
2 For Testing and Materials. Now, to qualify
3 as an askarel, the dielectric, we are
4 talking dielectrics, must be approved and
5 conform with what the Fire Insurance
6 Underwriters require to be allowed to use
7 this name askarel. Now, all PCBs are not
8 askarels.

9 Now, how does askarel differ from
10 aroclor, that was the question? Aroclor is
11 Monsanto's trade name, which is comparable
12 to General Electric's trade name of
13 pyranol. Westinghouse used inerteen.
14 Allis Chalmers used Chlorextol. Wagner
15 used Norforpamol. People pick their own
16 trade names.

17 Now, those were askarels approved
18 by the Fire Underwriter Laboratories
19 tests. And that input from the Fire
20 Underwriters Laboratories was put into the
21 A.S.T.M. requirements. So if something was
22 called an askarel, you could be sure it
23 meant the Fire Underwriters requirements as
24 a dielectric.

25 Q. Thank you. Let me describe

1 Exhibit 955 for the record. It's a multi
2 page document bearing Bates range TRAN
3 054852 through TRAN 054862. I would
4 actually like you to look at this
5 document. It's headed Review Of
6 Transformer Askarel, dated July 1962 and
7 the initial PGB -- actually, the name P. G.
8 Benignus appears on page nine of the
9 document and the initials PGB on page ten
10 of the document, which is TRAN 054861 and
11 054862 respectively.

12 MR. PREUSS: So you would like him
13 to read it?

14 Q. No, sir, I don't want you to read
15 the whole document. I just want you to
16 look at enough of it so you can tell me if
17 you drafted Exhibit 955.

18 A. Yes, I did.

19 Q. You did write Exhibit 955, is that
20 correct?

21 A. Sure.

22 Q. And did you do that as part of
23 your responsibilities as a marketing
24 manager for Monsanto, as you have explained
25 the use of that term?

1 A. Yes.

2 Q. I could direct your attention to
3 page -- the page that's labeled number two
4 up at the top of Exhibit 955 because I just
5 want to ask you about a couple of things in
6 this document. You have got a list of
7 paragraphs here that have numbers next to
8 them. And number two is, however, all
9 transformer makers prefer to manufacture
10 mineral oil or dry type units rather than
11 askarel. What was your understanding of
12 why that was so?

13 A. Well, they were more familiar --
14 mineral oil was a standard in the
15 industry. Bear in mind, askarel
16 transformer is a specialty. It's not the
17 prevelant thing. It is a specialty at a
18 higher cost that was selected when a
19 judgement was made that a fire resistant
20 fluid shall be used instead of a flammable
21 fluid. That judgment was made by someone.
22 And they were willing to pay more. It
23 costs more. And it gave more freedom as to
24 where this transformer could be located.
25 You can't put a mineral oil transformer in

1 this building, you know. Askarel in a wall
2 in this building is all right. Now, our
3 competition here was a dry type. The other
4 thing you may want to consider instead of
5 askarel is a dry type transformer. It has
6 no fluid.

7 Now, when you do this, however, you
8 have to think, where are you going to put
9 it. You do not have the freedom you have in
10 selecting an askarel. To give an example,
11 in marine climates, where you people are,
12 and in the coast of Florida, near the
13 ocean, wherever there can be water
14 flooding, wherever there is excess dust or
15 dirt like in a flour mill or a steel mill,
16 those are not good places for a dry type
17 transformer. One would select the
18 askarel. But that is economically the
19 competitor here against askarel is the dry
20 type.

21 Now, to some it was probably a
22 little more convenient to make a dry type
23 than to have to handle a fluid. I said
24 all -- I say all transformer makers prefer
25 to manufacture mineral oil the dry type

1 rather than askarel. I would say in
2 general that's right. It's not a great
3 statement.

4 Q. Could you read paragraph three,
5 please, the one that starts, "also, there
6 is a tendency on the part of transformer
7 users to avoid a liquid."

8 A. That's what I was alluding to just
9 now.

10 Q. What I'm interested in is the
11 statement that you have made here about the
12 tendency on the part of transformer users
13 to avoid a liquid when the liquid involves
14 a toxicology of askarel. There is fear
15 about its maintenance and handling. What
16 was that statement based on in your
17 experience?

18 A. On the toxicology of askarel
19 versus the toxicology of petroleum oil.

20 Q. And what were you referring to in
21 terms of the toxicology?

22 A. That the vapors are toxic, and if
23 you get it on the skin, it can be absorbed
24 by the skin and it's toxic. You get too
25 much in your system, it will affect the

1 kidney and the liver. And I'm referring to
2 the toxicology of the published literature,
3 which Monsanto has, we went through that,
4 which GE sure has, they have their medical
5 department, industrial; so with
6 Westinghouse. They have this information,
7 just as we did.

8 Q. Okay. The next document I would
9 like to show you -- before I do that. I
10 want to go forward now to the mid '60's.
11 These last documents we have been looking
12 at were earlier than that -- the mid to
13 later part of the '60's. When did you
14 first learn about Swedish research
15 concerning possible environmental
16 contamination by PCBs?

17 A. In retrospect, I know that this
18 came out in 1966. Now, I can't tell you
19 exactly when. I do recall in 1966 I was in
20 places like Australia, India, South
21 Africa. Now, that information about what
22 you refer to was sent to Monsanto from a
23 person that I was close with in our
24 operations in England. That's where he
25 picked it up. This was sent to St. Louis,

1 and I would have received a copy somewhere
2 along the line, not that I was expected to
3 do anything. That's the best answer I can
4 give you. When I heard that in '66 or a
5 little bit later.

6 Q. How did you first hear about the
7 research that had been done in Sweden
8 concerning PCBs as an environmental,
9 possible environmental contaminant?

10 A. From this, what I just now
11 referred to, this document, this memorandum
12 that came in.

13 Q. And what do you recall was the
14 first information you received about the
15 research, the Swedish research?

16 A. I actually didn't receive that.
17 And you say the research on this. I wasn't
18 interested in that, from the standpoint of
19 what was going on there, the environment.
20 Nobody understood that. However, I was
21 interested from another reason.

22 Q. What was that?

23 A. Well, a good friend of mine who I
24 worked with at Monsanto, Dr. Munch, he
25 happens to be the one who invented and

1 developed to some degree, useful degree, at
2 least, vapor phase chromatography. Without
3 this development at Monsanto, I assure you
4 they would not have been finding these
5 extremely small amounts of PCBs that they
6 were talking about -- probably in parts per
7 million, was it? Monsanto invented the
8 methodology, which has been enhanced
9 through the years. It started in Munch's
10 laboratory, he invented it. He should have
11 patented it. And without that, we probably
12 wouldn't be here. Now, that was my --

13 Q. Your recollection is that your
14 interest in the work of the researchers
15 done in Sweden was because one of your
16 colleagues had actually invented the
17 techniques used to find the PCBs, is that
18 right?

19 A. That's right.

20 Q. Let me now show you Exhibit 957,
21 which is a memorandum with attachment
22 bearing Bates range TRAN 085947 through
23 TRAN 085953. Purports to be a memorandum
24 to G. R. Buchanan from D. Wood, dated
25 January 26, 1967, and Mr. Benignus is shown

1 as a cc, and the subject is Sweden,
2 Aroclor. Mr. Benignus, do you recognize
3 Exhibit 957?

4 A. Yes.

5 Q. And did you receive it sometime in
6 or around January 1967?

7 A. This would have been the first
8 time I was appraised of this or saw it, and
9 it was -- I didn't mention his name, it was
10 David Wood, and this is it. And the date
11 is something in 1967 -- I can't tell. It
12 was a 26 day. I don't see the month.

13 Q. I think it's says 1-26.

14 A. Oh, yes, over here, January -- all
15 right. That's the first I heard and it was
16 from David. He was over there, over there,
17 calling on the customer in Sweden, and he
18 and I called there together many times in
19 the past and I was aware that they used
20 PCBs there.

21 Q. What discussions did you have with
22 Mr. Wood, if any, about the research done
23 in Sweden concerning PCBs showing up in the
24 environment?

25 A. None.

1 Q. Did you have discussions with
2 anyone employed by Monsanto about the work
3 of the researchers whose names were Jensen
4 and Vidmark?

5 A. No.

6 Q. How about your friend, Dr. Munch?
7 Did you have any discussions with him about
8 the use of his invention to discover PCBs
9 in the environment?

10 A. No, and I'm embarrassed.

11 Q. You didn't congratulate him?

12 A. No.

13 Q. What did you think when you heard
14 that these researchers in Sweden had
15 reported that they had found PCBs in eagles
16 and human hair and other specimens from the
17 environment?

18 A. Well, I thought what most
19 everybody else thought.

20 Q. What was that?

21 A. We don't understand this.

22 Q. Why didn't you understand it or
23 what about it didn't you understand?

24 A. Well, maybe the best answer I can
25 give you, at that point in time that you're

1 talking about, I didn't know about Munch's
2 vapor phase chromatography being used in
3 this thing. After it came to my attention
4 that this is how they determined these
5 minute amounts, I began to understand how
6 this was done. In the absence of that, it
7 was preposterous to think that they would
8 find it in hair and I don't know where
9 else -- birds, was it?

10 Q. So let me see if I understand.
11 Your thought when you first heard about
12 this research was you didn't understand how
13 they had found PCBs in parts per million?

14 A. At first, yes, because I wasn't
15 aware that it was Ralph's vapor phase
16 chromatography that had been developed to
17 that point, that it was actually in use. I
18 wasn't connected with this.

19 Q. So you were just provided this by
20 way of information?

21 A. That is all.

22 Q. And when you just testified that
23 you thought the same thing that everyone
24 else thought, did you have discussions with
25 other people about what they thought about

1 the research?

2 A. No.

3 Q. There is a reference in this
4 document to research being done at Monks
5 Wood Experimental Station in England
6 concerning the survival and reproduction of
7 Bengalese finches. Do you have any
8 familiarity with work done at Monks Wood on
9 PCBs in the environment?

10 A. No.

11 Q. Other than the work of Jensen and
12 Vidmark, do you have familiarity with work,
13 research done concerning finding PCBs in
14 the environment?

15 A. No.

16 Q. Do you recall in the -- let me
17 direct your attention to the press release
18 which is an attachment to the memorandum,
19 this LKB press release. Did you see that,
20 Mr. Benignus?

21 A. You mean on this page? I see LKB,
22 is that what you're referring to?

23 Q. It's headed Poison - LKB Helps To
24 Make A Safer World.

25 Q. I will count the pages. It's the

1 fourth page -- that's it.

2 A. Oh, no.

3 Q. You don't recall seeing this press
4 release?

5 A. No.

6 Q. Do you recall any discussion
7 concerning the linkage, if any, between
8 finding DDT in the environment and finding
9 PCBs in the environment around the time
10 early 1967?

11 A. Yes. Again, this had to do with
12 methodology rather than the environmental
13 ones. What was encountered here, DDT was
14 widely distributed through the environment
15 everywhere. And what had come up was PCBs
16 as an interference in the spectroscopic
17 analysis. What is this? It's an
18 interference here, they were looking for
19 DDT. Well, that was later, as I understand
20 it, defined as being an interference on the
21 graph from PCBs.

22 Q. Other than that connection that
23 they found, the PCBs when they were
24 actually looking for DDT, do you recall any
25 discussions or communications within

1 Monsanto about the link, if any, between
2 DDT and PCBs?

3 A. No, I don't recall any, other than
4 that it was an interference here.

5 Q. Okay. The next exhibit I would
6 like to show you is 958, which is a two
7 page document bearing TRAN 002548 and
8 002549. Purports to be a memorandum dated
9 4-16-1968. Subject, Texas Eastern
10 Transmission, from W. E. Gordon, and Mr.
11 Benignus is shown as a cc. And my question
12 is, whether you recall ever seeing any
13 correspondence -- well, I will ask the
14 particular first, if you recall seeing
15 Exhibit 958 prior to today?

16 A. Well, did I receive this? Yes,
17 I'm down here as having received it.

18 Q. What about your job
19 responsibilities would have you receiving
20 correspondence about alleged short weights
21 on shipments of Turbinol to Texas Eastern?

22 A. I don't think I even read the
23 thing. I wasn't in that area. Short
24 weights -- come on.

25 Q. That's what the allegation is.

1 Why did you get this kind of
2 correspondence?

3 A. All right. The only explanation I
4 can give -- now, I wasn't in this area, as
5 we know. I was strictly on dielectrics.
6 I'm trying to orient at least something
7 here. These people were not my associates,
8 except possibly one. You will see it says
9 P. G. Benignus, slash, C. M. Williams. And
10 then my mailing thing. They got this to
11 Charlie Williams because he was a clerk and
12 had to do with shipping, and if it does
13 weights and invoices, Charlie would do
14 this, not only for the non-dielectric but
15 also in the dielectric area. He was a
16 common clerk shipping expeditor and so
17 forth. And to reach Charlie, somebody,
18 whoever this was, took me, slash, Charlie
19 Williams because that's how Charlie would
20 have gotten it. Why they did that, why
21 they didn't send it to Charlie and leave me
22 off of it, I have no idea.

23 Q. Did Mr. Williams work for you?

24 A. No.

25 Q. All right. The next exhibit is

1 Exhibit 959, which is a two page document
2 bearing Bates range TRAN 058172 through
3 TRAN 058173. Looks like an excerpt from
4 another document because up at the top it's
5 labeled pages 15 and 16. It bears a date
6 of 7-68. And Mr. Benignus' name appears on
7 the second page of the exhibit next to the
8 heading Sponsor. Ready?

9 A. Yes.

10 Q. Do you recognize Exhibit 959, Mr.
11 Benignus?

12 A. I think I have seen this.
13 Certainly Dr. Munch and myself we were
14 copied in.

15 Q. Is it a budget document?

16 A. Yes. At the end here it does get
17 into costs of Calandra Labs and Metabolic
18 Study.

19 Q. Do you recall the form of this
20 document?

21 A. No, I don't.

22 Q. Did you draft this piece of a
23 larger document that deals with electrical
24 fluids, air and water pollution control?

25 A. No.

1 Q. Do you recall if in July 1968 you
2 believed the research findings concerning
3 PCBs identification of PCBs in the
4 environment to still be tentative?

5 A. I didn't have a fix on this. I
6 was still amazed in the very, very small
7 amounts that were being discussed, and the
8 reliability, the reproduceability of this.

9 Q. Between 19 -- the beginning of
10 1967 and July of 1968, what was your
11 involvement, if any, with Monsanto's
12 efforts concerning PCBs as an environmental
13 contaminant?

14 A. I wasn't directly concerned with
15 this.

16 Q. This document indicates that you
17 were -- that you have a responsibility to
18 determine present disposal methods for
19 aroclors. I'm looking in the middle of the
20 second page of the exhibit, with a target
21 date of 3-69. Do you recall being assigned
22 responsibility to determine what the
23 disposal methods for aroclors were?

24 MR. PREUSS: Just so the record is
25 clear, I think you're referring to the

1 initials P. B. --

2 Q. I should have made that clear.

3 MR. PREUSS: There are also two
4 other individuals.

5 Q. The initials are P. B., slash J.
6 B., slash P. H.

7 A. I can identify J. B., that's Jim
8 Bryant. P. H. slips me.

9 Q. Paul Hodges, perhaps?

10 A. No. I wouldn't say so.

11 Q. Do you understand the P. B. to be
12 referring to you?

13 A. Yes, that refers to me. Whoever
14 wrote it didn't know my middle initial.
15 Well, this was put here. I don't know.
16 This whole thing was in a state of flux at
17 this time. What I wish to say, just
18 because it was listed here, it was
19 indicated that would be an oncoming
20 responsibility. Now, Bryant was a
21 technical sales representative who would
22 call on customers in the field, where he
23 could get some idea from the customers as
24 to how they are presently disposing
25 aroclors. And P. H., whoever that was, I

1 would have to say is likewise. Those were
2 people out in the field. And the date is
3 3-69. That would fit in with this time
4 frame when things were beginning to get
5 rolling and get going. This thing didn't
6 happen overnight. We heard of this thing
7 in '66, was it? Well, here we are in '69.
8 This is the way the world goes. You
9 don't --

10 MR. PREUSS: It's '68.

11 A. Here it says 3-69?

12 MR. PREUSS: No, for a target
13 date.

14 A. For the target date it says here
15 3-69. So this was in the process, in the
16 mill, towards seeing what Monsanto can do.

17 Q. Mr. Benignus, do you have any
18 specific recollection about having any
19 responsibility for determining disposal
20 methods for aroclors?

21 A. No.

22 Q. Was that ever part of your job
23 responsibilities?

24 A. No.

25 Q. Did you ever acquire any

1 information about how Monsanto's customers
2 were disposing of aroclors?

3 A. No.

4 Q. Let's go off the record for a
5 second.

6 (Discussion off the Record)

7 Q. On the record. Tell me what you
8 recall about the Kusho incident in Japan
9 involving contamination of oil with
10 aroclors?

11 MR. PREUSS: Yushow, you mean?

12 Q. Yushow, sorry.

13 A. Well, Yushow was heating, cooking
14 oil that was used to cook fish. The PCB
15 fluid was used as an indirect heat transfer
16 media, so that the aroclor would take the
17 fire, transmit it to the cooking oil to
18 avoid overheating the cooking oil. Now,
19 the Japanese eat a lot of fish over there,
20 and Kanacafuchi in Japan had this plant to
21 manufacture, a Japanese company, PCBs. And
22 leakage occurred in the system, the heat
23 exchanger. I never got into this thing in
24 detail. At times I wish I had. But I
25 don't think Monsanto went over there and

1 investigated it in detail.

2 The thing is, they made a number of
3 people sick. And to ingest this amount of
4 PCB to make people sick, it's hard to
5 believe. You would think, well, don't they
6 taste this stuff? But, anyhow, as I
7 recall, not just one or two people; a
8 number of people got sick. Well, the
9 Emperor Hirohito, this is enough. And they
10 shut the whole thing down and when the
11 Emperor speaks, it's shut down. So that put
12 them out of business.

13 I was active in Japan. When
14 Mitsubishi would build a plant, I was sent
15 over there to move the production,
16 primarily the electrical industry, and we
17 never got off the ground because of this
18 Yushow incident, which I think was sometime
19 in 1968, I believe.

20 Q. You had mentioned earlier that in
21 early 1967 you were traveling a lot to
22 Australia, you mentioned. What part of
23 your job responsibilities required you to
24 do this kind of world travel?

25 A. By this time, General Electric

1 Company had invented and were marketing a
2 product called pyranol two for capacitors.
3 This was our super pure aroclor, to which
4 was added an epoxide scavenger or getter.
5 By this I mean this in a way is a
6 stabilizing agent. It will acquire to
7 itself the epoxide free chloride ion and so
8 forth.

9 Now, they offered this to
10 Monsanto. Our attitude was, we don't want
11 it. We make this super pure stuff and we
12 are not going to add something as reactive
13 as an epoxide. That reacts with anything.
14 We told GE, thanks but no thanks. If you
15 want to add epoxide, we will sell you the
16 pure stuff and do what you want to do.
17 Well, they licensed some people and they
18 went to this.

19 Now, this technology we didn't buy
20 at Monsanto. It was rather expensive. We
21 had no use for it. That put me into this
22 position. I really at this particular time
23 had no business going into our customers
24 trying to fish around to learn something
25 about this technology they had on a

1 licensed basis with GE. What I'm saying to
2 you is this. The research lab doors at GE,
3 which has been wide open to me, people ask,
4 do I work for GE, and I guess it did. Now,
5 this suddenly and abruptly terminated as
6 they started developing this pyranol two.
7 Now, that caused me to direct my attention
8 other than in the States.

9 Bear in mind, in the States, we
10 were the only supplier. Anybody wanting it
11 couldn't get it anywhere else. They had to
12 get it from us. There was nobody else.
13 That's called a monopoly. Not that we
14 wanted a monopoly. Anybody was welcome.
15 Nobody chose to get into it. I'm talking
16 about the electrical end particularly.
17 That's the business it had to get into. So
18 I directed at this point in time my
19 interests around the world.

20 Now, there the French manufactured
21 it and I got to be a good friends with Dr.
22 Kokillian and Pierget, their organization,
23 and we were competitors around the world,
24 very friendly. We were very close. Also
25 in Germany, you had Behr Laverkusen, with

1 Dr. Knust was the head of the technical
2 thing. And, of course, there was our
3 manufacturer in South Wales England. And
4 my attentions were directed at going to all
5 these countries, whether it's Brazil,
6 Argentina -- Mexico they shipped out of
7 here mainly. Australia, what have you.
8 Scandinavia. Lilly Holmans where this
9 thing started in Sweden. I traveled around
10 there.

11 Plus, another important part of all
12 of this was to get agreement between
13 ourselves and Protalok, the French company,
14 and Behr, to agree on consensus of the test
15 procedures and the specifications in order
16 to standardize this, which was standardized
17 in our country at A.S.T.M. and these
18 organizations, but now I got active and
19 with representatives from GE and so forth
20 internationally in the international
21 electrical technical commission where
22 governments would invite us to meet, and
23 one happened to be Iran. And we would go
24 there and in order to standardize on the
25 specifications and the methods used in

1 this, I keep saying critical, it was,
2 handling of PCBs, particularly for
3 capacitor dielectrics. So I was gone when
4 some of these things you probably bringing
5 up were here. I tried to explain how come.

6 Q. Well, you have done that. Let me
7 show you Exhibit 961, which is a two page
8 document bearing Bates range TRAN 057681
9 through 057682, purportedly dated December
10 9, 1968. Subject, Defense Of Aroclor,
11 where W. R. Richard is shown as the author,
12 and Mr. Benignus is shown as one of the
13 recipients, or actually one of the
14 addressees of this memo. And I would like
15 to ask you, Mr. -- I'm sorry, I don't have
16 a -- there is some handwriting up in the
17 upper right-hand corner but I can't read it
18 either. Have you seen this document prior
19 to today?

20 A. I would say yes.

21 Q. Do you recall a time at Monsanto
22 in 1968 when the company's defense of an
23 aroclor product was being mounted?

24 A. Excuse me?

25 Q. Do you recall a time in 1968 when

1 the defense of aroclor by Monsanto was
2 being mounted?

3 MR. PREUSS: I'm going to object
4 as argumentative.

5 A. You want me to answer this?

6 Q. Yes.

7 A. I don't understand what you just
8 got through saying.

9 Q. Sure.

10 A. I do and I don't.

11 Q. Let me reask it then. So that you
12 were sure you understand what I'm saying.
13 Do you recall discussions or communications
14 at Monsanto about how to defend the future
15 use of aroclors in the face of allegations
16 concerning environmental contamination?

17 A. Well, you're using a word that I
18 think is rather improper, this defense
19 thing. You can very easily interpret this
20 in an altogether different way than I would
21 interpret it, this word defense. I'm
22 surprised that word bothers me. It
23 wasn't -- yes, I can understand what he was
24 saying, and I take it in stride.

25 Q. You're referring to Mr. Richard?

1 A. To Dr. Richard. And it indicates
2 things that were in the mill or were going
3 to be. Here comes this Callandra. Now I
4 know what that is. Those were feeding
5 studies that were going on. Earlier in our
6 discussion I couldn't recall Callandra, I
7 didn't ever remember hearing them. So
8 there was chicken work going on.

9 Q. Well, before we get into the
10 specifics, let me focus your attention back
11 to the first question, which is, do you
12 recall a time at Monsanto when information
13 was being marshalled to defend the
14 continued use of aroclors in the face of
15 allegations concerning environmental
16 contamination?

17 A. I accept your statement.

18 Q. You do recall such a period?

19 A. This period.

20 MR. PREUSS: No, I object as --
21 I'm going to object to the form of the
22 question as argumentative and a
23 mischaracterization of what his response
24 was.

25 Q. Okay. I don't understand your

1 response then. Let me try it again. Here
2 is the question. Do you recall in your
3 employment at Monsanto that there came a
4 time when within Monsanto information was
5 marshalled to defend the continued use of
6 aroclors in the face of allegations
7 concerning PCBs being an environmental
8 contamination?

9 MR. PREUSS: Object to the form as
10 argumentative and assuming facts not in
11 evidence. Subject to that, you can go ahead
12 and answer.

13 A. Well, in simple terms, yes.

14 Q. Okay. That's an answer. Did you
15 participate in the effort to -- in an
16 effort to gather information to present for
17 purposes of continuing to sell PCBs in the
18 face of allegations concerning
19 environmental contamination by PCBs?

20 A. No.

21 Q. What role, if any, did you play in
22 defending the continued use of PCBs in the
23 late '60's?

24 A. In the late '60's. You wanted to
25 start getting into these things now?

1 Q. No. I just want to know in
2 general what you recall, what role you
3 played, if any, in activities defending the
4 continued use of PCBs.

5 A. A passive role. Tried to keep
6 informed as to what is this all and what is
7 going on and what do they want to do.

8 Q. Did you play any role in deciding
9 whether PCBs should be continued to be sold
10 by Monsanto?

11 MR. PREUSS: Are you talking
12 generally and not with respect to
13 dielectrics specifically?

14 Q. Generally.

15 A. Generally? No.

16 Q. Did you play any role in making
17 any decisions concerning whether PCBs
18 should be continued to be sold by Monsanto
19 for dielectric use?

20 A. I was on the receiving end.

21 Q. Of recommendations?

22 A. Phone call request.

23 Q. I guess I don't understand.

24 Customers requested that Monsanto continue
25 to sell PCBs, is that what you're saying?

1 A. No.

2 Q. What about from Monsanto's
3 customers' plants?

4 A. No.

5 Q. The same question with respect to
6 Monsanto's customers' products?

7 A. No.

8 Q. Did you play any role in making
9 decisions or recommendations concerning
10 restricting sales of PCBs from specific
11 uses?

12 A. No.

13 Q. Did you play any role in seeing if
14 a capacitor plant could be improved to
15 minimize exposure to PCBs?

16 A. No.

17 Q. Did you play any role in figuring
18 out whether transformer plants could be
19 improved to minimize exposure to PCBs?

20 A. No.

21 Q. What role, if any, did you play in
22 various toxicological studies that were
23 done at Biotest Laboratories?

24 A. None.

25 Q. Were you kept informed of the

1 results of such studies?

2 A. Not specifically, no, no.

3 Q. Why don't we break for lunch.

4 (Lunch recess)

5 Q. Ready?

6 MR. PREUSS: Yes.

7 Q. On the record. Mr. Benignus, are
8 you familiar with the terms open system
9 versus closed system used in relation to
10 PCBs?

11 A. Yes.

12 Q. What's your understanding of the
13 definition of the closed system?

14 A. In terms of PCB closed, a closed
15 system would be a capacitor that is
16 hermetically sealed. It's vacuumed
17 impregnated with a fluid and then it's
18 hermetically sealed, completely closed.
19 Now, a transformer can be completely
20 closed. Usually it is. One system would
21 be where the transformer is welded shut.
22 Another closed transformer system would be
23 where the transformer is gasketed and
24 bolted shut. And a third system, we come
25 back to your question about what is a

1 liquid seal, is where the transformer on
2 top would have what they called a
3 conservator that would be a tank containing
4 fluid, and, in effect, that serves as its
5 seal. So you can consider that a closed
6 system.

7 Q. What was your understanding or
8 what is your understanding of the term open
9 system as used in relation to PCBs?

10 A. There isn't, not dielectrics.

11 Q. So all of the uses of PCBs for
12 dielectrics were closed systems?

13 A. Yes.

14 Q. Were you familiar in your work at
15 Monsanto in the late '60's with reports
16 concerning Aroclor 1242 and toxicity to
17 fish?

18 A. No. Although I had heard of this,
19 obviously, I wasn't concerned with that.

20 Q. Where had you heard of it?

21 A. I suppose heard people mention
22 it. Maybe saw it in the news media, was
23 great for stories. Just in general.

24 Q. You don't have a specific
25 recollection of how you --

1 A. No one came specifically to me.

2 Q. Let me show you Exhibit 967, which
3 I will describe for the record as a three
4 page document bearing Bates range TRAN
5 024974 through 024976, which purports to be
6 a trip report dated four -- excuse me --
7 September 10, 1969, to Great Lakes Steel,
8 Detroit, Michigan. Mr. Benignus is one of
9 the cc's on this trip report. Do you
10 recall seeing Exhibit 967 prior to today?

11 A. No.

12 Q. Does Exhibit 967 refresh your
13 recollection in any way about learning
14 about Aroclor 1242 and toxicity to fish?

15 A. No.

16 MR. PREUSS: Just for the record,
17 I believe -- I see, it does reference 1242
18 but it does talk about 1248 as well. I
19 think there is a -- the only reference I
20 see to 1242 with a quick look is the
21 Pydraul 312 and Aroclor 1242.

22 Q. And the indication on this, the
23 Pydraul 312 was shown to be toxic to fish.
24 Do you recall any discussions with any of
25 your colleagues at Monsanto about toxicity,

1 PCB toxicity testing with regard to fish?

2 A. No.

3 Q. Are you familiar with any
4 information concerning PCB toxicity to
5 shrimp down in Florida?

6 A. No.

7 Q. The next document I would like
8 to -- let me ask you a few questions before
9 I put this on the table. Was General
10 Electric the largest customer for
11 dielectric fluids that contained PCBs?

12 A. By far.

13 Q. And was Westinghouse also a large
14 customer?

15 A. Number two.

16 Q. What was the smallest customer for
17 dielectric fluids?

18 A. I can't answer that
19 categorically. I will answer it in a
20 general way. There were some relatively
21 small impregnators of capacitors. One was
22 in Brooklyn, New York, that I can think
23 of. And then there would be some small
24 maker of an askarel transformer.

25 Q. Do you recall GE coming to

1 Monsanto in St. Louis in 1970 for a
2 presentation about what was known by
3 Monsanto concerning the environmental
4 effects of PCBs?

5 A. Sure do.

6 Q. Did you set up that meeting?

7 A. Yes, ma'am.

8 Q. And what was GE's interest in that
9 subject?

10 MR. PREUSS: As he understood it
11 to be?

12 Q. Right, as they told you, exactly.

13 A. GE, as ourselves, were interested
14 in reviewing what is known about this
15 situation. They were just as interested as
16 we. And it was this mutual interest and it
17 was a review of what was known to pass
18 information. And that was the purpose of
19 the meeting.

20 Q. GE had had their own environmental
21 people, is that correct?

22 A. Oh, they had environmental people,
23 surely.

24 Q. And GE was also studying PCBs, is
25 that correct?

1 A. What?

2 Q. GE was also studying PCBs, is that
3 correct?

4 A. They were using and studying, yes,
5 sure.

6 Q. Let me show you our next exhibit,
7 which has been marked as Exhibit 969. It's
8 a three page exhibit, bearing Bates range
9 TRAN 022953 through 022955. It purports to
10 be a memorandum from Mr. Benignus dated
11 January 7, 1970 concerning the
12 polychlorinated biphenyl environmental
13 problem, General Electric Company. And
14 it's to a long list of recipients. Mr.
15 Benignus, did you draft Exhibit 969?

16 A. Yes.

17 Q. And what is Exhibit 969?

18 A. It introduces our people who may
19 not have known Ed Raab, who Ed Raab, where
20 he is located, what his responsibilities
21 are, and that he will visit Monsanto, gives
22 the dates, and I'm sure it goes on to
23 discuss the topics, what he seeks. I
24 didn't read this but this is what it is.

25 Q. If I could direct your attention

1 to the first paragraph under what GE seeks,
2 down at the bottom of the first page of
3 Exhibit 969, and ask you to read that.

4 A. GE seeks to learn Monsanto's
5 corporate stance regards PCB problem at
6 this time.

7 Q. Do you recall having an
8 understanding that Monsanto had some sort
9 of corporate stance regarding PCBs in the
10 beginning of 1970?

11 A. I will have to say yes.

12 Q. What was your understanding of
13 Monsanto's corporate stance at the
14 beginning of 1970 with regard to PCBs?

15 A. That, in general, they had taken a
16 position of going out of supplying PCBs.

17 Q. And what was your understanding of
18 why Monsanto was going out of supplying
19 PCBs?

20 A. Because of what you have been
21 talking about.

22 Q. The environmental information
23 concerning PCBs?

24 A. Right. I wish to expand on that
25 right here.

1 Q. Right here, okay.

2 A. Right here. The indictment
3 against PCBs in the environment was its
4 persistence in the environment. It wasn't
5 carcinogenic and all these things that by
6 1970 were being talked about in the news
7 media. I just want to say that.

8 Q. So when you say the indictment was
9 the persistence of PCBs --

10 A. The persistence --

11 Q. The indictment by whom?

12 A. By the environmentalists. That's
13 what they objected to. It persists in the
14 environment.

15 Q. Okay.

16 A. We all know it's refractory, it
17 persists.

18 Q. So as far as you were concerned,
19 there was no dispute that it persists in
20 the environment?

21 A. That is correct.

22 Q. Did General Electric come to St.
23 Louis to visit with you and other Monsanto
24 employees to discuss --

25 A. Certainly.

1 Q. And was the issue of Monsanto's
2 corporate stance with regard to PCBs
3 discussed?

4 A. Yes.

5 Q. And do you recall who, if anyone,
6 at Monsanto led that discussion?

7 MR. PREUSS: You mean one specific
8 person?

9 Q. If one specific person led it or
10 whatever you can recall, Mr. Benignus,
11 about the discussion.

12 A. Well, I don't know if it was
13 exactly at this point in time. But at some
14 point in time all of our people were called
15 on. Myself to the extent of introducing
16 people, and then our people in the bio lab,
17 studying biodegradability, and down the
18 line.

19 Q. Let me --

20 A. I haven't read this. I don't know
21 if that was at this time or it was later.

22 Q. I will show you another document
23 that goes to the presentation. That is
24 Exhibit 972, which is a multi-page document
25 bearing -- or consisting of Bates range

1 TRAN 023509 through 023518. Headed on the
2 first page, the PCB pollution problem.
3 January 21 and 22, 1970, St. Louis Meeting
4 With General Electric Company.

5 A. Yes. You're up now to what I was
6 thinking about.

7 Q. Do you recognize Exhibit 972?

8 A. Yes.

9 Q. And is this by way of a summary of
10 what went on during the meeting with
11 General Electric in January 1970?

12 A. This date, yes.

13 Q. Do you recall Mr. Wheeler
14 presenting a representative from GE with a
15 booklet containing information about
16 studies concerning PCBs?

17 MR. PREUSS: Well, if you're going
18 to ask him questions that are based on
19 information in this memo, perhaps he ought
20 to have an opportunity to read this.

21 Q. I'm just asking it --

22 A. About Mr. Wheeler.

23 Q. I'm not attempting to refresh your
24 recollection at this point. I'm just
25 asking him a question.

1 A. However, I don't get whether you
2 are thinking Wheeler was with GE or with
3 Monsanto.

4 Q. With Monsanto.

5 A. Wheeler was with Monsanto, right.

6 Q. Do you recall at the meeting you
7 had with General Electric in January 1970
8 Mr. Wheeler presenting a representative of
9 GE, Mr. Rain --

10 A. Raab.

11 Q. -- Raab, a booklet of studies and
12 other information about PCBs?

13 A. I didn't specifically see this.
14 This is part of the intention.

15 Q. To present General Electric with
16 the information you had about PCBs?

17 A. Whatever was available,
18 everything.

19 Q. Do you recall if similar two day
20 presentations were made with other
21 customers of the dielectric group?

22 A. Yes.

23 Q. Who else was brought to St. Louis?

24 A. Westinghouse.

25 Q. Can you think of other customers

1 that Monsanto made a presentation to
2 concerning the PCB pollution problem?

3 A. This emanated -- what could be
4 logically done. You can't call on
5 everybody and their dog, you know. And to
6 the best of our ability, we
7 disseminated -- there is nothing secret
8 about this. The idea is to disseminate
9 it. I can't answer your question in more
10 detail. There were discussions with others
11 than GE and Westinghouse. But we didn't
12 call every single customer in to St.
13 Louis. It's not practical. We had no
14 objection to anybody that wants to come.
15 Be happy to have them.

16 Q. All right. The next exhibit I
17 would like to show you has been marked in a
18 previous deposition as Exhibit 866. And
19 for the record, it purports to be a
20 memorandum from D. A. Olson to W.
21 Papageorge, dated April 20, 1970; Subject,
22 Aroclor Labeling. And Mr. Benignus is
23 shown as a cc on this document. And I
24 would like to ask you, Mr. Benignus, if you
25 recall seeing this document prior to

1 today.

2 MR. PREUSS: Off the record a
3 minute.

4 (Discussion off the Record)

5 Q. Back on the record. Mr. Benignus,
6 have you seen Exhibit 866 prior to today?

7 A. I would have to say probably, yes.

8 Q. Because you're shown --

9 A. Because I'm shown on there.

10 Q. Do you have any familiarity with a
11 group of products called Pydrauls?

12 A. I knew they existed, yes, of
13 course.

14 Q. Did your work involve anything to
15 do with the Pydraul line of products?

16 A. No.

17 Q. Do you have any knowledge about
18 the timing of the reformulation of the
19 Pydraul products to remove PCBs?

20 A. No.

21 Q. The next exhibit I would like to
22 show you I'm marking today as 976. It's a
23 one page document bearing Bates number TRAN
24 008623. It purports to be a memorandum
25 from Paul Benignus to D. A. Olson, dated

1 June 11, 1970; Subject, Capacitor Aroclor
2 1242. Could you look at this, Mr.
3 Benignus, and tell me if you have seen it
4 prior to today.

5 A. I wrote it.

6 Q. You wrote it. That's your
7 signature there?

8 A. That's my signature.

9 Q. Aroclor 1242 was reformulated at a
10 certain point to remove the higher
11 chlorinated elements in it, is that
12 correct?

13 A. Correct.

14 Q. And why was that done?

15 A. The reason for reformulating
16 Aroclor 1242 which resulted in Aroclor 1016
17 and we eliminated the B, didn't want to
18 mislead anybody, this was an effort, to the
19 best of our ability, at great expense and
20 time, these things took a lot of time, to
21 satisfy environmentalists' objection to the
22 persistence of PCBs in the environment.

23 Now, through the years that PCBs
24 were used and got into the environment,
25 samples were taken from the environment to

1 see, well, what is there in the
2 environment. I'm comparing this to saying,
3 well, let's see what the biodegradability
4 is. You can't just all of a sudden take
5 this stuff and put it in the backyard and
6 see what the biodegradability rate of this
7 stuff is. But in the environment samples
8 were taken. I don't know from where.

9 The point is this. What was
10 recovered from the environment was out of
11 gear with what had been made in the
12 factory. It was out of gear in this
13 respect. What was in the environment was
14 disproportionately high in the higher
15 chlorinated biphenyl content, which means
16 that some of the lower chlorinated stuff
17 evidently disproportionately dissipated,
18 biodegraded or what have you. Now, this
19 now implies that it's the higher
20 chlorinated biphenyls that persist more
21 than the lower ones. 1016 is this effort
22 to reach in -- now, Aroclor 1242, as you
23 know, that's a very complex mixture of
24 materials. It's not a single compound by a
25 long shot. If we had them all here

1 isolated, you would have solids. It's a
2 liquid because of mixed melting point.
3 Okay. They reached in as far as they could
4 go to pull out the more highly chlorinated
5 compounds to satisfy, try to satisfy,
6 objection from the environmentalists.
7 That's the premise for 1016.

8 Q. So let me see if I understand
9 you. Aroclor 1242 prior to being
10 reformulated was a mixture of lower
11 chlorinated biphenyls and higher
12 chlorinated biphenyls, whereas MCS 1016
13 took the higher chlorinated biphenyls out
14 of the mixture, is that right?

15 A. Yes. But I want to clarify this.
16 It was not a man-prepared mixture by any
17 means. What this results from is when you
18 chlorinated biphenyl, you chlorinated 1242,
19 that's essentially 42 percent by weight of
20 chlorine. Now, that mathematically
21 corresponds to three chlorines in the
22 biphenyl nucleus. It's not exactly that.
23 This is a very complex mixture, not
24 prepared mixture, but this is what comes
25 from the reaction. And you can have

1 dichloryl, maybe even some monochloric in
2 there. Predominantly trichlor. That's what
3 we want. There will be some setrachlor,
4 four, penta, probably some six chlorines.
5 That's the way the thing comes out. It's a
6 complex blend of mixtures that comes out of
7 the chlorination reaction.

8 Q. Did you have discussions with your
9 colleagues at Monsanto in 1970 or
10 thereabouts about the effect of PCBs on
11 birds?

12 A. No.

13 Q. Let me show you a document that
14 has been -- that I have marked as Exhibit
15 978, which I will describe for the record
16 as a three page document consisting of
17 Bates range TRAN 062408 through 062410,
18 dated July 8, 1970. Purports to be a
19 letter to Mr. F. G. Jenkins from W. B.
20 Papageorge, and Mr. Benignus is shown as a
21 blind cc.

22 MR. PREUSS: You want him to read
23 it?

24 Q. No, I don't want you to read the
25 whole letter, Mr. Benignus. I'm interested

1 if you recall seeing it and I'm going to
2 direct your attention to, after you answer
3 that question, to the paragraph at the
4 bottom of the first page of this exhibit,
5 headed toxicity.

6 Let me back up and ask you a new
7 question, Mr. Benignus. Are you familiar
8 with Sprague Electric Company?

9 A. Sprague, yes, they were one of our
10 customers; capacitors.

11 Q. Do you recall Mr. Papageorge going
12 out to see some of the customers of the
13 dielectrics group?

14 A. Papageorge had been plant manager
15 at Anniston in 1970. I think maybe as
16 early as January, I don't know, he was
17 called up to a period before in 1970 to
18 coordinate all of this stuff and that's how
19 he would get into this. Now, there must
20 have been some request for him either from
21 Sprague or through our salesman, Randy
22 Graham, that Papageorge go out there and
23 visit, and this is what was done. And
24 Papageorge, that's all he did now, was
25 coordinate what is known and what is

1 available, and this is what this discusses.

2 Q. Did reading that bottom paragraph
3 labeled toxicity on the first page of
4 Exhibit 978 refresh your recollection in
5 any way on whether you ever had any
6 discussions with anyone at Monsanto about
7 the toxicity of PCBs to birds?

8 A. No.

9 Q. Okay. The next exhibit I mark as
10 Exhibit 980. It's Bates range TRAN 039367
11 through 039368. It purports to be a letter
12 from W. B. Papageorge to Mr. F. R. Viland,
13 V-i-l-a-n-d, of Westinghouse Corporation,
14 dated October 1, 1970, and Mr. Benignus is
15 shown as a blind cc. Do you recall seeing
16 Exhibit 980, Mr. Benignus?

17 A. I suppose I saw it. I got a
18 copy. If I had had time, I would have
19 looked at it.

20 Q. But you don't have any specific
21 recollection?

22 A. I have no specific knowledge of --
23 whatever Papageorge was doing was right
24 with me.

25 Q. Do you recall any discussion of

1 any tests done in Florida concerning how
2 long Aroclor 1242 stayed in its -- strike
3 that.

4 Here is what I'm interested in.
5 It's on the second page and it's a
6 description of a study done in Florida,
7 purportedly where they put Aroclor 1242 in
8 a hole and then came back about thirty
9 years later and saw how far it had
10 migrated. Do you know anything about that
11 study?

12 A. The 1242 was put in a hole in
13 Florida?

14 Q. Yes, in 1938, apparently.

15 A. Yes. And we already talked about
16 this. This is an example where it would
17 have been, say, a soil sterilant against
18 the bad Florida termite. This is what this
19 would be. And I know the guy that dug the
20 hole, and it was a follow up on that. Now,
21 this was '38 to 1970. That's quite a
22 while, isn't it?

23 Q. That's a long time.

24 A. Thirty some odd years. But
25 somebody had a record of how they were --

1 how they ever found this, I don't know.

2 Q. Other than you recall how this
3 hole happened to be dug in Florida and
4 Aroclor 1242 put in it, do you recall
5 anything about what was found when the
6 aroclors were taken out in 1969?

7 A. No.

8 Q. Do you recall any discussions
9 concerning the biodegradation of aroclors
10 with respect to this hole in the ground in
11 Florida?

12 A. No. And as we already said, to my
13 knowledge it wasn't used as a soil
14 sterilant.

15 Q. The next exhibit is Exhibit 982.
16 It's a two page document consisting of
17 Bates range TRAN 036330 through 036331.
18 Purports to be a memorandum from W. B.
19 Papageorge to Mr. Benignus dated November
20 11, 1970. And it's the same question, Mr.
21 Benignus, whether you recall seeing this
22 document? I guess I should further
23 describe it for the record. The subject
24 matter is letter dated October 27, 1970;
25 R. F. Casey, Ohio Edison, to P. G.

1 Benignus.

2 A. I don't remember Casey's letter.
3 Now, this was written by Papageorge to me.

4 MR. PREUSS: Again, do you want
5 him to read that?

6 Q. No. Just either you remember this
7 document --

8 A. I don't remember what's in here.

9 Q. Okay. The next exhibit I would
10 like to show you is Exhibit 986, which
11 bears Bates number TRAN 004413. Purports
12 to be a letter from R. E. Hatton to Mr. J.
13 S. Galbraith at the Tennessee Valley
14 Authority, dated May 10, 1971. Mr.
15 Benignus is shown as a cc. You might as
16 well go ahead and read this. It's pretty
17 short.

18 A. Oh, I had nothing to do -- I was
19 copied in merely as a formality of some
20 sort. I had nothing to do with this.

21 Q. You have no recollection of --

22 A. No, I would have paid no attention
23 to this. I know, of course, who Hatton is.

24 Q. But seeing Exhibit 986, which
25 references Turbinol 153 and the Pydraul

1 fluids, doesn't refresh your recollection
2 in any way about any contact you might have
3 had with that product?

4 A. No.

5 MR. PREUSS: Did you say that
6 problem?

7 Q. No, that product.

8 Mr. Benignus, do you recall a
9 meeting with Westinghouse to describe
10 Monsanto's -- the information Monsanto had
11 about PCBs sometime in 1971?

12 A. I'm sure I would have. I don't at
13 the moment pin it down to any date.

14 Q. Let me see if I can refresh your
15 recollection. This is Exhibit 992, which
16 purports to be a memorandum from Mr.
17 Benignus to W. R. Richard dated December 3,
18 1971; subject, meeting with Westinghouse at
19 St. Louis, Thursday, December 16. And is
20 that your signature at the bottom?

21 A. Right.

22 Q. Does this refresh your
23 recollection about a meeting with
24 Westinghouse in 1971 to discuss at least in
25 part PCBs?

1 A. Yes.

2 Q. What do you recall about that
3 meeting?

4 A. These were Westinghouse people
5 from Bloomington, Indiana, although I
6 see -- yes, Wilburn from south Boston was a
7 transformer plant. Bloomington was a
8 capacitor plant. Oh, Tom Dakin, they were
9 the research organization of Westinghouse.
10 Churchill Borough, that's Pittsburgh, and
11 then Munson, biochemist college Baltimore,
12 I had no contact or knowledge of him
13 prior. But he was there. Neither did I
14 know Kelly. But they were there. Then
15 these others. Several of these people I
16 knew very well; some I didn't know. And,
17 again, this was a meeting to discuss with
18 Westinghouse what we knew at this time in
19 1971. That was the purpose of the
20 meeting.

21 Q. Do you recall what was discussed
22 with Westinghouse concerning what was known
23 about PCBs as an environmental contaminant?

24 A. Only in general terms. I'm sure
25 that subject was discussed to what

1 knowledge was available.

2 Q. And do you recall any specifics of
3 that discussion?

4 A. I don't recall specifics.

5 Q. That's all the questions I have at
6 this time. Thank you very much, Mr.
7 Benignus.

8 A. You're welcome.

9 Q. Off the record.

10 (Discussion off the Record)

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1 COMES NOW THE WITNESS, PAUL BENIGNUS,
2 and having read the foregoing transcript of
3 the deposition taken on the 14th day of
4 October, 1992, acknowledges by signature
5 hereto that it is a true and accurate
6 transcript of the testimony given on the
7 date hereinabove mentioned.

8
9

10

PAUL BENIGNUS

11
12 Subscribed and sworn to me before
13 this _____ day of _____,
14 1992.

15 My Commission expires: _____

16

17

18

Notary Public

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24 mb

25 Transwestern vs. Monsanto

1 State of Missouri)
2) SS.
3 City of St. Louis)

4 I, Marsha Birenbaum, a Notary Public
5 in and for the State of Missouri, duly
6 commissioned, qualified and authorized to
7 administer oaths and to certify to
8 depositions, do hereby certify that
9 pursuant to Agreement in the civil cause
10 now pending and undetermined in the
11 Superior Court for the County of Los
12 Angeles, State of California, to be used in
13 the trial of said cause in said court, I
14 was attended at the offices of Bryan Cave,
15 One Metropolitan Square, in the City of St.
16 Louis, State of Missouri, by the aforesaid
17 witness; and by the aforesaid attorneys; on
18 October 14, 1992.

19 The said witness, being of sound mind
20 and being by me first carefully examined
21 and duly cautioned and sworn to testify the
22 truth, the whole truth, and nothing but the
23 truth in the case aforesaid, thereupon
24 testified as is shown in the foregoing
25 transcript, said testimony being by me

GORE REPORTING COMPANY ST. LOUIS, MISSOURI

1 reported in shorthand and caused to be
2 transcribed into typewriting, and that the
3 foregoing pages correctly set forth the
4 testimony of the aforementioned witness,
5 together with the questions propounded by
6 counsel and remarks and objections of
7 counsel thereto, and is in all respects a
8 full, true, correct and complete transcript
9 of the questions propounded to and the
10 answers given by said witness; that
11 signature of the deponent was not waived by
12 agreement of counsel.

13 I further certify that I am not of
14 counsel or attorney for either of the
15 parties to said suit, not related to nor
16 interested in any of the parties or their
17 attorneys.

18 Witness my hand and notarial seal at
19 St. Louis, Missouri, this 3 day of
20 November, 1992.

21 My Commission expires November 5,
22 1993.

23 
24 _____
25 Notary Public-State of Missouri