

COPY

IN THE CIRCUIT COURT OF THE CITY OF ST. LOUIS

STATE OF MISSOURI

JUDITH and STEPHEN BECHTOLD,)

Plaintiffs,)

vs.)

MONSANTO COMPANY and)
WESTINGHOUSE ELECTRIC)
CORPORATION,)

Defendants.)

Cause No. 862-00694

Division No. 1

*Annotated
per errata
sheet*

DEPOSITION OF WILLIAM B. PAPAGEORGE, P.E.

Taken on behalf of the Plaintiffs

May 18, 1994

L.A.I. REPORTING

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IN THE CIRCUIT COURT OF THE CITY OF ST. LOUIS

STATE OF MISSOURI

JUDITH and STEPHEN BECHTOLD,)
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Plaintiffs,)
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vs.) Cause No. 862-00694
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MONSANTO COMPANY and) Division No. 1
WESTINGHOUSE ELECTRIC)
CORPORATION,)
)
Defendants.)

DEPOSITION OF WILLIAM B. PAPAGEORGE, P.E., produced, sworn, and examined on behalf of the Plaintiffs, May 18, 1994, between the hours of eight o'clock in the forenoon and six o'clock in the afternoon of that day, at the offices of Wilburn, Suggs & Watkins, 1221 Locust Street, St. Louis, Missouri 63103, before VICTORIA MENAUGH FAUSER, a Certified Shorthand Reporter and a Notary Public within and for the State of Missouri.

A P P E A R A N C E S

The Plaintiffs was represented by Joseph A. Race and C. Joseph Murray of the Muray Law Firm, 650 Poydras Street, New Orleans, Louisiana 70130.

The Defendant Monsanto Company was represented by Carol A. Rutter of the law offices of Husch & Eppenberger, 100 North Broadway, St. Louis, Missouri 63102.

The Defendant Westinghouse Electric Corporation was represented by Richard A. Wunderlich of the law offices of Lewis, Rice & Fingersh, 8182 Maryland Avenue, St. Louis, Missouri 63105.

1
2 IT IS HEREBY STIPULATED AND AGREED by and between
3 Counsel for the Plaintiffs and Counsel for the Defendants,
4 that this deposition may be taken in shorthand by VICTORIA
5 MENAUGH FAUSER, a Certified Shorthand Reporter and Notary
6 Public, and afterwards transcribed into typewriting and signed
7 by the witness.

8
9 oOo

10
11 WILLIAM B. PAPAGEORGE, P.E.,
12

13 of lawful age, being produced, sworn and examined on the
14 part of Plaintiffs, deposes and says:
15

16 DIRECT EXAMINATION

17 QUESTIONS BY MR. RACE:

18 Q. Could you state your name for the record, please?

19 A. William B. Papageorge.

20 MR. RACE: For purposes of this deposition, I
21 want the record to reflect that we had originally scheduled a
22 corporate deposition of Monsanto. Counsel for Monsanto
23 indicated that he would file and did in fact file a protective
24 order. In an attempt to circumvent that impasse we agreed to
25 go forward with the deposition of Mr. Papageorge with the hope

1 that subsequent to this deposition we can reformulate a
2 corporate deposition premised on perhaps Mr. Papageorge's
3 independent recollection of events, how much he'll need
4 documentation, whether he can answer this without
5 documentation and if we can explore his background which may
6 provide us with an opportunity to reformulate a notice of
7 deposition which would be mutually agreeable to the parties
8 without requiring intervention of court. Okay?

9 MS. SUTTER: For the record, I would state that
10 there has been a lot of correspondence that has been exchanged
11 between counsel on this topic. It is true that a very broad
12 corporate designation notice was filed by Plaintiffs, that a
13 motion for protective order was filed by Monsanto, an argument
14 date was set and then Counsel discussed the matter and as a
15 result of that discussion Mr. Papageorge is here in his
16 personal capacity and it is my understanding that Counsel
17 intends to take this deposition and then perhaps reformulate
18 and narrow the deposition notice as you deem fit.

19 MR. RACE: Okay.

20 MS. SUTTER: Within the parameters permitted by
21 the Case Management Order in this case.

22 Q. (BY MR. RACE) Mr. Papageorge, by whom are you
23 employed presently?

24 A. Presently I consider myself self-employed.

25 Q. Okay. And you do consulting work; correct?

1 A. Yes.

2 Q. And you're consulting for Monsanto?

3 A. That's one of the clients.

4 Q. Do you consult for anyone other than Monsanto?

5 A. On occasion, yes.

6 Q. In what capacity do you consult for Monsanto?

7 A. I consult with Monsanto on matters pertaining to
8 PCBs as they occurred in the period of time prior to 1976.

9 Q. And your consultation with Monsanto is in the
10 context of PCB litigation; is that correct?

11 A. Primarily, yes.

12 Q. Is there any non-PCB litigation?

13 A. No.

14 Q. Okay. Just a couple of ground rules here. I
15 known you've given a multitude of depositions, but if you do
16 not understand any of my questions, please ask me to repeat
17 them or rephrase them, because I will assume that your
18 responses are answering my questions. Okay?

19 A. I'll try.

20 Q. Okay. Secondly, and occasionally this occurs
21 where the witness attempts to answer the question before the
22 question is completed, conversely attorneys try to ask the
23 questions before answers are completed. Why don't we give
24 ourselves a fair shake on this one and you wait until I'm
25 finished and I'll wait until you're finished. Okay?

1 A. Fine.

2 Q. Now, you said you're a consultant. In what
3 capacity -- excuse me. What do you charge per hour?

4 A. A hundred twenty-five dollars an hour.

5 Q. Okay. When working at -- let's go back to this.
6 How long have you been a consultant for Monsanto?

7 A. Since the beginning of 1987.

8 Q. And that's continuously through present?

9 A. Yes.

10 Q. How much do you derive on an annual basis from
11 your consulting work with Monsanto?

12 A. A hundred two thousand dollars.

13 Q. That's \$102,000 from the period 1987 to present
14 or is that annual?

15 A. That's annual.

16 Q. Okay. Now, how many hours per week or per year,
17 can you give me an idea of how often you're doing the
18 consulting?

19 A. I've never kept score. It varies.

20 Q. Let me ask you this way: Does your income or
21 does your salary with Monsanto vary based on the work you do
22 or is that a flat rate?

23 A. Our agreement consists of two features: There is
24 the hourly rate I mentioned and then there is a retainer per
25 month and if the hours I devote to this activity exceed the

1 multiplication of the 125 times the hour, if they exceed the
2 monthly retainer I am paid the difference.

3 Q. Okay.

4 A. And that 125 is really the retaining amount.

5 Q. Okay. Have you exceeded that hourly rate then?

6 A. I did one year. I can't recall just which year
7 it was.

8 Q. Can you give me an idea of how many litigations
9 you have testified in?

10 A. In trials or --

11 Q. Yes. Or how many --

12 A. Depositions?

13 Q. Let me rephrase the question. How many cases
14 have you been involved in since your retention by Monsanto in
15 the capacity as a consultant?

16 A. I have not kept a record. It's going to be a
17 best guess.

18 Q. Fine.

19 A. About a dozen.

20 Q. Okay. And each of those 12 cases involved PCBs?

21 A. Yes.

22 Q. During any of those cases have you been
23 designated as a corporate representative for purposes of
24 deposition or trial?

25 A. Yes.

1 Q. With respect to purposes of the deposition, have
2 you been assigned any area with respect to corporate
3 depositions?

4 MS. SUTTER: Objection to the overbroad and vague
5 form of the question.

6 Q. (BY MR. RACE) Subject to the objection, do you
7 understand the question?

8 A. I believe I do.

9 Q. Okay.

10 A. I don't know any specific area that I was
11 assigned. It seemed to ^{me} be we covered topics that in my mind
12 or my understanding involve different kinds of activities.

13 Q. Okay. Then let's go to -- back to when you were
14 last employed by Monsanto, and that was 1980 what?

15 A. The end of 1986 was my last working day.

16 Q. So you started as a consultant immediately upon
17 your retirement?

18 A. I think I had a three- or four-month period there
19 before I heard from Monsanto.

20 Q. Okay. What was your capacity at the time PCBs
21 were manufactured by Monsanto?

22 MS. SUTTER: I would object to the overbroad form
23 of the question, but you may answer if you understand.

24 A. It would be all the positions I held within
25 Monsanto from the year 1951 until I retired in 1986.

1 Q. Okay. How many of those are there?

2 A. Ten, twelve.

3 Q. Okay. Can you give me an idea of -- first of
4 all, what's your educational background?

5 A. I have a Bachelor of Science Degree in chemical
6 engineering from Washington University in St. Louis which I
7 received in 1943. I have --

8 Q. And a Master's of Science in chemical
9 engineering; correct?

10 A. I was going to add that. I mentioned the
11 Bachelor's and I have a Master's of Science from the same
12 institution in 1947.

13 Q. And when originally employed by Monsanto that was
14 in what capacity?

15 A. I was a process engineer in the plant engineering
16 department.

17 Q. Can you generally describe the areas to which you
18 were assigned?

19 A. Yes, I can. It involved -- half of my career
20 involved work in plants that manufactured chemicals. In those
21 plants I held positions in engineering departments, in
22 maintenance departments and in production departments.

23 Q. When did you first become involved with PCBs?

24 A. In about 1957 or so I was in charge of a group of
25 maintenance personnel that in turn were involved with the

1 occasional installation of electrical equipment which included .
2 PCBs.

3 Q. Okay. Can you describe in broad terms, and I cut
4 you off, perhaps I did, what your involvement with PCB was
5 from the maintenance supervisor through your retirement?

6 A. All right. I was a superintendent at a plant to
7 which the utilities department reported. Now, utilities is
8 that department that concerned itself with electricity, steam,
9 water and the like, and there I was involved with PCBs in
10 their use in the electrical equipment in the electrical
11 distribution system of the plant. Also when I held that
12 superintendency I had a unit that blended chemicals and some
13 of the blending involved the use of PCBs in the mixture that
14 ended up in the product. That was about 1963. In 1964 as a
15 general manufacturing superintendent I was involved with PCBs
16 in that they were present in equipment used in the
17 manufacturing process, such as in air compressors and in heat
18 transfer systems that were operated by the people reporting to
19 my group. I forgot to mention that there was a period of time
20 in about 1957, '58 when I was a superintendent of maintenance
21 to which the mechanics in the plant, the maintenance people
22 reported and they of course were involved with all matters of
23 equipment that contained PCBs, whether they are in electrical
24 equipment, heat transfer systems, machinery like compressors.
25 Then in 1965 I was appointed the manager at the plant in

1 Anniston, Alabama where PCBs were manufactured, so there of
2 course I had a broader involvement; manufactured the
3 packaging, the distribution. That I think describes my
4 involvement with PCBs in the physical sense.

5 Q. Okay.

6 A. Following that I was involved with PCBs in sort
7 of the information gathering, communications, regulatory
8 sense.

9 Q. And that started approximately the late sixties,
10 early seventies?

11 A. That was started January 1st, 1970 when I got
12 involved with the PCBs as an environmental issue.

13 Q. Now, I'm going to ask you about some general
14 areas, we can get into them more specifically later, but I'm
15 trying to decide where you have previously testified and in
16 what areas you feel you have expertise to testify or in the
17 past on behalf of Monsanto. Okay?

18 A. Fine.

19 Q. The chemical composition of PCBs in the products
20 sold by Monsanto, to include Inerteen, have you previously
21 testified and have knowledge about that area?

22 A. I have testified. I believe I have some
23 knowledge.

24 Q. Some knowledge. Is there somebody in Monsanto
25 who has more knowledge?

1 MS. SUTTER: Objection. Calls for speculation
2 and conjecture.

3 A. I was trying to think. I just can't put myself
4 in the heads of other people.

5 Q. (BY MR. RACE) That's true.

6 A. I think I'm conversant with the kinds of things
7 that would be described in talking of these chemicals.

8 Q. Okay. So you have addressed the areas of, as a
9 represent -- now, all these questions I'm asking you now is
10 when you have testified on behalf of Monsanto in the capacity
11 of a designated corporate representative. Okay?

12 A. Yes, I understand.

13 MS. SUTTER: Well, for the record, that was not
14 made clear previously. You're now saying that that is what
15 you're doing.

16 Q. (BY MR. RACE) If I have not made that clear I'm
17 glad I'm doing so. Okay. The chemical compositions of PCBs
18 and related products, have you testified about that area?

19 MS. SUTTER: As a corporate designee?

20 MR. RACE: I said all these questions until I say
21 they do not do, otherwise I'm going to have to repeat that.
22 So does that create a problem for you, Carol?

23 MS. SUTTER: I think that's a confusing way to do
24 it, but you've said what you are doing.

25 A. I am having some difficulty because of the many

1 times I've testified distinguishing or recalling when the --
2 the situations when I was asked to describe the chemical
3 compositions of these materials as the corporate
4 representative - as distinguished from my personal
5 involvement.

6 Q. Okay. That would be the case in any question I
7 would phrase in that way; correct?

8 MS. SUTTER: Objection. Calls for speculation.

9 Q. (BY MR. RACE) Subject to the objection.

10 A. I believe so, yes.

11 Q. Let's make it easy on both of us: When you
12 testified in this PCB litigation -- let's broaden the
13 question. Have you testified concerning the chemical
14 composition?

15 A. I have.

16 Q. Okay. Have you testified about the toxicity of
17 PCBs?

18 A. I have -- yes, I have been involved with
19 questions and attempted to respond to those questions relating
20 to toxicity, yes.

21 Q. Would you defer to anybody else at Monsanto for
22 answering those types of questions on toxicity?

23 A. Certainly.

24 Q. Who would that be? Dr. Kelly, for example?

25 A. Dr. Kelly.

1 Q. With respect to the chemical compositions, you
2 feel as though you could accurately represent Monsanto as to
3 what are contained in the products?

4 A. It depends on the detail of the explanation that
5 you're looking for. If you want someone to describe exactly
6 which of the isomers are present and what other materials are
7 present in this Inerteen mixture, for example, that would take
8 someone who has analytical chemistry expertise that I
9 personally do not have.

10 Q. That would be someone like Dr. Kaley?

11 A. Dr. Keller is certainly one of those individuals.

12 MS. SUTTER: I think he said Kaley and he
13 responded with Keller, just so --

14 A. Well, Dr. Kaley is also knowledgeable.

15 Q. (BY MR. RACE) With respect to -- Strike that.
16 Have you testified with respect to the animal and human
17 studies conducted on behalf of Monsanto?

18 MS. SUTTER: Object to the compound form of the
19 question.

20 A. I have responded to questions with answers that I
21 would call a layman's understanding of the situation as
22 coached by medical experts and toxicologists.

23 Q. Do you have knowledge concerning which tests were
24 done on behalf of Monsanto?

25 A. I understand the studies -- that some studies

1 were made using animals.

2 Q. Okay.

3 A. I have no information whatever relating to human
4 studies.

5 Q. Okay. Have you ever reviewed records by --
6 Monsanto records regarding the number of studies that were
7 conducted and the types of studies that were conducted?

8 A. I have been privileged to review documents that
9 reflected the results of studies.

10 Q. Okay.

11 A. Which speak of records. I -- I don't know
12 exactly what you mean by that.

13 Q. Records or documents. I'm just saying documents.
14 Excuse me.

15 A. I have seen reports from laboratories describing
16 the tests and the results of the tests.

17 Q. Okay. And those documents help refresh your mind
18 as you sit here today?

19 A. Certainly.

20 Q. Okay. And you have not had the benefit of
21 reviewing any documents prior to this deposition in
22 preparation for this deposition; is that correct?

23 A. I have reviewed a few documents.

24 Q. You have?

25 A. Uh-huh. (Yes)

1 Q. What documents have you reviewed for this
2 deposition; do you recall?

3 A. I'm trying to remember. About a dozen at the
4 most.

5 Q. What are the nature of those documents?

6 A. I've seen these documents so often I can't place
7 them in time and to which case they involve. I recall some
8 Monsanto memoranda. I recall some correspondence between
9 Monsanto and Westinghouse. I recall excerpts of minutes of
10 meetings of Monsanto corporate committees. I recall a summary
11 of minutes of a meeting of a committee that I chaired relating
12 to the proper use of PCBs in electrical equipment. That's all
13 that comes to mind at the moment.

14 Q. When did you review those documents?

15 A. I'm trying to recall when we -- certainly last
16 Monday.

17 Q. Okay.

18 A. And there was a day prior to that, we looked at a
19 couple, three. It was a week before that. I don't remember
20 which day. And this morning a couple of them.

21 Q. Had you previously prepared to give a deposition
22 as a corporate representative in this case, this being the
23 Bechtold case?

24 A. Not that I was aware of.

25 Q. Okay. And those documents helped refresh your

1 recollection of events that occurred over the past 30 years?

2 MS. SUTTER: Objection.

3 A. That's always the way, sir.

4 MR. RACE: I called for the production of those
5 documents.

6 MS. SUTTER: Counsel, for the record, you
7 produced a stack of documents to our office and I -- he's
8 testified to a dozen. I don't know if the dozen can be
9 windowed out of that set, but we will attempt to do so.

10 MR. RACE: I would appreciate that, if I could.
11 Were there any documents that he reviewed that were not
12 contained in that set?

13 MS. SUTTER: I don't know.

14 MR. RACE: Who would know?

15 MS. SUTTER: No. (Shakes Head)

16 MR. RACE: You don't know what your witness
17 reviewed?

18 MS. SUTTER: He reviewed documents that you
19 produced.

20 MR. RACE: Okay. And my question was did he
21 review any documents that I did not produce and you said you
22 don't know. That's fine. I mean, I'm not going to fight you
23 on this. That's fine.

24 MS. SUTTER: It's not my deposition. I'm not
25 being deposed, Joseph. I will cooperate with you in the

1 manner in which I said I would cooperate with you before.

2 MR. WUNDERLICH: When were these documents
3 produced?

4 MR. RACE: These were my response to
5 interrogatories that were Fed Ex'd to you.

6 Q. (BY MR. RACE) Have you testified with respect to
7 indemnity agreements specifically between Monsanto and
8 Westinghouse?

9 A. I have answered to questions raised in that area,
10 yes.

11 Q. Once again, would you defer to anybody else with
12 respect to that from Monsanto?

13 MS. SUTTER: Objection to the vague form of the
14 question.

15 A. Yes, I would suggest that a person like Mr.
16 Gossage was a lot closer to it than I certainly was.

17 Q. Let me back up again. With respect to toxicity,
18 it was -- Strike that. With respect to the chemical
19 composition, it was Dr. Keller or Dr. Kaley, is that correct,
20 who you would defer to?

21 A. Yes, Dr. Keller is Dr. Kaley's supervisor so they
22 both belong to the same team.

23 Q. With respect to toxicity?

24 A. Toxicity, I would go to Dr. Kelly.

25 Q. Kelly?

1 A. Kelly.

2 Q. Okay. The tests performed by Monsanto, which
3 tests were performed by Monsanto, once again that would be Dr.
4 Kelly?

5 A. Yes.

6 Q. Indemnity, you have knowledge about the indemnity
7 agreements; is that correct?

8 A. I do.

9 Q. And you have testified as a corporate
10 representative with respect to indemnity agreements?

11 A. Yes, I believe I have.

12 Q. With respect to lawsuits, you have previously
13 testified, as you have today, in lawsuits in which Monsanto
14 was involved in; correct?

15 A. Yes, sir.

16 Q. Okay. With respect to contamination in dioxin?

17 MS. SUTTER: In dioxin?

18 Q. (BY MR. RACE) Excuse me. With respect to
19 contaminates in PCB.

20 MS. SUTTER: Just so your question is clear, your
21 questions relate to has he ever testified --

22 MR. RACE: On behalf of Monsanto.

23 MS. SUTTER: You're not limiting this as to
24 corporate designee?

25 MR. RACE: No.

1 A. I don't recall testifying relating to
2 contaminates in PCBs as a corporate representative.

3 Q. (BY MR. RACE) Have you done so in any
4 deposition?

5 A. In deposition regarding my personal knowledge,
6 yes, I have tried to respond to the questions.

7 Q. Have you testified with respect to warnings
8 provided by Monsanto with respect to the use and potential
9 dangers of PCBs?

10 A. I've testified many times on that subject. I
11 believe I testified as a corporate representative.

12 Q. With respect to warnings, is that an area in
13 which you require or would benefit from having documentation
14 in front of you before testifying or is it --

15 A. That's always the case, sir.

16 Q. So with each of these areas you feel more
17 comfortable -- is it a fair statement you feel more
18 comfortable having documentation in front of you while
19 testifying?

20 MS. SUTTER: Objection. I object to the
21 incredibly overbroad and vague form of the question. We've
22 been in the deposition now for 40 minutes and I think the
23 question is far too broad.

24 Q. (BY MR. RACE) Can you answer?

25 A. Generally a document that's appropriate to the

1 subject being discussed does help recall some details that my
2 memory may have failed me on.

3 Q. Okay. Are there any areas in which you feel
4 comfortable testifying that would not require or be assisted
5 by having a document in front of you?

6 MS. SUTTER: Objection. That's incredibly broad
7 and over vague. It's far too broad and over vague. As
8 phrased I don't see how it's capable of being responded to.

9 A. I don't quite know how to respond to your
10 question. I can respond to questions as best my memory can
11 help me.

12 Q. Okay.

13 A. Sometimes it's very, very vivid. The use of a
14 document is just a -- an additional assistance in recalling
15 the specifics that -- the detail that might or might not be
16 significant.

17 Q. Okay. You have testified with respect to
18 Monsanto's involvement with government regulations of PCB?

19 A. I have.

20 Q. You've testified with respect to the IBT studies?

21 A. I have responded to questions concerning IBT
22 studies, yes.

23 Q. Have you testified with respect to the
24 precautions installed by Monsanto with respect to their own
25 personnel and safety of their own personnel?

1 A. Yes.

2 Q. Okay. Have you testified about alternatives to
3 PCBs, the development of alternatives?

4 A. The development? To a limited degree, yes, sir.

5 Q. Okay. Have you testified as to comparison of
6 European versus American PCBs?

7 A. Yes, in a limited area relating to those
8 materials, yes.

9 Q. Okay. Do you have any knowledge or -- Strike
10 that. Have you testified with respect to any threats of
11 lawsuits by Westinghouse, General Electric or any other
12 purchaser of PCBs which may result from -- which could have
13 resulted from Monsanto's unilateral decision to stop supplying
14 PCBs prior to the date upon -- prior to 1977?

15 A. I believe I've testified on that, but as a
16 personal piece of information, not with the corporate
17 representation, no.

18 MS. SUTTER: Mr. Papageorge, it's my
19 understanding, and Joseph, please correct me if I'm not
20 correct, when you're asking him these questions you're asking
21 him if he's testified ever on the topic, you're not limiting
22 it to a corporate designee.

23 A. I misunderstood. I thought we were still on the
24 corporate designee on all of these.

25 Q. (BY MR. RACE) No. Does it change -- well,

1 you've just testified that you have in fact given testimony in
2 each of these areas?

3 A. Yes, I have.

4 Q. And now you're telling me each area that you've
5 responded that you've given testimony in these areas that when
6 you've responded yes you're indicating that you have done so
7 as a corporate representative; is that correct?

8 MS. SUTTER: Objection to the form of the
9 question. I think you're mischaracterizing his testimony.

10 A. When the question was asked of me I assumed going
11 back where we talked about as a corporate representative I
12 tried to respond with a definite yes as a corporate
13 representative. If I didn't answer as a corporate
14 representative I tried to make that distinction in my
15 response.

16 Q. Okay. So I can assume reading this transcript
17 that any time you said "yes, I testified," that would be as a
18 corporate representative unless you specifically denote that I
19 did so from a personal capacity; is that correct?

20 MS. SUTTER: Objection to the form of the
21 question. It is unfair based on the prior exchanges that have
22 gone on. You made one set of rules, Mr. Race, and then you
23 changed them in midstream. I objected at the outset that this
24 was a very confusing manner to conduct this questioning. The
25 transcript will reflect at one point in time you made one set

1 of rules and at one point you made a set second set of rules
2 and at one point in time you asked about corporate
3 representatives when you stopped asking about that, so to try
4 to get a generalization is grossly unfair.

5 Q. (BY MR. RACE) Can you give me a general?

6 A. At this time I find myself somewhat confused.

7 Q. I apologize. I wasn't sure how to do it at the
8 outset. But the areas that we have talked about you have
9 testified either as a personal capacity or as a corporate
10 representative; is that a fair statement?

11 A. Yes, and I also mentioned others were better
12 qualified to respond than I am.

13 Q. Just for the completeness of the record, each of
14 the areas which we mentioned that you have testified on,
15 records would assist you in the accuracy and completeness of
16 your testimony; is that correct?

17 MS. SUTTER: Objection. Asked and answered and
18 mischaracterizes prior testimony.

19 A. Documents on occasion are helpful depending on
20 the amount of detail that's suggested in the question. There
21 are many areas where my recall is quite good and I can respond
22 without the document. There are areas where some points of
23 that question I just -- it doesn't come to mind quickly and a
24 document helps.

25 Q. Okay.

1 (WHEREUPON A BRIEF RECESS WAS HELD)

2 Q. (BY MR. RACE) At what point did Monsanto first
3 know that PCBs were contaminated with furans?

4 MS. SUTTER: Objection to the overbroad form of
5 the question.

6 A. Early -- well, at --

7 MR. RACE: Counsel, for the record, what is wrong
8 with overbroad that is to form? Just take note that every
9 deposition I've given you or Tom are on every page and it must
10 be because my questions are all overbroad or poorly phrased.
11 Maybe you can enlighten me or maybe you want to be on every
12 page, I'm not sure.

13 MS. SUTTER: I am attempting -- let me attempt to
14 respond to make my objection as to form more specific, yet I
15 am trying very hard not to give -- make speeches and to keep
16 my objections succinct. I think that stating PCBs without
17 qualifying whose PCBs they are make the question overbroad as
18 to form.

19 Q. (BY MR. RACE) Okay. The question stands. Can
20 you give me an answer, please?

21 A. Would you --

22 Q. At what time did Monsanto know that PCBs were
23 contaminated with furans?

24 A. In early 1970 Monsanto was informed by research
25 scientists in Europe.

1 Q. Holland in specific, and it was Dr. Vos; is that
2 correct?

3 A. That's correct.

4 MS. SUTTER: Could you allow the witness to
5 finish his answer, please?

6 A. That group under direction of Dr. Vos had
7 determined the presence of furans in PCB industrial materials
8 manufactured by European companies but he did not find it in
9 samples of material obtained from Monsanto's unit out of the
10 United Kingdom.

11 Q. Okay. Did Monsanto U.S. send Dr. Vos any samples
12 of PCBs manufactured here in the United States?

13 A. Eventually, yes.

14 Q. And eventually is when?

15 A. Oh, between the period 1970 and 1974 or so.

16 Q. Somewhere between -- as early as 1970 or as late
17 as 1974?

18 A. Yes.

19 Q. Do you recall specifically when, more
20 specifically when?

21 A. No, I don't.

22 Q. Do you know anybody at Monsanto that does?

23 A. I certainly can't put myself in somebody else's
24 head as to what they recall, but Dr. Keller would have been
25 the person that I would consult with.

1 Q. In fact, Dr. Keller conversed -- conveyed the
2 findings to you; is that correct? The Vos findings?

3 A. Well, the initial findings came out of Monsanto's
4 European representatives and these findings were not specific
5 in terms of amounts and which manufacturer's product was
6 tested and so on until Monsanto people, including me, went to
7 the laboratory in the Netherlands and talked with Dr. Vos and
8 his team, and that's when to the best of my knowledge we got
9 more specific numbers as to amounts of the furans found.

10 Q. Okay. And do you recall what the contamination
11 levels were?

12 A. No, I don't. It's been over two decades.

13 Q. When Monsanto sent the furans to Dr. Vos --
14 excuse me. Strike that. When Monsanto sent the PCBs, the
15 U.S. PCBs to Dr. Vos in Holland and they were examined, did
16 Dr. Vos substantiate that there were furan contamination in
17 Monsanto U.S. PCBs?

18 A. He did not.

19 Q. When was it first learned that contamination was
20 in Monsanto's U.S.-produced PCBs?

21 A. The initial report that Monsanto received came
22 from the Food and Drug Administration laboratories in the
23 United States, but that initial report was one of skepticism
24 on the part of the FDA chemists as to were they really seeing
25 the furans or were they misinterpreting their results. This

1 was in 1975, as best I recall, early '75.

2 Q. Okay. Did they suspect that -- Strike that. So
3 in 1975 it was established that furans were in Monsanto PCBs;
4 correct?

5 A. In 1975 at a national meeting held on PCBs in
6 Chicago the Food and Drug Administration went on record as
7 having identified the furans in Monsanto-produced PCBs but
8 only as I recall two of the commercial mixtures that were
9 sold, not the third one.

10 Q. Do you know -- do you recall which two mixtures?

11 A. The mixture referred to by Monsanto is Aroclor
12 1242 and Aroclor 1254.

13 Q. When did Monsanto start making Aroclor 1242?

14 A. Well, Monsanto purchased a company that made the
15 1242 type of PCB in 1935, so that's Monsanto's first
16 involvement.

17 Q. Okay. Was the manufacturing process altered from
18 1935 to 1970?

19 A. Not significantly.

20 Q. Okay. Did Monsanto suspect by any means that
21 furans were in PCBs prior to 1970?

22 A. No.

23 Q. Okay. If furans were found in polychlorinated
24 naphthalenes, would that lead you to suspect that furans may
25 also be present in polychlorinated biphenyls?

1 MS. SUTTER: Objection to the overbroad and vague
2 form of the question.

3 A. Oh, that's -- that would amount to scientific
4 speculation. There are chlorinations of the processes, but
5 not knowing -- I don't know the process ^{by} of which chlorinated
6 naphthalene is made so I really don't know.

7 Q. Does the manufacturing process of trichlorophenol
8 parallel the chemistry of polychlorinated biphenyl?

9 MS. SUTTER: Objection to the confusing form of
10 the question.

11 A. I'm having difficulty with your use of the word
12 parallel. I don't know quite how to define that in my own
13 thinking. There are of course organic chemicals involved and
14 then there is chlorine involved. Other than that I don't know
15 of any other parallelism.

16 Q. Is Dr. Keller still alive, to your knowledge?

17 A. Keller?

18 Q. Keller.

19 A. As far as I know, yes, sir.

20 Q. Okay. Wheeler is now deceased?

21 A. Yes.

22 Q. Prior to 1970 was Monsanto aware that furans and
23 dioxins could be produced during the manufacture of
24 trichlorophenols?

25 A. I don't know that.

1 Q. Is it not true that dioxin can be produced with
2 partial oxidation of chlorobenzenes?

3 MS. SUTTER: Could you repeat that, please,
4 Counsel?

5 Q. (BY MR. RACE) Is it true that dioxins can be
6 produced by partial oxidation of chlorobenzenes?

7 A. That is my understanding.

8 Q. Okay. And chlorobenzenes are added to PCBs in
9 transformer application; correct?

10 A. Some transformer applications, yes.

11 Q. And that's the Aroclor 1254; correct?

12 A. Well, that's one of the PCB mixtures used. There
13 ^{are} ~~is~~ others as well.

14 Q. Okay. Are there -- is there any chlorobenzene
15 added to Inerteen?

16 A. Some of Westinghouse's Inerteens contain
17 chlorobenzene.

18 Q. And that would be designated Inerteen PPO?

19 A. That's certainly one of the designations.

20 Q. Was the chlorobenzene added by -- added to
21 Inerteen added -- well, strike that. Was the chlorobenzene
22 added by Monsanto to the Inerteen?

23 MS. SUTTER: Objection. Calls for speculation
24 and conjecture.

25 A. You'll have to help me with the point in time.

1 Q. (BY MR. RACE) Okay. Between 1965 and 1970 was
2 it added -- was chlorobenzene added to Inerteen by Monsanto?

3 MS. SUTTER: Objection to the overbroad form of
4 the question, contains undefined terms.

5 A. In the period of time you mentioned Monsanto did
6 blend its PCB materials with chlorobenzene for some of
7 Westinghouse's Inerteen formulations.

8 Q. (BY MR. RACE) Okay. And that was blended at the
9 Monsanto facility and then shipped to Westinghouse; correct?

10 A. Yes.

11 Q. Under what circumstances is dioxin derived from
12 chlorobenzene?

13 A. I don't pose to be the chemical expert on these
14 chemical reactions, but I have an understanding that it
15 takes -- of course the presence of the benzene ring has to be
16 present and oxygen of course has to be present to give the
17 dioxin combination. The chlorine is of course there because
18 it's present initially with the chlorobenzene and then a high
19 temperature must be achieved, and it's my understanding that
20 temperature has to be -- these are not the exact numbers, 300
21 to 600 degrees Centigrade, something like that.

22 Q. (BY MR. RACE) And that would be the temperature
23 that would be produced or result from welding?

24 A. I don't know the temperature of welding so I
25 cannot relate that.

1 Q. Was chlorobenzene added to any other Inerteens
2 other than Inerteen PPO?

3 A. At this point in time I don't recall all of the
4 Inerteens prepared for Westinghouse. I just -- I just can't
5 recall. But there were -- as best I recall there is certainly
6 more than just PPO. I don't recall all of them. And through
7 the period of time, as I recall, there were some changes made
8 with different Inerteen designations and different recipes, if
9 you will, for making them.

10 Q. Okay. Now, the FDA found furan contamination in
11 Aroclor 1242; correct?

12 A. Yes.

13 Q. Okay. Did Monsanto -- Strike that. And Monsanto
14 confirmed it with their own independent studies after 1975?

15 A. Yes.

16 Q. Okay. And at no time did Dr. Vos ever find
17 furans in Monsanto's American PCBs?

18 A. I believe he did, yes, in about the '75, '76 time
19 frame.

20 Q. Okay. It was true that naphthalenes were found
21 in biphenyl?

22 A. Yes.

23 Q. And that was known back in 1970; correct?

24 A. Yes.

25 Q. Mr. Papageorge, do you recognize -- why don't we

1 mark this. Let me call your attention to the first paragraph.
2 That which I've handed the Doctor is a letter from Papageorge
3 to J.R. Savage dated October 26, 1970.

4 A. It looks like a copy of a memorandum that I
5 authored back in October of 1970.

6 Q. It indicates that dibenzylfuran is in Santowax R.

7 A. It does say that, yes.

8 Q. And the inference that we can assume is that
9 since dibenzylfuran is in Santowax, and Santowax is
10 manufactured -- is used in the manufacture of Aroclor,
11 therefore dibenzylfurans may be in Aroclors?

12 A. Santawax R is terphenyl, not biphenyl. The
13 Aroclors referred to here are the chlorinated terphenyls which
14 is the Aroclor 5,000 series, not the Aroclor 1200 series.

15 Q. Okay.

16 A. This is a different group of products.

17 Q. So it's not that furans were not in the 1242 but
18 Monsanto was recognizing that they were in an Aroclor;
19 correct?

20 A. No. They were recognizing the presence of
21 dibenzylfuran along with these other materials listed in the
22 starting material for the chlorinated terphenyls sold under
23 the trademark Aroclor.

24 Q. Okay.

25 A. 5,000 with some other numbers. That's to

1 distinguish from the use of biphenyl in the manufacture of the
2 Aroclor 1200 series. It's two different starting materials.

3 Q. It does recognize the presence of dibenzylfuran
4 in a product manufactured by Monsanto?

5 A. True, yes.

6 Q. Okay.

7 A. It's a different product from biphenyl.

8 Q. What was the application of that Aroclor referred
9 to?

10 A. The Aroclor 5,000 series?

11 Q. Yeah.

12 A. They were solid materials used in such things as
13 plastic for fire retardancy, they were used in adhesives, they
14 were used in some paints.

15 Q. Okay. When did Monsanto commence chronic toxic
16 studies with respect to Aroclor 1242?

17 MS. SUTTER: Objection to the form of the
18 question, contains an undefined term.

19 Q. (BY MR. RACE) Do you understand the question?

20 A. I believe I do. Chronic studies with laboratory
21 test animals were begun on Aroclor 1242 as best I remember in
22 1969.

23 Q. Okay. And that was all the chronic toxicity
24 studies were done by IBT?

25 A. Yes.

1 Q. Do you recognize this document dated November
2 3rd, 1970? I call your attention to No. 6: "No chronic
3 (two-year studies) would be anticipated." First of all, do
4 you recognize that document?

5 A. I recall the document, yes, sir. I'm reading to
6 help me refresh my memory on the considerable detail that's in
7 this document.

8 Q. Okay. Well, I would like you to --

9 A. Well, I've quickly perused it.

10 Q. My question is with regard to --

11 MS. SUTTER: Just a second. I would like an
12 opportunity to look at the document.

13 Q. (BY MR. RACE) Okay. With respect to No. 6,
14 could you explain why -- what was meant, or your understanding
15 of "no chronic (two-year studies) would be anticipated?"

16 A. This document is primarily put together for
17 budgetary purposes. That statement indicates that the monies
18 mentioned on Page 2 do not include any costs that might be
19 associated with longer studies. The decision regarding the
20 two-year studies would depend on what was found with the
21 shorter studies that were proposed.

22 Q. Okay. But the two year-study had in fact been
23 initiated in 1969?

24 A. No, no, no. This reference to two-year study has
25 to do with the materials listed on the pages attached to the

1 memorandum, and you will note that they refer to products that
2 are not studied as yet, like Aroclor 1221, MCS 1016, HB-40 and
3 so on. There are chemicals here that were being considered as
4 substitutes for the PCBs and they were being put into a
5 program to get some better understanding of their toxicity and
6 depending on those results either feel comfortable with what
7 the results show or do some more studies to determine their
8 overall toxicity. So this document does not refer to the
9 studies that were already in place in 1969.

10 Q. Okay. Was it -- while you were employed by
11 Monsanto was it Monsanto's position to freely disseminate
12 information that it had gathered with respect to animal
13 studies?

14 A. Yes.

15 Q. Do you recognize this document?

16 A. I have read the document.

17 Q. Okay. I draw your attention to the second
18 paragraph: "Although Kanegafuchi is asking, they also are
19 testing to see how far Monsanto will go in giving away
20 information." What is your appreciation of that statement as
21 directed to you?

22 A. That just tells me a little bit about how
23 Kanegafuchi representatives might be thinking. There was
24 nothing there that we were refusing to tell them, as far as I
25 know.

1 Q. Okay. Did in fact Monsanto -- Strike that. So
2 it's your testimony that Monsanto freely provided all
3 information that was requested with respect to the animal
4 studies?

5 A. By Kanegafuchi representatives?

6 Q. To anybody.

7 A. As far as I know, yes, sir.

8 Q. The FDA was studying Aroclor 1242 as well as
9 other Aroclors for carcinogenicity; is that correct?

10 A. I -- I need some help with your use of the word
11 study. Do you mean were they placing animal studies and so
12 on?

13 Q. Yes.

14 A. I don't recall the FDA having such a program. I
15 know that they were interested in any health effects,
16 including carcinogenicity. I don't recall any studies placed
17 by FDA with any laboratory to help get information.

18 Q. Isn't it true that you were informed that 1242
19 was more toxic to chickens than the higher chlorinated
20 Aroclors?

21 MS. SUTTER: Objection to the overbroad and vague
22 form of the question.

23 A. The test results from Monsanto's studies being
24 conducted by IBT did indicate that the chickens in the tests
25 were more sensitive to Aroclor 1242 than they were to Aroclor

1 1254 or to Aroclor 1260 which were the other two Aroclors
2 being tested.

3 Q. (BY MR. RACE) So it's a safe statement that not
4 all animal studies indicated that the higher chlorinated
5 Aroclors were more toxic, in some cases the lower chlorinated
6 Aroclors were more toxic?

7 A. There were effects noted in the different test
8 animals and they did vary depending on the material that they
9 were exposed to and the type of animal, yes, there were
10 differences.

11 Q. Is George Levinskas still living?

12 A. As far as I know, yes, sir.

13 Q. And he lives in the Monsanto area -- I mean,
14 excuse me, the St. Louis area?

15 A. The last I heard he was, yes.

16 Q. Is he still employed by Monsanto or is he
17 retired?

18 A. He retired.

19 Q. There was no analysis done of the PCBs provided
20 to IBT with respect to contamination; was there?

21 A. At what point in time?

22 Q. From 1970 to 1975.

23 A. I can't answer that. I do know that the
24 laboratory went back to the research samples of material
25 produced in that period of time and even prior to that. I

1 personally do not know if they got any of the 1969 material
2 and tested it for the furans.

3 Q. Okay.

4 A. I can't speak to that.

5 Q. During some of the animal studies conducted,
6 particularly those of birds, is it not true that unusually
7 high levels of PCBs were found in brain tissues?

8 A. I don't remember that detail.

9 Q. Okay.

10 A. I would have to see the reports.

11 Q. I'm going to show you a report dated October
12 10th, 1972. Do you recognize that, the one in which you were
13 cc'd?

14 A. Yes. (Nods Head)

15 Q. And I draw your attention to Toxicity, Section
16 No. III in which it is I believe underlined.

17 MS. SUTTER: Not on the --

18 A. I recall the essence of this memo.

19 Q. (BY MR. RACE) And do you recall being informed
20 or having read that unusually high levels of PCB were found in
21 the brain tissue of birds?

22 A. I'm trying to recall. It's not too vivid in my
23 thinking but -- see, what I don't recall is what birds are
24 they referring to here. These are not the test birds that
25 Monsanto used. These -- the reference to mink and birds

1 indicates studies by other than Monsanto.

2 Q. Who is M. -- W.M. Mees, being the author of this
3 report?

4 A. Mr. Mees was a member of Monsanto's analytical
5 chemistry research group who reported to Dr. Tucker, the
6 addressee of this report, who in return reported to Dr.
7 Keller, one of the recipients of the copy.

8 Q. Okay. You do recall this document?

9 A. Yes.

10 Q. Okay. I'm going to mark for identification No.

11 4. What is the relative toxicity of furans?

12 MS. SUTTER: Object to the overbroad and vague
13 form of the question.

14 Q. (BY MR. RACE) Strike the question. Is it not --
15 would you agree that chlorinated dibenzylfurans are very
16 highly toxic?

17 A. That's my understanding as tutored by individuals
18 that are more knowledgeable in the area of toxicity.

19 Q. Do you recall this document dated December 6,
20 1974? I draw your attention to the handwritten note of which
21 you appear to be the author. Is that your note at the bottom
22 of that?

23 A. Yes, it is. I recall this document.

24 Q. And it does in fact state that chlorinated
25 dibenzylfurans are very highly toxic; correct?

1 A. It does.

2 Q. Then you continue to write: "Many effects on
3 birds and animals noted and originally attributed to PCBs were
4 later found to be due to furan --" What's the last word
5 there?

6 A. "Content."

7 Q. "Content." Which birds and animals are you
8 referring to; test birds or wild birds?

9 A. Wild birds.

10 Q. These are wild birds in the United States;
11 correct?

12 A. No, not necessarily. It's my recollection at the
13 time that all that I had read in a several-year period leading
14 to this particular time, December '74.

15 Q. So you don't know whether these birds and animals
16 were in the U.S. or whether they were abroad; is that what
17 you're telling me?

18 A. Some of them were abroad. For example, Dr. Vos'
19 group did some studies in Europe and attributed the effects
20 they saw or observed were due to furan content.

21 Q. The same furans that were noted later established
22 to be contained in PCBs in the United States; correct?

23 A. Chemically the same. The amounts were different.

24 Q. I'm marking for identification Plaintiffs'
25 Identification No. 5. What were the differences in the

1 amounts?

2 A. I don't recall the numbers, but they were
3 significantly different.

4 Q. Was it higher abroad or lower abroad?

5 A. I don't mean to indicate that this higher level
6 of furans to which the animals and birds were exposed existed
7 only in the European work. It appeared to be general.

8 Q. So you had higher levels of furans in the birds
9 in the United States as well; correct?

10 A. I don't -- when you say higher, higher than what?
11 I don't know what to compare it to. It's a significant amount
12 that was fairly easily detectable; therefore, it had to be
13 above the very low levels that the analytical method could
14 detect.

15 Q. So there were high levels of furans found in
16 American birds and animals; correct?

17 MS. SUTTER: Objection. Mischaracterizes prior
18 testimony.

19 A. There were detectable levels found. I don't know
20 how to compare it in terms of higher or lower.

21 Q. (BY MR. RACE) Okay.

22 A. I don't have a base.

23 Q. And these levels were detected prior to 1974,
24 furan levels?

25 A. Yes. Keep in mind that isn't -- the source of

1 furans is not known.

2 Q. Judging from what -- I came here trying to make a
3 good-faith effort to go through this, and unfortunately it's a
4 little lengthy because of the documents I brought with me.
5 And I'll try to go as quickly as I can.

6 Doctor, you would be available for another date if
7 we -- you have to break at 4:00, I'm given to understand
8 today; correct?

9 A. That's my understanding.

10 Q. You would be available, as opposed to
11 inconveniencing you and trying to keep you on today and not
12 breaking for lunch, you have no personal problem with that; do
13 you?

14 A. It depends on the day. I do have some
15 commitments in the future.

16 Q. You are not totally booked for the next two weeks
17 or three weeks?

18 A. Not totally, but spotty. I don't have my
19 calendar with me.

20 Q. With that caveat, why don't we break for a half
21 hour lunch or 45 minutes.

22 (WHEREUPON A LUNCH RECESS WAS HELD)

23 MR. RACE: For the record, it's 1:30. The
24 documents are taking fairly long. Mr. Papageorge has outlined
25 certain areas and named expertise, I provided you with a list

1 of areas, and perhaps for the remainder of this afternoon I'll
2 finish going through these documents and then talk to Tom
3 about how to formulate a corporate deposition; does that
4 appear reasonable to you?

5 MS. SUTTER: Based on our discussion off the
6 record where you gave me the number of paragraphs that you
7 were thinking of reducing your corporate deposition notice to,
8 it certainly sounds to me more reasonable than the original
9 document. I am concerned about the time frame in which we are
10 dealing under the Case Management Order to deal with all this
11 last-minute discovery that's being conducted, but the
12 paragraphs you mentioned to me sounded like an effort to
13 narrow the scope, we're appreciative of that, and Tom Carney
14 and I are both willing to meet with you and see what can be
15 worked out during the remaining time that we have under the
16 parameters of the Case Management Order.

17 MR. RACE: It's been expanded to June 8th by
18 agreement.

19 MR. RACE: Rick, I would like to do the same with
20 you.

21 MR. WUNDERLICH: You know, I suggested that
22 earlier.

23 MR. RACE: It takes time. You know, it's like
24 Mark Twain said, "If I had more time this letter would be
25 shorter."

1 MR. WUNDERLICH: My only additional comment, Joe,
2 as I've told you, I have more difficulty in locating
3 someone -- we have to respond to certain areas and because of
4 the lack of people that are still employed with Westinghouse
5 who may have had knowledge concerning PCBs, you know, so the
6 quicker the better would be my response in terms of telling me
7 exactly -- if we can reach some sort of agreement on it.

8 MR. RACE: Part of the exercise is to take a look
9 at the documents and that's -- has been true in both cases.
10 And so that's being done and it will be done when I get back
11 to the office.

12 MR. WUNDERLICH: Okay.

13 Q. (BY MR. RACE) Okay. Do you recognize this
14 correspondence of June 16th, 1975, previously marked as 1505?

15 A. I have read the document.

16 Q. Do you recognize that document?

17 A. Yes, sir, I do.

18 Q. Okay.

19 A. I don't --

20 Q. You were in fact cc'd on this document; correct?

21 A. Yes. To clarify, I do not recognize the
22 handwritten notes on the document.

23 Q. Okay. With respect to the document, this
24 indicates that, as you've previously testified, that Vos had
25 substantiated that there was furans in chlorinated biphenyls;

1 correct?

2 A. It does refer to Dr. Vos' study. He misses it by
3 a year or so in terms of time, what had happened.

4 Q. Who is D. Wood?

5 A. David Wood, a Monsanto employee.

6 Q. What capacity?

7 A. 1975, I don't recall his formal title. He was
8 the individual that was involved with the marketing back at
9 the home office of PCBs used in the electrical industry.

10 Q. And J.N. Haggart?

11 A. Haggart is his counterpart in the United Kingdom.

12 Q. Okay. Now, Wood is writing saying: "We need to
13 develop our own methods to determine if indeed chlorinated
14 dibenzylfurans are present and what is the potential hazard."

15 A. Uh-huh. (Yes)

16 Q. One, when did you know that furans were toxic?

17 A. I had a personal I'm going to call it inkling
18 that furans were potential health hazards, health problems not
19 only to humans but to wildlife about the middle of 1970, but
20 Emmett Kelly would be the one to --

21 Q. Emmett Kelly would be the one to address that?

22 A. Yes.

23 Q. And he said "we need to develop our own method;"
24 from that am I correct in stating that at the time of this
25 correspondence Monsanto did not have a method similar to Vos?

1 A. No, that is not correct.

2 Q. Okay. Tell me why Monsanto could not simply use
3 Vos' method of determining furan contamination.

4 A. We did. We were using it. It appears that David
5 Wood wasn't tuned in to what the research analytical chemists
6 were up to.

7 Q. Do you know why Vos' method was not successful in
8 determining contamination in American PCBs?

9 A. Vos' method was able to detect PCB -- furans in
10 PCBs down to a certain low level. The presence of furans in
11 Monsanto-produced PCBs was below that level so the instrument
12 couldn't see it no matter how much the fine-tune knob was
13 turned, so to speak, literally.

14 Q. Do you know what the level of furan
15 contamination, I think I've asked this, in the Vos studies
16 were, parts per million?

17 A. I don't remember now, no.

18 Q. And what level were the furan -- what was the
19 contamination level of furans in Monsanto PCBs ultimately
20 established in the seventies?

21 MS. SUTTER: Objection to the vague form of the
22 question.

23 A. I don't pretend to remember the exact numbers,
24 but it seems to me I recall a range like five, ten parts per
25 million, something like that, but those are not exact numbers.

1 Q. (BY MR. RACE) Do you recognize that which is
2 dated August 15th, 1975? Actually, Doctor, I'm going to
3 address the first page of that. Do you recognize the first
4 page?

5 A. Yes, I do.

6 Q. Okay. This establishes that in 1975
7 dibenzylfurans were identified in PCBs, in Monsanto PCBs in
8 specific; is that correct?

9 A. That's the reference to Dr. Risebrough's work,
10 yes.

11 Q. We're going to mark that as Exhibit No. 7. I
12 call your attention to September -- internal memo September
13 25th, 1975. Do you recognize that?

14 A. Yes, I recognize it.

15 Q. I'll mark this now as Plaintiffs' Exhibit No. 8.
16 This is written by Mr. Levinskas?

17 A. Yes.

18 MS. SUTTER: Are you referring to the front page
19 of Exhibit 8 or the entire Exhibit 8?

20 Q. (BY MR. RACE) The front page. Do you know who
21 prepared the toxicity statement which is attached to that
22 memo?

23 A. I do not.

24 Q. Okay. Had you -- you've seen that toxicity
25 statement in -- as reflected in the memo on September 25th,

1 1975?

2 A. On or about that period of time, yes.

3 Q. Okay. How many versions were written prior to
4 the final?

5 A. I have no way of knowing. I don't know.

6 Q. Okay. Down on the last page of the memo --
7 statement, excuse me, the last page of the statement it says:
8 "Aroclors" and then penciled in above that is 1242 and 1254.
9 Do you know who was responsible for that?

10 A. I do not.

11 Q. To whom was this statement issued?

12 A. I just am having difficulty recalling exactly who
13 received copies of this. I just don't remember.

14 Q. Okay. Well, my question was who penciled in the
15 1254 and the 1254?

16 A. I answered that. I don't know.

17 Q. Excuse me. Do you agree with the statement that
18 "Notwithstanding the furan contamination the 1242 and 1254 do
19 not present any unreasonable human health hazards?"

20 MS. SUTTER: Where are you finding that
21 statement?

22 A. The reference to furans, I don't see that here.

23 MS. SUTTER: Nor do I.

24 Q. (BY MR. RACE) At that point in September of 1975
25 it was known that Monsanto -- Monsanto's PCB contained furans;

1 correct?

2 A. It was known that the Food and Drug
3 Administration laboratory had found what they noted as being
4 furans, chlorinated furans in Monsanto's Aroclors, yes.

5 Q. Did the existence of those furans ever change
6 Monsanto's position with respect to the health hazards
7 associated with PCBs?

8 A. No. There was no new -- no new toxicity ^{data to} dated
9 ^{a need to} indicated ~~in the~~ change.

10 Q. Was there any discussion as to the level of
11 contamination that would have to be reached before furans
12 posed a threat to human health?

13 A. I personally don't know. You have to ask Dr.
14 Kelly.

15 Q. I call your attention to an internal memo
16 November 20th, 1975. Do you recognize that?

17 A. I recall this memo, yes.

18 Q. Okay. This memo reflects studies of Dr.
19 Kimbrough in which carcinogens were found in rats exposed to
20 Aroclor 1260. It doesn't say in this study. The setting --
21 do you recall the setting in which this --

22 A. This memo pertains to another memo in which the
23 two studies were reviewed and discussed.

24 Q. Okay. Now, Dr. Kimbrough's studies, you would
25 agree, found lesions or precancer tumors in rats exposed to

1 PCB; correct?

2 A. That is correct.

3 Q. Now, do you recall -- Strike that. Monsanto's

4 ~~response was to have the slides analyzed by pathologists~~

5 employed at IBT; is that correct? As well as the Eppley

6 Institute; is that correct?

7 A. That is correct.

8 Q. Now, how many Monsanto -- excuse me. Strike

9 that. How many pathologists in total reviewed those slides on

10 behalf of Monsanto?

11 A. I don't know the number.

12 Q. It was more than Dr. Pour; is that correct? More

13 than just Dr. Pour?

14 A. Certainly there were the pathologists at IBT and

15 there is at least two or three there.

16 Q. There is a Dr. Richter?

17 A. Dr. Richter, Dr. Gordon and others.

18 Q. Have you had discussions with any of those

19 pathologists personally?

20 A. At what time?

21 Q. Concerning Dr. Kimbrough's findings.

22 A. Not me personally, no.

23 Q. Were you aware that Dr. Richter and Dr. Gordon

24 actually concurred with Dr. Kimbrough's findings?

25 A. Yes.

1 Q. And it was only Dr. Pour who contested Dr.
2 Kimbrough's findings; is that not correct?

3 A. That's my understanding, yes.

4 Q. And Monsanto did not request Dr. Kimbrough or Dr.
5 Richter or Dr. Gordon to publish any statements concerning
6 their review of Dr. Kimbrough's slides; is that correct?

7 MS. SUTTER: Could I hear that question again,
8 please?

9 MR. RACE: Would you read it back?

10 (PENDING QUESTION READ BACK BY THE REPORTER)

11 A. If I understand the question correctly, Dr.
12 Kimbrough did publish her findings and --

13 Q. (BY MR. RACE) But -- go ahead.

14 A. Now, in terms of whether Dr. Richter or Dr.
15 Gordon published findings, as I recall, a document was
16 prepared and issued by Dr. Callandra who was the top
17 individual at IBT to whom Drs. Richter and Gordon reported, so
18 IBT is represented by that document regarding these
19 observations, these findings.

20 Q. The statement issued by Dr. Callandra indicated
21 that Dr. Kimbrough's slides -- Dr. Kimbrough's interpretation
22 of the slides was correct?

23 A. Yes. It also indicated that the findings of the
24 two studies were different.

25 Q. Okay. Now, you say the findings of the two

1 studies; did Dr. Pour actually conduct a study or did he just
2 review the Kimbrough -- Dr. Kimbrough's slides?

3 A. He reviewed both the IBT slides and the Kimbrough
4 slides.

5 Q. Okay. And Dr. Pour took the position that both
6 the Kimbrough slides and the IBT slides were negative insofar
7 as relationship between PCBs and cancer?

8 MS. SUTTER: Objection to the form of the
9 question.

10 Q. (BY MR. RACE) Is that correct?

11 A. Yes.

12 Q. Let me mark that as Exhibit 9. Okay. I call
13 your attention to the January 29th, 1970 memo from Wheeler
14 which you are cc'd. Do you recognize that?

15 A. I do.

16 Q. Okay. I mark that as Exhibit 10. Which chronic
17 studies is Wheeler referring to?

18 A. He's referring to the lifetime studies with rats.

19 Q. Okay.

20 A. To which were exposed to Aroclors 1242, 1254 and
21 1260. He's also referring to long-term studies with Beagle
22 dogs and also with leg horn chickens.

23 Q. Now, these are studies that were conducted by
24 IBT?

25 A. That's correct.

1 Q. Once again, all the chronic studies that Monsanto
2 directed were conducted by IBT; is that correct?

3 A. That is correct.

4 Q. Those studies commenced in 1969?

5 A. The chronic studies, yes.

6 Q. Is it true that even before the study was
7 completed it was recognized that PCBs are exhibiting a greater
8 degree of toxicity than anticipated?

9 A. That is true.

10 Q. Okay. But ultimately the IBT studies held that
11 PCBs were non toxic; correct?

12 A. No, no, no.

13 Q. Excuse me. Not non toxic, non carcinogenic?

14 A. Correct.

15 Q. You concur with the statement that PCBs are about
16 the same with respect to toxicity as DDT?

17 A. That's my understanding, yes.

18 MS. SUTTER: I would object in that Counsel
19 didn't complete the whole sentence. It says "about the same
20 as DDT in mammals."

21 Q. (BY MR. RACE) Are humans mammals?

22 A. Yes, it's my understanding.

23 Q. Mr. Papageorge, are you aware of a bate stamp
24 method, have you come into that --

25 A. I'm sorry?

1 Q. Bate stamp, are you familiar with that?

2 A. Bate stamp?

3 Q. Yes.

4 A. I'm not familiar with that expression.

5 Q. Do you recognize any of the numbers on the bottom
6 of this page? Now I'm referring to -- I'm specifically
7 referring to SCM and then a series of numbers. Can you draw
8 any conclusions from looking at that number?

9 A. No, I'm sorry, I can't.

10 Q. Okay. Did you give testimony in the Scott case
11 in Beaumont, Texas?

12 A. Yes, I did.

13 Q. Had you seen or reviewed this document that I'm
14 now referring to?

15 MR. WUNDERLICH: What's the date of that
16 document?

17 MS. SUTTER: The date of the document is December
18 17, 1951. I do have an objection to the form of question.
19 Are you asking him whether he ever saw it or whether he saw it
20 in connection with Scott?

21 MR. RACE: If he's ever seen it.

22 MS. SUTTER: If he's ever seen it. All right.

23 A. I don't recall this document at all.

24 Q. (BY MR. RACE) Are any of the names of the
25 individuals there familiar to you?

1 A. Mr. Mather and Dr. Weddell and Mr. Marshall are
2 Monsanto employees in Monsanto's research department.

3 Q. Okay. This appears to be an internal Monsanto
4 memo?

5 A. It appears to be so, yes, sir.

6 Q. Okay. Chlorinated diphenyl is the same as a
7 chlorinated biphenyl; is it not?

8 A. Yes.

9 Q. Okay. And are you aware that literature back in
10 1951 revealed a history of skin trouble or liver trouble
11 including some fatal cases attributed to heavy exposures to
12 chlorinated diphenyls?

13 A. I'm aware of literature that referred to those
14 kinds of symptoms and ailments as it related to commercial
15 mixtures of chlorinated naphthalenes with some chlorinated
16 diphenyls present, yes.

17 Q. Okay. Was chlorinated naphthalene a contaminant
18 in Aroclors?

19 A. I don't believe I ever saw a report that reported
20 the presence of chlorinated naphthalenes in Aroclors.

21 Q. Is -- chlorinated naphthalene is a hydrocarbon;
22 correct; chlorinated hydrocarbon?

23 A. Yes.

24 Q. As PCB is a chlorinated hydrocarbon?

25 A. Yes.

1 Q. Within the family of chlorinated hydrocarbons you
2 can break them into smaller categories; can you not?

3 A. I don't know what you mean by category. You mean
4 solids and liquids and gases?

5 Q. Is there not a category of chlorinated aromatic
6 hydrocarbon?

7 A. Yes.

8 Q. Okay. And both PCBs and the naphthalenes fall
9 into that category?

10 A. Yes, anything that has the hexagon formation
11 reflecting the benzene ring is called an aromatic.

12 Q. Okay. And there are recognized similarities of
13 substances within that I'm going to call it family; is that
14 correct?

15 A. Well, that's true of so many chemicals; there are
16 similarities and there are dissimilarities. I don't know how
17 to answer that.

18 Q. Okay. If you -- okay. Is it also true that the
19 chlorinated aromatic hydrocarbons tend to be the more toxic
20 chlorinated hydrocarbons?

21 MS. SUTTER: Objection to the form of the
22 question.

23 A. You'll have to ask Dr. Kelly how that compares to
24 other chlorinated hydrocarbons like chloroform and carbon tet.
25 and literally hundreds of chlorinated hydrocarbons.

1 MR. RACE: Premised on Mr. Papageorge recognizing
2 this as being a Monsanto internal memo, although he doesn't
3 have personal knowledge of the memo itself, but recognizing
4 the people mentioned in the memo I will attach it as
5 Plaintiffs' Exhibit No. 11.

6 Q. (BY MR. RACE) Doctor, is it true that the
7 chlorinated aromatic hydrocarbons have in common the fact that
8 they produce an odor? I don't know, I'm just guessing.

9 A. All chemicals have a distinctive odor.

10 Q. Do you know what the aromatic specifically refers
11 to, what common property?

12 A. I'm not aware of any such description.

13 Q. PCB has an odor; does it not?

14 A. Yes.

15 Q. Can you describe that odor?

16 A. I can describe what I sense, and I would suggest
17 that this is quite subjective; different people smell
18 different odors. To me it reminds me of a mild disinfectant
19 type odor.

20 Q. And your ability to smell that odor indicates the
21 chemical is in the air?

22 A. Oh, yes. Otherwise I wouldn't smell it.

23 Q. Okay. And the stronger the smell the greater the
24 volume the chemical would be in the air; is that correct?

25 A. That's generally the way with materials.

1 Q. Okay. Now, do you recognize the document dated
2 8th September, 1955 and attached thereto I believe is a letter
3 dated September 20th, 1955?

4 MS. SUTTER: I would like a moment to take a look
5 at these documents, please.

6 A. I do not recall seeing any of these three --

7 Q. (BY MR. RACE) Three documents?

8 A. -- documents.

9 Q. Could you tell me in the first document who is
10 Dr. H.R. Newman?

11 A. He was the -- I don't know the official
12 designation. He was the head medical person in Monsanto in
13 the United Kingdom.

14 Q. And the author of the letter on the first one is
15 J.W. Barrett?

16 A. Dr. Barrett was -- again, I don't recall his
17 official designated title, but he was a principle individual
18 in the research activities of Monsanto Europe.

19 Q. Okay. And the second document is authored by Dr.
20 Kelly and we can ask Dr. Kelly about that, I suppose?

21 A. I would suggest that, yes.

22 Q. When you started with Monsanto in '57; was it?

23 A. '51.

24 Q. Excuse me. '51, until 1955 did you have
25 concern -- Strike that. Was it -- to the best of your

1 knowledge did Monsanto have concern prior to 1955 concerning
2 the toxicology of Aroclors?

3 A. Well, the -- there were guidelines as to the
4 kinds of things to avoid doing to limit exposure. There were,
5 for example, guidelines regarding the amount of PCBs that
6 could be in the breathing air or the working environment.
7 There were of course concerns regarding getting it on the
8 skin. There were concerns about getting too much on your
9 clothing and not changing it as appropriate. Yeah, there were
10 concerns of that kind.

11 Q. Do you know what Monsanto's policy was with
12 respect to advising client -- customers of the relevant -- not
13 relevant, various toxicity of the different Aroclors?

14 MS. SUTTER: Mr. Race, I apologize, I didn't
15 understand that question.

16 Q. (BY MR. RACE) Let me strike the question and try
17 again. It's true that back in the early fifties Monsanto was
18 of the opinion that higher chlorinated Aroclors were more
19 toxic than the lower chlorinated Aroclors?

20 A. Yes, they got that from the animal studies that
21 were made up to that time.

22 Q. Okay. And did -- let me direct your attention to
23 the September 20th, 1955 letter, the last paragraph. Will you
24 agree with MCC's position, that's Monsanto Chemical Company;
25 correct? The last paragraph of the -- the last paragraph on

1 Page 1 of that correspondence.

2 A. Page 1. Yeah, MCC was commonly used to describe
3 Monsanto Chemical Company.

4 Q. Okay. I -- are you -- do you concur with the
5 statement in the last paragraph indicating Monsanto's position
6 can be summarized up in this fashion: "We know Aroclors are
7 toxic but the actual limit has not been precisely defined. It
8 does not make too much difference, it seems to me, because our
9 main worry is what will happen if an individual develops any
10 type of liver disease and gives a history of Aroclor exposure.
11 I am sure the juries would not pay a great deal of attention
12 to MACs."

13 A. I'm sorry, I missed the question.

14 Q. Would you agree with that statement?

15 A. Well, in essence I agree with it. Of course, it
16 doesn't describe what is meant by history of Aroclor exposure
17 and I would like -- a person would have preferred seeing some
18 level of exposure, time, how long an exposure, but in my
19 viewpoint, yes, overexposure to these materials can lead to
20 health problems, that's well-known.

21 Q. MACs refer to what?

22 A. Maximum Allowable Concentrations. I believe
23 that's -- it had to do with exposure levels in the workplace.

24 Q. Does this appear to be communications, the first
25 one, the letter from Monsanto U.K. to Monsanto U.S. and then

1 the response by Dr. Kelly to the U.K.?

2 A. Well, as I see it, there are two responses that
3 Dr. Kelly made; he made the initial one on September 20 and
4 then apparently had some additional thoughts that he sent two
5 days later.

6 Q. Okay. I'll mark that as Plaintiffs' Exhibit 12.
7 I call your attention to the correspondence dated December 6,
8 1955. The first correspondence was written by D.V. Hardy.

9 MS. SUTTER: The witness is still reviewing the
10 document. Do you want to interrupt his review to ask one
11 question?

12 Q. (BY MR. RACE) Do you need to review the entire
13 document to ascertain whether you're familiar with it, if
14 you've ever seen it before?

15 A. No. I can say that I don't recall ever seeing
16 this document.

17 Q. Well, then I'm not trying to make you read it
18 now. That saves us time. You don't have to read the entire
19 thing.

20 A. I didn't know what kind of questions to expect.

21 Q. If -- let me try it this way. The -- this first
22 letter was written, it appears to be authored by D.V.N. Hardy;
23 correct?

24 A. Yes.

25 Q. It's marked confidential. Do you know who Mr.

1 Hardy is?

2 A. Dr. Hardy was a medical doctor in Monsanto Europe
3 reporting to Dr. Newman.

4 Q. Okay. And this appears to be a Monsanto
5 correspondence; is that correct?

6 A. Yes.

7 Q. Okay. Is it true that the lower chlorinated
8 Aroclors are more vaporous?

9 A. I guess you could use that term. They are --
10 they can form vapors at lower temperatures.

11 Q. Okay. So at a given temperature you may have
12 more of the lower chlorinated PCBs in the air than the higher
13 chlorinated PCBs; correct?

14 A. That is generally true, yes.

15 Q. Okay. And the toxicity is directly proportionate
16 to -- Strike that. A harmful effect would be directly
17 proportionate to an equation of toxicity and concentration;
18 correct?

19 MS. SUTTER: Objection to the vague and confusing
20 form of the question.

21 Q. (BY MR. RACE) In other words, Dr. --

22 A. Yes.

23 Q. Would you agree with that statement?

24 A. I'm trying to recall your first words.

25 Q. Let me try to ask it this way: If you get more

1 of a less toxic substance it may be equally harmful as if you
2 got less of a more toxic substance?

3 A. It's a combination of the type of material, how
4 much of the material, and of course, time.

5 Q. Okay. Now, if you will, could I call your
6 attention to last sentence of the second paragraph on Page 2.

7 MS. SUTTER: Just a minute. This is the document
8 that you said you weren't going to ask him questions about so
9 now the witness is going to complete his review of the
10 document that you're about to start asking him questions
11 about.

12 Q. (BY MR. RACE) Either that, or I'll ask you this
13 question: Do you agree or do you disagree: "It is now clear
14 that toxicity increases with degree of chlorination and that
15 this effect may cancel or even outweigh the advantage due to
16 decreased vapor pressure?"

17 MS. SUTTER: I object to the form of the question
18 in that you've picked one sentence out of a whole-page
19 document after encouraging the witness not to read the entire
20 document. I think he has a right to do that.

21 Q. I don't think it's necessary. Can you agree with
22 that statement or do you have to read the entire document?

23 A. No, I -- I heard some words you read off here and
24 I haven't found the words yet.

25 Q. The last sentence, right there.

1 A. Well, I -- from what I understand of these PCB
2 materials, the reference to toxicity increasing with degree of
3 chlorination is not necessarily true. It depends on the
4 creature -- I'm looking for a word. That is exposed to it.
5 An example that we found out is that the chickens were
6 susceptible to the lower chlorinated materials, so that
7 contradicts this statement here. And then the second part of
8 that sentence when it says "may cancel or even outweigh,"
9 that's speculative. There is no way to really equate that
10 with accuracy.

11 Q. Now, you recognize this as being a Monsanto
12 correspondence; correct?

13 A. Yes. It is a collection of documents from
14 Monsanto.

15 Q. What is the similarities between Pydraul 150 and
16 Aroclor 1242?

17 A. Pydraul 150 is a mixture of chemicals. As best I
18 recall one of the ingredients in that mixture is Aroclor 1242.

19 Q. Do you recall any of the other chemicals in
20 Pydraul 150?

21 A. Not in specific detail.

22 Q. Who would know about that from Monsanto?

23 A. I'm trying to recall an individual in Monsanto's
24 research department that developed these mixtures. I would
25 suggest -- I don't know how available this person is. Dr.

1 Roger Hatton, H-A-T-T-O-N, was an individual familiar with
2 Monsanto's hydraulic fluids.

3 Q. Are -- do you know whether any of the other
4 substances in the Pydraul 150 were of equivalent toxicity of
5 1242 or greater?

6 A. Not -- since I don't remember what they were I
7 can't answer.

8 Q. Okay.

9 MR. RACE: Off the record.

10 (WHEREUPON AN OFF THE RECORD DISCUSSION WAS HELD)

11 MR. RACE: Let me just say, just quickly, we're
12 going to agree -- I'll go through a few documents that I have
13 here and we have agreed to meet to try to work out some type
14 of corporate deposition as well as some stipulation as to
15 documents. Is that everybody's agreement?

16 MS. SUTTER: All counsel for all parties have
17 agreed that we will meet and attempt to stipulate to
18 documents.

19 MR. RACE: And work out something for the
20 corporate deposition.

21 Q. (BY MR. RACE) Do you recognize this memo dated
22 July 30th, 1975? Have you previously seen that document?

23 A. I recall the document, yes, sir.

24 Q. Okay. We'll mark this as 14. Okay. This
25 document reflects that Monsanto acknowledged that --

1 acknowledged evidence of Aroclor 1260 being carcinogenic; is
2 that correct?

3 A. No. It acknowledges that a study which used a
4 strain of rats of one sex did show some liver effects that
5 could be construed as being carcinogenic in nature, but it
6 also points out that there are other studies that do not show
7 the same results.

8 Q. What is a carcinogenic effect -- or the
9 carcinogenicity of DDT?

10 A. I don't know. You'll have to ask Dr. Kelly.

11 Q. Do you have an opinion one way or another as to
12 whether Aroclor 1260 has a potency comparable to that of DDT?

13 A. I do not.

14 Q. I draw your attention to that which has
15 previously been marked Plaintiffs' Exhibit 817. Do you
16 recognize this document?

17 MR. WUNDERLICH: What's the date on that?

18 MS. SUTTER: April 17, 1970.

19 Q. (BY MR. RACE) I'm not going to ask you about the
20 attached documents, but only the first page.

21 A. I recall the document.

22 Q. Okay. I'll mark it as 15. Now, what is meant by
23 the paragraph "Please do not present any Teach-In "visitors"
24 with prepared handouts on PCBs. You may use this information
25 in verbal conversation should the occasion arise?"

1 A. Well, just like it says; in other words, don't
2 give this to any individuals.

3 Q. What was your reasoning for not wishing to give
4 the question and answer sheet on PCBs to individuals?

5 A. Primarily because I personally saw this as a
6 highly technical kind of subject that could be misunderstood
7 by individuals who didn't have the -- what I felt was the
8 appropriate background and would be best to have someone
9 talking to them and finding out what the concerns if any might
10 be and then attempt to answer them and if the Monsanto person
11 couldn't answer them he could come back to people like me or
12 Dr. Kelly and get a -- and get an answer.

13 Q. Okay. You testified before concerning Dr. Pour's
14 evaluation of Dr. Kimbrough's study. Do you recall that?

15 A. Yes.

16 Q. Okay. I'm going to call your attention to a
17 letter dated November 17th, 1975. A memo, excuse me. In
18 which you were cc'd. Do you recognize that?

19 A. As I read it I recall it, yes.

20 Q. Okay. Do you know who scribbled the handwritten
21 note on the bottom?

22 A. I do not.

23 Q. Now, the Eppley Institute was an institute that
24 had -- Strike that. Dr. Pour was employed by the Eppley
25 Institute; correct?

1 A. Correct.

2 Q. Do you know why the Eppley Institute did not want
3 to be associated with Dr. Pour's position on PCBs?

4 A. I don't think that's a correct interpretation of
5 the positions of the two. The Eppley Institute supported Dr.
6 Pour's position regarding the -- his findings, but they didn't
7 want his name, as well as Dr. Pour didn't want his name, in
8 the public press. Dr. Pour and the institute preferred to
9 deal with scientists on a scientist-to-scientist basis rather
10 than work through the public media.

11 Q. Do you know if Dr. Pour had made a statement that
12 he did not want his interpretation of Dr. Kimbrough's slides
13 subjected to peer review?

14 A. That I don't know anything about. I never heard
15 that before.

16 Q. Had you seen previously that handwritten note at
17 all?

18 A. I don't recall the handwritten note.

19 Q. Do you recall the memo?

20 A. I do.

21 Q. I call your attention to a handwritten note, the
22 top of which is written "charges against Monsanto products in
23 5-13-83 Wall Street Journal, WSJ." Do you recognize the
24 handwriting on this?

25 A. No. This is the first time I've seen this

1 document.

2 Q. Were you aware that Levinskas caused Callandra --
3 I call your attention to the second category, Callandra at IBT
4 to change language from mildly tumorigenic to does not appear
5 to be carcinogenic in an IBT report on toxicity of PCBs.

6 A. I'm aware of the proposed change in wording that
7 Dr. Levinskas made and it's based on the fact that there were
8 three studies run simultaneously. The data was similar so
9 that the conclusions were identical really. Two of the
10 reports had the expression "does not appear to be
11 carcinogenic," the third one had the phrase "mildly
12 tumorigenic," and Dr. Levinskas suggested that since the data
13 does not indicate otherwise why not have the same conclusion
14 for all three reports, and that's the basis for his
15 recommendation.

16 Q. Are the other two reports -- the other two
17 studies were also conducted by IBT?

18 A. Yes.

19 Q. When did Monsanto first insist on indemnity
20 contracts with their purchasers of PCBs?

21 A. The program was initiated in December of '71 to
22 become effective starting in 1972.

23 Q. Okay. Had there been any indemnity agreements
24 prior to that date?

25 A. Not to my knowledge.

1 Q. Do you have knowledge concerning those indemnity
2 agreements?

3 A. I have some knowledge.

4 Q. Who is primarily responsible for those?

5 A. I can give you my understanding. The director of
6 the product group, Howard Bergen was the person who came up
7 with this idea.

8 Q. And the understanding was if there was any harm
9 that was caused by the use or exposure to PCBs then Monsanto's
10 customers would pay rather than Monsanto if the PCB had been
11 resold or used by Monsanto customers; is that correct?

12 MS. SUTTER: I object to the relevance of the
13 inquiry.

14 A. I would suggest that the documents that were
15 prepared kind of speak for themselves. The wording is there
16 about Monsanto's role and the customer's role should a
17 situation arise.

18 Q. (BY MR. RACE) Did Monsanto have indemnity
19 agreements concerning any other products other than PCB?

20 A. I don't know.

21 Q. I call your attention to that which has
22 previously been marked as Exhibit 1536.

23 A. I'm having trouble locating it.

24 Q. Do you recognize that document?

25 A. I recognize the document.

1 Q. Okay. I'll mark it as Exhibit 16. Now, this
2 document is talking about --

3 MR. WUNDERLICH: What is the date on that
4 document, please?

5 MR. RACE: January 24th, 1977.

6 MR. WUNDERLICH: Okay.

7 Q. (BY MR. RACE) Do you recall the conversations
8 that you had in connection with this document, in connection
9 with the production of this document?

10 A. Yes, I do.

11 Q. Okay. What was Mobil's belief with respect to
12 PCB as being a possible carcinogen?

13 A. Well, more correctly it was the belief of an
14 investigator, and I don't at the moment remember whether she
15 was a -- an employee of Mobil Oil or Mobil Chemical or some
16 outside scientist, but she conducted a study that indicated
17 that cases of melanoma were due to exposure to PCBs. At a
18 meeting in Cincinnati with representatives of NIOSH, the Mobil
19 representative, and I must confess, I've forgotten his name, I
20 believe it was a Dr. Harbison, but I could be wrong, he was a
21 member of a committee of which I was a member, commenting on a
22 document that NIOSH was preparing for publication on PCBs and
23 he told the group that the study was incomplete, that he
24 preferred that any reference to that study be qualified and
25 that the study would be continued, as far as Mobil was

1 concerned.

2 Q. Do you know who authored the study?

3 A. Her name starts with a B. B-A-H-N. I'm not
4 positive of that.

5 Q. Bahn?

6 A. The Bahn study, that's it.

7 Q. That was a study of Bloomington workers?

8 A. No, Mobil laboratory employees. With that
9 discussion I was speaking with the representative of NIOSH who
10 is mentioned in the document and he understood the comments
11 the way I did and that's what triggered this particular
12 document.

13 Q. Do you know of any other studies that have shown
14 positive association between PCB exposure and melanomas?

15 MS. SUTTER: I object to the form of the question
16 in that I think it mischaracterizes the studies and contains
17 undefined technical epidemiological terms, namely "positive."
18 Subject to that, you may answer.

19 A. I'm not aware of any studies that relate PCBs to
20 melanoma other than this initial work that we discussed here
21 regarding Mobil Chemical laboratory workers.

22 MR. RACE: Okay. I would like to -- I tell you
23 what I'm going to do for the record, although it's only 3:00,
24 what I would like to do is I think in order to expedite this
25 matter, the easiest way to handle it at this juncture is to

1 continue your deposition and hopefully in lieu of continuing
2 this one we will do a corporate deposition which will forego
3 any of this in the future, subject to working out some terms
4 with counsel here.

5 MS. SUTTER: I certainly don't control when you
6 conclude a deposition or what you ask. This is a
7 knowledgeable -- you know, Mr. Papageorge, you mentioned some
8 areas I think out in the hall, and it was my understanding
9 that you were going to ask him a number of questions here
10 today. You're now saying that you prefer to depose him as a
11 corporate designee rather than in his personal capacity. I
12 think he has a lot of knowledge that you haven't started to
13 cover here yet today. You've mentioned --

14 MR. RACE: Well, he's got to go by 4:00 and I
15 can't cover everything by 4:00.

16 MS. SUTTER: I understand that, Counsel, and it's
17 now five after three, and I'm not trying to tell you what you
18 should or should not be doing, I am just -- it's difficult for
19 me to comment on the corporate designee notice that you're
20 anticipating when I haven't seen it yet and --

21 (WHEREUPON AN OFF THE RECORD DISCUSSION WAS HELD)

22 MR. RACE: So for purposes of the record, I'm
23 going to say that my intent is if I have to continue this
24 deposition, if we can't agree on the parameters of a corporate
25 deposition, that's my position, for the record, so you know

1 what it is.

2 MS. SUTTER: He will read it.

3 (SIGNATURE OF THE WITNESS NOT WAIVED)

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ORIGINAL

I, WILLIAM B. PAPAGEORGE, P.E., do hereby state that I have read the foregoing questions and answers appearing in this transcript of my deposition, Page 3 through and including Page 73; that this is a true and accurate (corrected) record of said answers given in response to the questions appearing herein.

William B. Papageorge

WILLIAM B. PAPAGEORGE, P.E.

C E R T I F I C A T E

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

Before me personally appeared WILLIAM B. PAPAGEORGE, P.E., to me known to be the person described in and who executed the foregoing instrument and acknowledged to and before me that WILLIAM B. PAPAGEORGE, P.E. executed the said instrument in the capacity and for the purpose therein expressed.

Subscribed to before me this 15th day of August, 1994.

My Notary commission expires: JOSEPHINE B. NIBLOCK
NOTARY PUBLIC STATE OF MISSOURI.
ST. LOUIS COUNTY
MY COMMISSION EXP. JAN. 15, 1995

Josephine B. Niblock
[NOTARY PUBLIC]

JUDITH and STEPHEN BECHTOLD VS. MONSANTO COMPANY and
WESTINGHOUSE
Cause No. 862-00694

CASE NAME: Bechtold v. Monsanto, Case # 922-00911

WITNESS NAME: William B. Papageorge

DATE: May 18, 1994

DEPOSITION CORRECTION SHEET

Upon reading the deposition and before subscribing thereto, the deponent indicated the following changes should be made:

Page 8, Line 11

Should read: assigned. It seemed to me we covered
topics that in my mind

Reason for change: Incorrect word.

Page 29, Line 5

Should read: not knowing -- I don't know the process
by which eliminated

Reason for change: Incorrect word

Page 30, Line 13

Should read: are others as well.

Incorrect word

Reason for change: _____

Page 50, Line 8

Should read: No. There was no new toxicity data to

Reason for change: clarification

Page 50, Line 9

Should read: indicate a need to change.

Reason for change: clarification

William B Papageorge
Signature of Witness

ORIGINAL

I, WILLIAM B. PAPAGEORGE, P.E., do hereby state that I have read the foregoing questions and answers appearing in this transcript of my deposition, Page 3 through and including Page 73; that this is a true and accurate (corrected) record of said answers given in response to the questions appearing herein.

William B. Papageorge
WILLIAM B. PAPAGEORGE, P.E.

C E R T I F I C A T E

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

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Subscribed to before me this 15th day of August,
1974.

My Notary commission expires: JOSEPHINE S. NIBLOCK
NOTARY PUBLIC STATE OF MISSOURI
ST. LOUIS COUNTY
MY COMMISSION EXP. JAN. 15, 1983

Josephine S. Niblock
[NOTARY PUBLIC]

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topics that in my mind

Reason for change: Incorrect word.

Page 29, Line 5

Should read: not knowing -- I don't know the process
by which chlorinated

Reason for change: Incorrect word

Page 30, Line 13

Should read: are others as well.
Incorrect word.

Reason for change: _____

Page 50, Line 8

Should read: No. There was no new toxicity data to

Reason for change: clarification

Page 50, Line 9

Should read: indicate a need to change.

Reason for change: clarification

William B Papageorge
Signature of Witness

1 I, WILLIAM B. PAPAGEORGE, P.E., do hereby state
 2 that I have read the foregoing questions and answers appearing
 3 in this transcript of my deposition, Page 3 through and
 4 including Page 73; that this is a true and accurate
 5 (corrected) record of said answers given in response to the
 6 questions appearing herein.

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WILLIAM B. PAPAGEORGE, P.E.

C E R T I F I C A T E

STATE OF MISSOURI)
) SS
 COUNTY OF ST. LOUIS)

Before me personally appeared WILLIAM B. PAPAGEORGE,
 P.E., to me known to be the person described in and who
 executed the foregoing instrument and acknowledged to and
 before me that WILLIAM B. PAPAGEORGE, P.E. executed the said
 instrument in the capacity and for the purpose therein
 expressed.

Subscribed to before me this ____ day of _____,
 19__.

My Notary commission expires:_____.

 [NOTARY PUBLIC]

JUDITH and STEPHEN BECHTOLD VS. MONSANTO COMPANY and
 WESTINGHOUSE
 Cause No. 862-00694

NOTARIAL CERTIFICATE

STATE OF MISSOURI)
)
CITY OF ST. LOUIS)

I, VICTORIA MENAUGH FAUSER, a Certified Shorthand Reporter and a duly commissioned Notary Public within and for the State of Missouri, do hereby certify that there came before me at the offices of Wilburn, Suggs & Watkins, 1221 Locust Street, St. Louis, Missouri 63103,

WILLIAM B. PAPAGEORGE, P.E.,

who was by me first duly sworn to testify to the truth and nothing but the truth of all knowledge touching and concerning the matters in controversy in this cause; that the witness was thereupon examined under oath and said examination was reduced to writing by me; that the signature of the witness was not waived by agreement of all parties; and that this deposition is a true and correct record of the testimony given by the witness.

I further certify that I am neither attorney for, counsel for, nor related, nor employed by any of the parties to the action in which this deposition is taken; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and seal May 24, 1994.

My commission expires March 4, 1997.

NOTARY PUBLIC