

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

NEVADA POWER COMPANY,
A NEVADA CORPORATION,
PLAINTIFF,

VS.

MONSANTO COMPANY, A FOREIGN
CORPORATION;
GENERAL ELECTRIC COMPANY,
A FOREIGN CORPORATION;
WESTINGHOUSE ELECTRIC
CORPORATION, A FOREIGN
CORPORATION; AND DOES I XXV,
INCLUSIVE,
DEFENDENTS.

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DEPOSITION OF ROBERT EMMET KELLY, M.D.
VOLUME IV
TAKEN ON FEBRUARY 18, 1994

MARTIN & ASSOCIATES
CERTIFIED COURT REPORTERS

2200 MARKET STREET, SUITE 412
GALVESTON, TEXAS 77550
(409) 762-2222 * FAX (409) 762-8040

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Memorandum Dated February 13, 1967,
to R. Emmet Kelly, M.D., from Gene
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Monsanto Memorandum Dated June 12,	
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Elmer P. Wheeler	

Exhibit No. 50	589
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1956, to Dr. R. Emmet Kelly from	
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1 A P P E A R A N C E S:

2 FOR THE PLAINTIFFS:

3 Mr. John H. Kim
4 Fisher, Gallagher & Lewis, L.L.P.
5 First Interstate Bank Plaza
1000 Louisiana, 70th Floor
Houston, Texas 77002

6
7 FOR THE DEFENDANT MONSANTO COMPANY:

8 Mr. Scott R. Bauer
9 Mr. Bruce A. Featherstone
Kirkland & Ellis
1999 Broadway
10 Denver, Colorado 80202

11 FOR THE DEFENDANT WESTINGHOUSE ELECTRIC
12 CORPORATION:

13 Mr. Konrad L. Cailteux
14 Weil, Gotshal & Manges
767 Fifth Avenue
New York, NY 10153

15
16 FOR THE DEFENDANT GENERAL ELECTRIC COMPANY:

17 Mr. Evan J. Roth
18 Williams & Connolly
725 Twelfth Street, N.W.
Washington, D.C. 20005

19
20 THE VIDEOGRAPHER:

21 Mr. Lou Getz
22 Legal Media Systems, Inc.
550 Westcott, Suite 400
Houston, Texas 77007

23
24 ALSO PRESENT:

25 Ms. Lynette Weldon

Martin & Associates
(409) 762-2222

1 The oral videotaped deposition of
2 ROBERT EMMET KELLY, M.D., was continued on
3 February 18, 1994, beginning at 9:18 a.m., in
4 the offices of Husch & Eppenberger, 100 N.
5 Broadway, Suite 1300, St. Louis, Missouri,
6 before Irma L. Reyes, a Certified Court
7 Reporter and Notary Public in and for the
8 State of Texas, pursuant to Notice and
9 Agreement, the Federal Rules of Civil
10 Procedure, and the following stipulation and
11 waiver of counsel:

12 IT WAS STIPULATED AND/OR AGREED
13 that the deposition is to be signed by the
14 witness before any Notary Public or officer
15 authorized to administer oaths.

16 IT WAS STIPULATED AND/OR AGREED
17 that the court reporter could swear the
18 witness with the same force and effect as if
19 she were a Notary Public in and for the State
20 of Missouri.

21

22 - - - - -

23

24 THE VIDEOGRAPHER: Today is the
25 18th of February, 1994. It's 18 minutes

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(409) 762-2222

1 after 9:00 a.m. This is the beginning of
2 Tape No. 8, and we're on the record.

3

4 ROBERT EMMET KELLY, M.D.,
5 was called as a witness and, having been
6 previously duly sworn, testified as follows:

7

8 EXAMINATION (Continued)

9 BY MR. KIM:

10 Q. Good morning, Doctor.

11 A. Good morning, Mr. Kim.

12 Q. When we left off yesterday, we were talking
13 about the persistence or nonbiodegradability
14 issues concerning polychlorinated biphenyls.
15 Do you recall that?

16 A. Yes, I do.

17 Q. In 1966 when the Jensen and Widmark study
18 first came out, there was some concern on
19 your behalf as to whether the chemical
20 compound identified as being persistent was,
21 indeed, an Aroclor or PCB product; is that
22 true?

23 A. That's correct.

24 Q. In any event, let me show -- that was -- that
25 notion was subsequently dispelled, was it

1 not?

2 A. Yes, it was.

3 Q. And we found out later that it definitely was
4 PCB chlorinated compounds?

5 A. Yes, sir.

6

7 (An instrument was marked Kelly
8 Exhibit No. 47 for identification.)

9

10 Q. (By Mr. Kim) In -- let me show you what has
11 been marked as your Deposition Exhibit 19 --
12 excuse me -- 47, which is a letter dated to
13 Mr. Buchanan in St. Louis on January 26th,
14 1967. And it seems that you received a copy
15 of this letter. Do you recall --

16 A. Yes, I did.

17 Q. Do you recall reading this letter?

18 A. Yes, I did. I'm sure if I got it, I read
19 it.

20 Q. Would you --

21 A. After looking at it, I believe I recall
22 reading it, yes, sir.

23 Q. The second paragraph on the first page --

24 A. Yes, sir.

25 Q. Mr. Wood indicates that: "To eliminate any

1 earlier confusion that there may have been, I
2 would [sic] like to emphasise that there is
3 no doubt that the chemical which is the
4 subject of the investigation and the news
5 release, is chlorinated diphenyl i.e.
6 Aroclor."

7 A. Yes, sir.

8 Q. Did you recognize that to be an association
9 with the Jensen and Widmark study?

10 A. Yes, sir.

11 Q. This reference? On the second page, sir,
12 underneath the heading "Effect in Sweden,"
13 the last sentence: "Jensen, however, stated
14 that he had been approached personally by
15 several workers associated with chlorinated
16 diphenyls for non-electrical uses and these
17 workers were quite worried as to the possible
18 effects [sic] on their health."

19 A. Yes, sir.

20 Q. Did Monsanto share those same concerns
21 because of the persistence and
22 nonbiodegradability of its Aroclor products?

23 A. As who? Share the concern?

24 Q. Did Monsanto share this same concern
25 expressed in this statement that we just read

1 because of the persistence and
2 nonbiodegradable -- nonbiodegradability of
3 its Aroclor product?

4 A. Well, we were concerned. But we were also
5 concerned as to who Mr. Jensen was talk --
6 talking to because there -- we were a very --
7 a relatively small proportion of the
8 chlorinated biphenyls in the European
9 market. So I don't know whether he was
10 talking to people who were exposed to French
11 chlorinated diphenyl, Italian chlorinated
12 diphenyl, German chlorinated diphenyl,
13 Russian chlorinated diphenyl.

14 Q. Did Monsanto manifest this concern by
15 ordering any comparative analytical tests
16 between the foreign Aroclor products and the
17 U.S. produced Aroclor products?

18 A. I don't know whether they did or not.

19 Q. Would that have been a responsibility that
20 would have come under your direction as the
21 medical director of Monsanto during this time
22 period?

23 A. No, sir.

24 Q. Do you know who a Gene Wilde is?

25 A. He was a sales correspondent in St. Louis for

1 some overseas operations.

2 Q. Was he employed by Monsanto?

3 A. Yes.

4 Q. Was he considered management in 1967?

5 A. Well, there are all degrees of management. I
6 don't think he was considered very high up in
7 management, but that didn't mean he was a
8 clerk. He was someplace in between.

9 Q. Let me show you what we'll mark as your
10 Deposition Exhibit No. 47.

11 MS. WELDON: No. 48.

12 Q. (By Mr. Kim) Excuse me. 48.

13

14 (An instrument was marked Kelly
15 Exhibit No. 48 for identification.)

16

17 Q. (By Mr. Kim) -- and ask if you recall
18 receiving this letter from Mr. Wilde in
19 February of 1967.

20 A. Yes, sir, I do.

21 Q. By 1967 did Monsanto take the environmental
22 issues raised by the Jensen and Widmark study
23 seriously?

24 MR. BAUER: Before he answers that
25 question, can I see what you're showing him?

1 MR. KIM: This question has nothing
2 to do with the document.

3 MR. BAUER: Okay. Well, then, I'm
4 sorry. Restate it while I look at the
5 document.

6 MR. KIM: You bet.

7 A. Repeat it.

8 Q. (By Mr. Kim) Did Monsanto take the
9 environmental concerns and persistence issues
10 raised by the Jensen and Widmark study
11 seriously in 1967?

12 A. Yes, we did.

13 MR. KIM: My next question is about
14 this document, so I better wait.

15 Q. (By Mr. Kim) On Page 2 of this letter -- and
16 take some time to review the letter if you
17 need to.

18 A. Yes, sir. I've read it.

19 Q. Do you agree with the substance of
20 Mr. Wilde's letter?

21 MR. BAUER: Object to the form.

22 A. Yes, I do. The substance.

23 Q. (By Mr. Kim) If you will turn with me to the
24 second page, the first textual paragraph
25 where it starts: "Two questions that kept

1 coming back to our minds during the meeting
2 were that in all of the propaganda published,
3 there has been nothing about the levels that
4 have been found particularly in the air and
5 no one has defined anything about what level
6 would be considered harmful."

7 Do you have any understanding what
8 Mr. Wilde meant by the use of the term
9 "propaganda"?

10 A. No, I do not.

11 Q. Did it indicate to you -- or did Mr. Wilde
12 ever indicate to you that he just did not
13 believe the studies and the results from the
14 Jensen and Widmark work?

15 A. I have no way of knowing what Mr. Wilde
16 believed or thought.

17 Q. Did you agree with the conclusion that
18 Mr. Wilde reached in the very next paragraph
19 where he states: "All of these actions need
20 immediate attention with the exception, of
21 course, of the gathering of toxicological and
22 pharmacological information"?

23 A. The Actions 1, 2, 3, 4, 5 up above?

24 Q. Yes.

25 A. Yes, I think so.

1 Q. Tell me, on a toxicological stand -- a
2 toxicological standpoint, what tests and
3 analysis was underway at Monsanto in February
4 of 1967 concerning those issues dealing with
5 persistence.

6 A. You said "toxicological" and what other? And
7 analytical?

8 Q. Pharmacological. But my question is limited
9 right now to just toxicological studies or
10 analysis.

11 A. I don't see the relationship between
12 toxicological testing and persistence.

13 Q. There is -- whether PCBs persist in the
14 environment causes you no concerns from a
15 toxicological standpoint?

16 A. No. That is not what I said.

17 Q. Well, my question to you is: What
18 toxicological based analysis or testing was
19 being done in February of 1967 concerning the
20 issue of PCB persistence in the environment?

21 A. Nothing was being done from the standpoint of
22 toxicological investigation in 1967. We were
23 making plans to carry it out. We believed
24 that once we found some levels that might be
25 present -- remember, at this time there was

1 no toxicological problem as far as humans are
2 concerned. There was no --

3 Q. How about --

4 A. Also in February of 1967, there was no report
5 of any harm done to birds and fish. We
6 recognized the fact that there was no
7 long-term toxicity studies on our PCBs. In
8 No. 3 -- the numbered third paragraph -- or
9 bit of action up above said, Give some
10 thought to how we would approach this problem
11 on a toxicological and pharmacological
12 basis." Well, we certainly gave it a great
13 deal of thought; and we got the ball rolling
14 in 1968.

15 MR. KIM: Object to nonresponsive.

16 A. Beg pardon?

17 Q. (By Mr. Kim) Just a legal objection I have
18 to make sometimes, Doctor.

19 A. Okay.

20 Q. Don't worry about it.

21 In 1968 how did this great thought
22 with respect to the toxicological and
23 pharmacological issues manifest itself at
24 Monsanto Chemical Company?

25 MR. BAUER: Object to the form.

1 A. I'd like to hear the -- in the great
2 thought?

3 Q. (By Mr. Kim) You indicated, did you not,
4 that great thought was going on with respect
5 to these persistence issues?

6 A. Did I say "great"? I said "thought." Well,
7 considerable thought was -- how did it
8 manifest itself? Well, we decided we're
9 going to get some chronic toxicity tests.

10 Q. And those chronic toxicity tests were
11 commissioned out to Industrial Bio-Test?

12 A. That's correct.

13 Q. Also known as IBT?

14 A. Yes, sir.

15 Q. Did you feel that Monsanto should be in the
16 forefront of this research since it was the
17 sole producer of PCBs in the United States?

18 A. Well, the problem was in Europe at that
19 particular time in 1967. And we certainly
20 were far from a sole producer in 1967 or
21 anytime in Europe. Our concern was, "Is this
22 liable to be occurring in the United
23 States?"

24 We didn't know what the parameters
25 of this exposure were or how this material

1 was getting into the environment in Europe.

2 Q. Because Monsanto -- did Monsanto draw an
3 analogy between that experience in Europe and
4 the potential experiences that may occur as a
5 result of its U.S. PCB product?

6 A. Yes.

7 MR. BAUER: Objection. Lacks
8 foundation.

9 A. Well, they recognized that there was a
10 problem in Europe. And we were interested,
11 quite interested, in knowing whether we had a
12 problem in the United States.

13 Q. (By Mr. Kim) Did Monsanto take the position
14 that it would lead the investigative efforts
15 in the United States? Or did Monsanto sit
16 back and rely upon other scientists to make
17 similar findings in the United States?

18 MR. BAUER: Objection. Assumes
19 that it's one or the other.

20 A. That is pretty vague. I wish you could be
21 more specific about where we lead and where
22 we were alleged to sit back.

23 Q. (By Mr. Kim) Sure. What I wondered is: If
24 Monsanto recognized the problem that occurred
25 in Europe, did Monsanto immediately institute

1 studies and analysis with respect to its U.S.
2 products to try and repeat the results found
3 in Europe by Jensen and Widmark?

4 A. You have studies and analysis. Let's --

5 Q. Start with studies.

6 A. Let's break it down. Studies: We prepared
7 to do toxicological work when we found out
8 that the material might be an ingredient of
9 the human diet.

10 Q. And those are the IBT tests?

11 A. That's correct.

12 Q. How about any analysis outside of those
13 studies?

14 MR. BAUER: Well, you didn't let
15 him finish, though, I don't think.

16 A. Now we go to the analytical part?

17 Q. (By Mr. Kim) Yes.

18 A. That -- Monsanto did carry out some
19 analytical work on the persistence of PCB in
20 certain laboratory experiments. They did not
21 go out and examine salmon in the United
22 States or something like that, to the best of
23 my knowledge.

24 Q. Would the analytical department -- analytical
25 chemistry department have done that

1 analytical work?

2 A. Would they have done what?

3 Q. The analytical work that you just talked
4 about?

5 A. Either analytical or research department. I
6 don't know which one.

7 Q. Did you ever see the results of that work?

8 A. I don't recall whether I did or not.

9 Q. Do you know whether Monsanto keeps the
10 records of that work?

11 A. I don't know.

12 MR. KIM: Mr. Bauer, could y'all
13 check into that?

14 MR. FEATHERSTONE: Well, they've
15 been produced.

16 MR. KIM: They have?

17 MR. FEATHERSTONE: Yeah. You
18 examined -- your predecessor examined Scott
19 Tucker and Dr. Muir and others on those very
20 points.

21 MR. KIM: Very well.

22 MR. FEATHERSTONE: I had to sit
23 through the depositions.

24 Q. (By Mr. Kim) Doctor, did Monsanto Chemical
25 Company, St. Louis, subsequently receive a

1 request for further funding of environmental
2 studies concerning PCB products in Europe, to
3 your knowledge?

4 A. Requests from whom?

5 Q. David Wood.

6 A. I don't know.

7 Q. I think we agreed that Monsanto -- well,
8 excuse me. Strike that.

9 In 1967, after a review of the
10 Jensen and Widmark study, did you and the
11 medical department consider the environmental
12 issues to be serious from the standpoint of
13 health hazards?

14 A. To -- to whom? To anybody? Any animal, any
15 species, any birds; or humans?

16 Q. Humans.

17 A. No, I did not.

18 Q. Did you feel it necessary to warn potential
19 users of Aroclor products that leaking or an
20 escape of the Aroclor products might lead to
21 environmental contamination?

22 MR. BAUER: Object --

23 A. Did I?

24 MR. BAUER: Objection. Vague and
25 indefinite as to time. Are we talking

1 about --

2 MR. KIM: Nineteen --

3 MR. BAUER: -- two months?

4 MR. KIM: -- Sixty-seven.

5 MR. BAUER: So right after Jensen
6 and Widmark?

7 A. Did I? No, I did not. Whether or not that
8 was done by the marketing people or not, I
9 don't know. I def -- I know definitely in
10 1970 we did. Sometime in Nine -- either '70
11 or right before 1970.

12 Q. (By Mr. Kim) Is that the first time that
13 Monsanto warned, in either '69 or '70, about
14 the possibility of environmental
15 contamination, to your knowledge?

16 A. I don't know whether that is correct or not.

17 Q. In 1967, if Monsanto wanted to put the
18 possibility of environmental contamination on
19 a warning or label that would accompany its
20 product, would that have still fallen under
21 your review in the medical department?

22 A. No, I don't think so. Because I was not an
23 expert in the environmental contamination, if
24 any.

25 Q. Subsequent to Jensen and Widmark and

1 Risebrough were several other reports of PCB
2 compounds found in wildlife from various
3 parts of the world; is that correct? A
4 report came out of Great Britain?

5 A. Yes.

6 Q. A report came out from Risebrough about the
7 California coast --

8 A. Yes.

9 Q. -- or Baha coast?

10 A. Yes.

11 Q. And we knew about it in Sweden?

12 A. Yes, sir.

13 Q. In 1968 did you have an opportunity to review
14 studies conducted by Dr. Renata Kimbrough?

15 A. Yes.

16 Q. Can we agree that Dr. Kimbrough's initial
17 study and conclusions indicated that she had
18 found PCBs to be carcinogenic in female rats?

19 MR. BAUER: What was the date?

20 A. Dr. Kimbrough found -- I don't know the
21 date -- that according to her pathologist,
22 twelve six -- Aroclor 1260 was called
23 carcinogenic in rats by her pathologist.
24 That was not accepted by independent
25 pathologists. That finding was not

1 accepted. It was also --

2 Q. (By Mr. Kim) Excuse me. Which independent
3 pathologists?

4 A. Parvis Pour of the Eply Institute at the
5 University of Nebraska. Dr. Richard Gordon,
6 I think, of Northwestern University.

7 Q. At this time you had already employed IBT to
8 do your chronicity testing; is that right?

9 A. Which time are we now?

10 Q. Sometime in 1968.

11 A. Yes.

12 Q. And you had great respect for the work of IBT
13 scientists, did you not?

14 A. Yes, I did.

15 Q. Do you have a recollection of whether you
16 sent scientists and pathologists from IBT to
17 review those initial slides of Dr. Kimbrough?

18 MR. BAUER: Objection. Indefinite
19 as to time.

20 A. You confused me in the question. Would you
21 repeat it?

22 Q. (By Mr. Kim) Dr. Kimbrough, in her
23 preparation of her first study in which she
24 indicated that she thought PCBs were
25 carcinogenic --

1 A. Yes.

2 Q. -- had tissue slides of the livers of these
3 rats, did she not?

4 A. Correct.

5 Q. Do you recall if at your direction or at
6 someone from Monsanto's direction you sent
7 the pathologist from IBT to make an
8 independent reading of those slides?

9 A. I do know -- I do not know whether a
10 pathologist from IBT went to review the
11 slides. I do know that I had a meeting with
12 Dr. Kimbrough in St. Louis in which
13 representatives of IBT were there. And it
14 was decided that Dr. Kimbrough's pathologist
15 would review the IBT slides and Kimbrough
16 would send some slides to either Monsanto or
17 IBT for invest -- for analysis by an
18 independent pathologist. Yes.

19 Q. Do you recall if that review ever took place?

20 A. Yes, it did.

21 Q. Do you recall if the IBT pathologist ever
22 reviewed the Kimbrough slides?

23 A. I don't know if the IBT pathologist did. I
24 know that Parvis Pour did.

25 Q. Did you ever inquire as to whether the IBT

1 pathologist reviewed those slides?

2 A. I don't know when they got them. I don't
3 know if they got them before 1974 or not.

4 MR. FEATHERSTONE: If I can put
5 this chronology, Levinskas testified about
6 this. The review happened after Dr. Kelly
7 retired. So --

8 MR. KIM: Just asking.

9 MR. FEATHERSTONE: That's fine.
10 That's fine. But you keep flipping from '68
11 till after '74 on all this.

12 MR. KIM: I understand.

13 MR. BAUER: This is --

14 MR. FEATHERSTONE: That's all I'm
15 saying.

16 MR. BAUER: This is much later in
17 time than '68.

18 MR. FEATHERSTONE: That's all
19 right. That's all right. As long as --

20 MR. KIM: We're going to talk about
21 this in -- more specifically later.

22 Q. (By Mr. Kim) Do you know who Paul Wright is?

23 A. Who what?

24 Q. Excuse me. Do you know who Paul Wright was?

25 A. Yes.

1 Q. Did you hire Paul Wright?

2 A. I engaged him from -- for the medical
3 department, yes. He had worked for Monsanto
4 before. He went up to IBT for two years as a
5 toxicologist, and he came back to the medical
6 department.

7 Q. You hired him as a toxicologist?

8 A. Yes, I did.

9 Q. Did you respect his work?

10 A. Very much.

11 Q. Held him in high regard?

12 A. Still do.

13 Q. Do you know a gentleman by the name of Paul
14 Smith?

15 A. No, I do not. I know the name.

16 Q. Did you know him as someone who worked at
17 Industrial Bio-Test?

18 A. Yes. I did not know whether he was a
19 toxicologist or an animal handler. I don't
20 know. I never met him, though, to the best
21 of my knowledge.

22 Q. You have no criticisms, then, of him as a
23 scientist?

24 MR. BAUER: Objection.

25 A. I didn't even know he was a scientist.

- 1 Q. (By Mr. Kim) Who was George Levinskas?
- 2 A. George Levinskas is a Ph.D. who was in charge
3 of our toxicological department starting
4 around 1972, I believe. Or Seventy --
5 Seventy -- one or two years before I left.
- 6 Q. Did you hire him?
- 7 A. Yes.
- 8 Q. Held him to be in high esteem?
- 9 A. Yes. He was -- well, everyone did.
- 10 Q. Ethical?
- 11 A. Very ethical.
- 12 Q. Who was George Roush?
- 13 A. He was my successor. He was a physician who
14 became medical director after I left.
- 15 Q. Did you hire him?
- 16 A. Yes, I did.
- 17 Q. And you had occasion to work with him for
18 approximately one year while you were in that
19 transitionary period?
- 20 A. Well, in two years while he was -- both he
21 and I were full-time at Monsanto.
- 22 Q. During your tenure at Monsanto, you had
23 occasion to order tests from Dr. Drinker in
24 1938; is that correct?
- 25 A. That's correct.

1 Q. You provided the product; is that correct?

2 A. Yes.

3 Q. Or ordered the product from the manufacturing
4 department?

5 A. Right.

6 Q. You have no idea of the purity or grade of
7 that product that was sent to Dr. Drinker?

8 MR. BAUER: Objection.

9 Mischaracterizes his testimony.

10 A. I know that the material was production run
11 at our Anniston plant.

12 Q. (By Mr. Kim) You never saw the material that
13 was actually sent?

14 A. I did not go down and take a quart of it out
15 of a barrel or a tank car that was leaving
16 the plant, no.

17 Q. Monsanto paid Dr. Drinker for the report?

18 MR. BAUER: Objection.

19 A. They paid --

20 MR. BAUER: Object to the form.

21 Argumentative.

22 A. They paid him for his work.

23 Q. (By Mr. Kim) And Monsanto received a
24 favorable report?

25 A. Well, I don't know. They received a report.

1 There was a factual report. I don't know
2 which -- favorable to whom? To Monsanto?

3 Q. Well, it didn't indicate that there were any
4 health concerns --

5 A. Well --

6 Q. -- did it?

7 A. No, it certainly didn't.

8 Q. And certainly it's a report that you relied
9 upon in not warning individuals of possible
10 systemic problems, is it not?

11 MR. BAUER: Object to the form.

12 A. That isn't correct. Because I warned
13 individuals in our -- in many bits of
14 correspondence that you have in your exhibits
15 about systemic effects. In our bulletins we
16 mentioned -- we warned about systemic
17 effects. In the reports from Treon that we
18 sent out to people, we warned about -- there
19 was material in there about systemic
20 effects. In the reports of the American
21 Industrial Hygiene Group on PCBs, on
22 Aroclors, that we sent out in hundreds -- or
23 I shouldn't say hundreds. A great number of
24 them.

25 Q. (By Mr. Kim) Doctor, in 1938 --

1 MR. BAUER: Are you finished with
2 your answer, Dr. Kelly.

3 THE WITNESS: No, I haven't.

4 A. But we sent out to customers --

5 MR. KIM: Well, I'll object to
6 nonresponsive.

7 MR. BAUER: Did you get his
8 answer?

9 THE COURT REPORTER: No. What was
10 that last part?

11 THE WITNESS: Well, the answer
12 was --

13 MR. BAUER: Can he answer,
14 Mr. Kim?

15 THE WITNESS: -- I disputed --

16 MR. KIM: Certainly, Scottie.

17 THE WITNESS: I disputed Mr. Kim's
18 term that we never warned workers --
19 customers about systemic effects.

20 Q. (By Mr. Kim) In 1938 did you warn workers
21 about the problems concerning lassitude?

22 A. No, sir.

23 Q. Loss of libido?

24 A. No, sir.

25 Q. Loss of appetite?

1 A. No, sir.

2 Q. Joint pains?

3 A. No, sir.

4 Q. Memory loss?

5 A. No, sir. Also, they didn't have it.

6 Q. Well, they wouldn't know if they did.

7 A. Huh? Beg pardon?

8 Q. That was a joke, Doctor.

9 After the Drinker studies, what was
10 the next series of studies that you ordered
11 on behalf of Monsanto?

12 A. Toxicological studies, you're talking about?

13 Q. Any studies.

14 A. Well, any studies, we examined the workers
15 every year from then until I left the
16 company.

17 Q. And --

18 A. I considered that a study, a clinical study.
19 It's just as important and in this particular
20 instance was more important from the
21 occupational point of view.

22 Q. Did Monsanto ever publish that study?

23 A. No, sir, we did not. Unfortunately, we don't
24 have the time of the academics --
25 academicians or the Government people who

1 seem to have plenty of time to do that. But
2 we didn't. And really, it would be an
3 extremely rare journal -- there is no journal
4 of negative information. And the editor does
5 not look favorably on a report saying, "We've
6 been manufacturing X-compound for 30 years,
7 and we haven't any problem with our
8 workers."

9 Q. After the occupational study, what was the
10 next series of studies of any type that you
11 ordered on behalf of Monsanto?

12 MR. BAUER: Object to the form. He
13 said the occupational clinical studies took
14 place throughout the time as medical
15 directorship. So how could there be one
16 after that?

17 Q. (By Mr. Kim) Doctor, are you having a
18 problem understanding me? Or is it just your
19 attorney?

20 A. No. Sometimes you confuse me with your
21 questions.

22 Q. Did that question confuse you?

23 A. Let's say it over.

24 Q. Aside from that occupational study that you
25 just described, what was the next series of

1 tests -- the next set of tests that you
2 ordered on behalf of Monsanto?

3 MR. BAUER: Object to the form.

4 A. We ordered samples of our PCBs for acute
5 studies at varying times during the course of
6 the manufacture. We ordered a series of
7 chronic inhalation studies in 1954 at
8 Kettering Laboratory.

9 Q. (By Mr. Kim) That was the work done by
10 Dr. Treon?

11 A. That is correct.

12 Q. Monsanto underwrote or paid for that work?

13 A. Yes, we --

14 Q. Did -- excuse me.

15 A. Yes, we paid for it.

16 Q. Monsanto furnished the Aroclor products to be
17 tested?

18 A. Yes, we did.

19 Q. You again called down to the manufacturing
20 department and said, "Send them these
21 samples"?

22 A. That's correct.

23 Q. You never yourself personally checked to make
24 sure to verify what grade was actually sent
25 to them; is that correct?

1 A. No, sir, I did not.

2 Q. And again, Dr. Treon gave a favorable report
3 from Monsanto's standpoint?

4 MR. BAUER: Object to the form.
5 Argumentative.

6 A. I don't think his report was -- really had
7 anything to do with Monsanto, outside of the
8 fact that we supported it. He arrived at a
9 series of facts based on his experiments. If
10 we viewed it as favorable to us, fine.
11 But --

12 Q. (By Mr. Kim) His research certainly didn't
13 give Monsanto or you any indication of the
14 need to stop producing PCB products?

15 A. No, it did not.

16 Q. After the Kettering tests, what was the next
17 set of tests that you ordered on behalf of
18 Monsanto?

19 A. We did some -- the next step -- series, to
20 the best of my recollection, was repeated
21 skin testing at IBT. But I don't know when
22 that was done. But the major testing at IBT
23 was started -- was authorized sometime in
24 early Seventy -- '68, I believe.

25 Q. What about the test that Younger Laboratories

1 and Scientific Associates -- what time frame
2 was that? Was that --

3 A. Oh, that was all through my career at
4 Monsanto. I can't tell you dates. But you
5 talked about a series of tests. And I
6 thought you -- these were all individual
7 tests on individual compounds.

8 Q. Well, let's start with Younger Laboratories.
9 They did some acute testing on --

10 A. That's correct.

11 Q. -- behalf of Monsanto. You chose Younger
12 Laboratories?

13 A. Yes, I did.

14 Q. You hired them?

15 A. Yes, I did.

16 Q. Monsanto underwrote or paid for the studies?

17 A. We paid for the studies.

18 Q. Monsanto provided the products?

19 A. Yes, sir, we did.

20 Q. And the conclusions that were reached by
21 Younger Laboratories did nothing in the way
22 of changing Monsanto's view of production and
23 sale of PCB products?

24 A. No, sir, it did not.

25 Q. Scientific Associates. You hired them?

- 1 A. Yes.
- 2 Q. You chose the laboratory?
- 3 A. Yes, I did.
- 4 Q. Monsanto paid for the studies?
- 5 A. Yes, they did.
- 6 Q. Monsanto provided the materials?
- 7 A. Yes, they did.
- 8 Q. You never personally checked to see if the
- 9 material -- what grade the materials were
- 10 that went from the manufacturing department
- 11 to the laboratory?
- 12 A. No, sir, I did not.
- 13 Q. Again, the reports from Scientific Associates
- 14 did nothing that would indicate Monsanto
- 15 would need to take PCB products off the
- 16 market?
- 17 A. No, sir, it did not.
- 18 Q. Outside of those laboratories, are there any
- 19 other laboratories that you hired while at
- 20 Monsanto, with the exception of Industrial
- 21 Bio-Test?
- 22 A. Well, we've talked about Drinker; and we've
- 23 talked about Treon. We've talked about
- 24 Scientific Associates. We've talked about
- 25 Younger. Are there any other besides those

1 four and IBT?

2 Q. That you ordered.

3 A. I can't think of any.

4 Q. And this encompasses a time period from 1936,
5 when you started at Monsanto, to 1974, when
6 you retired?

7 A. Yes, sir.

8 Q. You chose IBT?

9 A. Yes, sir, I did.

10 Q. You paid for those studies?

11 A. Yes.

12 Q. You provided the materials?

13 A. Yes, we did.

14 Q. You didn't personally check to see what grade
15 of PCB was being sent to it, the IBT
16 Laboratories?

17 A. Personally check? I didn't analyze the
18 material. I called and said, "Send some of
19 your production grade." And I certainly had
20 complete confidence that the manufacturing
21 superintendent at Monsanto would send what I
22 asked for.

23 Q. Again, IBT's results caused you, as the
24 medical director of Monsanto, no concern
25 about the continued sale of PCB products?

1 MR. BAUER: Object to the form.

2 A. Well, our concern was always that they would
3 follow the instructions that we had in our
4 bulletins and on our labels to avoid any ill
5 effect to the workers.

6 Q. (By Mr. Kim) I understand, Doctor. My
7 question was: Did the reports and
8 conclusions from Industrial Bio-Test cause
9 you concern, as the medical director of
10 Monsanto, about the continued commercial
11 sales of PCB products?

12 MR. BAUER: Object to the form.
13 Indefinite as to what use you're talking
14 about.

15 MR. KIM: Any use.

16 A. Well, I think the skin absorption causes
17 concern to be -- to be more -- we were
18 concerned about the possibility of skin
19 absorption. We found out that the material
20 was toxic on absorption through the skin. We
21 knew that, but this confirmed our
22 impression. But I don't -- I don't know how
23 you define your word "concern." If you mean
24 by -- did it worry us about the use? Is that
25 what you mean by "concern"?

- 1 Q. (By Mr. Kim) Did the result make you think
2 that Monsanto needed to take PCB products off
3 the market?
- 4 A. No, they certainly did not.
- 5 Q. You respected the work done by IBT?
- 6 A. No question about it.
- 7 Q. Trusted its truth?
- 8 A. Absolutely.
- 9 Q. Did you tell me earlier that you hired Paul
10 Wright?
- 11 A. He was originally hired as a -- he is a
12 Ph.D. He was originally hired by the
13 agricultural department as a research
14 chemist.
- 15 Q. Did he ever work under your direction?
- 16 A. I haven't finished.
- 17 Q. Oh, I'm sorry.
- 18 A. He -- that -- his particular -- I don't know
19 whether his particular job was abolished or a
20 section was abolished, but he had heard that
21 IBT might be engaging people of his
22 background in toxicology. He went up to IBT
23 for about two years, and then I engaged him
24 for Monsanto's medical department.
- 25 Q. Prior to his leaving to go to IBT, he did not

1 work under your direction?

2 A. No, he did not.

3 Q. Did you know him before he left to go to IBT?

4 A. I may have met him. I think Elmer Wheeler
5 knew him better than I, but I don't remember
6 him -- much about him before he came to
7 work -- until I saw him after he was at IBT.

8 Q. Elmer Wheeler knew him while he was at IBT?

9 A. Beg pardon?

10 Q. Did Mr. Wheeler know him while Mr. Wright was
11 at IBT?

12 A. I don't know if he -- I don't know.

13 Q. Do you know whether Mr. Wright was involved
14 in any of the PCB tests being conducted at
15 IBT on behalf of Monsanto?

16 A. I don't know. Is his name on the reports?
17 That's easily found out. If his name is on
18 the reports, he was involved.

19 Q. Did you know that Mr. Wright was criminally
20 indicted for scientific fraud in 1982?

21 A. I do not know why he was indicted. I do not
22 know the charges. This occurred eight years
23 after I had left the company. All I knew is
24 what I read in the paper, and that was
25 very -- and I don't know any of the details.

1 Q. Your testimony today, as you sit and
2 testified before this jury under oath, is
3 that you did not know anything with respect
4 to his indictment until some eight years
5 afterwards, after your retirement?

6 A. Whenever he was indicted. I don't know when
7 he was indicted. I don't know when he was
8 indicted. It certainly wasn't eight years.
9 I thought he was indicted before 1982. If I
10 said "eight years," that was incorrect. I
11 thought it was -- I left in '74. I was there
12 as a consultant for a year, '75. There was
13 no indictment then. I don't know when the
14 indictment took place, but it wasn't eight
15 years.

16 Q. Did you know that Mr. Wright's indictment
17 pertained to falsification of data in
18 connection with studies performed at IBT?

19 MR. BAUER: Objection --

20 A. I don't know --

21 MR. BAUER: Object to the form.
22 Assumes facts not in evidence.

23 A. I do not know anything about the details of
24 the indictment.

25 Q. (By Mr. Kim) When did you first learn about

1 the details of the indictment, if ever?

2 A. If ever? I certainly did learn when I read
3 it in The Post Dispatch, which is a St. Louis
4 newspaper.

5 Q. Did you ever call Paul Wright and ask him to
6 testify on behalf of Monsanto in cases
7 concerning PCBs?

8 A. I called Paul once and asked him if he
9 would -- if he would testify. Yes, I did.

10 Q. He refused to answer questions concerning
11 studies on PCBs commissioned by Monsanto and
12 performed by IBT; is that correct?

13 A. I don't know. He refused to answer any
14 questions on advice of his lawyer.

15 Q. Indeed, any questions that he was asked
16 concerning these issues of PCB testing, he
17 chose to invoke his Fifth and Fourteenth
18 Amendment constitutional rights?

19 A. I don't know if he was ever asked. I saw no
20 record of a trial in which he was ever asked
21 or any testimony that he was supposed to give
22 that he answered that way.

23 Q. You indicated earlier that you did not know
24 Phillip Smith?

25 A. No. I didn't know him at all.

1 Q. Did not have any occasion to run across or
2 chat with him while you made your once or
3 twice a year visits to the IBT Laboratories?

4 A. He was a nonperson, as far as I knew.

5 Q. Of no moment?

6 A. Well, he wasn't in the scientific group that
7 I talked to up there. So I don't know what
8 his position was up there.

9 Q. Did you know that Paul Wright was in charge
10 of the PCB tests while at Industrial
11 Bio-Test?

12 MR. BAUER: Objection. Asked and
13 answered?

14 A. No, I did not know that. I don't know
15 whether he was or not.

16 Q. (By Mr. Kim) Did you know that Mr. Smith
17 worked with Mr. Wright in connection with
18 Monsanto's Aroclor studies?

19 A. I don't know anything about Mr. Smith's
20 working at IBT.

21 Q. Have you heard that Mr. Smith has criticized
22 those studies performed by IBT and
23 commissioned by Monsanto because there was a
24 problem with the survivability of rodents on
25 Monsanto's Aroclor studies?

1 MR. BAUER: Object to the form.

2 A. I do not know that.

3 Q. (By Mr. Kim) Did you ever review a document
4 from Mr. Wright to a Marino Keplinger, who is
5 the manager of the laboratory which concerned
6 the PCB test?

7 A. I may have. I don't know. I don't recall
8 it. If you've got the memorandum, I'll be
9 happy to see it and see if it refreshes my
10 memory.

11 Q. I just wanted to know if you recall that
12 document.

13 Do you recall Mr. Smith and
14 Mr. Wright indicating that, quote: "The
15 tumor incidence in females with Aroclor 1254
16 is bothersome"?

17 MR. BAUER: Objection.

18 Q. (By Mr. Kim) Eighty --

19 MR. BAUER: You're quoting from a
20 document that's not --

21 MR. KIM: Excuse me. I'll finish
22 my question --

23 MR. BAUER: That's all right.

24 MR. KIM: -- then you can object.

25 MR. BAUER: All right.

1 MR. KIM: Unless you want a running
2 objection, which I offered you yesterday, as
3 to every question that I ask. Mr. Kelly is
4 84 years old. We have limited time in which
5 to question him. If you want to continue to
6 object to every question, you can do so,
7 Scott. But you can have a running
8 objection. Just let me finish my questions.

9 MR. BAUER: I thought you were
10 finished with your question.

11 A. I'm afraid you'll have to start your question
12 over.

13 Q. (By Mr. Kim) I'm afraid I will, too,
14 Doctor.

15 Do you have a recollection if
16 Mr. Wright or Mr. Smith ever told you that,
17 quote: "The tumor incidence in females with
18 Aroclor 1254 is bothersome. 82 percent at 10
19 parts per million and 100 percent at 100
20 parts per million"?

21 MR. BAUER: Object to the form.

22 A. Mr. Wright? First of all, I have never
23 talked to Mr. Smith in my life. I may have
24 said "hello" to him, but I don't recall even
25 that. I don't know him. I wouldn't know him

1 if he walked in here. I don't recall
2 Mister -- Dr. Wright saying that particular
3 statement that you just spoke of.

4 Q. (By Mr. Kim) Why do you term that
5 ridiculous?

6 A. Why do I what?

7 MR. BAUER: Objection. He never
8 said "ridiculous."

9 A. I didn't say "ridiculous."

10 MR. FEATHERSTONE: He said
11 "particular."

12 A. "Particular."

13 Q. (By Mr. Kim) Oh, "particular." Excuse me,
14 Doctor.

15 A. Why did I say "particular"?

16 Q. No. I can understand that. I'm from West
17 Texas, but I'm not that slow.

18 Did anyone ever tell you or were
19 you ever made aware that Mr. Smith alleged
20 that the raw data with regard to the IBT PCB
21 studies were falsified?

22 MR. BAUER: Object to the form of
23 the question.

24 A. Did anyone ever tell me that Mr. Smith said
25 that the raw data were falsified?

1 Q. (By Mr. Kim) (Nods head.)

2 A. No, they did not. I do not -- whether that
3 was in the material I read in The Post
4 Dispatch or not, I don't know. And as I
5 recall, Mr. Smith made -- we had other
6 studies done at IBT that the Government
7 questioned, that were repeated at
8 Biodynamics, which is another entirely
9 different laboratory --

10

11 (Whereupon Mr. Roth leaves the
12 proceedings.)

13

14 A. -- and after I left. And they confirmed the
15 data that IBT had. So I still don't believe
16 what Mr. Smith said.

17 Q. (By Mr. Kim) Did Monsanto ever ask for the
18 raw data behind the studies?

19 MR. BAUER: Objection. Lacks
20 foundation.

21 Q. (By Mr. Kim) To any study?

22 MR. BAUER: Objection. Lacks
23 foundation.

24 A. I believe Doctor -- I did not ask. I believe
25 Dr. Levinskas looked over some of the raw

1 data on some of the studies. I don't know
2 which ones.

3 Q. (By Mr. Kim) Do you know whether Paul
4 Smith -- excuse me -- Phillip Smith has
5 testified that he has signed two IBT PCB
6 reports that contained false data?

7 MR. BAUER: Object to the form.

8 A. No, sir, I do not know that.

9 Q. (By Mr. Kim) Do you know whether Mr. Smith
10 has testified or alleged that Paul Wright
11 forged his name to one other Aroclor study
12 for Monsanto?

13 A. No, sir.

14 Q. Did you know that the histopathology logistic
15 sheet which was a part of the Monsanto
16 Aroclor studies showed that approximately 70
17 percent or more of the animals which died
18 during the course of the study were reported
19 as too badly decomposed?

20 MR. BAUER: Objection. Assumes
21 facts not in evidence.

22 A. No. But that happens all the time in the
23 toxicological work. If a rabbit dies -- if a
24 rat dies at 11:00 o'clock at night and you
25 get to see him at 9:00 o'clock in the

1 morning, there's a lot of decomposition going
2 on.

3 Q. (By Mr. Kim) Do you know Dr. Otis Francher
4 is?

5 A. Yes.

6 Q. Who was he?

7 A. He was a member of the IBT staff. He was
8 either a Ph.D. or an M.D. or both. I don't
9 know which one. But he was in the management
10 group at IBT.

11 Q. Do you have any criticisms of him from a
12 scientific or medical standpoint?

13 A. No, sir. I don't know --

14 Q. Do you have any --

15 A. -- a great deal about his work. But he
16 came -- I thought he came from some
17 pharmaceutical organization into IBT.

18 Q. Do you have any criticisms of his work that
19 he performed on the PCB studies?

20 A. No, sir, I do not.

21 Q. Have you heard that Mr. Francher has noted
22 that he was ashamed to publish the work done
23 on the Monsanto PCB studies?

24 MR. BAUER: Object --

25 A. I never heard --

1 MR. BAUER: Object to the form.

2 A. I never heard that.

3 Q. (By Mr. Kim) Did you know whether Mr. Smith
4 confirmed Mr. Francher's statement that the
5 work done on the Monsanto Aroclor rodent
6 studies were shameful?

7 MR. BAUER: Object to the form.

8 A. Did -- please repeat it. I'm sorry.

9 Q. (By Mr. Kim) You had indicated earlier that
10 you did not know that Mr. Francher had noted
11 that the Monsanto -- and don't answer right
12 away because I think Mr. Bauer wants to
13 object here -- that the work done on the
14 Monsanto Aroclor rodent studies, Mister --
15 with respect to that, Mr. Francher had noted
16 that he was ashamed to publish the work done
17 on those studies. You had not heard of that;
18 is that true?

19 A. I have not heard of that.

20 MR. BAUER: Object to the form.

21 MR. KIM: You want a running form
22 objection?

23 MR. BAUER: I do not.

24 MR. KIM: Okay.

25 Q. (By Mr. Kim) My question now is: Did --

1 have you heard -- and you may not have, and
2 just tell me you haven't.

3 A. Well, if you ask me, I will answer as
4 truthfully as I can.

5 Q. I don't doubt that at all, Doctor.

6 -- that Mr. Smith, Phillip Smith,
7 has also confirmed that the work done on the
8 Monsanto Aroclor rodent studies was
9 shameful?

10 MR. BAUER: Object to the form.

11 A. Yes. I don't like the word "confirmed." He
12 may have stated it, but I haven't heard that,
13 either.

14 Q. (By Mr. Kim) Did you know that the documents
15 concerning Monsanto's Aroclor studies
16 performed at IBT were submitted to Monsanto's
17 lawyers before they were published?

18 A. No, sir. I never heard that.

19 Q. Do you know whether the reports from Younger
20 Laboratories were submitted to the Monsanto
21 lawyers prior to publication?

22 A. No, sir. I think they came addressed to me.

23 Q. How about at Scientific Associates?

24 A. They came addressed to me. And also, the IBT
25 reports we got came in the United States

1 postage from Chicago. They didn't come from
2 our lawyers' department -- our lawyers'
3 offices in Monsanto. So I do not have any
4 idea that they were ever submitted to the
5 lawyers. It's the first I ever heard of
6 something like that.

7 Q. Would you find that unusual, if a scientific
8 laboratory performing a test on behalf of
9 Monsanto would submit the report to the
10 Monsanto legal department before issuing a
11 final report?

12 MR. BAUER: Object to the form. It
13 calls for speculation.

14 A. Would I find that unusual? Yes, it would --
15 oh, I'm sorry.

16 MR. BAUER: Let me finish my
17 objection, Dr. Kelly.

18 Calls for speculation and an
19 incomplete hypothetical.

20 A. Well, I don't know that it ever happened. So
21 I'd have to say it would be unusual.

22 Q. (By Mr. Kim) Would it -- as the medical
23 director of Monsanto, if you had learned of
24 that situation in 1972, would that have
25 caused you some concern as to the veracity of

1 the test results that you ultimately
2 received?

3 MR. BAUER: Same objections.

4 A. Well, I don't believe that would be my
5 reaction. My reaction would be to go to IBT
6 and say, "Send them directly to me."

7 Q. (By Mr. Kim) Are you aware that Mr. Smith
8 has testified that during the course of the
9 Monsanto Aroclor products -- excuse me --
10 studies performed at IBT, the conditions in
11 the rooms where the animals made the subject
12 of the study were housed were generally poor
13 and that many of the animals ran loose?

14 MR. BAUER: Object to the form.

15 A. I never knew that, and I never saw an animal
16 running loose the times that I've been
17 there. And I've gone through the
18 laboratories, and I've gone through their --
19 almost on surprise visits. I'd call up and
20 say, "I'm coming up tomorrow," or something
21 like that. I would -- Wheeler never
22 mentioned it. Levinskas never mentioned it.
23 Hunt never mentioned it. None of them
24 mentioned any of those things that Mr. Smith
25 alleged.

1 Hunt was up there every month.
2 Dr. Hunt was up there every month. He never
3 mentioned it. He always said that things
4 looked shipshape to him. Levinskas went up
5 there later in the -- in my time at
6 Monsanto. Wheeler went up there oftener than
7 I did. And as I said, I went up there every
8 half -- half -- every six months or every
9 year. Certainly at least once a year.

10 Q. (By Mr. Kim) Your opinion was that based
11 upon the nonreports from Levinskas and other
12 individuals that worked for you, and your
13 visits, that IBT was following good
14 laboratory practices?

15 A. Yes. Remember, Levinskas and Hunt came from
16 laboratories. Hunt came from Johnson &
17 Johnson Laboratories. Levinskas came from
18 Letterly Laboratories. Both pharmaceutical
19 laboratories.

20 Q. Paul Wright left IBT and went to work at
21 Monsanto; is that correct?

22 A. That's correct.

23 Q. After he went back to Monsanto, he continued
24 to interact with IBT with respect to the
25 Monsanto Aroclor studies; is that correct?

1 MR. BAUER: Object to the form.

2 A. I'm not sure the studies were going on when
3 he came back. They finished -- we got our
4 final report, gosh, I think 1972 or something
5 like that.

6 Q. (By Mr. Kim) Are you --

7 A. But I'm not --

8 Q. I'm sorry, Doctor.

9 A. And I'm not sure when Paul came back to work
10 at the medical department.

11 Q. Are you aware that Phillip Smith, who worked
12 for Dr. Wright during the time he was there
13 at IBT, has testified under oath that Paul
14 Wright returned to Monsanto and after that,
15 he would return to IBT and personally dictate
16 changes to reports pertaining to studies on
17 Monsanto Aroclor products?

18 MR. BAUER: Object to the form.

19 A. I never heard that before; and I wouldn't
20 believe Mr. Smith on that particular
21 statement, whether it was under oath or not
22 under oath.

23 Q. (By Mr. Kim) Would you believe Mr. Smith if
24 he stated under oath that a majority of the
25 data performed to body weight of the test

1 animals used in the Monsanto Aroclor studies
2 was falsified by Mr. Wright?

3 MR. BAUER: Object to the form.

4 A. No. I don't -- I wouldn't believe it.

5 Q. (By Mr. Kim) Do you think it would be
6 possible to validate --

7 MR. KIM: Scott, do you need a
8 break?

9 MR. BAUER: Soon. It's been an
10 hour.

11 MR. KIM: Well, let's take one
12 right now.

13 THE VIDEOGRAPHER: We're going off
14 the record. It's 12 minutes after 10:00
15 o'clock.

16

17 (A recess was taken.)

18

19 THE VIDEOGRAPHER: It's 26 minutes
20 after 10:00 o'clock, and we're back on the
21 record.

22 Q. (By Mr. Kim) Doctor, we were, before we took
23 this break, talking about the IBT studies.

24 Do you have an opinion, as the
25 medical director who ordered the studies to

1 be done at IBT, as to whether it would have
2 been possible to validate the IBT Aroclor
3 studies done on behalf of Monsanto without
4 making investigation or drawing any
5 conclusions as to the housing of the animals
6 made the subject of the test?

7 A. That's a long question. I think before I
8 answer that "yes" or "no," would you have
9 the -- would you repeat it for me?

10 Q. You bet.

11 MR. KIM: Could you repeat that?
12 Because I don't know what I asked.

13
14 (The pending question was read
15 by the court reporter.)

16
17 MR. BAUER: Objection. Vague as to
18 the use of the term "validate."

19 A. Well, I believe the housing of the animals is
20 a important part of a toxicological
21 examination. And I do not know -- I really
22 don't quite understand the question. You --
23 if I put it in my own words, correct me if
24 I'm getting the wrong impression.

25 You mean to say that someone could

1 say these results are accurate or inaccurate
2 without respect to how the animals were
3 housed? Is that what you're saying?

4 Q. (By Mr. Kim) No, Doctor. And the question
5 is long. I'm just asking: Is the housing of
6 the test animals an important consideration
7 with respect to good laboratory practices?

8 A. Yes.

9 Q. And it has -- it is indicative of the
10 reliability of the outcome, is it not?

11 A. Yes.

12 Q. The same thing with the feeding of the test
13 animals?

14 A. Yes.

15 Q. The dosage administered to the test animals?

16 A. Yes.

17 Q. And recorded?

18 A. Yes.

19 Q. The watering of the animals?

20 A. Yes.

21 Q. And their survivability?

22 A. Yes.

23 Q. Did you know who Joseph Calandra was?

24 A. Yes.

25 Q. Who was he?

1 A. He was a Ph.D., M.D. who was in charge -- who
2 founded Industrial Bio-Test Laboratories. He
3 was a professor at Northwestern University,
4 and he was a well-respected toxicologist.

5 Q. Did you know -- do you know whether he has
6 testified with respect to the IBT Aroclor
7 studies in connection with any PCB
8 litigation?

9 A. Not that I know of.

10 Q. Do you recall whether Mr. Francher ever
11 stated that "the survival was so poor beyond
12 18 months that it is difficult to reach any
13 conclusion regarding effect of the Aroclors
14 on longevity. Unless survival can be
15 improved, I'm concerned that all of your rat
16 carcinogenic studies will be judged to be
17 inadequate"?

18 MR. BAUER: Object to the form.

19 A. The answer is "no."

20 Q. (By Mr. Kim) Would you dispute such a
21 statement if you heard it today with respect
22 to the IBT Aroclor studies?

23 A. Well, now we got to read it again if I'm
24 going to dispute it or not.

25 Q. Okay. "Survival was so poor beyond 18 months

1 that it is difficult to reach any conclusion
2 regarding effect of the Aroclors on
3 longevity. Unless survival can be improved,
4 I'm concerned that all of your rat
5 carcinogenic studies will be judged to be
6 inadequate."

7 A. Well, I'd have to know the details of the
8 survival or the percentages of survivals. I
9 can't accept or condemn that particular --
10 condemn that statement without knowing the
11 details of what he's talking about.

12 Q. In any event, when you received the test
13 results from IBT, you judged those results to
14 be adequate --

15 A. Yes, I did.

16 Q. -- from a laboratory practice standpoint?

17 A. Yes, I did.

18 Q. Did you inquire into the survivability issues
19 of the animals?

20 A. No, sir.

21 Q. Are you aware that Mr. Francher in 1972
22 stated, with respect to the IBT Aroclor
23 studies, that: Much of the data is either
24 fudged or collectively with a carelessness or
25 incompetence. I'm ashamed to publish the

1 work done on these studies?

2 MR. BAUER: Object --

3 A. No, sir, I never --

4 THE WITNESS: Sorry.

5 MR. BAUER: Object to the form.

6 A. I never heard that.

7 Q. (By Mr. Kim) You're not aware of such
8 statements?

9 A. I'm not aware of that.

10 Q. If you had heard these statements that we've
11 talked about, while you were still the
12 medical director at Monsanto, would that have
13 caused you some concern as to the veracity of
14 the studies being conducted by IBT on the
15 Aroclor products?

16 MR. BAUER: Object to the form.

17 A. It would certainly concern me if I heard
18 those statements and if the individual were
19 able to back it up with facts.

20 Q. (By Mr. Kim) You and I can agree that if
21 those statements were true, that might have
22 some impact on the reliability and veracity
23 of the test conclusion?

24 MR. BAUER: Object to the form.

25 A. In general, I'd have to say "yes." I'd have

1 to know more about the details on which that
2 particular statement was made if that
3 particular statement were true.

4 Q. (By Mr. Kim) Elmer Wheeler worked under your
5 direction in 1972, did he not?

6 A. Yes, he did.

7 Q. Do you recall Mr. Wheeler telling
8 Mr. Francher, who worked at IBT, that he
9 "hoped to get copies of all the studies in
10 the hands of Bill Papageorge, Scott Tucker,
11 and the lawyers next week. I do not
12 anticipate a lot of changes from them and
13 hope that the attorneys agree that we can go
14 ahead with the publication"?

15 MR. BAUER: Object to the form.

16 Q. (By Mr. Kim) Are you aware that Mr. Wheeler
17 made that statement?

18 A. No, I am not aware.

19 MR. BAUER: Dr. Kelly --

20 THE WITNESS: Oh, I'm sorry.

21 MR. BAUER: Wait -- wait --

22 THE WITNESS: Okay.

23 MR. BAUER: -- until after --

24 THE WITNESS: I'm sorry.

25 MR. BAUER: -- I've had an

1 opportunity to object.

2 Object to the form. Belatedly.

3 A. No, I am not aware.

4 Q. (By Mr. Kim) Would that have caused you
5 concern in 1972, if one of your subordinates
6 was taking testing to the lawyers at Monsanto
7 prior to final publication?

8 MR. BAUER: Object to the form.

9 A. Now, remember, what are we talking about
10 publication? Are we talking about
11 publication in a journal, or are we talking
12 about a publication in a report? I don't
13 believe that --

14 Q. (By Mr. Kim) Doctor, I'm --

15 A. -- what your inference is would not be my
16 inference. "Before publication" would mean
17 publication in a journal.

18 Q. Doctor, I'm talking about final report issued
19 to Monsanto Chemical Company.

20 A. I don't know if that statement refers to
21 that, "final report issued to Monsanto."

22 Q. And I'm asking you: If it did refer to the
23 fact that Monsanto lawyers would look at the
24 results prior to final dissemination in
25 report form to Monsanto, would that cause you

1 concern as the medical director in 1972?

2 MR. BAUER: Object to the form.

3 A. It may, or it may not. It all would depend
4 on what they were talking about.

5 Q. (By Mr. Kim) Would it cause you some concern
6 if the lawyers went through the test
7 materials and results prior to publication in
8 a scientific journal?

9 MR. BAUER: Object to the form.

10 A. Yes, it would.

11 Q. (By Mr. Kim) Why?

12 A. Because I --

13 MR. BAUER: The same objection.

14 A. Because I do not believe a scientist will
15 have somebody edit his report for a
16 scientific journal.

17 Q. (By Mr. Kim) A scientist should report his
18 reports as he actually observes them?

19 A. That's correct.

20 Q. It should not be sanitized by lawyers?

21 MR. BAUER: Object to the form.

22 A. No. And I'm not assuming that it ever was.

23 Q. (By Mr. Kim) I understand. My question
24 was: Do you agree with me that a scientist
25 should not let a lawyer sanitize his factual

1 observations?

2 MR. BAUER: Object to the form.

3 A. Yes.

4 MR. BAUER: Object to the form, and
5 asked and answered.

6 A. Yes.

7 Q. (By Mr. Kim) I believe you told me earlier
8 that you had hired George Levinskas?

9 A. Yes.

10 Q. Let me back up.

11 The environmental assessment and
12 toxicology department at Monsanto, was that
13 separate and apart from the medical
14 department?

15 A. I'm not sure I know exactly what the -- what
16 the environmental assessment department was.
17 I don't know. It was certainly separate from
18 the medical department if there was such a
19 formal committee or department.

20 Q. Do you recall reading the Aroclor 1254 test
21 results from IBT?

22 MR. BAUER: Objection. Vague.

23 Which ones?

24 A. Do I --

25 MR. KIM: All of them.

1 A. Did you finish?

2 Q. (By Mr. Kim) Yes.

3 A. Do I recall reading the test reports on
4 Aroclor 1254? Yes.

5 Q. The report concludes that the product is
6 noncarcinogenic?

7 A. Yes, sir.

8 Q. Do you have any indication as to whether the
9 original draft of the report indicated that
10 the result which showed that Aroclor 1254 was
11 slightly tumorigenic?

12 MR. BAUER: Objection. Vague.

13 You're not -- well, it's vague as to what
14 time this report is -- which report we're
15 talking about, the original reports from IBT
16 or the later, the 1975 evaluation, which was
17 after Dr. Kelly's retirement.

18 A. Again, repeat the question, please.

19 Q. (By Mr. Kim) I can't even remember it now.

20 MR. KIM: And you can have your
21 objections.

22 Could you read that?

23

24 (The pending question was read
25 by the court reporter.)

1 A. I do not have any recollection of that having
2 occurred during my tenure at Monsanto. I did
3 see some correspondence of that in the course
4 of some of these depositions, at a later date
5 after 1974.

6 Q. (By Mr. Kim) Have you ever seen a document
7 dated 1975, I believe August of 1975, from
8 Dr. Calandra to the environmental assessment
9 and toxicology department of Monsanto, in
10 which he indicated that IBT would amend the
11 statement in the Aroclor 1250 report to read
12 "noncarcinogenic" instead of "slightly
13 tumorigenic"?

14 MR. BAUER: Object to the form.

15 A. I may have. I don't know if we're talking
16 about the same one. If you show it to me,
17 I'll be happy to tell you whether I saw it in
18 1975 or later.

19 Q. (By Mr. Kim) The testing that was ordered by
20 Monsanto to try and reproduce the results
21 that Dr. Kimbrough had found, was that
22 ordered during your tenure at Monsanto?

23 A. Well, that really is not -- if I understand
24 your question correct, Monsanto did not run
25 tests to reproduce Kimbrough's statements on

1 1260.

2 Q. We can agree that both Dr. Kimbrough and
3 Industrial Bio-Test tested Aroclor 1260?

4 A. That's correct.

5 Q. We can agree that in Dr. Kimbrough's initial
6 report, that she noted chloracne and liver
7 problems?

8 A. I don't think she -- she noted chloracne. I
9 don't believe chloracne is a prominent thing
10 in animal testing.

11 Q. She noted liver hazards?

12 A. Yes.

13 Q. Cancer?

14 A. No. What?

15 Q. Cancer?

16 A. What about cancer?

17 Q. Did she note that it may be carcinogenic in
18 her first report?

19 A. I don't know what first report. If you show
20 me the report. She wrote several reports,
21 and I don't know when you say "first." I
22 know she reported one report in which she
23 stated that she considered the histological
24 findings carcinogenic.

25 Q. Is that the first report or work done by

1 Dr. Kimbrough that you reviewed at Monsanto?

2 A. I don't know -- as I said, I don't know which
3 report I'm referring to or you're referring
4 to.

5 Q. The one which you just described, Doctor,
6 where you said that her histopathological
7 work indicated that there may be a
8 carcinogenic agent, is that the first report
9 or work of Kimbrough's that you reviewed --

10 A. I'm not sure.

11 Q. -- while you were at Monsanto?

12 A. I'm not sure. There may have been another
13 one. I'm not sure.

14 Q. Are you aware of whether Levinskas
15 participated in efforts to reconcile the
16 findings of the IBT 1260 test with
17 Kimbrough's 1260 test?

18 A. I don't know what you mean by "reconcile."
19 The test results of one laboratory with the
20 test result of another laboratory, what do
21 you mean by that?

22 Q. Let's start over, Doctor.

23 I think we can agree that
24 Dr. Kimbrough tested Aroclor 1260?

25 A. Right.

- 1 Q. And in one of her studies, she found that
2 there were liver hazards and that the Aroclor
3 product was a possible carcinogen?
- 4 A. Yes, sir.
- 5 Q. IBT also tested Aroclor 1260?
- 6 A. Yes, sir.
- 7 Q. And the result of the IBT study was that it
8 was not carcinogenic?
- 9 A. Correct.
- 10 Q. And my question to you is, based upon those
11 divergent views, if you were aware if
12 Dr. Levinskas participated in efforts on
13 behalf of Monsanto to try and reconcile the
14 two diverse views of the Kimbrough study and
15 the IBT study?
- 16 A. Yes.
- 17 Q. He did?
- 18 A. Yes.
- 19 Q. Do you know Dr. Donna van Gordon?
- 20 A. There was a Dr. Gordon who I believe was a
21 pathologist at IBT.
- 22 Q. How about --
- 23 A. I'm not sure of the first name.
- 24 Q. How about Dr. Rictor, Ward Rictor?
- 25 A. I don't tie anybody to that name.

1 Q. Do you know if whether Dr. Gordon accompanied
2 Dr. Levinskas to meet Dr. Kimbrough in
3 Washington, D.C., to review the Kimbrough
4 slides?

5 A. I don't know.

6 Q. Do you know whether Levinskas looked at those
7 slides?

8 A. I don't know. Levinskas is not a
9 pathologist.

10 Q. Do you know -- or did Levinskas make you
11 aware that Gordon and Rictor from IBT
12 concluded from their review of the Kimbrough
13 slides that it showed more advanced liver
14 damage than revealed in the IBT study and
15 they agreed with Kimbrough that the slides
16 revealed carcinomas?

17 A. No, I do not know that.

18 Q. If you had known such information in 1972
19 while still at Monsanto, would that have
20 affected your review process of what went on
21 a label or warning --

22 MR. BAUER: Are you finished with
23 your question?

24 MR. KIM: No.

25 MR. BAUER: Okay.

1 MR. KIM: That was a comma, not a
2 period.

3 Q. (By Mr. Kim) -- with what went on any label
4 or warning attached to the Monsanto product
5 that ultimately went to its customers?

6 MR. BAUER: Object to the form.

7 A. Would it -- would it have affected my
8 thinking as far as a warning is concerned?

9 Q. (By Mr. Kim) (Nods head.)

10 A. In 1972, as other -- during other years, the
11 material was not intended to be taken
12 internally. So the -- here we are talking
13 about a compound that is taken internally for
14 the lifetime of rats.

15 Q. The question, I guess, Doctor, is not
16 whether --

17 A. I'm getting around to it.

18 Q. Oh, okay.

19 A. So I did not believe that that particular
20 study had any relevance to our customers.

21 Q. Because you did not think that your customers
22 would be exposed to that type of exposure to
23 your PCB products?

24 A. That's correct.

25 Q. And the type of exposure that we're talking

1 about is ingestion?

2 A. Yes.

3 Q. Although Monsanto did not intend for its
4 customers to ingest PCBs, did Monsanto have
5 occasion to think that its PCB product might
6 accidentally be ingested?

7 A. Well, I suppose accidents can happen anytime
8 to a person. But --

9 Q. Monsanto certainly didn't anticipate a
10 perfect environment in which accidents never
11 occurred?

12 A. No.

13 Q. And one foreseeable result of an accident is
14 the accidental ingestion of PCB products by
15 humans?

16 A. Well, it's possible.

17 Q. In 1968 we had accidental ingestion of
18 polychlorinated products in -- and I'm not
19 sure if I'm pronouncing this right, but is it
20 Yusho?

21 A. Yusho.

22 Q. Is that correct, Doctor?

23 A. That's correct.

24 Q. And the symptoms reported in Yusho, which is
25 in Japan, were chloracne; is that correct?

- 1 A. Yes.
- 2 Q. Chronic fatigue?
- 3 A. Yes.
- 4 Q. Joint pains?
- 5 A. Yes.
- 6 Q. Loss of appetite?
- 7 A. Yes.
- 8 Q. Hair loss?
- 9 A. I'm not sure. I can't give you all the
10 details, but they did have symptoms.
- 11 Q. Were you made aware of those symptoms during
12 the time period that you were medical
13 director at Monsanto Chemical Company?
- 14 A. Yes.
- 15 Q. Those symptoms, I think we agreed earlier in
16 your deposition, are all indicative of a type
17 of systemic poisoning; is that correct?
- 18 A. That's correct.
- 19 Q. A similar result -- and this is after, to be
20 fair, in 1978 or nine, I believe -- was
21 reported in Yu-Cheng --
- 22 A. Yu-Cheng.
- 23 Q. -- which is the former island of Formosa, now
24 known as Taiwan?
- 25 A. That's correct.

1 Q. And again, the same symptomatology was
2 reported?

3 MR. BAUER: Object --

4 A. Yes, sir.

5 MR. BAUER: Object to the form.

6 A. Yes, sir.

7 Q. (By Mr. Kim) As I understand Monsanto's
8 position with respect to these two incidents,
9 Monsanto blamed -- and correct me if I'm
10 wrong -- the systemic effects observed more
11 on the presence of furans than of
12 polychlorinated biphenyls?

13 MR. BAUER: Objection. Lacks
14 foundation and argumentative.

15 A. Who blamed who? Did you --

16 Q. (By Mr. Kim) Well, let me rephrase that.

17 After Nineteen Sixty -- when did
18 you first learn of the Yusho incident?

19 A. Whenever it first appeared in the -- when we
20 got a translation of the Japanese newspapers.

21 Q. That would have been in approximately what
22 year?

23 A. Gosh, I'm confused on the dates, but -- I'm
24 not sure of the date.

25 Q. Would it have been during your employ?

1 A. Yes. It was -- certainly was before 1974.

2 Q. Did you order any analytical testing to be
3 done to compare the polychlorinated products
4 in Japan as opposed to the Monsanto PCB
5 products?

6 A. I did not. The Japanese product which was
7 the cause of Yusho was manufactured by --
8 there were other steps in the manufacture of
9 it. It was found out later that there were
10 contaminants in there to the degree that was
11 not present in the Monsanto PCBs.

12 Q. So analytical testing was done to compare the
13 Monsanto PCB product and the Japanese PCB
14 product?

15 A. At some time by some people. I don't -- but
16 I did not order the testing. That was your
17 question.

18 Q. Do you have a recollection of when that
19 analytical comparison was made?

20 A. I don't know.

21 Q. Was it during your employ at Monsanto
22 Chemical Company?

23 A. I do not believe we had the expertise to find
24 out these contaminants in our PCB, and I'm
25 not so sure anybody had it until sometime

1 after I left the company.

2 Q. What contaminants are we talking about?

3 A. Dibenzofurans, chlorinated quadruphenyls.

4 Q. Had furans ever been identified in any
5 Monsanto Chemical products prior to the Yusho
6 incident?

7 A. There was a lack of them by Vos in 1970 when
8 he examined the Monsanto Aroclor, and he did
9 not find them. Monsanto did some testing of
10 their own during the years following 1970,
11 but I have no reports of finding -- of
12 Monsanto finding the furans before I left the
13 company.

14 Q. And I guess I'm asking about -- can we agree
15 that furans would be a contaminant?

16 A. Yes.

17 Q. And I'm not limiting my question to just PCB
18 products. But to any chemical products that
19 Monsanto produced during the time period that
20 you were medical director, was furans ever
21 identified as a contaminant of that product?

22 MR. BAUER: Objection. Vague.

23 You're talking about chlorinated -- we've
24 been using furans in this deposition in the
25 sense of chlorinated dibenzofurans. Is

1 that -- is that what you mean?

2 MR. KIM: Sure.

3 MR. BAUER: Okay.

4 A. I do not recall seeing any reports showing
5 that dibenzofurans, chlorinated
6 dibenzofurans, were present in the Monsanto
7 product.

8 Q. (By Mr. Kim) How about chlorinated
9 diphenylene oxide, which, I believe,
10 yesterday we agreed was a type of furan?

11 A. Chlorinated diphenylene oxide, I believe we
12 agreed, was chlorinated diphenyl --
13 chlorinated benzofurans.

14 MR. BAUER: And I think he said it
15 was just another name for it, not a
16 particular one.

17 THE WITNESS: What?

18 Q. (By Mr. Kim) It's a furan, though, one of
19 the many --

20 A. Yes.

21 Q. -- different types of furans?

22 Back to Dr. Levinskas -- am I
23 saying his name correctly?

24 A. Levinskas, yes.

25 Q. -- Levinskas, are you aware that he has

1 conceded and admitted that he reviewed and
2 editorialized the papers prepared by IBT
3 employees regarding the Aroclor studies
4 conducted for Monsanto?

5 MR. BAUER: Object to the form.

6 A. Well, I don't believe that there's a
7 statement that he has editorialized and --
8 what was the other?

9 Q. (By Mr. Kim) Reviewed.

10 A. Well, reviewed. He certainly has reviewed
11 this -- the reports. Editorialized, I don't
12 believe he did. He did suggest that a change
13 in -- in one of the -- in the wording of one
14 of the conclusions.

15 Q. IBT helped Monsanto present the Monsanto
16 corporate position on PCBs to various
17 governmental entities, did it not?

18 A. Yes.

19 Q. You would agree with me, then, that Levinskas
20 requested an IBT report of a PCB study be
21 amended to say that it, quote, "does not
22 appear to be carcinogenic," end quote,
23 instead of, quote, "slightly tumorigenic,"
24 end quote?

25 A. Yes.

1 Q. Does it disturb you that an employee of
2 Monsanto would be requesting editorial
3 changes in a study ostensibly being conducted
4 by an independent facility?

5 A. What we are only talking -- we're not talking
6 about any factual changes. We are talking
7 about this -- this was a study to determine
8 whether or not the material was
9 carcinogenic. It was not found to be
10 carcinogenic; and so he said, "If it isn't
11 carcinogenic, say it isn't carcinogenic."

12 Q. You find no factual distinction between
13 "noncarcinogenic" and "slightly
14 tumorigenic"?

15 MR. BAUER: Object to the form.

16 A. No factual -- say that again. I don't want
17 to answer a wrong interpretation.

18 Q. (By Mr. Kim) You indicated that it didn't
19 change the factual context of the report, and
20 I was wondering -- merely inquiring, Doctor,
21 if you find a factual distinction between the
22 term "slightly tumorigenic" and
23 "noncarcinogenic."

24 A. Well, there's a difference in wording. But
25 the facts in the report, the listing of the

1 tumors that were present were not changed.
2 They were still reported the same way.

3 Q. I understand, Doctor. My question is, then,
4 that you feel there is no factual difference
5 between the phrase "slightly tumorigenic" and
6 "noncarcinogenic" for the purposes of a
7 scientific report done on behalf of Monsanto
8 by Industrial Bio-Test?

9 A. No, I don't consider any difference.

10 Q. Was the report which incorporated the changes
11 requested by Levinskas ever backdated, to
12 your knowledge?

13 MR. BAUER: Objection --

14 A. No, sir.

15 THE WITNESS: I'm sorry.

16 MR. KIM: Go ahead and object.

17 MR. BAUER: Objection. Lacks
18 foundation.

19 Q. (By Mr. Kim) And your answer was?

20 A. No, I do not know.

21 Q. Are you aware that no one was charged with
22 the responsibility of assisting Dr. Levinskas
23 in his review of the IBT Aroclor studies
24 after you left Monsanto?

25 A. After I -- please repeat this.

1 Q. I'll just reask it.

2 After you left Monsanto, are you
3 aware if anyone was charged with the
4 responsibility of assisting Dr. Levinskas in
5 reviewing the IBT Aroclor studies?

6 A. I do not know.

7 Q. Okay. Do you know whether Dr. Levinskas, in
8 conducting his review and validation of the
9 IBT Aroclor studies, ever went to the IBT
10 facilities during that review and evaluative
11 time period?

12 A. I don't know whether he did or not.

13 Q. Do you know whether he visited their offices?

14 A. I do not know.

15 Q. Do you know whether he consulted with
16 Dr. Paul Wright?

17 A. I don't know.

18 Q. Whether he determined -- made a determination
19 of whether the rodents were properly housed
20 during the course of the study?

21 A. With relationship to what time frame? What
22 are you talking about?

23 Q. The IBT Aroclor tests performed by IBT.

24 A. Well, you didn't say, though, when he was
25 checking the validation of it. This means

1 after the -- after the tests were over?

2 Q. Yes, sir.

3 A. And where would he find the rats? They were
4 all gone at that time. The test was gone.
5 So I don't see how he could check the housing
6 of the rats to validate the story.

7 Q. Do you know whether he made inquiry --
8 inquiry as to how the rats were housed during
9 the course of the study?

10 A. I don't know.

11 Q. How about as to the water supply for the
12 rodents during the course of the study?

13 A. I don't know.

14 Q. How about the manner in which the rodents,
15 the rats, were handled during the course of
16 the study?

17 A. I don't know.

18 Q. How about the raw data concerning the body
19 weight of the rodents during the course of
20 the study?

21 A. My impression was that he saw the raw data.

22 Q. Do you know?

23 A. I do not know.

24 Q. Do you know whether he made inquiry into
25 such?

1 A. Beg pardon?

2 Q. Do you know whether he inquired into such?

3 A. I thought that when I talked to

4 Dr. Levinskas, he had told me that he had

5 seen the raw data; but --

6 Q. Can we agree --

7 A. -- that's my impression.

8 Q. I'm sorry, Doctor.

9 A. That's my impression.

10 Q. Can we agree that each of these

11 considerations that I've asked you about

12 would be important in conducting a review and

13 validation analysis of a study?

14 MR. BAUER: Object to the form.

15 Vague as to the term "validation."

16 A. It all depends if you thought that these

17 conditions were going to be present in what

18 was believed by Dr. Levinskas, and certainly

19 believed by me, to be a first-rate

20 laboratory. So I don't know whether he

21 talked about whether they were leaving rats

22 running around the room or not because he

23 didn't expect that to occur.

24 Q. (By Mr. Kim) After Dr. Roush --

25 A. Roush.

1 Q. Roush?

2 A. Yes.

3 Q. -- succeeded you at Monsanto Chemical
4 Company, you had an opportunity of a one- or
5 two-year period to still work together; is
6 that correct?

7 A. One year I was there as a consultant, but my
8 activities were mostly developed -- directed
9 to plant medical care -- conditions. I did
10 not discuss toxicological matters with
11 Dr. Roach -- Roush. He never asked me, and
12 I -- he was the medical director, and I
13 didn't volunteer things to him.

14 Q. Did he share with you that an investigation
15 had been initiated by the Government
16 concerning the operations of Industrial
17 Bio-Test Laboratories and the conduct of
18 their -- and their conduct in performing
19 laboratory experiments?

20 A. No, he did not.

21 Q. Were you ever made aware that Dr. Paul Wright
22 was placed on a leave of absence during the
23 time period of -- in which he was indicted
24 and convicted?

25 MR. BAUER: Object to the form.

1 A. Yes, I was. I knew he was on a leave of
2 absence.

3 Q. (By Mr. Kim) You are aware that Dr. Wright
4 was eventually convicted?

5 A. Yes.

6 Q. Spent time in jail?

7 A. Yes.

8 Q. I'm curious, Doctor, if you know who paid for
9 Dr. Wright's criminal defense fees?

10 A. I do not know.

11 Q. No one made you aware that Monsanto paid over
12 \$1.3 million for Dr. Wright's defense?

13 A. No, sir.

14 Q. Indeed, when -- were you made aware that when
15 Dr. Wright returned to Monsanto from IBT,
16 that he was given a merit award for
17 forestalling EPA promulgation of unrealistic
18 regulations concerning PCBs?

19 A. No, sir.

20 Q. Do you agree with the EPA response concerning
21 PCBs?

22 A. What is their response?

23 Q. In the form of TASKA. Do you agree with
24 TASKA?

25 A. I'll have -- I'd have to review TASKA.

1 Q. Do you --

2 A. I don't -- I don't agree with EPA in a lot of
3 things, but I'm not -- I do not know about
4 the -- what their response to PCB was.

5 Q. Do you agree that -- do you agree with the
6 regulations that only allowed the use of PCBs
7 to be in closed electrical systems?

8 A. Say this over.

9 Q. Did you agree with the EPA regulations, or
10 the Government regulations, which limited the
11 use of PCBs to dielectric fluids used in
12 closed electrical systems?

13 MR. BAUER: Object --

14 A. Which limit --

15 MR. BAUER: Object to the form.

16 A. Which limited the use to that?

17 Q. (By Mr. Kim) Yes.

18 A. Yes, I agreed with it. In fact, we had
19 stopped that use before the EPA regulation
20 came out.

21 Q. Well, you stopped in 1977; is that correct?

22 A. No. We're talking about in -- except in
23 electrical uses.

24 Q. Is it true that the only chronic toxicity
25 studies done for Monsanto with regard to PCBs

1 were done by IBT?

2 MR. BAUER: Objection.

3 Mischaracterizes his prior testimony.

4 A. The only chronic studies done by Monsanto --

5 Q. (By Mr. Kim) -- with regard to PCBs were
6 done by IBT?

7 MR. BAUER: Same objection.

8 A. With the exception of the chronic inhalation
9 studies by Treon, which was done in '54,
10 which was considered a chronic study at that
11 time.

12 Q. (By Mr. Kim) And that was the four-month
13 study?

14 A. Five-month study.

15 Q. Five-month. Would you dispute Dr. Roush if
16 he indicated that in his opinion, the only
17 chronic studies done on behalf of Monsanto
18 were done by IBT?

19 A. Yes, I dispute them. I just said it -- that
20 I considered the Treon work a chronic study.

21 Q. Do you know whether Dr. Roush visited
22 Government agencies to discuss PCB research?

23 A. No, sir, I do not.

24 Q. You never accompanied him on such trips if
25 they occurred?

1 A. I never did.

2 Q. Do you know whether IBT personnel may have
3 gone on such trips?

4 A. I do not know.

5 Q. Are you aware of the information they would
6 have provided to the Government agencies?

7 A. No, sir, I do not. I'm not aware.

8 Q. Do you know whether Monsanto ever revealed to
9 any Government agency that Dr. Gordon and
10 Dr. Rictor, pathologists at IBT, had reviewed
11 the Kimbrough slides and agreed with her
12 findings of cancer?

13 A. No, sir, I do not know that.

14 Q. Do you know whether anyone at Monsanto ever
15 told the Government agencies about the ITOW,
16 I-T-O-W, study indicating carcinogenicity of
17 PCBs?

18 A. No, sir, I do not.

19 Q. During the time of your employ at Monsanto,
20 did Monsanto ever conduct a single
21 epidemiological study of workers at any of
22 its plants?

23 A. No, sir, they did not.

24 Q. Do you think a fair representation about the
25 health hazards associated to a particular

1 chemical in an occupational setting can be
2 made without having done an epidemiological
3 study?

4 A. Yes, sir, I think it can.

5 Q. Would you disagree with Dr. Roush if he
6 stated the contrary position?

7 A. Yes, I disagree with him.

8 Q. On what basis?

9 A. Because we did not do an epidemiological
10 study on our PCB workers and we knew that our
11 PCB workers were not harmed by their exposure
12 to PCB in our plants. You didn't need an
13 epidemiological study to find out that people
14 don't have diseases that they don't have.

15 Q. Are you aware of the study conducted by
16 Dr. Gregory Steel in Indiana?

17 A. Yes.

18 Q. He shows a correlation, at least in his
19 study, to Westinghouse workers exposed to
20 PCBs in an occupational setting in brain
21 cancer; is that correct?

22 A. Yes, sir.

23 MR. CAILTEUX: Object to the form.

24 THE WITNESS: Beg pardon?

25 Q. (By Mr. Kim) You can answer.

1 MR. CAILTEUX: I just objected to
2 the form.

3 A. I don't know whether the term "correlation"
4 was used. There was an association.

5 Q. (By Mr. Kim) Do you dispute that
6 association?

7 MR. BAUER: Object to the form.

8 A. I don't know enough about it.

9 Q. (By Mr. Kim) Do you think that it is
10 significant to note whether a product causes
11 tumors?

12 A. It may, and it may not.

13 Q. Well, we can agree that there are different
14 health considerations associated with tumors
15 as opposed to the health considerations
16 concerning cancer?

17 MR. BAUER: Objection. Vague.

18 A. Again, we can agree what?

19 Q. (By Mr. Kim) A tumor does not necessarily
20 mean cancer?

21 A. That's correct.

22 Q. A tumor is different from cancer?

23 A. Yes. All cancers are tumors, but all tumors
24 are not cancers.

25 Q. Therefore, the health analysis with respect

1 to a product would be different upon a
2 finding of whether it causes a tumor or
3 whether it causes cancer?

4 A. The "health analysis"? I do not know what
5 you're -- what you mean by that term.

6 Q. The possible health effects of a product
7 would differ, from a medical review,
8 depending on whether and if that product
9 caused a tumor or a cancer?

10 A. In what? In --

11 Q. In --

12 A. In humans or in animals?

13 Q. Either.

14 MR. BAUER: Object to the form.

15 Q. (By Mr. Kim) Let's start with humans.

16 A. Yes. But I don't recall any studies of PCBs
17 causing tumors -- causing cancers in humans.

18 Q. I understand that, Doctor. And I'm just
19 asking if it makes a difference.

20 A. Yes, there's a difference.

21 Q. Is there that same difference in animal
22 studies, as well?

23 A. Yes.

24 Q. Okay. Did Monsanto under your direction ever
25 do any primate studies?

1 A. Any what?

2 Q. Primate studies?

3 A. Under my direction, no.

4 Q. Were you ever made aware of Monsanto primate
5 studies conducted under the direction of
6 Dr. Roush?

7 A. I never saw a report. I have some vague
8 recollection of hearing a conversation about
9 some primate studies that occurred after I
10 was there, but I don't know any of the
11 details.

12 Q. Do you recall if anyone told you that the
13 Monsanto primate studies indicated that
14 primates were more susceptible to PCB effects
15 at lower doses than rats?

16 A. No. I am not aware of that.

17 MR. KIM: Take a break?

18 MR. FEATHERSTONE: Okay.

19 THE VIDEOGRAPHER: We're going off
20 the record. It's 12 minutes after 11:00
21 o'clock. This is the end of Tape No. 8.

22

23 (A recess was taken.)

24

25 THE VIDEOGRAPHER: It's 33 minutes

1 after 11:00 o'clock. This is the beginning
2 of Tape No. 9, and we're back on the record.

3 Q. (By Mr. Kim) Doctor, I believe that we
4 discussed earlier that chlorinated diphenyl
5 oxide was a furan?

6 A. Yes, sir.

7 Q. And I think you told me earlier that during
8 the time that you were medical director of
9 Monsanto, no chemical product had been found
10 to be contaminated with any furans?

11 A. To the best of my knowledge, yes, sir.

12 Q. I want to go back --

13 A. Of Monsanto's.

14 Q. Yes, sir. In the litigation that you
15 testified on behalf of Monsanto concerning
16 the Brio waste site in Texas, do you recall
17 that?

18 A. Yes, I do.

19 Q. And I believe you told me that you felt that
20 the PCBs in that instance could not have
21 caused any of the alleged harms by the
22 plaintiffs in that case.

23 MR. BAUER: Object to the form.

24 A. I don't know if that was my testimony or
25 not.

1 Q. (By Mr. Kim) In any event --

2 A. But I did not think so. But, in fact, I
3 didn't see any of the medical records of the
4 people at Brio.

5 Q. You have also indicated to me that you felt
6 at some time prior to the Jensen study that
7 Monsanto and you knew that PCBs persist and
8 were nonbiodegradable?

9 A. That's correct.

10 Q. Did Monsanto, under your direction during any
11 time while you were at Monsanto, conduct any
12 soil migration studies with respect to PCBs?

13 A. Not under my direction. I do not know if
14 Monsanto did under other people's direction.

15 Q. How about water migration studies?

16 A. Not I. I did not do -- I don't know what you
17 mean by "water migration."

18 Q. Aquatic migration.

19 A. It's in a stream, and it rolls down the
20 stream? Is that what you're --

21 Q. Sure.

22 A. I do not know that.

23 Q. In any event, you didn't order such?

24 A. I did not order any.

25 Q. And you don't know whether any other

1 department did?

2 A. I do not know whether they did it or not.

3 Q. Your opinion the entire time that you were
4 medical director at Monsanto was that PCBs
5 caused no concern, no health concerns?

6 MR. BAUER: Objection.

7 Mischaracterizes his testimony.

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

9 Q. (By Mr. Kim) No human health concerns.

10 A. No. They would cause health concerns if --
11 that's why we put warning statements on the
12 material. That's why in all our literature
13 to customers, my answers to doctors, to
14 companies, I told them what they were -- what
15 health concerns were liable to occur.

16 Q. It was not, I believe, as you told Mr. Bauer,
17 an unreasonably dangerous product?

18 A. No. For an -- that's correct.

19 Q. Are you aware that in 1972, that Monsanto
20 required General Electric and Westinghouse to
21 sign indemnity agreements for the continued
22 sale of PCBs?

23 A. At some time I became aware that there was
24 something of that order. I don't know
25 anything about the reason for it or the

1 details of the indemnification.

2 Q. As the medical director who reviewed warnings
3 and labels attendant to the PCB products of
4 Monsanto, did you feel that it was enough to
5 warn General Electric and Westinghouse?

6 A. Warn them what?

7 Q. Warn about anything. Was that as far as your
8 warning needed to go?

9 MR. BAUER: Objection. Vague.

10 Q. (By Mr. Kim) Down the retail chain?

11 A. Yes. We told our customer what our warnings
12 were. We also knew that our major
13 customer -- you mentioned General Electric
14 and Westinghouse -- knew as much about the
15 product as we did.

16 Q. In other words, in this case Nevada Power
17 purchased transformers and capacitors from
18 Westinghouse and General Electric. Are you
19 aware of that?

20 A. I'm aware that they -- I was aware that they
21 purchased something. I don't know whether it
22 was capacitors or not. I had heard that it
23 was transformers; but of my own knowledge, I
24 don't know what Nevada Power bought from
25 either of the two companies.

1 Q. You did not consider Nevada Power or any
2 other utility company in that arrangement to
3 be your -- Monsanto's customer?

4 A. No, sir. They were not our customer.

5 Q. And you did not intend for your label or
6 warning to reach someone such as Nevada
7 Power?

8 MR. BAUER: Object to the form.

9 A. I didn't know where this warning was going to
10 be, how far out it would reach. But we did
11 not know to whom -- whom General Electric or
12 Westinghouse were selling the materials.

13 Q. (By Mr. Kim) Monsanto relied upon companies
14 such as Westinghouse and General Electric to
15 pass proper warnings on to their customers?

16 A. Well, that's -- I can speak for myself. I'm
17 not sure I could speak for the Monsanto
18 Company.

19 Q. Fair enough. Was the Nitro facility in West
20 Virginia a part of the Monsanto Company?

21 A. Yes, it was.

22 Q. And I believe there it manufactured a
23 herbicide?

24 A. Yes.

25 Q. If you recall.

1 A. Yes, sir.

2 Q. Do you recall what type of herbicide it was?

3 A. It was a weed killer, 2,4 -- 2,4,5-T.

4 Q. Did Monsanto utilize PCBs as extenders in its
5 herbicides?

6 A. No, sir.

7 Q. Did it utilize trichlorobenzene or
8 tetrachlorobenzene in the production of this
9 2,4,5-T herbicide?

10 A. Yes.

11 Q. Did Monsanto experience cases of chloracne at
12 any of its herbicide facilities?

13 A. Yes.

14 Q. At the Nitro facility?

15 A. Yes.

16 Q. 1949?

17 A. Yes, sir.

18 Q. Was a determination made as to the cause of
19 that outbreak of chloracne?

20 A. There was an explosion at -- in that
21 particular operation that caused very severe
22 chloracne. There was -- there was no
23 definite cause because we could not analyze
24 the residual material left from the
25 explosion. It was an amorphous bunch of gunk

1 that they could not analytically determine
2 what was in there.

3 We also had some chloracne during
4 our production of 2,4,5-T; and we assumed --
5 we did not find the -- assumed it was either
6 the product itself or a contaminant in the
7 product.

8
9 (Instruments were marked Kelly
10 Exhibit Nos. 49 through 50 for
11 identification.)

12

13 Q. (By Mr. Kim) Do you know whether a
14 determination was made as to the
15 identification of furans as a possible
16 contaminant to the 2,4,5-T herbicide?

17 A. The furans were not found, to the best of my
18 knowledge.

19

20 (Discussion off the record.)

21

22 Q. (By Mr. Kim) Doctor, let me show you two
23 documents which we have marked as Deposition
24 Exhibits 49 and 50 to your deposition. I
25 will represent to you that Document No. 50 is

1 a retype of the original for clarity purposes
2 and ask that you just take a few minutes to
3 review those.

4 MR. BAUER: Can I see it first,
5 please?

6 MR. KIM: Yeah. I think I've got a
7 copy for you somewhere. Thought I did.

8 MR. BAUER: Now, the retyping was
9 done by your office, Mr. Kim? Or someone on
10 behalf of the plaintiff as opposed to -- you
11 know --

12 MR. KIM: Yes.

13 MR. BAUER: -- some publication or
14 a produced document or --

15 MR. KIM: Yeah. It was done by
16 someone on behalf of the plaintiff.

17 MR. BAUER: Okay.

18 A. I can read this all right.

19 MR. BAUER: Do you have another
20 one? You didn't find another one, John?

21 MR. KIM: Except for mine with all
22 my questions on it.

23 MR. BAUER: All right. Don't worry
24 about it.

25 A. Yes, sir, I've read it.

1 Q. (By Mr. Kim) Do you recall receiving this
2 letter in June of 1956?

3 A. Yes, I do.

4 Q. This is a letter on Monsanto letterhead
5 directed to you at the medical department, is
6 it not?

7 A. Yes.

8 Q. From Elmer Wheeler?

9 A. Yes.

10 Q. In 1956 was Elmer Wheeler working under your
11 supervision?

12 A. Yes, he was.

13 Q. Where is Badische?

14 A. Someplace in Germany.

15 Q. Is that Badische plant owned by Monsanto?

16 A. No, it is not.

17 Q. When were you first made aware of the
18 Badische incident?

19 A. Sometime in Nineteen -- I'm not certain.
20 Certainly I was aware in 1956. But sometime
21 between Nineteen Forty -- '53, '56, I was
22 made aware of it.

23 Q. Mr. Wheeler makes a comparison to the
24 Badische incident and an incident at Nitro;
25 is that correct?

1 A. That's correct.

2 Q. The Monsanto incident at the Nitro plant
3 occurred sometime in 1949?

4 A. That's correct.

5 Q. Are you aware of the study conducted by
6 Dr. Oettel, O-e-t-t-e-l, ten days after the
7 incident?

8 A. No, sir -- well, I'm aware from what he said
9 here. I don't know any of the details of
10 the -- his study.

11 Q. His study -- in fact, let's just read on
12 the -- the start of the third paragraph.

13 MR. BAUER: Which exhibit, John?

14 MR. KIM: Either one.

15 THE WITNESS: 50.

16 MR. KIM: 50. It's just a retype
17 of --

18 Q. (By Mr. Kim) -- the start of the third
19 paragraph, Doctor?

20 A. You want me to read it?

21 Q. You can or I can.

22 A. Well --

23 Q. I will.

24 A. Good.

25 Q. "About ten days following the incident, and

1 after initial clean-up, Dr. Oettel was asked
2 to expose animals to the workroom
3 atmosphere. Rabbits (in open wire cages)
4 were placed in the operating area for 24-48
5 hours. There were no obvious symptoms which
6 developed in the animals until one week after
7 exposure - when they died. Autopsy showed
8 liver necrosis."

9 Is that correct?

10 A. Yes, sir.

11 Q. At the very end he notes: "Subsequently,
12 animals placed in the cages which had
13 previously been in the department died of
14 liver necrosis."

15 A. Yes, sir.

16 Q. Were you made aware of that in 1956?

17 A. In this letter, yes.

18 Q. Did that cause you any concern about the
19 Monsanto product at Nitro?

20 A. Well, it was certainly of interest to me.

21 Q. Was it of interest that Dr. Oettel identified
22 that chlorinated diphenyl oxide might be one
23 of the causes of the chloracne?

24 MR. BAUER: Objection.

25 Mischaracterization of the document.

- 1 A. He stated in this last paragraph that:
2 "Liver necrosis will develop in rabbits at
3 the following doses of the indicated
4 materials." And the only -- he mentioned
5 1 milligram of chlorinated diphenyl oxide.
- 6 Q. That was after a system -- systemic -- excuse
7 me -- systematic investigation which isolated
8 impurities in the manufacturing process; is
9 that correct?
- 10 A. Yes, sir.
- 11 Q. And at the top of the next page of this
12 document, Dr. Oettel -- or Oettel -- believed
13 that "the most potent chloracnogen is a
14 compound similar to chlorinated diphenyl
15 oxide"; is that correct?
- 16 A. Yes, sir.
- 17 Q. And he draws the chemical drawing of that
18 compound?
- 19 A. Yes, he does.
- 20 Q. Is that drawing -- and you may not know since
21 you're not a chemist -- actually chlorinated
22 diphenyl oxide? Or is it chlorinated
23 diphenylene oxide, if you know?
- 24 A. It's chlorinated diphenylene oxide, to the
25 best of my chemical knowledge.

1 Q. And we agreed earlier that that was a furan?

2 A. Yes.

3 Q. Do you know Don Irish at Dow?

4 A. Yes. Yes, I do.

5 Q. Had you talked with Don Irish about this?

6 A. No, I did not.

7 Q. The letter further -- Mr. Wheeler further
8 relays to you that Dr. Oettingen -- excuse
9 me -- Oettel "has corresponded with Don Irish
10 at Dow who either reached the same conclusion
11 independently or, in mentioning the potential
12 of chlorinateddiphenyl oxide, influenced
13 Oettel's reasoning. Oettel believes,
14 further, that this impurity can show up in
15 the production of any chlorinated phenol
16 allegedly to chlornapthalenes,
17 pentachlorophenol, chlorinated biphenyl,
18 etc."; is that correct?

19 A. That's what he says.

20 Q. Upon receipt of this letter, did it cause you
21 any concern that any chlorinated biphenyls
22 being produced by Monsanto might be
23 contaminated with chlorinated diphenylene
24 oxide?

25 A. Well, this is a supposition of a Dr. Oettel.

1 And we were trying -- it caused us some
2 concern to think whether he was right or not.

3 Q. I understand that, Doctor.

4 A. And here's a supposition that it can show up
5 anyplace. So we didn't pay a great deal of
6 credence in his supposition.

7 Q. You would agree with me that Mr. Wheeler
8 indicates that Don Irish at Dow agreed with
9 the supposition of Dr. Oettel?

10 MR. BAUER: Object to the form.

11 A. Well, I don't know if I read that same thing
12 into it.

13 Q. (By Mr. Kim) Well, it says, "Don Irish at
14 Dow who either reached the same conclusion
15 independently or, in mentioning the potential
16 of chlorinateddiphenyl oxide, influenced
17 Oettel's reasoning."

18 At least Don Irish has the same
19 conclusion as Dr. Oettel, does he not?

20 A. No. Because Oettel is talking about when he
21 says "the most potent carcinogen [sic] is a
22 compound somewhat similar to chlorinated
23 diphenyl oxide."

24 Q. Do you know --

25 A. And then he writes -- and he writes the

1 formula for diphenylene oxide. So I don't
2 know whether Dow -- Irish at Dow is talking
3 about the compound somewhat similar to
4 chlorinated diphenylene oxide or chlorinated
5 diphenylene oxide or what he calls diphenyl
6 oxide.

7 Q. How about Dr. Hansen, who's mentioned in the
8 bottom of the next paragraph, at Bayer? Did
9 you talk with Dr. Hansen about his
10 experience?

11 A. No, I never talked with Dr. Hansen.

12 Q. Did it cause you any concern in 1956 that
13 Dr. Oettel through the Badische experience,
14 Don Irish through Dow's experience,
15 Dr. Hansen through Bayer's experience, all
16 questioned whether the chloracnogen compound
17 could be that of chlorinated diphenylene
18 oxide, which could show up in the production
19 of chlorinated phenols?

20 A. But that isn't what he said. He said,
21 "...the most potent carcinogen [sic] is a
22 compound somewhat similar to chlorinated
23 diphenylene [sic] oxide." He did not say
24 that he was talking about chlorinated
25 diphenylene oxide. He said a compound

1 similar to it.

2 Q. This was of no concern to you as the medical
3 director?

4 A. Oh, it was of concern, yes. But I repeat the
5 statement here in the supposition that I
6 didn't cause -- was of interest, but it
7 didn't cause me any worry.

8 Q. As medical director of Monsanto Chemical
9 Company, did you order any tests, analytical
10 tests, to be done with respect to the PCB
11 compounds to see if they were contaminated
12 with chlorinated diphenylene oxide?

13 A. In 1956 we were unable to find -- our
14 analytical people told me we were unable to
15 find chlorinated diphenylene oxide in PCBs.
16 From the analytical point of view. Not that
17 we -- not that we had negative results, but
18 our -- our analytical expertise did not go
19 down that low.

20 Q. So as I understand it, the tests were not
21 done, the technology just didn't exist at
22 that time?

23 A. That's correct.

24 Q. Did you order from other laboratories that
25 such testing be done?

- 1 A. No. I was assured that if we didn't know how
2 to do it, nobody in the United States knew
3 how to do. Now, remember, we're -- you've
4 got to tell me what we're talking about. Are
5 we talking about the compound that's similar
6 to this or this one? You know, Oettel
7 mentions that "...the most potent"
8 carcinogen -- "chloracnogen is a compound
9 somewhat similar to chlorinated diphenyl
10 oxide," which he misses -- misdraws as
11 chlorinated diphenylene oxide. Diphenyl --
12 Q. Did any -- oh, I'm sorry.
13 A. So I don't know which one of these he's
14 talking about. Or is he talking about this
15 Compound X which is the most potent
16 chloracnogen, which he has not described.
17 Q. Did anyone call Dr. Oettel to investigate
18 whether the same thorough systemic [sic]
19 investigation which isolated impurities in
20 the trichlorophenol process could be
21 reproduced with respect to polychlorinated
22 biphenyls?
23 A. I don't know if anybody did.
24 Q. We can agree that Dr. Oettel, at least,
25 indicated that he found 15 to 20 milligrams

1 of pentachlor naphthalene? Bottom of
2 Page 1.

3 A. First page or second page?

4 Q. Bottom of Page 1.

5 MR. BAUER: I'm sorry, John.
6 You're saying that he found those substances
7 in the product? Is that what you're saying?

8 MR. KIM: Uh-huh.

9 MR. BAUER: Well, object to the
10 form.

11 A. What paragraph? We're on Page 2 now, we're
12 talking about?

13 Q. (By Mr. Kim) No. Page 1 at the very
14 bottom.

15 A. Oh, Page 1?

16 Q. Yes, sir.

17 MR. BAUER: Yeah, let's --

18 A. Well --

19 MR. BAUER: -- let's --

20 A. -- I do not read --

21 MR. BAUER: -- hear the question
22 back.

23 A. -- that he found all those things in the --

24 MR. KIM: Let me reask him.

25 A. -- in the trichlorophenol process.

1 Q. (By Mr. Kim) Can we at least agree that he
2 isolated impurities through what he called a
3 thorough systemic -- systematic investigation
4 of the trichlorophenol process?

5 A. We agree that he says that, yes.

6 Q. Okay. Did anyone at Monsanto call Dr. Oettel
7 to ask about the technology and methodology
8 that he used in identifying the isolated
9 impurities?

10 A. I do not know.

11 Q. Did you?

12 A. I did not.

13 MR. KIM: Good place to break.

14 THE VIDEOGRAPHER: We're going off
15 the record. It's 55 minutes after 11:00
16 o'clock. This is the end of Tape No. 9.

17

18 (Whereupon the deposition of Robert
19 Emmet Kelly, M.D., was recessed at
20 11:55 a.m. and is to be continued
21 at some future time pursuant to
22 agreement of counsel.)

23

24

25

1 THE STATE OF Missouri :
2 COUNTY OF ST. LOUIS :

3 I, ROBERT EMMET KELLY, M.D., hereby
4 certify that I have read the foregoing
5 transcript of my testimony given in the
6 foregoing numbered and styled case and that
7 same is true and correct to the best of my
8 knowledge and belief.

9 I further certify that any and all
10 corrections have been made on a separate page
11 and initialed by me.

12 This the 30th day of
13 March, 1994.

14 Robert Emmet Kelly MD

15 ROBERT EMMET KELLY, M.D.

16 SUBSCRIBED AND SWORN TO BEFORE ME,
17 this the 30th day of March, 1994.

18 Josephine S. Niblock
19 Notary Public in and for
20 the State of Missouri

21 My Commission Expires

22 Job No. 94-514

23 JOSEPHINE S. NIBLOCK
24 NOTARY PUBLIC STATE OF MISSOURI
25 ST. LOUIS COUNTY
MY COMMISSION EXP. JAN. 15, 1995

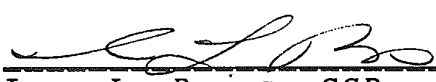
1 THE STATE OF TEXAS :

2 I, Irma L. Reyes, Certified
3 Shorthand Reporter in and for the State of
4 Texas, hereby certify that this deposition
5 transcript is a true record of the testimony
6 given by the witness named herein, after said
7 witness was duly sworn or affirmed by me.

8 I further certify that I am neither
9 attorney nor counsel for, related to, nor
10 employed by any of the parties to the action
11 in which this testimony was taken. Further,
12 I am not a relative or employee of any
13 attorney of record in this cause, nor do I
14 have a financial interest in the action.

15 Further certification requirements,
16 if any, pursuant to the Rules will be
17 certified to in the Supplemental Certificate
18 after they have occurred.

19 the 7th Subscribed and sworn to on this,
20 day of March, 1994.

21
22 
23 _____
24 Irma L. Reyes, CSR
25 Certificate No. 4071
Expires December 31, 1994

My Notary Commission expires September 21,
1996