

IN THE CIRCUIT COURT OF THE CITY OF ST. LOUIS
STATE OF MISSOURI

GLENN BROWN, et al,
Plaintiffs,

vs. Cause No. 862-00694

MONSANTO COMPANY,
Defendant.

Volume III

Continued Deposition of R. EMMET KELLY, M.D.

On behalf of Defendant

June 12, 1990

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7 MONSANTO COMPANY,

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11 CONTINUED DEPOSITION OF R. EMMET KELLY, M.D.,

12 produced, sworn and examined on behalf of the Defendant,

13 June 12, 1990, between the hours of eight o'clock in the

14 forenoon and five o'clock in the afternoon of that day, at

15 the offices of Communitronics, 1907 S. Kingshighway, St.

16 Louis, Missouri, before TOD MINNIGERODE, a Certified

17 Shorthand Reporter and a Notary Public within and for the

18 State of Missouri.

19
20
21 A P P E A R A N C E S

22 The Plaintiff was represented by Mr. Thomas M.

23 Carney of the law firm of Husch, Eppenberger, Donahue,

24 Cornfeld & Jenkins, 100 N. Broadway, St. Louis, MO 63101.

25 The Defendant was represented by Mr. David

26 McCrea of the law firm of McCrea & McCrea, 119 South

27 Walnut Street, Bloomington, Indiana 47402.

1 IT IS HEREBY STIPULATED AND AGREED by and
2 between Counsel for the Plaintiff and Counsel for the
3 Defendant, that this deposition continuation may be taken
4 in shorthand by TOD MINNIGERODE, a Certified Shorthand
5 Reporter and Notary Public, and afterwards transcribed
6 into typewriting, and that the deposition is to be
7 continued.

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13 R. EMMET KELLY, M.D.,
14 of lawful age, being produced, sworn and examined on the
15 part of the Defendant, deposes and says:

16 EXAMINATION

17 QUESTIONS BY. MR. MC CREA:

18 Q Dr. Kelly, how are you this morning, sir?

19 A Fine and yourself?

20 Q Pretty good. When we last convened we were
21 discussing Exhibit K-2, I believe, and if you would, sir,
22 turn to page 1023 as indicated by the article page number
23 at the top. The first full paragraph down about
24 two-thirds of the way, it states, "In approximately one
25 half of the workers exposed there developed comedones of a

1 particularly heavy and tenacious type with resultant
2 sebaceous, abscesses containing heavy yellow pus and
3 serum." Can you again for us describe a comedone in
4 layman terminology?

5 A It's something between a blackhead and a
6 boil. A boil is an infected comedone. A comedone is a
7 plugged up sebaceous gland.

8 Q And when it says of a particularly heavy and
9 tenacious type, could you break that definition down for
10 us?

11 A I don't know what he means by heavy.
12 Tenacious means like if I use a common definition means it
13 took a little while to get well. You realize here he's
14 talking about chloracne in Europe, not PCB's at all. This
15 is chlorinated naphthalene he's talking about in this.

16 Q All right, sir, and that's identified in that
17 paragraph as chlorinated naphthalene?

18 A Yes. He refers to it at hexachlorobenzene --
19 Well, it's all chlorinated naphthalene. In 1918, these
20 cases were long before PCB's were invented.

21 Q Is that the same general family of chemicals,
22 chlorinated hydrocarbon family?

23 A Well, it depends on how widespread you
24 include the family. I mean, Italians and Irish and
25 Indians are all in the same family, but chlorinated

1 naphthalene is a different thing entirely than chlorinated
2 diphenyl.

3 Q What are the chemical elements in chlorinated
4 naphthalene?

5 A Chlorine, hydrocarbon -- chlorine, hydrogen,
6 carbon.

7 Q And those would be the same chemical elements
8 in a PCB, correct?

9 A Oh, yes, but it depends how they're --

10 Q Arranged?

11 A Arranged. Coal is carbon, diamonds are
12 carbon, but they're a little different.

13 Q Could chlorinated naphthalene be accurately
14 described as chlorinated hydrocarbon?

15 A In one sense, yes. Usually people do not
16 refer to a ring compound, which the naphthalene is, as a
17 hydrocarbon. It's usual, the usual termination --
18 terminology for hydrogen is a straight chain carbon with
19 chlorine on it. But you could use that as a definition,
20 yes.

21 Q In manufacturing chlorinated naphthalene do
22 you begin the process with benzene as you do with PCB's?

23 A I don't know how they make it.

24 Q It also states in that sentence, "With
25 resultant sebaceous abscesses." Can you define that for

1 us?

2 A An abscess is a boil. Sebaceous means a
3 sweat gland.

4 Q And then it said --

5 A An oily gland of the skin. It's an oil gland
6 of the skin.

7 Q Containing heavy yellow pus and serum?

8 A Once it's infected, that's what the pus is.

9 Q Then it states in the next sentence that --
10 and I'm having a little difficulty reading, it looks like
11 Teleky, T-e-l-e-k-y?

12 A Yes, sir.

13 Q "Believes that the disease was due directly
14 to the halogen content of the substance," and by that is
15 he referring to the chlorine content?

16 A Yes.

17 Q Turning over to page 1024 -- Well, actually
18 down to the bottom of 1023, it says, "Others," and then a
19 series of names, "Consider it to be dermatitis due to the
20 absorption of chemical compounds by the lungs or
21 gastrointestinal tract with elimination by way of the
22 sebaceous glands."

23 MR. CARNEY: I'm going to object to this line
24 of questioning. Are we still talking about a condition
25 with exposure to chlorinated naphthalenes?

1 MR. McCREA: Yes, I presume that we're still
2 talking --

3 Q (By Mr. McCrea) That still relates to
4 chlorinated naphthalenes, does it not, Doctor?

5 A Yes.

6 MR. CARNEY: I'm going to object to the
7 relevancy of that as opposed to the case we're involved
8 in, which is PCB's, and PCB's in any case are not the same
9 as chlorinated naphthalene.

10 Q (By Mr. McCrea) Dr. Kelly was there--Were
11 there varying opinions as to the manner in which
12 chlorinated naphthalenes caused the eruption on the skin?
13 Did some authors believe it was an irritation, did some
14 believe it was the elimination of the chemical through the
15 sweat glands and did others believe it involved liver
16 enzymes?

17 A I don't know where the enzymes are, but that
18 was a later belief. The first two beliefs I believe about
19 such as Teleky in 1918 was discarded sometime around the
20 1960's or seventies. But to answer your questions; yes,
21 with the exception that it was believed that there was
22 some change in the fat metabolism and the enzyme activity
23 of the body, yes.

24 Q And Teleky, his belief was what, that was
25 later changed in the sixties or seventies?

1 A Well, I don't know exactly what Teleky
2 thought back there in 1918; but at that time the people
3 believed that this material got on your skin, plugged up
4 the sweat glands and caused it that way.

5 Q And could --

6 A I think that was pretty rudimentary
7 approach to it.

8 Q And could that be described as more of an
9 irritant effect rather than a systemic effect?

10 A Well, irritant has a particular definition.
11 If you put paint remover into your skin you get red,
12 that's an irritation. Here we are not talking
13 particularly about irritation, we're talking about
14 chloracne.

15 Q Then below that on page 1024 is, "Report of a
16 Case," and in somewhat fine print it has, "History," of a
17 case, and it describes the actual symptoms of a worker who
18 was employed for Swann Chemical, is that correct?

19 A That is correct.

20 Q And does this article then go on -- does it
21 just have the one case history, Doctor?

22 A Well, it gives a short sketch of the sixteen
23 cases but they just gave the detailed history of Mr. O.D.,
24 whoever he was.

25 Q Would O.D. be the initials of an individual?

1 A That's correct.

2 Q And then on page 1025 it gives a summery of
3 the symptoms and treatment in sixteen cases of acneform
4 eruption, is that correct?

5 A Yes, sir.

6 Q Was it this author's belief that the acneform
7 eruptions were the result of exposure on the surface of
8 the skin, and that it was not the result of systemic
9 poisoning?

10 A I'll have to look, I don't think he has come
11 out with anything. He does say that some of the problem
12 may have been due to skin irritation of -- He doesn't make
13 any positive statement of what he thinks is the cause,
14 whether it's systemic or local action.

15 Q All right, sir. In the report of a case
16 which is described on page 1024, in the first paragraph it
17 gives a description of blackheads on his face, neck, arms
18 and legs. Does that fairly well speak for itself?

19 A Yes, sir.

20 Q In your opinion would that be an indication
21 of chloracne?

22 A Not of and by itself. It depends really on
23 what they looked like.

24 Q What would indicate to you that that
25 condition of blackheads on his face, neck, arms and legs

1 would be chloracne?

2 A If it started around the cheekbones. If
3 there were some pigmentation, it's -- Mr. O.D., being a
4 black man, I don't know of how well pigmentation could
5 have been observed.

6 Q Is it your opinion that if the condition does
7 not present itself initially on the cheekbones that you do
8 not have chloracne?

9 A No. No, I don't say that; but the majority
10 of them do start around the cheeks, around the eyes and
11 around the ears.

12 Q The next phrase states, "These areas itched
13 slightly." In your opinion could slight itching of the
14 skin of a worker exposed to PCB's be an indication of
15 chloracne?

16 A I don't think so. It all depends on what
17 else he might be exposed to, how long the PCB's were on
18 his skin. Itching in a chemical plant could come from a
19 great number of things.

20 Q Is itching a condition caused by an irritant
21 effect on the skin or a systemic involvement of the
22 chemical?

23 A In a worker it's due to the action on the
24 skin. In some cases there are allergic reactions that are
25 systemic that are accompanied by itching.

1 Q If an individual is working in PCB's and
2 experiences a condition of itching would that then
3 indicate exposure of the skin to PCB's?

4 A Again it depends on what else he might be
5 exposed to. Maybe he was exposed to chlorine, maybe he
6 was exposed to solvents.

7 Q If there was no other chemical which by
8 history could explain the itching, would itching of the
9 worker's skin be an indication that there has been PCB
10 contamination of the skin?

11 MR. CARNEY: Are you excluding anything
12 outside the work place, like poison ivy or some other
13 condition that might cause itching.

14 MR. McCREA: Right.

15 Q (By Mr. McCrea) If no other history of being
16 PCB's cause itching?

17 A I think if you get enough of it on you it
18 may.

19 Q Can itching result from systemic involvement?

20 A Of what?

21 Q PCB's.

22 MR. CARNEY: I'm going to object to the
23 question; it's vague and ambiguous to me.

24 A If the person has developed chloracne from a
25 systemic involvement from PCB he may get itching.

1 Q (By Mr. McCrea) Then it states, "In a short
2 time blackheads began to appear on the chest, back and
3 lower part of the abdomen, around the navel and on the
4 scrotum and penis." Do you believe -- do you know of any
5 other conditions which can cause blackheads in those
6 particular areas of the body other than exposure to PCB's
7 or related chlorinated hydrocarbons? For instance, can a
8 teenager experience conditions in those areas?

9 A I have never seen teenage acne on the scrotum
10 and penis. There are any number of chemicals ranging from
11 wood treating chemicals to agricultural chemicals that can
12 cause widespread chloracne which is -- could be in those
13 areas.

14 Q And which wood treating chemicals and
15 which -- what was the other chemical?

16 A Pentachlorophenol.

17 Q All right, is that --

18 A 2,4,5-T.

19 Q And those chemicals can also produce
20 blackheads on the scrotum and penis?

21 A Yes.

22 Q What other skin conditions can appear on the
23 scrotum and penis as a result of exposure to PCB's,
24 related chlorinated hydrocarbons, pentachlorophenol,
25 2,4,5-T?

1 A I don't know of any.

2 Q Could boils appear in those areas?

3 A Well, it all depends. I mean, what you mean
4 by a boil, if you have chloracne there and these areas get
5 infected obviously you've had an abscess. A boil is
6 usually referred to as an abscess in a hair follicle, but
7 these are not in the hair follicles but you get pustules
8 and infected comedones is an abscess. It's pretty close
9 to a boil. It's not exactly a boil in the terminology but
10 it's close.

11 Q If you examined a worker and he had
12 blackheads on his scrotum and penis would you suspect
13 chloracne?

14 A No, not necessarily. I guess, I'd have to
15 say where else it was, if that's all the place -- the only
16 place it was I would not suspect chloracne.

17 Q If it was on other areas of his body, such as
18 his arms, his trunk, his face, would you suspect
19 chloracne?

20 A I would if there was any history of exposure
21 to any chlorinated compounds.

22 Q If you observed abscesses on his scrotum and
23 penis and he had other skin problems would you suspect
24 chloracne?

25 A And a history of exposure to chlorinated

1 compounds, yes, I'd suspect it.

2 Q Do you know of any condition resulting from
3 normal biological functions that can result in comedones
4 or boils on the scrotum and penis?

5 A Sure. You get jockstrap itch, and if you get
6 jockstrap itch and you scratch it and it becomes infected
7 you get boils and abscesses on the penis and scrotum.

8 Q Any other conditions?

9 A There may be some but that's the most common
10 one.

11 Q Have you ever seen it there as a result of
12 acne, teenage acne?

13 A No. I haven't seen very many teenage acnes,
14 either.

15 Q Have you ever seen it reported as a result of
16 teenage acne?

17 A Not that I recall.

18 Q Have you ever seen it reported as a result of
19 acne fulminans, fulminans?

20 A That means a pretty serious acne. Fulminans
21 means a fulminating acne and I don't know whether that
22 refers to teenage acne or chloracne. Could be referred to
23 both, either one.

24 Q So is it fair to say it's rare to find
25 comedones and boils on the scrotum and penis?

1 A Certainly more rare to find it there than on
2 the face and arms and back.

3 Q The next sentence or at the bottom of that
4 paragraph said, "When seen in December 1933 the patient
5 complained of lassitude, loss of appetite and loss of
6 libido and said that his cutaneous condition seemed to be
7 improving." What is lassitude?

8 A Tiredness.

9 Q And can that be -- that condition would have
10 to involve systemic, that would be a systemic involvement,
11 would it not?

12 A Could be systemic, could be psychological.

13 Q And what is loss of appetite? Speaks for
14 itself?

15 A I think so.

16 Q And loss of libido, what is that?

17 A Loss of sexual drive.

18 Q And that would have to be systemic, would it
19 not?

20 A Not necessarily. It could any number of
21 reasons, it could be social, it could be psychological,
22 could be due to domestic trouble.

23 Q If those symptoms corresponded in time to the
24 chloracne would you suspect a systemic poisoning?

25 A No. I would not.

1 Q Why not?

2 A Because these symptoms are very common in
3 almost any number of occupational and non-occupational
4 conditions. Tiredness, loss of appetite, that can
5 occur -- loss of libido, it can occur for any number of
6 reasons. The largest percentage is psychological in these
7 cases.

8 Q If the worker had no history of complaints of
9 lassitude, loss of appetite and loss of libido before the
10 onset of the chloracne would you find that to be
11 significant from the standpoint of cause and effect?

12 A No, I wouldn't; because here a man has been
13 presumably off work, he's been going to several doctors.
14 He's got a lot of changes in his before and after pattern.
15 So I don't believe that one could just say that these
16 symptoms, and remember these are symptoms, there's nothing
17 objective that you can look at. These are symptoms that
18 are very common and are seen in all sorts of instances.

19 Q Could it be the result of systemic poisoning,
20 lassitude, loss of appetite and loss of libido?

21 A I would think you would have to know more
22 about the case to know that. After all, there has been
23 nothing else in here on these because the next sentence he
24 says, "On examination he seemed to be in good general
25 health." Dr. Jones in the next sentence did not ascribe

1 lassitude to the PCB's. I believe that Dr. Jones made a
2 statement that would not be said today, in the next
3 sentence, but he did not agree that this was due to his
4 PCB exposure.

5 Q In the next sentence Dr. Jones states that,
6 "His --" meaning O.D. -- "complaint of lassitude was not
7 borne out by anything more than the usual temperament of
8 the Negro toward work." Dr. Kelly, isn't that flat-out a
9 racist statement?

10 A It certainly is, and remember this is Dr.
11 Jones, back in Georgia in 1935. So this is not my
12 statement.

13 Q Did Monsanto ever correct that statement by
14 confronting Dr. Jones and pointing out to him that that
15 statement was racist and had no basis whatsoever in fact?

16 MR. CARNEY: Let me object to this question.
17 It's an obvious attempt by Mr. McCrea to try to attribute
18 a very racist statement made by a doctor that had nothing
19 to do with Monsanto back in the 1930's in the South and to
20 somehow try to attribute or connect that statement, which
21 is abhorrent to Monsanto and to Dr. Kelly, as he's
22 indicated, to Monsanto and it has no place in this lawsuit
23 and to try to inject that to in this lawsuit is -- it's
24 very repugnant.

25 MR. MCCREA: Well, lassitude is a symptom

1 which Dr. Kelly acknowledged was caused by the exposure of
2 the Japanese to the Yusho PCB in 1968. Lassitude is
3 clearly documented in this article written in 1933. The
4 point is, what credence did the PCB industry give to this
5 account of lassitude.

6 Q (By Mr. McCrea) Dr. Kelly, did you at any
7 point in time as medical director of Monsanto believe that
8 lassitude could be a symptom caused by exposure to
9 chlorinated hydrocarbons from 1936 forward?

10 MR. CARNEY: I'm going to object to the
11 speech you made. Move to strike.

12 A Let's have that question over please.

13 MR. McCREA: Could you read it back please?

14 (Reporter read back from the record as directed:

15 MR. McCREA: "Well, lassitude is a symptom
16 which Dr. Kelly acknowledged was caused by the exposure of
17 the Japanese to the Yusho PCB in 1968. Lassitude is
18 clearly documented in this article written in 1933. The
19 point is, what credence did the PCB industry give to this
20 account of lassitude?

21 Q (By Mr. McCrea) Dr. Kelly, did you at
22 any point in time as medical director of Monsanto believe
23 that lassitude could be a symptom caused by exposure to
24 chlorinated hydrocarbons from 1936 forward?")

25 A You have a multiple question there, Mr.

1 McCrea, two that I know. Do you want to break it down or
2 do you want me to --

3 Q (By Mr. McCrea) No. Just answer the last
4 one.

5 A Well, in the first place before I answer the
6 last one, you talked about the PCB's in Yusho. You must
7 realize that that has been acknowledged to be due to the
8 presence of dibenzofurans in the PCB's.

9 Now to answer the last question, I would have to
10 take a symptom into account with other -- with the
11 physical examination and the laboratory studies and the
12 general -- what other findings there were, if there
13 were -- Well, that's the answer.

14 Q Dr. Kelly, you and your attorney acknowledge
15 that this was a racist statement by Dr. Jones in ascribing
16 lassitude and stating it was not borne out by anything
17 more than the usual temperament of the Negro toward work;
18 and I know that you don't believe that and I know that no
19 one believes that statement. Isn't it a fact then that
20 lassitude was a documented symptom of this individual who
21 was exposed to the chemicals in the workplace at Swann?

22 A Yes, sir. He did tell Dr. Jones I feel
23 tired.

24 Q And that there was no explanation for that as
25 Dr. Jones suggested, I mean, that is just totally outside

1 the realm of any validity, correct?

2 A No. I don't know what you mean. It's
3 totally outside the realm of any validity; I don't know.
4 I can't make sense of that statement.

5 Q Well, he ascribed that to the fact that this
6 man was black?

7 A Well, he did say he could find no reason for
8 the lassitude.

9 Q Well, isn't there --

10 A Wait, just a minute, let me finish. He said
11 this complaint was not borne out by anything, now, okay.
12 He didn't find anything else. He ascribed it to -- in a
13 racist manner which I disagree with; but I have to agree
14 with this first part when he said he didn't find anything
15 to bear out the tiredness.

16 Q Well, isn't it a fact that the man had just
17 been exposed to PCB's, contaminated with whatever and had
18 a horrible skin condition and was complaining of lassitude
19 and shouldn't the doctor have considered lassitude as a
20 consequence of the exposure?

21 A I would not --

22 MR. CARNEY: Let me just object; to have Mr.
23 Kelly or Dr. Kelly speculate as to what was inside Dr.
24 Jones' mind at that time --

25 A Well, that's what I was going to say. I have

1 no idea what Dr. Jones' thoughts were in 1935. I don't
2 know what he thought of, I cannot put myself inside his
3 head.

4 Q (By Mr. McCrea) But we know it's not related
5 to the reason ascribed by Dr. Jones, agreed?

6 A Yes.

7 Q We know that the man had exposure to PCB's
8 and had a skin condition that was very obvious, correct?

9 A Yes.

10 Q Doesn't that give medical credibility to the
11 fact that the lassitude could be the result of the
12 exposure to the chemical?

13 A It's possible, but it could also as I said
14 earlier it could be due to a great number of psychological
15 problems. Here a man is off work, here a man is making
16 trips to the doctor, here a man is hanging around the
17 house. I don't know what was happening to him. I don't
18 know what made him tired; but you can see people who are
19 ill that feel tired, and this man was in good general
20 health according to what he seen, in good general health.
21 I can't say any more than that. The general physical
22 examination revealed nothing of importance outside of the
23 skin condition.

24 Q Describe to the jury your interpretation of
25 the finds of lassitude in this article.

1 A Well, this article states that Mr. O.D. had
2 lassitude, which meant he felt tired. Dr. Jones says a
3 general physical examination revealed nothing of
4 importance. Dr. Jones said he seemed in good general
5 health and his complaint of lassitude was not borne out.
6 Now if he stopped there that would be fine, he couldn't
7 find the cause of the lassitude. Well, he proceeded on
8 what we know is a racist type of mindset, and that's all I
9 can say about it.

10 Q If I called you and asked you after you read
11 this article if you felt lassitude could be a consequence
12 of this man's exposure to the chemicals, what would your
13 answer be?

14 A Say that over. I want to get this exactly
15 right.

16 THE WITNESS: Could you read it please?

17 MR. McCREA: Read that back.

18 (Reporter read back from the record as directed:

19 Q "If I called you and asked you after
20 you read this article if you felt lassitude could be a
21 consequence of this man's exposure to the chemicals, what
22 would your answer be?")

23 A It might and it might not.

24 Q (By Mr. McCrea) What would you, Dr. Kelly,
25 do to determine if in fact the lassitude was caused by the

1 exposure to the chemicals. How would you go about
2 determining that medically?

3 A I don't think you can.

4 Q Would you take a history and ask him if
5 during his twenty-six years he had ever felt tiredness
6 before?

7 A I may have -- I certainly might, yes.

8 Q And in --

9 A This doesn't say whether he had ever felt
10 tired before, either.

11 Q Wouldn't that be something that you would
12 want to know as a doctor in trying to determine if the
13 chemicals caused lassitude?

14 A I am saying that, yes, but you have to
15 remember that the question is: Did the chemical cause the
16 lassitude? Did the man's illness and the sociological
17 changes in his environment cause the lassitude? Did being
18 out of work cause the lassitude? I don't think anybody
19 can say this caused it, and this didn't cause it.

20 Q But if in fact the chemicals are causing
21 lassitude then that means there is a systemic involvement
22 that is of significant, correct?

23 A No, not correct; because in the absence of
24 any physical signs, in the absence of any laboratory work,
25 just the fact that a man feels tired is not a significant

1 symptom, no, sir.

2 Q What about the libido, loss of libido? Have
3 you seen that reported in the literature, other than this
4 article?

5 A I've seen it reported in the literature for
6 probably fifty chemicals.

7 Q How does chemical exposure result in loss of
8 libido?

9 A I don't think it's known and it's also -- I
10 don't think it's known whether it does.

11 Q Well, you stated that you have seen it
12 reported as a result of exposure to some fifty chemicals?

13 A No. I didn't say as a result of exposure.
14 Said in connection with.

15 Q Can you describe some of those chemicals for
16 us, list some of them?

17 A No, I can't, but you can go through almost
18 any trial and you will find that loss of libido is a very
19 prominent symptom, no matter what the chemical is.

20 Q Describe to the jury your interpretation of
21 the report of this worker that he experienced loss of
22 libido, based on all the knowledge which you have right up
23 to this date?

24 A Will you repeat that again?

25 MR. McCREA: Could you read it back?

1 MR. CARNEY: Yeah. Let me just for the
2 record object to the question on the ground that I think
3 it's vague and ambiguous.

4 (Reporter read back from the record as directed:

5 Q "Describe to the jury your
6 interpretation of the report of this worker that he
7 experienced loss of libido, based on all the knowledge
8 which you have right up to this date?"

9 A Well, I can't describe what he -- because I
10 didn't take the history, I don't know how much loss of
11 libido he had. I don't know how his libido was five years
12 before this, and I don't think any -- When you say the
13 knowledge I have up to this present date, my knowledge of
14 libido being lost by workers who have alleged loss of
15 libido as a symptom, that's a pretty hard thing to prove.

16 Q (By Mr. McCrea) But the complaint is one
17 that's very specific, is it not?

18 A Specific as to what, the chemical?

19 Q As to symptom?

20 A Well, certainly, it's --

21 Q And it's one that you take seriously, if
22 someone reports that to you and they report a chemical
23 exposure, you know from your experience that loss of
24 libido has been associated with exposure to some fifty
25 chemicals?

1 A In conjunction with exposure, yes. I do not
2 know that it has -- I certainly did not say that that loss
3 of libido has been caused by exposure to these fifty
4 chemicals. I said that loss of libido is a symptom that
5 is prominent in histories of people alleging injury from
6 chemicals.

7 Q This article dismissed outright those
8 symptoms of lassitude, loss of appetite and loss of
9 libido, did it not, it gave them no credence?

10 A I don't know what your interpretation is
11 there. It gave them no credence what? He put it down, he
12 said, "This man told me that he has loss of libido."

13 Q Does he ever discuss it?

14 A No, he doesn't discuss it, no.

15 Q But that was essentially documented in 1933
16 in this article which you have relied on in your direct
17 examination as I recall and there's no other explanation
18 other than the chemical exposure or his being fatigued as
19 a result of being out of work?

20 MR. CARNEY: I'm going to object to the form
21 of the question. It's compound, it's vague and ambiguous.

22 Q (By Mr. McCrea) Let me ask this, I agree
23 with that. Did you take those symptoms seriously when you
24 read this article, loss of libido, loss of appetite and
25 lassitude?

1 A I don't know what you mean, serious about
2 what? So this man had some symptoms, yes, but his main
3 problem was his skin. He came in, and was treated for his
4 skin. He was in pretty good, quite -- nothing of
5 importance in his physical examination outside the skin,
6 and he got well. I didn't pay a great deal of attention
7 to the symptoms, no. That's a whole -- you're picking one
8 small item out of the whole makeup of the individual.
9 Well, I'm not saying that libido isn't important, let me
10 get that right, but --

11 Q I don't know that lassitude, loss of appetite
12 and loss of libido are any less significant than
13 chloracne, Doctor.

14 MR. CARNEY: Well, I'm going to object to
15 what's more significant. I don't know what's more
16 significant than what. I don't know how you compare loss
17 of libido to loss of appetite in terms of -- I don't know
18 what you're trying to get him to compare them to.

19 MR. McCREA: Well, he said that it's one
20 small item.

21 A Did I say small?

22 Q (By Mr. McCrea) I thought you said one small
23 item.

24 A Well, then I went to correct it. I do not
25 want to minimize loss of libido.

1 Q Right. Did you service the workers at
2 Monsanto Company for loss of lassitude who were exposed to
3 PCB's?

4 A No. The physicians did, examining
5 physicians.

6 MR. CARNEY: I'm going to --

7 Q (By Mr. McCrea) And did you instruct them to
8 look for this condition?

9 A For what condition?

10 Q Lassitude?

11 A No, sir, because a physician knows when he's
12 examining a man, he asked him, "How have you been feeling?
13 Are you tired?" He goes through a whole gamut of
14 questions.

15 Q With this report in 1933 why didn't you
16 direct your physicians to look for those symptoms in the
17 workers?

18 MR. CARNEY: Well, I'm going to object. I
19 think he's already answered that they knew how to take a
20 history which would include those questions.

21 A These physicians are people who have examined
22 workers all their life. They are experts at it. They
23 don't need to be told to look for one or two isolated
24 symptoms. You are picking one or two symptoms out of a
25 whole category of questions that people ask during the

1 course of a history and physical examination.

2 Q (By Mr. McCrea) Lassitude is one of those
3 symptoms which you stated earlier in your deposition was
4 related to the Japanese exposure to the Yusho oil,
5 correct?

6 A Yes, the Yusho oil.

7 Q Dr. Kelly, going down to physical
8 examination, it says, "On the forehead extending within
9 the hairline and on the cheeks, chin, nose and neck were
10 numerous small very black tenacious comedones, their
11 distribution being best described as peppered within the
12 skin." Could you explain that description to the jury
13 in any more detail other than what is stated there?

14 A No, sir. I don't know what he meant.

15 Q When it says within the hairline, what does
16 that mean?

17 A Well, I think everybody knows what a hairline
18 is. That's where your scalp stops and your forehead
19 starts.

20 Q So there would have been according to this
21 observation small very black tenacious comedones within
22 the hairline itself?

23 MR. CARNEY: Well, I'm going to object.
24 You're asking this witness to possibly speculate as to
25 what those words mean and what Dr. Jones meant. I

1 think -- I don't know that this witness is any better at
2 reading those words than the jury or the lawyers are.

3 MR. McCREA: I agree, I think it pretty well
4 speaks for itself.

5 Q (By Mr. McCrea) But I would like to clarify,
6 doctor, if in fact there were small very black tenacious
7 comedones inside the hairline. In other words --

8 A That's what he said.

9 Q Have you seen that reported in other cases of
10 chloracne?

11 A I may or I may not have. It's not a very
12 prominent -- it doesn't stand out very much in my mind.

13 Q But it did in this case?

14 A Did and he reported it.

15 Q Isn't it true, Dr. Kelly, that there's a
16 great variability among people to symptoms, for instance,
17 I could walk through a patch of poison ivy and break out,
18 and somebody else could lie down in the stuff and not be
19 effected, is that generally safe -- Is that fair to say?

20 A Well, no, because first of all you're
21 confusing terms. A symptom is a complaint that's not
22 objective. You can't see it. A sign is what you would
23 get when you go into poison ivy. You would get a blister,
24 you would get redness. A symptom would be itching. Now
25 to answer your question, yes, some people when exposed to

1 poison ivy get a symptom of itching, some people don't.

2 Q And that's just because we don't all react in
3 the same way, fair statement?

4 A Yes. But that's over-simplistic, it all
5 depends on how much you get. Some people -- The same
6 person might react to a good-sized dose of poison ivy, and
7 he wouldn't react at all to a small dose of poison ivy.

8 Q Have you ever seen two cases of chloracne
9 which are just identical?

10 A No.

11 Q There is some variability to all of them, is
12 that a fair statement?

13 A Oh, yes, from insignificant to severe.

14 Q What would be an example of an insignificant
15 case of chloracne?

16 A Something a man doesn't know he has until a
17 doctor looks at it and says, "I think you've got
18 chloracne."

19 Q What would those signs be of an insignificant
20 case?

21 A Small blackheads around the cheekbones.

22 Q Anything else?

23 A That's it.

24 Q Then the next, it says, "Many of the
25 comedones surmounted firm shot-like cysts which in some

1 areas contained viscid yellow pus." What does that, break
2 that down for us?

3 A This means that these blackheads were sitting
4 on top of a cyst. A cyst is a collection of liquid or
5 semi-viscous material or pus in these cases. So here we
6 have these little blackheads sitting on top of a circular
7 area that contained yellow pus.

8 Q Next sentence, "The pustular elements were
9 more noticeable on the neck." Can you tell the jury what
10 that would appear to be?

11 A It means whatever he had were more noticeable
12 in his neck than anyplace else.

13 Q What does it mean, pustular?

14 A That means the cysts that contained viscid
15 yellow pus that he mentions in his previous sentence.

16 Q "Some shot-like comedones had appeared only
17 the shoulders, mid portion of the back and chest with an
18 occasional large cyst." Does that fairly well speak for
19 itself, Doctor?

20 A I think so.

21 Q "A particular peppering of the skin with
22 tenacious carbon-colored comedones was apparent around the
23 umbilicus and lower portion of the abdomen." Is that
24 descriptive in and by itself?

25 A I think so.

1 Q "The scrotum and penis were involved in a
2 similar process; the former being given more to the
3 formation of cysts." We've discussed that?

4 A Yes.

5 Q "The outer surfaces of the forearms and
6 interior thigh showed similar but fewer comedones." Can
7 you show to the jury what is meant when they state the
8 outer surfaces of the forearms? Is that this part here?

9 A That's outer, this is inner.

10 Q So it would be this part of the forearm which
11 had comedones, correct?

12 A Yes, sir. Fewer they said.

13 Q Yes. And then it says, "The anterior thighs
14 likewise showed fewer comedones," and anterior would be
15 the front portion of the thigh?

16 A That's correct.

17 Q Have you seen that condition in other cases
18 of chloracne where it's on the outer forearm and the
19 anterior thigh?

20 A Yes. But not limited to those areas, yes,
21 sir.

22 Q In addition to other places?

23 A Other places?

24 A Yes, sir.

25 Q Other places. Says, "The whole eruption was

1 acneform but differed from acne particularly in the lack
2 of a seborrheic appearance of the skin and in the
3 peculiarly deep black of the comedones as well as a
4 general peppered distribution in areas not usually
5 involved with acne vulgaris?" Can you explain that to the
6 jury?

7 A Well, acne vulgaris means common acne,
8 teenage acne which goes up to at adult life. Seborrhea is
9 flaking of the skin, redness of the scalp and flaking of
10 the skin also that accompanies teenage acne. The deep
11 blackheads seen in chloracne are not usually present in
12 acne vulgaris, that's what he says.

13 Q All right, sir. Then he goes on to describe
14 treatment and he goes on to describe microscopic
15 examination on page 1025?

16 A Yeah. Well, he also, to end up, be complete,
17 he also ends up saying a general physical examination
18 revealed nothing of importance.

19 Q All right, sir.

20 A And the treatment, yes, sir.

21 Q And on the general examination which revealed
22 nothing of importance, what do you understand to be a
23 general physical examination?

24 A Examination of the heart, lungs, blood
25 pressure, abdomen, neurological system; the whole business

1 outside of the skin.

2 Q But nothing specific? I mean, it's not -- he
3 wasn't referred to a specialist in neurology by Dr. Jones.

4 A No, but he had no symptoms of findings
5 that -- after all Dr. Jones is a physician, he would know
6 if a man had neurological symptoms or neurological
7 findings.

8 Q Well, couldn't lassitude be a neurological
9 symptom?

10 A No, sir, lassitude, a neurological -- it's
11 hard to say whether a symptom is neurological or
12 psychological.

13 Q Could it be a neurological symptom?

14 A I don't think so. I wouldn't include it as a
15 neurological symptom.

16 Q Can a person experiences lassitude as a
17 result of medications?

18 A Oh, certainly.

19 Q And how is that brought about?

20 A You have medicines that are depressants.
21 You're using the term neurological and I'm using the term
22 psychological.

23 Q Well, if it's a depressant and it affects the
24 brain?

25 A Yes, sir. That's correct.

1 Q And that can result in lassitude?

2 A Yes, sir.

3 Q Page 1025, treatment, they gave this man
4 radiation, correct?

5 A Yes, sir.

6 Q Then microscopic examination. Dr. Kelly,
7 have you ever done microscopic examination of skin samples
8 of individuals in whom you suspected chloracne?

9 A No, sir, I have not.

10 Q And they describe on page 1025, "Summary of
11 the symptoms and treatment in sixteen cases of acneform
12 eruption," and across the top it has case, and a number,
13 age, race, type of skin, type of eruption. Is that time
14 of exposure, I can't read it on mine?

15 A Yes, time of exposure.

16 Q Time of exposure, and special treatment and
17 it goes through all sixteen cases?

18 A Yes, sir.

19 Q Do you know which after these individuals you
20 consulted when you became medical director?

21 A No, sir, they don't have the names down.

22 Q But you did consult --

23 A Some of them, yes.

24 Q Some of them when you became medical director
25 for Monsanto Company?

1 A Yes, sir.

2 Q Did you make any inquiry into the symptoms of
3 lassitude, loss of libido, loss of appetite?

4 A Not that I recall. I don't know if I did. I
5 asked them how they were feeling. When they said they
6 felt fine I figured they had no symptoms.

7 Q Before you commenced your consultation with
8 these individuals you had read this article?

9 A Yes, sir.

10 Q The microscopic examinations described in
11 this article, is there anything you feel is indicative of
12 chloracne as aerolites of microscopic examinations?

13 A Are we talking about this article or any
14 time?

15 Q No. In general.

16 A Yes. Some dermatologists and some
17 pathologists believe that they could tell chloracne by
18 microscopic examination.

19 Q Who are some of those folks?

20 A Suskind is one.

21 Q Who else?

22 A Gosh, I don't remember them offhand, but --

23 Q Page 10twenty-six is what, is that a
24 photograph of a microscopic examination?

25 A A section of the skin from the chest showing

1 the formation of the acneform eruption, eruption meaning a
2 condition or rash, acneform being acne.

3 Q Is that a situation where they actually took
4 a photograph of the microscopic --

5 A Yes, sir.

6 Q Picture?

7 A They took one out of the skin and sliced it
8 and put it on slide and put a microscope on it and put a
9 camera on top of the microscope.

10 Q Page 1027, "Twenty-three of twenty-four men
11 reported acneform eruption on the face and body." It says
12 of the twenty-three, sixteen were examined. What does
13 this mean, Doctor, just above the photograph, "In many
14 patients numerous small sebaceous abscesses developed
15 particularly around the -- I read that as c-o-l-l-o-r-a,
16 is that correct?

17 A Collar, collar, they just spelled it wrong.
18 I think it's the collar line. That would be what I would
19 think.

20 Q That would be just above the collar around
21 your neck?

22 A Yes.

23 Q But that c-o-l-l-o-r-a is just a misspelling?

24 A I don't know. I don't know what else it
25 could be. I have never heard of a work like

1 c-o-l-l-o-r-a.

2 Q And it makes reference in that same sentence
3 at the end to scarring, "Leaving in their wake much
4 scarring." Is that something that has been reported in
5 chloracne, scarring?

6 A Well, it's been reported in chloracne, it's
7 been reported in teenage acne, it's been reported in adult
8 acne. Wherever you incise a cyst that has pus in it, you
9 get a scar from the incision and the healing.

10 Q Next couple of pages describe the process of
11 manufacture, is that a fair statement, Doctor?

12 A Yes, sir.

13 Q Break time.

14 (Whereupon, a short break was taken.)

15 Q Dr. Kelly, we're ready to resume here. This
16 morning we have discussed Exhibit K-2, which I believe you
17 have in front of you?

18 A Yes, I do.

19 Q And for the record that document is titled,
20 An Acneform Dermatargosis -- Can you pronounce that for
21 me?

22 A No. That's a -- I think you're doing as well
23 as anybody. That's an obsolete term.

24 Q Authored by Jack W. Jones, M.D. and Herbert
25 S. Alden, M.D., Atlanta, Georgia. Do you know if you in

1 fact interviewed the individual whose case was reported on
2 page 1024?

3 A No, sir, I do not.

4 Q Just to be clear for the record and I think
5 this has been asked and answered, but just to be totally
6 clear, when you interviewed the workers who had been
7 exposed to these chemicals in 1935 or 1936?

8 A Wait, I did not -- which of the dates, '35 or
9 '36.

10 Q When you interviewed them?

11 A No, I didn't interview them in '35, I wasn't
12 with Monsanto in '35. I didn't interview them in 1936, it
13 was '37 or '38.

14 Q Thank you. When you interviewed them, you
15 did not ask any of them if they had experienced tiredness
16 when they were exposed to the chemicals?

17 A To the best of my knowledge, I did not. I
18 asked them if they had lost any work, how they were
19 feeling and the response was favorable. They said, "I
20 feel fine."

21 Q And just to be clear on the record, you did
22 not ask any of them if they had experienced a loss of
23 appetite when they developed the chloracne?

24 A You mean I did not ask them in 1937 whether
25 they had lost their appetite in 1935?

1 Q No. When they had the chloracne.

2 A Well, that's when they had the chloracne, in
3 '35.

4 Q I thought it was earlier.

5 A Well, it was very -- Well, whenever they had
6 the chloracne, no, I did not.

7 Q And again to be clear for the record you did
8 not ask any of the individuals whom you interviewed if
9 they had experienced a loss of libido when they suffered
10 the chloracne?

11 A I did not in 1937 or '37 or whenever. I
12 discussed their case with the workers that has chloracne
13 and when they were working for the Swann company I did not
14 ask in 1937 or '38 if they had loss of libido. No, I did
15 not.

16 Q And again, to be clear for the record, when
17 you interviewed the workers you had read this article?

18 A That's correct.

19 Q You had also I believe talked to Dr. Alden or
20 Jones?

21 A I believe I had. I'm not sure I did.

22 Q Before you interviewed the workers?

23 A At some -- Yes. I'm not sure that I did. I
24 mean, I'm not certain of that. That is fifty-five years
25 ago.

1 Q Did you generate written materials as a
2 result of your interview of those workers?

3 A No, I did not, no. I think you're stating
4 this interview, I saw these workers while they were
5 working and I asked them if they had been -- some of the
6 ones that had been seeing Dr. Jones and during the course
7 while they were work, I talked to them about their present
8 medical condition.

9 Q Could we --

10 A It was not a formal interview.

11 Q Excuse me. Could we call that medical
12 examination?

13 A No. We could not.

14 Q Did you interview them in an office type
15 setting?

16 A No, I saw them at their workplace.

17 Q Doctor, can differences in the color of PCB's
18 indicate impurities?

19 A Yes.

20 Q Did Monsanto publish documents which
21 described variations in the color of certain Aroclors in
22 the manufacturing process?

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

24 Q As of this date you have no knowledge of
25 documents published by Monsanto which describe variations

1 in the color of Aroclors?

2 A Well, I don't have any specific knowledge,
3 but it may exist. I don't know.

4 Q What would that indicate to you if there was
5 a variation in colors?

6 A I am not a manufacturing chemist. I cannot
7 comment on that.

8 Q On page 1030 at the bottom of the paragraph
9 beginning, "In the beginning," it states -- and I'll read
10 the sentence, "In the beginning an attempt at prevention
11 of the condition was made by being especially careful that
12 all men engaged in the manufacture of chlorinated diphenyl
13 should have a thorough bath after working hours and that
14 they should wear freshly laundered clothing before
15 starting work." Would you consider a deviation from that
16 practice as an unsafe practice?

17 A No. It all depends on what the working
18 conditions were. In other words, if this referred to the
19 early days of manufacturing chlorinated biphenyl at
20 Anniston, that's one thing. If it referred to after we
21 had -- after the modernization of the plant and the
22 improvement in the housekeeping and the improvement in
23 ventilation they may not have had to do this.

24 Q If a worker came up to you and he said, "Dr.
25 Kelly, when should I have a thorough bath after working

1 hours and wear freshly laundered clothing?" What would
2 you tell him?

3 A About what? He just walks in and asks
4 anything?

5 Q Yes. If he says, "Dr. Kelly, when should I
6 have a thorough bath after working hours, and have freshly
7 laundered clothing?" What would you tell him?

8 MR. CARNEY: Are you talking about what
9 period of time, what plant? Just generally a worker? Is
10 he a PCB worker; is he in the Anniston plant?

11 MR. McCREA: Let's say in 1958.

12 Q (By Mr. McCrea) In 1958 if a worker called
13 you from the Bloomington, Westinghouse plant and asked
14 under what conditions he should have a thorough bath after
15 working hours and have freshly laundered clothing, what
16 would you tell him?

17 MR. CARNEY: I'm going to object because I
18 think the doctor doesn't have knowledge of the Bloomington
19 plant.

20 A I would tell him, "I don't know exactly how
21 you're exposed. I don't know how much contact you've had
22 with material. That is something for you to ask your
23 supervisor, don't ask me." I don't know what his
24 exposure -- I don't know what else he was exposed when
25 they were outside of PCB's.

1 Q (By Mr. McCrea) If the worker asked you what
2 exposure would require a thorough bath after working hours
3 and wearing freshly laundered clothing, how would you
4 describe that exposure that would necessitate those
5 precautions?

6 A I would say if you have your -- In the first
7 place, I don't know if I would be in a position to comment
8 on this man's work over there. I would have to take that
9 into advisement -- under advisement. But as a general
10 recommendation I would say that if your clothes is --
11 clothes are soiled, soaked with the material you should
12 not wear those. You should take a bath or a shower
13 immediately, or during your -- Shortly after such exposure
14 occurred.

15 Q And would you consider the failure to have a
16 thorough bath after working hours and wear freshly
17 laundered clothing under those circumstances an unsafe
18 practice?

19 MR. CARNEY: Well, I'm going to object to the
20 question. I think it leaves too many facts out. I don't
21 know what you're talking about again, what other chemicals
22 the person might be exposed to, what the extent of the
23 exposure -- There are too many factors there that you
24 haven't hypothesized. What time period, what plant, and
25 Dr. Kelly -- if you're referring to Bloomington again, he

1 has indicated he's never seen that plant.

2 A It would have to be an assumption. I could
3 answer that as far as the Monsanto plant is concerned.

4 Q (By Mr. McCrea) What would your answer be as
5 far as Monsanto's plant is concerned?

6 A I would say that if you're exposed to PCB's
7 and your clothing is saturated with it at various areas
8 you should take a bath and change your clothing.

9 Q And would you also consider that an unsafe
10 working condition?

11 A Well, it depends how long it was repeated,
12 how often it was repeated. I don't know. I mean, you are
13 asking for an assumption that I'm not in a position to
14 give. I just don't have all the facts on it.

15 Q Weren't you asked to give expert testimony as
16 well as factual testimony as to the fact that if there
17 were safe working conditions there would be no risk from
18 PCB's?

19 A That's correct.

20 Q Would you consider soaked and saturated
21 clothing on one day with no thorough bath and no freshly
22 laundered clothing as an unsafe working condition?

23 A Are you saying then --

24 MR. CARNEY: Read that question back. I'm
25 not sure I --

1 (Reporter read back from the record as directed:

2 Q "Would you consider soaked and
3 saturated clothing on one day with no thorough bath and no
4 freshly laundered clothing as an unsafe working
5 condition?")

6 A I would consider if the person wore a
7 clothing that was saturated with PCB's and wore it for a
8 working day, that should in the be allowed.

9 Q (By Mr. McCrea) And would that be unsafe?

10 A That again depends. I don't know if that has
11 occurred. It's not been reported as causing any problems.
12 So I can't answer whether it's unsafe.

13 Q The next sentence states that, "These workers
14 were also instructed to apply night and morning veterinary
15 white lotion to the affected parts." Do you know what the
16 purpose of that was?

17 A I haven't the slightest idea.

18 Q Doctor, do you know any of the gentlemen
19 whose names are referenced in the abstracts of discussion
20 which begins at page 1033, Dr. Oliver S. Ormsby, Chicago?

21 A I do not know him.

22 Q Do you know Dr. Marion E. Sulzberger?

23 A I know him by reputation. He was a very
24 prominent dermatologist.

25 Q Dr. H.G. Irvine?

1 A No, I do not know him. Know of him either.

2 Q Dr. Kelly, who is Herbert Blumenthal?

3 A Herbert Blumenthal is a Ph.D. who is United
4 States -- who's with the United States Public Health
5 Service -- I mean, the United States Department of
6 Agriculture.

7 Q Did you recall correspondence with Dr.
8 Blumenthal regarding PCB's?

9 A I know I've had correspondence with him. If
10 you show me it will refresh my memory.

11 Q All right, sir.

12 MR. McCREA: Could the court reporter mark
13 this as our next exhibit?

14 (Whereupon, Plaintiff's Deposition Exhibit No. 3
15 was marked for identification.)

16 Q (By Mr. McCrea) Dr. Kelly, can you identify
17 what is marked Plaintiff's Exhibit No. 3?

18 A Yes, sir.

19 Q What is that?

20 A This is a letter from me to Dr. Blumenthal.

21 Q Sir, if I could look over your shoulder, I
22 just have one copy of this. Did you authorize the
23 exhibit?

24 A Yes, I dictated it.

25 Q In the first sentence you state, "I thought

1 you would be interested in knowing Monsanto is committed
2 to a program will allow the future use of our Aroclors
3 only in those applications where escape to the environment
4 can be prevented." First of all, for the jury are
5 Aroclors synonymous with PCB's?

6 A Some Aroclors are PCB's, some Aroclors are
7 not PCB's. There could be chlorinated terphenyls.

8 Q Could we substitute the word PCB's for
9 Aroclors and not change the impact of that first sentence?

10 A Yes.

11 Q When did Monsanto commit itself to a program
12 to prevent escape of PCB's on the environment?

13 A I can't answer that. I don't know the dates.

14 Q Will you describe that program for the jury
15 that existed on the date of April 8, 1970 as you described
16 to the U.S. Food and Drug Administration?

17 A Well, we -- first of all I said we committed
18 to the program, I don't know when we implemented the
19 program. But the program was to stop selling the material
20 for open uses. Open uses meaning plasticizers, paints,
21 lubricants and carbonless carbon paper. I don't know when
22 it was implemented but we were committed to do that. It
23 takes a little while to get the bureaucratic machinery
24 going.

25 Q The bureaucratic machinery at Monsanto?

1 A And it's customers, yes. You have to give
2 them a little time before you stop pulling the rug out
3 from under them, their raw materials.

4 Q Why did you implement that program at
5 Monsanto?

6 A Well, I didn't. The company implemented it.

7 Q Why did Monsanto implement that program?

8 A Because the material was getting into the
9 environment and it was contaminating the environment and
10 it was staying there and we did not want to add any
11 contaminant to the environment that could help -- that
12 would not be biodegradable.

13 Q In what way did the contamination of the
14 environment place the environment at risk as of April 8,
15 1970 as you understood it?

16 A It was hurting the reproduction of birds.

17 Q Did you consider that a fact that was
18 established in science?

19 MR. CARNEY: At what point?

20 MR. McCREA: On the date of April 8th, 1970?

21 A I'm not sure about the dates, but I felt
22 quite sure of it.

23 Q (By Mr. McCrea) Were there other
24 implications other than the reproduction of birds that
25 encouraged Monsanto to introduce this program to prevent

1 escape of PCB's into the environment?

2 A I don't know when it was found that it was
3 getting into the food chain. I don't know the exact time
4 of that.

5 Q In what way would PCB's entering the food
6 chain be a risk to individuals?

7 A There might have been no risk at all. It
8 wasn't supposed to be in the food so we didn't want it
9 there.

10 Q Did you have any scientific information that
11 would suggest it was a risk?

12 A No, sir.

13 Q In 1970?

14 A No, sir.

15 Q Had you read about Yusho?

16 A Yes, sir. I believe I had at that -- I'm not
17 sure about the dates. I thought I was referring to the
18 United States food chain. There really wasn't in the food
19 chain, it was right in the food in Yusho.

20 Q And if it's in the food chain it's also in
21 the food, is it not?

22 A Well eventually, yes; but I think there's a
23 little difference between a compound getting into the
24 environment and going up the food chain and getting a
25 compound that -- pouring the material on your rice

1 pancakes.

2 Q In April 8, 1970 did you consider the
3 presence of PCB's in the food chain as a serious problem?

4 A Well, serious problem from the point of
5 adulteration. I didn't consider it a serious problem from
6 the health aspects.

7 Q Do you consider it a serious problem today?

8 A No, sir.

9 Q If I called you up and asked you if you
10 consider PCB contamination of food a serious problem, your
11 answer today would be no?

12 A No, I didn't say that. I mean, it depends
13 how you contaminate it. If you were pouring PCB into a
14 batter for cake mix or something like that, that's
15 contamination, but if you mean by that the presence of
16 PCB's in the marketplace basket, it is not a problem.
17 Where it is actually ingested accidentally as it was in
18 Yusho and Yucheng, yes, that was a problem; but in the
19 United States it is not a problem.

20 Q If I called you up and asked you about the
21 environmental risks of owning a PCB transformer in a
22 substation next to a farmer's pasture, what explanation
23 would you give me as to the environmental risks and risks
24 of PCB's in the human food chain from the ownership of
25 that transformer in a substation?

1 MR. CARNEY: Let me object to the question.

2 I don't understand the question. I think it's vague. Are
3 you talking about farm -- a transformer in the middle of a
4 farm crop? I don't understand what you're asking.

5 A I mean, if you want to describe -- Here we've
6 got this transformer on a pole in a farmer's field, right,
7 is that what you're talking about?

8 Q (By Mr. McCrea) Yes, sir.

9 A What's he got in that field?

10 Q He's got hay.

11 A I think the only risk he has if that
12 transformer leaks in the ground and there I think the
13 amount of material that would be there in relationship to
14 the amount of hay that a horse or a silage that a cow eats
15 would depend on how much, how big the transformer was, how
16 much got into the silage.

17 Q Could you explain those numbers to me if I
18 made inquiry of you?

19 A Well, if you tell me how big the transformer
20 is and how much PCB is in there and how much hay is going
21 to be contaminated I can explain it, but I can't make the
22 figures up myself for you.

23 Q If it contained two hundred gallons of PCB
24 oil and it was in a substation in the middle of a farmer's
25 field?

1 A Wait. We're talking about transformer in a
2 pole the first time; now we're talking about dug down in
3 the bottom below a farmer's field?

4 Q No, in a substation.

5 A Substation in his field?

6 Q Right.

7 A And you've got two hundred gallons in this?

8 Q Right.

9 A It's a pretty big substation. And it leaked?

10 Q No, it didn't leak.

11 A No.

12 Q It was just sitting there perking along?

13 A Well, it was no problem. As long as it was
14 contained there was no problem.

15 Q Would there be any risk to me as owner of
16 that transformer in that as I described to you, a
17 transformer in a substation with two hundred gallons of
18 PCB oil surrounded by a pasture of hay used to feed
19 cattle?

20 A Well, the only risk would be if it leaks.

21 Q Would that be a risk?

22 A Yes, if you spill two hundred gallons out of
23 it into his field, yes.

24 Q What if it burned?

25 MR. CARNEY: Can you give us some idea of the

1 temperature of the fire.

2 A I mean --

3 MR. CARNEY: I think you're asking questions
4 difficult to answer without the facts.

5 Q (By Mr. McCrea) What would your advice be to
6 me if I asked you if it was safe to own that transformer
7 in that substation with two hundred gallons of PCB oil
8 surrounded by a field in which there was hay consumed by
9 cattle?

10 MR. CARNEY: And no leaking.

11 MR. MCCREA: No leaking.

12 A I'd say it was safe.

13 Q (By Mr. McCrea) If I asked you the same
14 question today about a transformer in a building that had
15 no leaks, no malfunctions, contained two hundred gallons
16 of PCB oil; would there be any risk in your opinion to the
17 ownership of that transformer?

18 A Well, there's always a risk if it burned.

19 Q And what would that risk be?

20 A That the transformer would spill out the
21 fluids and that during the fire PCB's could be ignited,
22 they could be -- benzofurans could be formed in a
23 transformer, there's trichlorobenzene in there which could
24 form dioxins. They could be disseminated through the
25 building. Certainly there's that risk.

1 Q And how would you explain the health
2 consequences of that particular fire and spread of furans
3 throughout able?

4 MR. CARNEY: Let me -- I don't know what you
5 mean by health consequences as opposed to having a
6 flammable transformer without the PCB oils, are you trying
7 to evaluate the relative risk of a PCB transformer versus
8 a non-PCB transformer.

9 MR. McCREA: No. I'm just asking him to
10 explain the health consequence to the people in the
11 building if the furans were contaminated.

12 A Well, I think in the first place once a fire
13 starts in the building everybody gets out. So it depends
14 how fast you get out whether there's any risk or not. If
15 you aren't burned up, if you get out in time that you
16 aren't suffering from the consequences of the risk, you
17 wont have any risk, you will get out.

18 Q (By Mr. McCrea) What if you don't? What if
19 you're in there for twenty-four hours and you are exposed
20 to the furans permeating the building?

21 A How much exposure you've got to tell me.

22 Q Well, I'm asking you for you evaluation.
23 I'm making an inquiry of you and I want you to explain it
24 to me with just the facts that have been given to me?

25 A Well, you haven't given me any facts.

1 MR. CARNEY: Well, I'll object. You are
2 saying somebody is in a building burning for twenty-four
3 hours?

4 MR. McCREA: No, I'm asking, Tom, I'm asking
5 him, Dr. Kelly, if I owned a transformer in a building
6 that contained PCB oil what are the risks of owning that
7 transformer in that situation?

8 MR. CARNEY: That wasn't the question you
9 asked.

10 MR. McCREA: Well, let's make that the
11 question.

12 A Is that the question?

13 Q (By Mr. McCrea) Yes.

14 A Well, the risks are that if there's a fire
15 and the contents of that transformer, which are
16 trichlorobenzene and trichlor -- chlorinated biphenyl, two
17 different compounds are ignited and the fire is hot enough
18 to reach certain temperature levels and not go to a level
19 of which the material is completely disintegrated then
20 there is a risk of these contaminants, these added
21 compounds being formed. The amount of risk depends upon
22 the exposure a person has, and I can't say how much
23 exposure a person is going to have in that building.

24 Q If I asked you if I should continue to own
25 that transformer knowing the risks that you know, what is

1 your answer?

2 A I think I would have to equate that with what
3 I would do -- of what substitute I had. Do I run the risk
4 of a fire that would be enormously more extensive with an
5 oil filled transformer, or do I run the possible risk of
6 adverse consequences from the PCB fire? I don't know.

7 Q So if I called you and asked you if I should
8 continue the ownership of that transformer your answer
9 would be you don't know?

10 A No. I don't think I said that, you are
11 talking to me at --

12 Q Well, your answer --

13 A Well, I would say if I -- I would say I would
14 not -- I would weigh both factors and I would -- and
15 depending on whether or not the individual thought that
16 there was a more serious problem relating to a use of a
17 flammable material in the transformer or a PCB containing
18 fluid, if he thought there was more likelihood of a danger
19 from the oil I would say keep on using it. Now speaking
20 as of today you're talking about?

21 Q Right, 1990?

22 A Well, speaking as of 1990 I would say then
23 you should be in a position to insure that if that
24 eventuality occurs in which a PCB transformer burns there
25 should be methods to keep the material from the soot and

1 the products of the fire, of combustion, from being
2 disseminated through the building, which would minimize
3 the risk very markedly. So it would be my opinion you
4 have to weigh all these factors.

5 Q Weighing all the factors, if I asked you, Dr.
6 Kelly, what's the end line, should I replace it with a
7 transformer with more risk of fire or should I keep the
8 PCB transformer with its risk, what's the bottom line?

9 A I would say it varies with the conditions but
10 I would believe that the PCB transformer is less risk than
11 the one with an oil containing transformer.

12 Q Dr. Kelly, the next sentence on Plaintiff's
13 Exhibit No. 3 which is the second paragraph, states,
14 "Secondly --" and excuse me if I can look over your
15 shoulder, "We have essentially a crash program underway to
16 find non-persistent, non-chlorinated substitute products."
17 Who initiated the crash program at Monsanto?

18 A I think it was the division that manufactured
19 the PCB's, the division meaning the research, the sales,
20 the marketing and the manufacturing group of the organic
21 division, which was one of the four manufacturing
22 divisions in the company.

23 Q And who were the individuals who initiated
24 that crash program that you have described in your letter
25 to the U.S. Food and Drug Administration?

1 A I think Minkler was one, who was I believe of
2 the head of it at that time. I don't know. I don't
3 remember the other names at present, but Howard Minkler
4 was to my impression, the best of my recollection the
5 vice-president in charge of that particular division in
6 April of 1970.

7 Q Where was the research being done for the
8 crash program?

9 A At St. Louis. Maybe it was done at Dayton
10 also.

11 Q Did Monsanto develop a non-persistent,
12 non-chlorinated substitute product?

13 A I don't know if they did subsequent to my
14 departure. I don't know if we had developed one or not.

15 Q What were the non-persistent, non-chlorinated
16 substitute products that were the subject of the crash
17 program in April, 1970.

18 A I haven't the slightest idea. There were
19 phthalates, there were silicones, there were a whole
20 battery of them. I don't know what they -- and they might
21 have looked at a hundred different potential products.

22 Q When was that crash program started?

23 A As I said I don't know it was implemented. I
24 know that they were committed in April of 1970. I don't
25 know when the research program started.

1 Q Did you inform Westinghouse that you had
2 initiated a crash program to find non-persistent,
3 non-chlorinated substitute products as you informed the
4 U.S. Food and Drug Administration?

5 A You mean me personally?

6 Q Yes, sir.

7 A No. I think that's commercial matters that
8 the marketing group or technical service people would have
9 done, not me.

10 Q Do you know if Monsanto Company gave the same
11 information to Westinghouse that they are giving to the
12 U.S. Food and Drug Administration that describes a crash
13 program for non-persistent, non-chlorinated substitute
14 products?

15 A No, I don't know.

16 Q Why did you tell the U.S. Food and Drug
17 Administration that you were initiating a crash program,
18 what's the relevance of that to them?

19 A Well, I don't know what the relevance is, but
20 I thought Herb and I were good friends and I thought I
21 would let him know how we were coming along. He was
22 interested in the same things we were interested in, in
23 keeping it out of the food, and if -- I was telling him
24 that not only were we going to cut down the uses where it
25 could escape into the environment but we're doing our best

1 to try to eliminate PCB's all together in those uses, in
2 all uses.

3 Q The next sentence states, "Already we have
4 two large users switching to substitutes of this type."
5 Period. Who were these two large users?

6 A I don't know, but I do not believe they're in
7 the electrical field. They may very well have been in the
8 plasticizer field. I would imagine they were the
9 plasticizers.

10 Q And today as you sit here you do not recall
11 who the two large users were?

12 A No, I do not. I do not even know what field
13 they were in.

14 Q Did you on the day you wrote the letter?

15 A I'm sure I did.

16 Q And you say switching to substitutes of this
17 type," what substitutes are you referring to in your
18 letter to the U.S. Food and Drug Administration?

19 A If I'm -- They were I'm going to say
20 non-persistent, non-chlorinated substitute products. I
21 don't know which ones they were. They were very probably
22 of the phthalate group,p-h-t-h-a-l-a-t-e.

23 Q Were they manufactured by Monsanto?

24 A I don't know.

25 Q Did you research the information before you

1 wrote this letter?

2 A Did I research what information? Whether the
3 customers were using some of our product or somebody
4 else's product.

5 Q The names of the two large users and the type
6 of products they were switching to?

7 A Well, I'm sure I had known that two companies
8 were using other products instead of PCB's, but when you
9 say research it, I don't know what you mean by that. I
10 knew enough to write them a letter and say two of these
11 people, two large producers were getting out PCB's.

12 Q Have you ever been asked about this letter in
13 any other depositions that you've given for Monsanto?

14 A I don't recall.

15 Q Next sentence, "Obviously, Herb, you can
16 recognize the competitive aspect of developing and phasing
17 into sales such time of substitutes, so at present we are
18 not making any widespread announcement." Would you
19 explain why you are telling the U.S. Food and Drug
20 Administration that information?

21 A I don't know what my mindset was at that
22 time, but I think it speaks for itself. We are trying to
23 get out of the PCB's, and we haven't reached a point where
24 we said we are going to get out of it because we don't
25 know when a substitute will be available.

1 Q Well, aren't you saying that we don't want
2 everybody to know we're getting out of the PCB business
3 because if we did they would capture the market on
4 substitute fluids, so we're going to keep that information
5 ourselves, develop our own substitute fluids and retain
6 the market, is that what that says?

7 A Of course not. Keep it ourselves? I'm
8 writing to the government and I'm keeping it to myself?

9 Q Well, I don't know about that, but it says we
10 are not making any widespread announcements?

11 A That's right; but after all there were two
12 large users that were switching. I don't know if they
13 switched to substitutes of ours or substitutes of somebody
14 else, but they knew we were doing our best to get people
15 out. We had already told customers that we are cutting
16 down the use of the material in not allowing for
17 applications where it could get out. So I don't see
18 anything wrong with what I told Herb.

19 Q It says, "You can recognize the competitive
20 aspects of developing and phasing into sales such type of
21 substitutes so at present we are not making any widespread
22 announcement," isn't that so you can retain the sales
23 market?

24 A No, it really isn't, because we're not the
25 only people manufacturing these fluids. We're not even

1 talking -- you know, I'm not saying, I don't know who
2 these -- what fields these other users were in.

3 Q Dr. Kelly, isn't it a fact that you were the
4 only company in the United States making PCBs?

5 A That's true.

6 Q And you knew that if PCB's are eliminated
7 substitute fluids will be used?

8 A If they work, yes.

9 Q And you wanted the market on the substitute
10 fluids?

11 A No, that is not correct. Of course we were
12 in the business, we wanted to have as good a chance as
13 anybody, if they liked our fluid, fine. But nobody had a
14 fluid at that particular time that could use to -- that
15 could do all the things that's PCB's could do.
16 Plasticizers are -- fifty different plasticizers could be
17 used.

18 Q That's -- Go ahead.

19 A I don't know what else you want me to say?
20 Ask me a question.

21 Q Why didn't you make a widespread announcement
22 that you had this crash program and you were making
23 substitute?

24 A That's a marketing decision and I didn't have
25 nothing to do with it.

1 Q Well, can you explain it? You wrote the
2 letter?

3 A I can't explain it. I just said we're not
4 making any widespread announcements.

5 Q You don't know why?

6 A I do not know the marketing responsibilities
7 of a supplier to his customer. I don't know what the
8 marketing people had in mind; whether or not they could
9 say to a customer, we're getting out right now. I don't
10 know what the Monsanto reasons were. I'm afraid you'll
11 have to ask someone else.

12 Q You didn't tell Westinghouse about this
13 information?

14 MR. CARNEY: Well, objection. I don't think
15 that was his testimony.

16 A I said before, I said I would not be the
17 person to talk to a customer. It would be the marketing
18 people, the development people.

19 Q (By Mr. McCrea) Have you seen documents at
20 Monsanto which described the crash program?

21 A In its entirety?

22 Q Right.

23 A I may have.

24 Q You don't recall that?

25 A No. After twenty years I don't think I do.

1 Q But you've testified to it a number of times,
2 Dr. Kelly?

3 A Well, certainly I have, but I mean, I don't
4 know if I've seen the entire program. I've seen parts of
5 it.

6 Q The last sentence states, "On the other hand,
7 if the publicity gets as red hot as it did in the case of
8 DDT we may be forced to make such an announcement at any
9 time." What do you mean by that statement?

10 A Well, I think some decisions are made on
11 scientific bases, some are made on commercial bases, some
12 are made on emotional bases and some are made on political
13 bases. In the case of DDT, here was a wonderful product
14 that wiped out probably a hundred million malaria deaths
15 that was banned because of emotional and political
16 reasons.

17 So that's what I mean, they had some very red hot
18 publicity. Now if such an emotional and political
19 situation occurred we would be forced to make such an
20 announcement. By such an announcement I guess I refer to
21 we're getting out of all the sales and we're doing our
22 best to make a product that doesn't have these things in
23 it.

24 Q Did you ever make such an announcement to the
25 public?

1 A We certainly made announcements we were
2 getting out of the material. I don't know if we made any
3 announcements that we were working on substitute
4 materials, that's a sales and marketing situation. I
5 don't know whether they did or not.

6 Q As you sit here today based on your years
7 with Monsanto and all of your testimony you don't know if
8 this announcement to which you have referred and which you
9 describe in your Plaintiff's Exhibit No. 3 was ever made?

10 MR. CARNEY: Well, which announcement are you
11 talking about? I think there's several things.

12 MR. McCREA: It says, "We may be forced to
13 make such an announcement at any time."

14 A I find it a little hard to say what
15 announcements I'm talking about, but certainly I know we
16 made two very definite announcements. One, we're getting
17 out of all the open uses of PCB's. No. 2, we're getting
18 out all uses of PCB's and discontinuing use and -- the
19 manufacture and sale of it. We made these two
20 announcements. Whether or not we made the announcements
21 we've got a substitute for this or if we ever had a
22 substitute of what percentage of the market we ever had, I
23 don't know.

24 Q (By Mr. McCrea) Did DDT cause adverse
25 environmental effects?

1 A Yes. It caused thinning of birdshell eggs.

2 Q Anything else?

3 A No. Not that I can recall.

4 Q Dr. Kelly, isn't it a fact that at the time
5 of this letter Monsanto was using PCB's in pesticides to
6 extend the kill life?

7 A No, it was not. That was a recommendation
8 made by the Department of Agriculture, as extender in
9 pesticides. To the best of my knowledge I have seen the
10 Department of Agriculture recommendation but it certainly
11 was an extremely small portion of the PCB business and I
12 doubt very much -- there may be an isolated Monsanto
13 statement about its use, but I don't recall seeing it in
14 technical bulletins.

15 Q Dr. Kelly, you don't recall any publications
16 of Monsanto in which they stated that PCB's extend the
17 kill life of pesticides by up to ten years?

18 A I may have seen them referring to Department
19 of Agriculture work, they may have quoted Department of
20 Agriculture findings.

21 Q Did Monsanto have any customers to which it
22 sold PCB's to use as an extender in pesticides to --

23 A I don't know if it did or not.

24 Q Monsanto had a wood treatment operation,
25 correct?

1 A Yes, it did.

2 Q And you manufactured pentachlorophenol?

3 A Yes, we did.

4 Q And did you manufacture other wood
5 preservatives?

6 A Sodium pentachlorophenate, which was a sodium
7 salt of pentachlorophenol.

8 Q Did you use PCB's as a termiticide?

9 A Not that I ever heard of.

10 Q As you sit here today you have no knowledge
11 of Monsanto experimenting with PCB's as a termiticide for
12 a wood protection?

13 A That's a little different than what you said.
14 You said did they ever use it as a -- I understand by
15 using it did they offer for sale as a termiticide. I do
16 not know whether or not they ever experimented with it or
17 not. I don't know. I have seen no articles on it.

18 Q Do you know Robert Arceneaux?

19 A I recognize the name. I cannot tag him with
20 any position or anything in the company.

21 Q If he has described experiments by Monsanto
22 in using PCB's to kill termites as a wood preservative,
23 that information is new to you?

24 A It all depends. I would think so, but if you
25 will give me what information he is supposed to have said,

1 let me look at it and it may refresh my memory I may know
2 something about it. I don't recall at the present time.
3 It was certainly not a very prominent feature of PCB's,
4 let me tell you.

5 Q But it could be?

6 A Possibly, if they experimented with it. I
7 don't know if they ever marketed for it. I don't recall
8 it.

9 Q Are you familiar with any test grounds at
10 Florida State University in which PCB's were used as a
11 termiticide in wood by Monsanto?

12 A I have heard something about that. They did
13 have experimental -- they did some experiment on -- I
14 don't know, soaking PCB's or soaking posts in PCB's and
15 putting it in the ground and I think they used it after
16 the question of nonbiodegradability came in, they checked
17 it to see -- they checked those areas, but I don't recall
18 of ever having any sales effort or marketing effort
19 devoted to the use of PCB's as a wood treating chemical.

20 Q Do you recall the years in which Monsanto was
21 experimenting with PCB's by soaking wood posts in the
22 chemical?

23 A No, and I'm not even sure if they just soaked
24 the wood. I don't know how they did it. I just heard
25 that sometime after I left the company. I don't know when

1 I heard it.

2 Q Monsanto sold its wood preserving business to
3 Koppers, correct?

4 A I don't know to whom they sold, they disposed
5 of it. They hadn't sold it by the time I left, but I
6 don't believe they are in the wood treating business
7 anymore.

8 Q With respect to Plaintiff's Exhibit 3, which
9 is your letter to Herb Blumenthal, dated April 8, 1970,
10 did you receive inquiries from him before you wrote this
11 letter?

12 A I don't think so, and if I did I would have
13 very probably said, "In reference to your letter and so
14 and so, here is the information."

15 Q Did you authorize this letter or did you sign
16 it or did you do both?

17 A I did both. That's my secretary's initials.

18 Q But the information contained in the letter
19 was your information, not information supplied to you. In
20 other words, you knew and understood what was being
21 stated?

22 A Well, I got it from somebody.

23 MR. CARNEY: I'm going to object.

24 Q (By Mr. McCrea) Somebody didn't come in to
25 you with a letter and say, "Dr. Kelly, could you sign this

1 and send it to Herb Blumenthal?"

2 A They certainly did not.

3 Q Dr. Kelly, you retired from Monsanto Company
4 in 1974, is that correct?

5 A That's correct.

6 Q When you retired did you own stock in
7 Monsanto Company?

8 A Yes, I did.

9 Q Do you own stock in Monsanto Company today?

10 A Yes, sir.

11 Q Now I -- Do you know the value of that stock?

12 A I haven't looked lately. It's been going
13 down.

14 Q Do you know the approximate value of all of
15 your stock ownership in Monsanto Company?

16 A 90,000, something like that.

17 Q And do any other family members have stock
18 ownership in Monsanto?

19 A Small amounts.

20 Q Do you know what --

21 A Ten thou --

22 Q Excuse me. Do you know what that would
23 total?

24 A Ten thousand dollars.

25 Q Do you have what generally could be referred

1 to as stock options at this time, can you increase your
2 stock ownership?

3 A Only by going out in the open market and
4 buying it. I have no stock options.

5 Q Did you know any of the individuals at the
6 Bloomington Westinghouse plant from 1957 which I will
7 represent to you is the day I understand it opened until
8 today?

9 A No, sir.

10 Q Did you know any of the --

11 MR. CARNEY: Would you read that last
12 question back? I just didn't hear it. I didn't hear the
13 dates.

14 MR. McCREA: 1957 to today.

15 MR. CARNEY: Okay. You don't need to read
16 it.

17 Q (By Mr. McCrea) Did you know any of the
18 individuals at the Muncie, Indiana transformer plant from
19 the date it opened in the fifties to this date?

20 A No, sir.

21 Q Did you know any of the individuals at the
22 Westinghouse transformer repair facility in Cincinnati,
23 Ohio at any point in time up to and including today?

24 A No, sir.

25 Q Can you describe to the jury the medical

1 monitoring program of Westinghouse for its workers --

2 A No, sir.

3 Q -- exposed to PCB's?

4 A No, sir.

5 Q Do you know if Westinghouse had a medical
6 monitoring program for its workers exposed to PCB's?

7 A No, sir, I do not.

8 Q Did you ever establish a written protocol for
9 medical monitoring of workers exposed to PCB's?

10 A No, sir.

11 Q Were you ever asked to describe a medical
12 monitoring program for workers exposed to PCB's by any
13 individual from Westinghouse Electric Corporation?

14 A No, sir. You must remember that Westinghouse
15 Electric was a very sophisticated medical organization.
16 It antedated mine, was bigger than the Monsanto and they
17 knew all about PCB's. They knew how the workers were
18 exposed, which I didn't.

19 MR. McCREA: Going to ask that that answer
20 be stricken and that Doctor, could you -- Could the court
21 reporter reread the question and could you answer the
22 question?

23 THE WITNESS: I thought I did.

24 MR. CARNEY: Well, I'm going to object to the
25 motion to strike, because I think the doctor did answer

1 the question. You just didn't like the answer.

2 MR. McCREA: Didn't say I didn't like the
3 answer. I want the answer.

4 Could the court reporter please reread the
5 question?

6 (Reporter read back from the record as directed:

7 Q "Were you ever asked to describe a
8 medical monitoring program for workers exposed to PCB's by
9 any individual from Westinghouse Electric Corporation?")

10 MR. CARNEY: Why don't you read the answer?

11 (Reporter read back from the record as directed:

12 A "No, sir. You must remember that
13 Westinghouse Electric has a very sophisticated medical
14 organization. At any date --")

15 THE WITNESS: Antedated, a-n-t-e-d-a-t-e-d.

16 ("-- antedated ours, was bigger than Monsanto
17 and they knew all about PCB's. They knew how the workers
18 were exposed, which I didn't.")

19 Q (By Mr. McCrea) Who told you about the
20 manner in which the workers were exposed to PCB's at
21 Westinghouse?

22 A Nobody. I said I didn't know how they were
23 exposed.

24 Q You said you knew how the workers were
25 exposed?

1 A I said I didn't know. They knew, yes. They
2 were manufacturing it, they were using it.

3 Q Okay. What is the source of your information
4 there?

5 A I guess it's common sense. If you have a
6 company that is using a material and it's in their plant
7 they know how they are using it, they know how their
8 workers are exposed.

9 Q How were your workers exposed?

10 A They were exposed during the filling, during
11 leaks in pumps, they were exposed during changes in pumps,
12 they were exposed during flushing out of lines.

13 Q Were you exposed by fires?

14 A No, sir. We didn't have any fires.

15 Q Were there any other ways in which your
16 workers were exposed?

17 A Well, they may have been exposed by cleaning
18 parts of the equipment.

19 Q And that's common sense?

20 A Beg your pardon?

21 Q That's common sense?

22 MR. CARNEY: Well, I don't know what you mean
23 by common sense. You're --

24 Q (By Mr. McCrea) Well, strike it. Were there
25 any other ways that your workers were exposed?

1 A I can't think of any.

2 Q Were there vapors?

3 A Well, yes. I said during filling, material
4 came out hot.

5 MR. McCREA: Break.

6 (Whereupon, a short break was taken.)

7 Q (By Mr. McCrea) Dr. Kelly, we're back on the
8 record. Dr. Kelly, during the time that we had the
9 continuance of the deposition were there any materials
10 that you reviewed or any answers which you gave that you
11 would like to bring to your attention?

12 MR. CARNEY: Read that question back --

13 MR. McCREA: It's a compound question, let
14 me break it down.

15 Q (By Mr. McCrea) Dr. Kelly, we had two days
16 of depositions a week ago or so, following the continuance
17 of the deposition during that interim time, were there any
18 materials that you reviewed as those materials relate to
19 answers you gave which you would like to bring to our
20 attention and if so what are those materials?

21 A No, sir.

22 Q And the same question for any answers, were
23 there any answers which you gave which upon thinking about
24 them you would like to amplify them in any way?

25 A To amplify?

1 Q Right. Amend, change?

2 A Well, not change, well, I'll amplify one.

3 Q All right, sir?

4 A At the close of one deposition you asked me
5 did you put on the label, on PCB's, that it could kill
6 you, and I said no. I'd like to amplify that by saying;
7 We manufacture aspirin; aspirin if you take too much of it
8 will kill you, we don't put that on the label. People
9 manufacture iron pills; if you take enough iron pills that
10 will kill you. There are probably four hundred thousand
11 industrial chemicals that will kill people if you take too
12 many. None of those are put on the label.

13 Q Any other answers that you would like to
14 amend or modify; amplify in any way?

15 A No; but I presumably will see the deposition
16 to correct it for errors.

17 Q Absolutely correct. Dr. Kelly, have you
18 reviewed any depositions of any of the plaintiffs in this
19 case?

20 A No, sir.

21 Q Did you consult with Monsanto Company or the
22 attorneys regarding questions to be addressed by Monsanto
23 to the plaintiffs in this case? Did you help them prepare
24 questions?

25 A No, sir. There may have been

1 interrogatories, but I don't even know if I did that.

2 Q I appreciate that, and I think you answered
3 it. You didn't sit down with them and say, "Why don't you
4 ask this set of questions?" This might be helpful to our
5 case."

6 A No, sir.

7 MR. McCREA: Could the court reporter mark
8 this as Plaintiff's Exhibit 4, I believe?

9 (Whereupon, Plaintiff's Deposition Exhibit No. 4
10 was marked for identification.)

11 Q Dr. Kelly, during the depositions of the
12 plaintiffs in this case, the attorneys for Monsanto asked
13 certain questions regarding health problems or health
14 symptoms; now I will represent to you that I abstracted
15 those depositions and took a list of perhaps eighty-five
16 percent of the questions which Monsanto asked to the
17 plaintiffs.

18 I have listed those symptoms on a document and I
19 would like to now hand your attorney that document so that
20 he may receive it and then I would like to hand it to you
21 and then I'll address a question to the document and we
22 can go from there?

23 A Yes.

24 MR. CARNEY: Let me just object for the
25 record that Exhibit -- Plaintiff's Exhibit 4 is I believe,

1 six pages long and I'm not going to take the time -- I
2 don't think you're proposing that I do to check make sure
3 the statements that you made about the document -- I'm not
4 saying they are inaccurate, I just don't know about
5 checking them.

6 MR. McCREA: I'm not stating that they are
7 totally accurate, all right. I'm not stating that each
8 and every health symptom and/or problem on that list is a
9 verbatim abstract from the depositions. But what I will
10 tell you is it's a good faith effort to duplicate all of
11 the questions which you asked nearly all of our plaintiffs
12 in some forty some depositions, and by you I mean
13 Monsanto, and I also will represent to you that it
14 includes perhaps eighty-five percent of the questions,
15 there are maybe fifteen percent that are not incorporated
16 on this document.

17 MR. CARNEY: Okay, just for the record, I
18 think most of these problems that are listed in Exhibit 4
19 and again I'm not going to take the time to look at them,
20 but I would say probably most of them are complaints that
21 various of the plaintiffs have made either in their
22 answers to interrogatories, in their petition in this
23 lawsuit, possibly complaints they made to treating doctors
24 or complaints they have made in their depositions. So I
25 don't know that this is a list that has any meaning other

1 than than forty or fifty people, some have made these
2 various complaints.

3 Q (By Mr. McCrea) All right, sir. Dr. Kelly,
4 I hand you what the court reporter has marked as
5 Plaintiff's Exhibit 4 and on the top of it states,
6 "Deposition of R. Emmet Kelly, M.D.," June 12th 1990.
7 The question which I would like to address to this
8 document is incorporated at the top of the page.

9 The question states: "In your opinion, based on
10 medical probability is there no causal relationship,
11 comma, a possible causal relationship, comma, a probable
12 causal relationship or a proven causal relationship
13 between exposure to Yusho PCB oil which was contaminated
14 with furans and other chemicals and each of the
15 following --" and what I would like for you to do is to
16 simply go through that list and check the appropriate
17 response. If you're unable to provide an opinion I think
18 we should also have that category and you can simply X out
19 the symptom, if you have no opinion.

20 MR. CARNEY: Let me object to the form of the
21 question and I'm going to object to the format. You know,
22 you're giving the witness a questionnaire to answer in a
23 deposition, we've got six pages listing probably
24 twenty-five health problems or symptoms on each page, so
25 you're talking about maybe a hundred and fifty questions

1 and they are multiple questions, or multiple choice
2 questions.

3 I'm going to object to that being done at this
4 deposition. I don't think that there is any basis for
5 that kind of a questionnaire being done or taking up the
6 time of the jury or the -- and the time of everybody here
7 while the doctor would have to answer that. It could take
8 a significant amount of time. If -- so I would object to
9 this as a format and I would object to the question
10 because I think the question's compound and vague and
11 ambiguous.

12 Q (By Mr. McCrea) Dr. Kelly?

13 A Can I answer it?

14 Q Just a second. It's important for me that
15 you understand the document in question. I did this to
16 save time and if you would like to go off the record and
17 check those off, that's fine with me. You don't have to
18 sit here on the record and do it. But rather than ask
19 each one and then have it typed out in a deposition, I
20 thought this would save time.

21 So with that -- with your attorney's objection, and
22 the question posed to you I'll ask you the courtesy, would
23 you prefer to go off the record and respond to these
24 various symptoms or would you prefer to stay on the record
25 and do it?

1 MR. CARNEY: Why don't we go off the record?

2 MR. McCREA: All right, agreed.

3 (Whereupon, a discussion was held off the record.)

4 Q (By Mr. McCrea) Dr. Kelly, we're back on the
5 record --

6 MR. CARNEY: Let me make a statement first.

7 I objected before and I want to reiterate my objection to
8 this way of proceeding. I object to having this witness
9 fill out a -- answer a hundred and fifty questions in this
10 kind of a format. Number one, if I could -- Let me see
11 the document. Dr. Kelly, if you -- We're talking about
12 Exhibit 4. I want to further object in addition to the
13 objections I made before to the form of the question.

14 I believe the standard used in Missouri is not
15 based on medical probability. This is a compound
16 question. It relates to PCB exposure in Yusho, the
17 Japanese PCB oil which was contaminated with furans and
18 which the experts have indicated that it was the furans,
19 the heavy concentration of furans in the PCB oil in Yusho
20 that caused the problems in Yusho and also the victims in
21 Yusho ate the PCB's, used it in cooking. So I'm going to
22 object to this format and instruct the witness not to
23 participate in filling out this questionnaire, in this
24 form anyway.

25 MR. McCREA: Well, I can ask them one at a

1 time and that would take probably six times as long as it
2 would to fill out the form and I think that we certainly
3 are entitled to Dr. Kelly's opinion for discovery purposes
4 in this case for the reason that there was heating of
5 PCB's in the Bloomington, Westinghouse plant, there were
6 explosions on a daily and weekly basis of capacitors in
7 the Bloomington, Westinghouse plant, there were fires in
8 the Muncie plant in which the Muncie Fire Department was
9 called to extinguish the fires and there was heating and
10 there was also incidents of fire in Cincinnati; all of
11 which are calculated according to Dr. Kelly's testimony to
12 produce furans at a window of six hundred to nine hundred
13 degrees Fahrenheit.

14 I don't think there's been any evidence that
15 absorption into the body by ingestion produce a more toxic
16 or less toxic systemic reaction than absorption by route
17 of entry through the skin or breathing. Therefore
18 Counsel's suggestion that ingestion or as he states eating
19 of PCB's somehow distinguishes the factual situation in
20 Yusho in 1968, and Taiwan in 1979, I don't think is
21 meaningful.

22 The idea of the form, Tom, is to save time. We sat
23 through forty some depositions in which you and your
24 associates addressed all of these questions one at a time
25 to each and every one of our plaintiffs and we never

1 objected. Now it's our turn to determine the medical
2 significance of these questions from Dr. Kelly, and I can
3 ask them one at a time and you can object and thus
4 eliminate the fact that it is a compound question or we
5 can save time or have Dr. Kelly answer this form.

6 I think the question is fair, I think that medical
7 probability is in fact the standard, it's the standard in
8 Missouri, it is more likely than not in his opinion is it
9 more likely than not, and I think that the question's
10 fair.

11 MR. CARNEY: Well, again, I don't think there
12 will be any saving of time. I think it will save time to
13 proceed without going through this elaborate questionnaire
14 which will not -- I think is objectionable, so will not
15 move this case along at all or the testimony. I mean, you
16 have the option of asking questions and I just -- I have
17 the option of objecting where I think they're improper.

18 I would point out that again you're talking
19 about -- you're trying to relate again the symptoms or the
20 problems of the plaintiffs in this case with -- and none
21 of these plaintiffs as I understand it were exposed to
22 Japanese PCB's with the heavy furans that caused the
23 problems in Japan and Taiwan.

24 None of these plaintiffs as I understand it ate the
25 PCB's like they did in Japan and I believe there is a

1 difference between eating them and having your skin come
2 in contact with them. We can debate that; but I don't
3 know that our opinions matter really, it's going to be the
4 experts in the case.

5 Further, Dr. Kelly has not examined any of these
6 plaintiffs and does not intend to examine the plaintiffs
7 to determine what problems they had and whether they're
8 related to PCB's. We had a panel of doctors in various
9 specialties who have done that and I assume you're going
10 to take their depositions and ask those specific
11 questions.

12 So I don't know that this is the right witness to
13 cover the health problems that the plaintiffs have. Dr.
14 Kelly has never met any of the plaintiffs and we don't
15 intend to have him examine any of the plaintiffs. With
16 regard to your comments about the explosions daily in
17 Bloomington, et cetera, I'm not going to debate what that
18 is, except that I don't think you've accurately
19 characterized the conditions in the three plants.

20 At any rate, my instruction to Dr. Kelly is not to
21 respond to the questions in this format as you -- in terms
22 of filling out a questionnaire with these problems that I
23 have outlined in the questionnaire that you've given to
24 him.

25 Q (By Mr. McCrea) Dr. Kelly, in your opinion,

1 based on medical probability, is there no causal
2 relationship between exposure to the Yusho PCB oil which
3 was contaminated with furans and other chemicals and
4 asthma?

5 MR. CARNEY: Let me object and we'll have the
6 question read back. Let me object to the form of that
7 question again for the same grounds I outlined before, and
8 in addition what you're asking the doctor to do in this
9 question and in Exhibit 4 is to try to recollect what was
10 in the literature, the Japanese literature about what
11 symptoms and problems the Yusho victims who had the
12 heavily furan contaminated PCB's and they ate them and to
13 try to recollect what was in there.

14 I don't think there's any evidence that Dr. Kelly
15 has independent knowledge as to what these Japanese
16 victims' problems were other than through the literature.
17 We have the literature, that would be the best evidence of
18 what's contained in there and Dr. Kelly can give you his
19 recollection but I don't know that that helps any.

20 He probably if you get into the detail particularly
21 that you have in Exhibit 4 would have to look at the
22 literature to determine whether asthma or something else
23 was a symptom of the Japanese Yusho victims who ate PCB
24 oils with heavy contaminants of the furans.

25 Q (By Mr. McCrea) Dr. Kelly, you may answer.

1 A Well, first of all you have to tell me what
2 you mean by medical probability; one out of a million, one
3 out of fifty, one out of two.

4 Q More likely than not.

5 A Fifty-one percent?

6 Q Let me explain this. That's a good question.
7 I'm asking you if in your opinion based on medical
8 probability is there no causal relationship between
9 exposure to the Yusho PCB oil which was contaminated with
10 furans and other chemicals and asthma. In other words,
11 can you tell us based upon your opinion on a more likely
12 than not basis if there was no causal relationship?

13 A Based on --

14 MR. CARNEY: Same objection.

15 A Based on my knowledge of the Yusho
16 literature, is that correct?

17 Q (By Mr. McCrea) Your knowledge of the Yusho
18 literature, your attendance at seminars, your information
19 from medical personnel throughout the world, any available
20 source to you.

21 A Well, all right. We start then. Asthma, I
22 would have to know, A, the person's smoking habits. I
23 would have to know whether they had asthma previously,
24 whether the asthma was exaggerated before I could answer
25 any of those questions.

1 Q What do you mean exaggerated?

2 A Well, was it hastened by -- Did they get,
3 have asthma before and after they ate the PC -- Yusho PCB
4 oil with the furans in, or did they get more asthma. I'd
5 have to go back to the literature and look.

6 Q All right. Skin irritation?

7 MR. CARNEY: Could I -- because I assume
8 you're going to go down this list.

9 MR. McCREA: Yes.

10 MR. CARNEY: Could I have a standing
11 objection to this line of questioning, to the question in
12 terms of the use of the world medical probability and the
13 question being compound and to the question being based on
14 the medical literature or the literature -- the Yusho or
15 Japanese literature, which I think is a matter of record
16 and would be the best evidence of what the problems were
17 associated with that, and the fact that Dr. Kelly does not
18 have firsthand knowledge of this; so that we're not adding
19 anything other than Dr. Kelly's recollection of the
20 literature, and I think the question's vague and ambiguous
21 as well. If I can have a standing objection, then I'll
22 try and unless I hear another objection not to continue my
23 objections and we can move faster.

24 MR. McCREA: I agree that you may have a
25 standing objection as to the fact that it is a compound

1 question and all of those other reasons stated in your
2 objection.

3 Q (By Mr. McCrea) Dr. Kelly, then, skin
4 irritation and again with the understanding that we are
5 answering the question at the top of the page and if you
6 don't understand that please address any lack of
7 understanding?

8 A On all these we are talking about the Yusho
9 PCB oil, which is a Japanese Kanechlor, which is
10 contaminated with the chlorinated dibenzofurans and
11 contaminated with chlorinated quaterphenyls, that's what
12 we're talking about?

13 Q That's right.

14 A In an undetermined amount, various amounts in
15 the rice oil which they put in the stuff they cooked?

16 Q Exactly correct.

17 A Okay. Skin irritation, I don't know what
18 they are talking about. Skin irritation, what's the
19 irritation? Redness? What was it? I don't know. How
20 long did it last? It may be -- I will also have to say I
21 would probably have to go over the six articles that were
22 summarized by Selikoff in his journal on the Yusho
23 incident before I could be sure about all these things.
24 Put down a don't know on skin irritation.

25 Q All right, sir. Skin rashes?

1 A Yes, that's proven; if by skin rashes you
2 mean chloracne and pigmentation.

3 Q Hearing problems?

4 A There again, I don't know if they had
5 infected chloracne inside their ear canals, I don't know
6 that. I would say none on that, none to not proven --
7 none to I don't know; because I don't know the basis for
8 the hearing problem. I don't know what hearing problem it
9 is. I would suggest we also have a column, not enough
10 information.

11 Q Okay. Let's add that.

12 A Huh?

13 Q All right, we'll add that.

14 A Okay.

15 Q And do you want to add not enough information
16 to the hearing problem?

17 A Hearing problems, correct.

18 Q Headaches?

19 A Again, how often? One headache, one four
20 times a day, one lasting for weeks? Not enough
21 information.

22 Q Kidney problems?

23 A Again, what kind of problems? Getting up at
24 night, passing blood, kidney stones? Not enough
25 information.

1 Q Swelling?

2 A Where? If it's in the gums some of the
3 children had swelling of their gums; but I don't know
4 anyplace else.

5 Q Would you say proven as to children with
6 swelling in their gums?

7 A Yes.

8 Q Hypertension?

9 A Well, I think hypertension and high blood
10 pressure are the same.

11 Q All right. Can we treat them as one?

12 A Yes. It was alleged but further work showed
13 that there wasn't any connection; so not proven.

14 Q Stomach problems?

15 A There again, I don't know. That runs all the
16 way from indigestion to stomach cancer. So I don't know
17 really how I could answer a question like that.

18 Q Not enough information?

19 A Not enough information.

20 Q Sinus problems?

21 A Not enough information. I don't know what
22 kind of problems they had.

23 Q So would that be don't know and not enough
24 information?

25 A That's correct, not enough information.

1 Q Ulcerated esophagus?

2 A I recall that there was one instance of
3 ulcerated esophagus, but it certainly without seeing the
4 report again and something if anybody else, if any other
5 cases had it outside of the one I'd have to say not
6 proven.

7 Q Prostate problems?

8 A Not enough information.

9 Q Cysts?

10 A Yes, proven.

11 Q Pneumonia?

12 A Not proven.

13 Q So that would be -- It is your opinion that
14 there was none?

15 A That's right, not proven.

16 Q Not proven. Peeling of feet?

17 A Well, let's put feet and hands together. I
18 mean, I don't know what they mean by peeling of that.

19 Q Let's add to that peeling of skin on the
20 bottom of feet?

21 A Not enough information. I don't know if they
22 were checked for fungi or not, if they had athlete's foot.

23 Q So that would be not enough information?

24 A That's correct.

25 Q Peeling of hands, peeling of skin on hands?

1 A Same.

2 Q Acne?

3 A Proven.

4 Q Skin cancer?

5 A Not prove, none.

6 Q Boils?

7 A If by that you mean an infected cyst, proven,
8 but a boil, again as I said a boil is around a hair
9 follicle, but -- so technically if it's a -- by that you
10 mean an infected cyst, yes.

11 Q Okay. I'm going to put infected cyst.

12 A Right.

13 Q And that's proven?

14 A Yes.

15 Q Flushing of skin?

16 A Not enough information.

17 Q Skin discoloration?

18 A Yes.

19 Q Unusual growth or loss of hair? Now, I think
20 we should break that down into two categories, first,
21 unusual growth of hair?

22 A Possible.

23 Q And second, unusual loss of hair?

24 A Not enough information.

25 Q Allergies?

1 A I don't know what you mean by that. Does
2 that mean they are allergic to PCB's, allergic to milk,
3 allergic to rice? Not enough information.

4 Q Let's interpret that as being after the
5 exposure they became allergic to various things, not
6 PCB's. In other words, they became more of an
7 allergic-type person.

8 MR. CARNEY: Are you saying that's what the
9 articles in Yusho say?

10 MR. McCREA: No, I'm just asking him.

11 MR. CARNEY: Do the articles in Yusho say
12 that?

13 MR. McCREA: I'm asking him for his opinion
14 of the symptoms in Yusho, based on articles, based on
15 seminars, based on communications with personnel within
16 Monsanto.

17 MR. CARNEY: Well, I don't know that Dr.
18 Kelly has indicated he has any information about Yusho
19 other than what's contained in the literature. So I don't
20 know how you could be asking him and he I think he has
21 indicated he wasn't there and didn't examine them
22 personally.

23 So again I don't -- I think this is a waste of time
24 to have Dr. Kelly try to recollect what's in the
25 literature and whether it's in there in a sufficient

1 amount to -- or clear enough with control groups, et
2 cetera, to make any kind of a determination as to
3 whether -- what the probability is.

4 MR. McCREA: I agree that all those
5 variables exist, but I'm asking him his opinion based on
6 medical probability if there is no causal relationship, a
7 possible causal relationship, a probable causal
8 relationship, or a proven causal relationship between
9 exposure to the Yusho PCB oil which was contaminated with
10 furans and other chemicals and allergies.

11 Q (By Mr. McCrea) And the way I'd like to
12 phrase that is more prone to allergies after the exposure.

13 A I'd have to review the literature.

14 Q Do you understand the question; more prone to
15 allergies?

16 A Yes.

17 Q Thank you. So we'd say that's not enough
18 information?

19 A That's correct.

20 Q Hives?

21 A Same answer, hives are an allergic reaction.

22 Q Profuse sweating?

23 A Here again I don't know if you -- again, I
24 need more information. If you get a bunch of infected
25 cysts, you've got a fever, you've got sweating. So more

1 information.

2 Q Not enough information on that?

3 A That's correct.

4 Q Problems with toenails?

5 A Possible.

6 MR. CARNEY: Let me object to that on the
7 problem with toenails. I don't know, are you talking
8 about ingrown toenails, are you talking about thick
9 toenails, are you talking about what -- It seemed to me
10 there are several types of problems with toenails, so
11 that's a vague question.

12 Q (By Mr. McCrea) Let's break that down.
13 First, thickened toenails?

14 A There were some changes in the toenails. I
15 don't know if they were problems for the people or not;
16 but there were some changes in the toenails.

17 Q Okay. Let's make that changes in toenails
18 rather than problems with toenails?

19 A Yes.

20 Q And that would be possible?

21 A Yes.

22 Q And the next one, let's make that changes in
23 fingernails?

24 A Possible also.

25 Q Shortness of breath?

1 A I'd have to review that. Not enough
2 information.

3 Q Emphysema?

4 A Same answer.

5 Q Sores that won't easily heal?

6 A I don't know what they mean by that, whether
7 they mean the sores from the infected chloracne or sores
8 they might have got scraping their knees on bamboo? I
9 don't know.

10 Q Let's make that unrelated to chloracne.
11 Let's make that sores that are unrelated to chloracne.

12 A Not proven.

13 Q So that would be none?

14 A That's correct.

15 Q Bronchitis?

16 A More information needed.

17 Q Not enough information, correct?

18 A That's right.

19 Q Breathing problems?

20 MR. CARNEY: Objection to what is meant by
21 breathing problems; and again asking this witness to try
22 to recollect everything in the literature that he read
23 about the Japanese victims where they ate PCB's laced with
24 heavy amounts of furans that caused the problem.

25 A Not enough information on what the symptoms

1 are.

2 Q (By Mr. McCrea) In other words, that
3 question is -- You don't know what is meant by the word
4 problems?

5 A Yes.

6 Q The same for the next one?

7 A Throat, right.

8 Q That's it's not understood what is meant by
9 problems?

10 A Correct.

11 Q So that would be need more information as to
12 the symptoms?

13 A Yes.

14 Q Increase or decrease in sensitivity to
15 certain kinds of smells?

16 A I just have no comment to make on that at
17 all.

18 Q So your answer would be no comment?

19 A No comment.

20 Q Altered sense of taste?

21 A The same answer to that one.

22 Q And that would be no comment?

23 A That's correct.

24 Q Epilepsy?

25 A Not proven.

1 Q Shaking or tremors in hands -- Excuse me,
2 shaking or tremors of hands?

3 A I need more information.

4 MR. CARNEY: Let me object. As we're going
5 through these questions are you implying when you get an
6 answer not proven that it means it's possible or probable
7 or --

8 MR. McCREA: No. When it says it's not
9 proven it means it can happen.

10 MR. CARNEY: Well, again --

11 MR. McCREA: When he says none, when he says
12 it's not proven that means it's his opinion that it didn't
13 happen.

14 MR. CARNEY: It didn't happen in the
15 literature in Japan?

16 MR. McCREA: No, Tom, it didn't happen in
17 Yusho. He's not restricted to the --

18 MR. CARNEY: Well, why don't you ask him if
19 he has any firsthand knowledge outside of the literature
20 that's involved. It seems to me you're -- you know, now I
21 object to all these questions on the further ground that I
22 think your understanding of the answers and my
23 understanding certainly are different as to what's meant
24 by none, as to what's meant by proven.

25 MR. McCREA: None means that he's stating

1 based on his opinion, he's stating in his opinion based on
2 medical probability that that symptom was not caused by
3 the exposure to the Yusho PCB oil. That's what that
4 means, it was not caused.

5 MR. CARNEY: Well, that wasn't my
6 understanding of what was meant by none. Maybe you need
7 to -- the problem with your questions, Mr. McCrea, when
8 you're assuming definitions and terms without defining
9 those terms in the question we have then the potential of
10 a communication gap between a term that's undefined that
11 may mean a different thing to a witness than it does to
12 you, Mr. McCrea.

13 So I think if you're not going to define your terms
14 in the question I think you have another flaw here that --
15 and the flaw is that you have got questions with undefined
16 terms.

17 MR. MCCREA: I think that's a valid
18 objection. In other words, I wouldn't want to finish this
19 deposition and come back and face the reality that we
20 weren't talking about the same thing.

21 Q (By Mr. McCrea) Let's go to where we are,
22 epilepsy, all right. I have indicated on my sheet that
23 you're stating as a matter -- that you in your opinion are
24 stating as a matter of medical probability that that
25 symptom was not caused by the exposure on the Yusho oil?

1 A Yes; but I also though can also state that
2 somebody in that Yusho experience may have had epilepsy.

3 Q Right, and I understand that; but you're
4 stating it was not caused by the oil?

5 A That's correct. I don't believe epilepsy was
6 caused by the Japanese PCB oil with --

7 Q And you're stating it wasn't possible that it
8 was caused by the Yusho oil?

9 MR. CARNEY: Well --

10 MR. McCREA: Just a second please.

11 Q (By Mr. McCrea) Because we've get a category
12 for possibility.

13 MR. CARNEY: Well, that's the problem.
14 You're assuming by his answering one question in your
15 multiple choice group an answer on other questions which
16 you're not asking, number one. Number two, when you say
17 none, I don't know whether you're asking him was there any
18 epilepsy shown by any of the people who ate contaminated
19 Japanese PCB's laced with furans, with heavier
20 concentrations of furans than in the U.S. PCB's, again.
21 So I haven't still understood what you mean by none.

22 MR. McCREA: Didn't happen.

23 MR. CARNEY: That no one in those articles --

24 MR. McCREA: Established that symptom as
25 being in anyway related to the exposure to PCB's?

1 THE WITNESS: Well, that isn't what you were
2 saying.

3 MR. CARNEY: Yeah, now you've changed the
4 question.

5 THE WITNESS: Well, you've changed the legal
6 parameter.

7 MR. McCREA: Well, let's read the question
8 again.

9 THE WITNESS: Yes, but not what you just --

10 MR. McCREA: It was my error.

11 THE WITNESS: Just so we know the ground
12 rules of each one.

13 MR. McCREA: Believe me, when I get back to
14 Indiana I'd like to think that we understand the ground
15 rules; and it's important for me, it's important for you,
16 it's important for your attorney.

17 Q (By Mr. McCrea) Go back to Page 1, the
18 question at the top, please.

19 A Okay.

20 Q Let's look at that again, Dr. Kelly. It says
21 in your opinion, based on medical probability is there no
22 causal relationship? That could mean none, in my
23 thinking. A possible causal relationship? That would
24 mean possible. A probable causal relationship? That
25 would mean probable; or a proven causal relationship, that

1 would mean proven. In other words, we have four
2 categories, it didn't happen, there is no indication --

3 A No. That isn't the category, it didn't
4 happen.

5 Q As a result of PCB ingestion?

6 A All right, fine, but you've got to say -- it
7 happened, it happened there.

8 Q As a result -- Read the question. Between
9 exposure to Yusho PCB oil. All right? I'm not saying
10 that they couldn't have interviewed a person who had
11 epilepsy and they would report this person has epilepsy;
12 but this person had epilepsy before the exposure;
13 therefore it is concluded that there is no causal
14 relationship.

15 Now, if they interviewed the person and they said
16 this person had epilepsy, the individual is thirty-four
17 years old, the individual never had epilepsy up until that
18 date, there was nothing to explain the epilepsy based upon
19 other potential causes, that's to me what we're talking
20 about.

21 MR. CARNEY: Let me just make the objection
22 that just because one person out of all of the people that
23 were -- they ate the Japanese contaminated PCB's with
24 furans happened to get epilepsy doesn't mean that there's
25 any proof that PCB's of the Japanese variety that have the

1 furans causes epilepsy.

2 MR. McCREA: Well, the doctor can answer it
3 that way.

4 MR. CARNEY: Well, but that's not the -- the
5 problem is your question's confusing as to when you say
6 none. Do you mean none of the victims had epilepsy, when
7 they got epilepsy, whether the writers concluded one way
8 or the other that the epilepsy had anything to do with the
9 Japanese people eating these PCB's with the furans? I
10 don't know what you mean when you say none. I'm
11 ambiguous -- I think it's ambiguous as to what you mean.

12 MR. McCREA: What I mean is, I'm asking the
13 doctor for his opinion, all right; do you understand that
14 correct, Tom?

15 MR. CARNEY: Well, and again --

16 MR. McCREA: Just a second. I'm asking him
17 for his opinion; is there any problem with that?

18 MR. CARNEY: I do have a problem with that,
19 because the doctor has indicated that his knowledge is
20 based on some literature. Now there are articles that
21 cover this and I don't know that he has any opinions
22 outside of that literature with regard to the Japanese
23 people ingesting PCB's with furans.

24 MR. McCREA: You're not stating that he's
25 not qualified to discuss the cause and effect relationship

1 between PCB's and held effects, are you?

2 MR. CARNEY: No. What I am saying is with
3 regard to the Japanese PCB's that the Japanese cooked with
4 and ate and those particular furans when you had much
5 more -- those PCB's had a much higher concentration of
6 furans. It's something entirely different than the PCB's
7 in the United States with a much lower furans and so I
8 think there's a difference and I'm not sure that Dr. Kelly
9 has any more knowledge other than the literature about the
10 Japanese situation.

11 MR. McCREA: Are you stating that Dr. Kelly
12 is not qualified as a medical practitioner to offer his
13 opinion on the cause and effect relationship between the
14 exposure to Yusho PCB oil and health problems? Are you
15 stating he's not qualified to give that?

16 MR. CARNEY: No. Dr. Kelly can speak for
17 himself as to what he feels he can offer his opinions on.
18 All I'm doing is making a comment that there's a
19 difference, number one, and I don't think he has indicated
20 that he has knowledge outside of the literature with
21 regard to the Japanese.

22 MR. McCREA: He started off with skin
23 irritation, don't know, hearing problems, don't know. He
24 also has given the answer not enough information on
25 several occasions, totally legitimate answers.

1 MR. CARNEY: I'm not disputing that all. But
2 I am disputing that your questions are vague and I
3 certainly had a different understanding as to what you
4 meant by none. Now Dr. Kelly may. I don't know that you
5 defined the terms.

6 MR. McCREA: None means he has stated based
7 on as a medical doctor, based on information he has read
8 and based on the information that has come to his
9 attention that that problem was not caused by the
10 ingestion of the PCB Yusho oil, period.

11 MR. CARNEY: Well, you're not even saying
12 whether there was any indication that there was any
13 epilepsy.

14 MR. McCREA: Well, I'm asking him the
15 question and if there's been no indication --

16 MR. CARNEY: Well, go ahead and ask your
17 questions. I think so far they have been very vague and I
18 think there's been an -- at least in terms of what I
19 understood your questions to be I have not understood the
20 definitions that you just recently defined your questions
21 to be.

22 MR. McCREA: None means none, possible means
23 possible.

24 MR. CARNEY: None what? None what?

25 MR. McCREA: No connection. No connection

1 whatsoever.

2 MR. CARNEY: Do the articles say there is no
3 connection?

4 MR. McCREA: No, that it's his
5 interpretation of the articles, it's his interpretation of
6 the data, it's his opinion as medical doctor that there is
7 no causal relation.

8 MR. CARNEY: Well, that's not the questions
9 that I understood that you're asking.

10 THE WITNESS: Well I'd like to have a couple
11 more definitions clarified.

12 MR. McCREA: Yes, sir.

13 THE WITNESS: When I say don't know, I mean
14 by that I don't -- have not checked the literature
15 recently to find out whether this -- whether I can make
16 an -- give an opinion on it.

17 MR. McCREA: That's exactly the way I
18 understand your answers.

19 THE WITNESS: All right, and when I say not
20 enough information that means as we were talking about
21 kidney problems, what kind of kidney problems were you
22 talking about?

23 MR. McCREA: That's exactly the way I
24 understood your answer, Dr. Kelly. That's exactly right.
25 In other words, there isn't -- That's exactly the way I

1 understood it.

2 MR. CARNEY: Well, what is your --

3 MR. McCREA: Ask him. Ask him. You said

4 what is your --

5 MR. CARNEY: Well, what I'd like you to do is

6 just have you ask questions that are not so vague and

7 ambiguous that it leaves listeners confused as to what

8 you're asking. That's what I'd like; if you could do that

9 I'd appreciate it.

10 MR. McCREA: I'd like to satisfy your

11 questions for clarity.

12 MR. CARNEY: And up to date on this whole

13 series of questions on Exhibit 4 I think this whole series

14 of questions is riddled with ambiguity to the point where

15 it's unintelligible to me what you're asking.

16 Q (By Mr. McCrea) It's not easy, is it,

17 Doctor? Dr. Kelly, we're down to shaking or tremors of

18 hands, the question posed to you by this document is in

19 your opinion based on medical probability is there no

20 causal relationship, a possible causal relationship, a

21 probable causal relationship or a proven causal

22 relationship between exposure to Yusho PCB oil, which was

23 contaminated with furans and other chemicals and shaking

24 or tremors of hands? Your answer is there's not enough

25 information?

1 MR. CARNEY: Objection. Well, I'm objecting
2 to the form of the question, it's compound, as well as the
3 other objections.

4 A I would say I would have to examine the Yusho
5 literature before answering that question.

6 Q (By Mr. McCrea) Change in speech pattern?

7 MR. CARNEY: I'm going to object. I don't
8 know what you mean by change in speech pattern.

9 MR. McCREA: It means a speech pattern which
10 has somehow been altered or change. I don't know that
11 that's --

12 MR. CARNEY: That doesn't help cure my
13 objection.

14 A Well, I'll give a double-barreled answer to
15 that.

16 Q (By Mr. McCrea) All right, sir.

17 A I don't -- I need more information as to what
18 the change in speech pattern is. Is he talking about
19 stuttering, is he talking about repeating words? And I'll
20 have to say I'll have to examine the literature, the Yusho
21 literature to see whether there's any possible or probable
22 connection. You're asking me really to give an
23 epidemiological answer to any of these questions.

24 Q Just asking for your opinion.

25 A Well, yes; but as I say I'll have to

1 double-check it to see if there's one person there with a
2 speech pattern or fifty, with a changed speech pattern.

3 Q I understand.

4 A Numbness in hands. Let's first separate this
5 out, numbness in hands. The same situation; I'll have to
6 have more information as to how, when the numbness came
7 on, how long it lasted and in what percentage of the
8 people it was reported.

9 Q So that would be not enough information?

10 MR. CARNEY: Well, again, you know, you're
11 trying to put him into a --

12 MR. McCREA: No.

13 MR. CARNEY: You made four categories, he's
14 given you an answer.

15 MR. McCREA: Okay.

16 MR. CARNEY: And somehow you're trying to put
17 him into a category of yours and I think that's improper.

18 THE WITNESS: Well, my category is I need
19 more information on it, and two, I would have to review
20 the Yusho literature to come out with an opinion.

21 Q (By Mr. McCrea) Okay, sir. Numbness in
22 feet?

23 A Same answer.

24 Q Coordination problems?

25 A Same answer.

1 Q Unusual gait or walking characteristics?

2 A Same answer.

3 Q Next page, stumbling?

4 A The next two are really the same answer to
5 that, stumbling or problems with balance.

6 Q Yes, sir.

7 A Same answer.

8 Q And that answer is need more information?
9 You would have to read the literature?

10 MR. CARNEY: I'm not sure that is --

11 Q (By Mr. McCrea) What is the answer?

12 A Well, the answer is I would have to know more
13 about the stumbling, whether it was once or whether it was
14 all the time, and I would have to read the literature to
15 see -- the Yusho literature to see what the significance
16 of the individual case reports might have been.

17 Q All right, sir, and that's true for stumbling
18 and problems with balance, is that correct?

19 A That's correct.

20 Q Arthritis?

21 A Not proven.

22 Q Joint pain?

23 A I'd have to have more information and check
24 the occurrence in the literature, of the Yusho literature.

25 MR. CARNEY: I just want to object to that

1 one as well as a couple of the others. I don't know what
2 you mean by joint pain.

3 MR. MCCREA: Stiffness or soreness of
4 muscles.

5 MR. CARNEY: Again, I would object on the
6 ground that I don't know what you mean by that.

7 A Again, I need more information on how stiff
8 they were, how long they were -- how sore they were, and
9 I'd have to see the incidents in these people, by
10 reviewing the Yusho literature following the ingestion of
11 this Japanese PCB material.

12 Q (By Mr. McCrea) All right, sir. Paralysis?

13 A I don't think it's been proven, no.

14 Q And that would be again for clarity of the
15 record you are stating in your opinion based on medical
16 probability there is no causal relationship?

17 A What kind of paralysis? What are we talking
18 about? Paralysis of the little finger or a stroke or one
19 whole extremity? I don't know what you mean. Dropped
20 eyelid? I mean, there are all sorts of paralysis, so I
21 say, I don't know. I could change my answer to I'd like
22 to -- I need more information but I don't think there is
23 any causal relationship.

24 Q Let's say paralysis of the limbs, hands,
25 legs?

1 A You mean they can't move their arms and legs?

2 Q Right.

3 A I don't believe there's any causal
4 relationship.

5 Q Problems with bones?

6 MR. CARNEY: I'm going to object. Problems
7 with bones is very broad.

8 Q (By Mr. McCrea) How about changes in bone
9 structure? Let's change that to change in bone
10 structure?

11 MR. CARNEY: I don't know what you mean by
12 changes in bone structure. The question's vague as well
13 as all of the other objections I have in my standing
14 objection.

15 Q (By Mr. McCrea) Okay, changes in bone
16 structure.

17 A I'd have to see more information on that.

18 Q That's the break time. Thank you, Doctor.

19 (Whereupon, a lunch break was taken.)

20 Q Dr. Kelly, we're back on the record. Again
21 referring to Plaintiff's Exhibit 4, is that the number,
22 sir, on the document?

23 A Yes, sir.

24 Q The next symptom listed as I recall when we
25 took our break is swelling of joints. Do you have an

1 opinion based on a medical probability if there is no
2 causal relationship, a possible causal relationship, a
3 probable causal relationship or a proven causal
4 relationship between exposure to the Yusho PCB oil which
5 was contaminated with furans and other chemicals and that
6 particular symptom?

7 A I would have to have more information about
8 the symptoms, when the swelling came on, how long it
9 lasted and I would also have to review the -- re-review
10 the Yusho literature to see what the incidence of this
11 particular symptom was.

12 MR. CARNEY: Do I still have my standing
13 objection?

14 MR. McCREA: Yes.

15 Q (By Mr. McCrea) The next symptom,
16 rheumatism?

17 A Same answer.

18 Q Muscle spasms?

19 A Same answer.

20 Q Muscle weakness?

21 A Same answer.

22 MR. CARNEY: I'm going to object on the
23 ground that I don't know what is meant; what type of
24 muscle weakness we're talking about and where?

25 MR. McCREA: Again you understand that we

1 took this from questions which you addressed to your
2 clients.

3 MR. CARNEY: Well, as I recall at least in
4 looking at some of those depositions that the questions
5 would be asked in a general way, "Have you had muscle
6 weakness?" And if they indicated they did then we asked
7 where and when and what type and got details. So what I
8 am saying is when you just ask these general questions
9 without any definition to it I think it is overbroad.

10 Q (By Mr. McCrea) Muscle twitching?

11 A I'll have to give the same answer that I
12 would have to know more about what is meant by that
13 particular symptom and then re-review the literature to
14 see if that was a prominent symptom in the Yusho cases.

15 Q Swelling of hands?

16 A Same answer.

17 Q Multiple sclerosis?

18 A None.

19 Q Parkinson's disease?

20 A None.

21 Q Back problems?

22 A Again, I would have to ask what back problems
23 are we talking about, and I would have to review the
24 literature, the Yusho literature to see if they had any
25 particular become problems and how often it occurred. But

1 my opinion would be it would be very improbable.

2 Q Disk problems?

3 A PCB exposure has not been causally related to
4 any disk problems. I presume, the vertebral disks.

5 MR. CARNEY: Again, Doctor, we're talking
6 about the Japanese situation --

7 THE WITNESS: The Japanese --

8 MR. CARNEY: Not the American.

9 THE WITNESS: The Japanese Yusho PCB with
10 chlorinated benzofurans and chlorinated terphenyls.

11 Q (By Mr. McCrea) The answer to that would be
12 none?

13 A That's correct.

14 Q Back pain?

15 MR. CARNEY: Objection to what you mean by
16 back pain.

17 A I would have to know more about the symptom
18 and re-review the literature to see whether that was a
19 prominent factor.

20 Q (By Mr. McCrea) Let's make that pain in the
21 spine, in the back?

22 A Same answer to that.

23 Q Ringing in ears?

24 A Again I'd have to know when that occurred,
25 how often it occurred, how long it occurred and I think I

1 can answer the same thing for the next two, and I would
2 have to re-review the literature of Yusho to find out if
3 the Japanese PCB had caused that at Yusho.

4 Q Problems with eyes?

5 A Yes, there were problems with eyes, if by
6 that you mean the eyelids, that was proven.

7 Q Problems with vision?

8 A Again, there I would have to know what the
9 problems with and I think we can include blurred vision
10 under that for the sake of hurrying this along. I'd have
11 to know more about what problems we're talking about and
12 whether or not -- I'd have to re-review the literature
13 with Yusho with the Japanese PCB.

14 Q Glaucoma?

15 A None.

16 Q Loss of eyesight?

17 A None.

18 Q Seeing spots?

19 A I mean by loss of eyesight, you mean complete
20 blindness? Is that what you mean by complete loss, it's
21 gone?

22 Q I don't know.

23 A Gee, it's hard for me to answer then.

24 Q I would assume it means not blindness, or it
25 would state blindness?

1 A Five percent loss?

2 Q Yes.

3 A Hundred percent loss?

4 Q Yes. Diminished.

5 A Well, I'd have to agree with you, I don't
6 know what it means.

7 Q We just took these from their depositions.

8 MR. CARNEY: I'm going to object to that
9 characterization and I will say if in fact you did and I'm
10 not saying you did or didn't; I'm not -- you haven't shown
11 me the depositions, but I will say this: That if that
12 question was asked, it was undoubtedly asked because one
13 or more of the plaintiffs indicated that they had a
14 problem, that problem associated with PCB's. One of the
15 problems with your clients, Mr. McCrea, is they're
16 claiming that every problem they've had from ingrown
17 toenails to headaches and everything in between was caused
18 by PCB's.

19 So since that's the position that you have taken we
20 have had to go into all of these problems. If you could
21 be a little more specific in your complaint as to what you
22 think is caused by PCB's we could narrow the focus, which
23 I would welcome. If we could limit it to chloracne we'd
24 have a much simpler time and we wouldn't have to take all
25 this time.

1 Q (By Mr. McCrea) Seeing spots?

2 A Again, I am unable to evaluate that symptom
3 and I would have to re-review the Yusho literature to see
4 if their eating their PCB's caused spots in front of their
5 eyes.

6 Q Doctor, it is your opinion that PCB's
7 ingested into the body as opposed to PCB's which have a
8 route of entry through the skin, if the amount is the
9 same, once into the body --

10 MR. CARNEY: Let me -- Are you finished?

11 MR. McCREA: No.

12 MR. CARNEY: I want to object as soon as
13 you're finished.

14 MR. McCREA: Okay.

15 Q (By Mr. McCrea) Is it your opinion that
16 there's a difference of the toxicity between PCB's which
17 are ingested into the body and PCB's which are absorbed
18 through the skin?

19 MR. CARNEY: Let me object because I think
20 the question is vague and ambiguous. You haven't
21 mentioned the amount.

22 MR. McCREA: Same amount.

23 MR. CARNEY: You haven't mentioned whether
24 you're talking about the Yusho Japanese PCB's that had the
25 heavy amount of furans that caused problems in Japan that

1 we haven't seen in the PCB's in America, and so I think
2 the question's vague.

3 Q (By Mr. McCrea) Doctor, if the -- Are you
4 stating that if the same identical compound of PCB's is
5 ingested that it would be more toxic than that same --

6 MR. CARNEY: I just wanted to make sure I had
7 time to object. Sometimes the doctor is quicker than I am
8 with his answer, and so as soon as you're finished let me
9 know and I'll object.

10 THE WITNESS: I will wait for you, but just
11 keep reminding me, that's a problem of mine I answer a
12 little too fast.

13 Q (By Mr. McCrea) Doctor, are you stating that
14 if the same compound of PCB's is ingested as opposed to
15 entering the body through the skin that there's a
16 difference in toxicity in ingested PCB's as opposed to
17 PCB's absorbed through the skin?

18 A This is --

19 MR. CARNEY: Object, let me object. When you
20 say you are saying the same; I don't know what you're
21 talking about in terms of amount.

22 MR. McCREA: Same amount.

23 MR. CARNEY: Same objection. What, if you
24 drink PCB oil versus sticking your hand in the same PCB
25 oil, would that be the same amount.

1 MR. McCREA: No.

2 MR. CARNEY: So again I don't know what you
3 mean by amount and again I don't know what you mean by
4 saying compounds. Are we talking about the Japanese PCB's
5 with the heavy amount of furans in them?

6 MR. McCREA: We can talk about anything you
7 want to talk about. We can talk about PCB's with furans,
8 with quaterphenyls, with biphenylenes, with dioxin. We
9 can talk about the Yusho PCB's with the furans and the
10 quaterphenyls. We can talk about you PCB's that you
11 manufacture with furans in it, as tested by Monsanto.

12 It doesn't matter. What I'm stating is this: If
13 you ingest as opposed to having a route of entry through
14 the skin and the same amount ends up absorbed into your
15 body, are those compounds more toxic, according to Dr.
16 Kelly, if they're ingested?

17 MR. CARNEY: Let me object, because number
18 one, you said it doesn't matter whether it's the Japanese
19 PCB's with the heavy amount of furans or the American
20 PCB's, and I beg to differ with you. I think there's a
21 significant difference between the two, the American PCB's
22 I think the record is clear on -- at least from Dr.
23 Kelley's testimony, has a very infinitesimal amount of
24 furans compared to the Japanese and the furans are what
25 caused the problems in Japan.

1 So I think it's a problem when you're trying to
2 equate and say the same thing. I think the record is
3 clear that it isn't. They are not the same; and you're
4 mixing again apples and oranges when you're talking about
5 the same amount of PCB's in the body.

6 I'll agree with you if you have the same amount of
7 PCB's in the body you have the same amount of PCB's, but
8 the question is how much PCB's does it take to have your
9 hand in it or to be exposed through skin contact versus
10 drinking and getting the PCB's in your body that way.
11 It's a totally different situation and you're trying to
12 say it's the same, so I think your question is vague and
13 ambiguous.

14 MR. McCREA: Thank you for the agreement.

15 Q (By Mr. McCrea) Doctor, have you performed
16 any studies as to what the rate of skin absorption is of
17 PCB's on the skin?

18 A You mean the rate?

19 Q Right.

20 A How much goes in in one minute, half hour,
21 two hours, twenty-four hours.

22 Q Exactly.

23 A No, I have not.

24 Q Do you know of any study in which that has
25 been done?

1 A There may have. There are minimum lethal
2 doses by skin absorption, there are minimum lethal doses
3 by oral intake. But to answer your question there may
4 have been those studies. I don't know. I don't recall.

5 Q But if the PCB's enter the body they don't
6 have less toxicity if they are ingested as opposed to
7 going through the skin? I mean, there's nothing about the
8 skin absorption that makes them less toxic, or is there?

9 A There could be, because remember if you
10 swallow it, it's absorbed, it goes into the liver and also
11 if you swallow, when these people swallowed the Japanese
12 PCB if one of them had an ulcerated esophagus, which is
13 the gullet, which is the tube leading from the mouth on
14 the stomach, he had that.

15 Whether that was caused by swallowing that PCB or
16 not I don't know. But certainly it could not be caused by
17 absorption through the skin, you would not get a ulcerated
18 esophagus from the skin absorption. If it was absorbed
19 through the skin it goes to the lungs first rather than
20 the liver. Whether or not there's excretion from the
21 lungs or not is a question.

22 Q Which body organs produce enzymes?

23 A The liver.

24 Q Any others?

25 A I'm sure there are. As I said earlier I'm no

1 enzymologist; but I'm sure there are other enzymes outside
2 of the liver.

3 Q Are PCB's an enzyme inducer?

4 A Yes.

5 Q And you can't tell us here today if there are
6 other organs which produce enzymes other than the liver?

7 A No, sir.

8 Q Problems with reading?

9 MR. CARNEY: Again, I have to know what you
10 mean by problems with reading. The question's vague.

11 Q (By Mr. McCrea) An inability to read and
12 retain the information. In other words, the inability to
13 look at a document, to read it and to retain the
14 information?

15 A And to remember it?

16 Q Yes, sir.

17 MR. CARNEY: Well, it's a compound question.
18 You're asking about inability to read and then inability
19 to retain what you have read, and so I object to the form.

20 Q (By Mr. McCrea) Inability to retain what
21 you've read.

22 A I would have to know more about the symptom
23 and re-review the literature.

24 MR. CARNEY: Again for the record, we're
25 talking about the Japanese Yusho literature?

1 A Yes.

2 MR. McCREA: Correct.

3 Q (By Mr. McCrea) Or Taiwan, can we include
4 Taiwan in this?

5 MR. CARNEY: Well, I think your question up
6 to now has just been Yusho?

7 THE WITNESS: Yusho.

8 MR. McCREA: I agree.

9 A Let's stick to this. Why don't you come up
10 with another questionnaire on Taiwan?

11 Q (By Mr. McCrea) No, Doctor. Do you know of
12 any substantial differences between Yusho and Taiwan?

13 A There may be. I'll have to check.

14 Q Do you know of any?

15 MR. CARNEY: Let me object here. You're
16 asking the witness to speculate about what's in literally
17 hundreds of pages of writing in these two instances to
18 determine the differences.

19 MR. McCREA: The question did not ask Dr.
20 Kelly to speculate. The question is do you know of any
21 substantial differences between Yusho poisoning and
22 poisoning in Taiwan?

23 A Well, what do you mean by substantial.

24 Q (By Mr. McCrea) Something that you would
25 consider medically significant or scientifically

1 significant?

2 A I would have to re-review both articles to
3 answer that.

4 Q What I mean by medically significant are the
5 symptoms produced, scientifically significant are the dose
6 response, the amount ingested, make up of the chemical?

7 MR. CARNEY: I'm gong to object to the form
8 of the question. It's compound; you're asking at least
9 three or four different questions in that question. I
10 don't know which one you want him to answer.

11 Q (By Mr. McCrea) Let's break it down one at a
12 time. Do you know of any differences in the symptoms
13 between the Japanese symptoms and the Taiwanese victims?

14 A I would have to re-review the articles on
15 both.

16 Q Do you know of any significant differences
17 between the amount of PCB's with contaminants ingested in
18 Japan compared to Taiwan?

19 MR. CARNEY: Talking about the amounts?

20 MR. McCREA: Right.

21 A I cannot be certain. My impression is the
22 people in Yusho have had more. I'm not certain of that; I
23 would have to look again at the literature.

24 Q (By Mr. McCrea) Do you know of any
25 substantial differences in the chemicals in the PCB's in

1 Japan as opposed to Taiwan?

2 MR. CARNEY: Objection to the form. Contains
3 an undefined term what you mean by substantial.

4 A Again I would have to look at the amounts
5 that were listed in both literatures to say whether or not
6 there were substantial differences.

7 Q (By Mr. McCrea) Dr. Kelly, the next one is
8 problems with lights, and make that oncoming headlights at
9 night when driving?

10 MR. CARNEY: Well, I don't know what you mean
11 by problems with oncoming lights. If you're in the path
12 of the lights I think you'd have the problem with it but I
13 don't know if that's what you mean.

14 Q (By Mr. McCrea) Eye sensitivity with lights
15 when driving at night?

16 A I don't believe the people in Yusho were
17 driving automobiles; so I don't recall that symptom ever
18 coming up.

19 Q It probably didn't. Cataracts?

20 A No.

21 MR. CARNEY: Let me, just for clarification,
22 are we back to just Yusho again?

23 MR. McCREA: Correct.

24 Q (By Mr. McCrea) Cataracts?

25 A No.

1 Q What are cataracts?

2 A Opacity of the lens and of the eye.

3 Q And what is the chemical composition?

4 A Calcium, presumably, and some colloid
5 formation.

6 Q Seeing spots in sunlight?

7 A Again, I would have to know more about the
8 symptoms and re-review the literature on Yusho poisoning
9 with the Japanese PCB's.

10 Q Irritated eyes?

11 A Yes.

12 Q Eye disease?

13 A Here again, you mean by an eye disease,
14 eyelid disease or eye disease? I don't know what you mean
15 by that sentence. I mean, if I say yes, cataracts is an
16 eye disease, but I don't believe cataracts --

17 Q Are there any particular diseases of the
18 eye --

19 A The eye itself? Not --

20 Q -- that you feel are possibly, probably or
21 proven to have resulted from the ingestion of the Yusho
22 PCB oil?

23 A If you mean the globe of the eye itself or do
24 you mean the eyelids? Do you include that in your
25 blanket --

1 Q The eye itself, excluding the eyelid?

2 A I do not know of any.

3 Q Inflamed or puffy eyes?

4 A Well, we skipped a few.

5 Q We did?

6 A Irritated eyes.

7 Q I thought we went over that. You said that
8 was proven?

9 A Well, we can take it inflamed or puffy eyes,
10 unusual redness of the eyes, plus a discharge in the eyes.
11 Yes, those have been reported at Yusho.

12 Q Heart problems?

13 A Again, I would have to know what the meaning
14 of that symptom is or that condition is and re-review the
15 literature of the Japanese poisoning with Kanechlor, the
16 Japanese PCB.

17 Q Heart attack?

18 A I certainly do not believe that has been
19 proven.

20 MR. CARNEY: Again we're talking about Japan,
21 Yusho?

22 A Yusho, Japan, Yusho.

23 Q (By Mr. McCrea) Stroke?

24 A I do not believe there has been a causal
25 relationship between strokes and the ingestion of Japanese

1 PCB oil with the furan contaminations.

2 Q Was your answer I do not believe there has
3 been a definite causal relationship between stroke and the
4 injection of Yusho oil?

5 A That's correct.

6 Q Is it your opinion that there is no
7 relationship?

8 A I would have to re-review the literature to
9 find out.

10 Q Tightness in chest?

11 A Again, I'd have to know more about the
12 symptom.

13 Q Peripheral neuropathy as it effects the
14 nerves crossing the chest?

15 A Well, that's not tightness of the chest.
16 That's pain along the ribs.

17 Q All right. My question is peripheral
18 neuropathy?

19 A We're forgetting about tightness of the chest
20 now, are we?

21 Q Yes, sir; and now as a subcategory,
22 peripheral neuropathy as it effects the nerve endings in
23 the chest area?

24 MR. CARNEY: I'm going to object to the
25 definition of what peripheral neuropathy is. At least I

1 think you've mischaracterized it and it's my understanding
2 that it's in the ends of the nerves on the limbs, but
3 maybe I'm wrong, I'm not a --

4 THE WITNESS: I wouldn't hear what you said.

5 MR. CARNEY: The ends of the nerves at the
6 ends of the extremities; but I may be wrong and I'm not a
7 doctor, so I'll -- but I think you mischaracterized what a
8 peripheral neuropathy is.

9 MR. McCREA: I'm not a doctor, I could very
10 well have.

11 Q (By Mr. McCrea) But Doctor, could you have
12 peripheral neuropathy in the nerve endings in the chest
13 muscles?

14 A Yes.

15 Q The question is now peripheral neuropathy, is
16 the nerve endings in the chest?

17 A I would have to review the article to find
18 out whether there was any relationship.

19 Q Tightness in heart area or pain?

20 MR. CARNEY: Objection to the form, as well
21 as I have my continuing standing objection, right Mr.
22 McCrea?

23 MR. McCREA: Yes, we stipulate.

24 A I would have to review the symptoms of what
25 they are talking about to get more information about the

1 symptoms of what they mean by tightness in the heart area
2 or pain I presume where he has pain in the heart area.
3 Again I would need more information on that and I would
4 then have to re-review the literature on the Yusho
5 incident using the Japanese contaminated PCB's.

6 Q (By Mr. McCrea) Unusual rapid or irregular
7 heart beat?

8 MR. CARNEY: Objection to the form. It's
9 also vague; I don't know what you mean by unusual.

10 A Again, I would have to know what caused
11 irregular heart beat. I would have to know what caused
12 the rapidity of the heart. I'd have to know how long it
13 was. I'd have to know whether its was once in a while or
14 intermittent, so the answer is I do not have enough facts
15 to give an adequate opinion on that.

16 Q Diabetes?

17 A No.

18 Q High blood sugar?

19 A No.

20 Q Leukemia?

21 A No.

22 Q You acknowledge, Doctor, that benzene can
23 cause leukemia, correct?

24 A Oh, yes, certainly. We aren't talking about
25 benzene.

1 Q I understand that.

2 A Well, I just want to let the jury know that
3 there's a big difference between benzene and chlorinated
4 biphenyl.

5 Q All right. Are there transformer fluids that
6 contain trichlorobenzene?

7 A Yes.

8 Q If a worker is exposed to a transformer which
9 contains trichlorobenzene and polychlorinated biphenyls,
10 putting aside Yusho, would leukemia be a possible
11 consequence of exposure?

12 MR. CARNEY: Objection, I don't think you've
13 given enough facts. The amount, the length of time, the
14 dose.

15 Q (By Mr. McCrea) Doctor, let me uncomplicate
16 the question, if I can. Is there a difference between
17 toxicity of trichlorobenzene and benzene?

18 A Oh, yes.

19 Q All right, sir. In your opinion is
20 trichlorobenzene associated with leukemia?

21 A No.

22 Q Anemia? Now we're back to Yusho.

23 A I do not know if anemia has been associated
24 with the Yusho occurrence. I could have to know more
25 about the type of anemia, the extent of the anemia, what

1 happened to the blood counts and I would have to review
2 the literature to know if that was a significant finding.

3 Q Gout?

4 A No, never heard of gout being associated with
5 anybody's PCB much less Yusho's.

6 Q What causes gout?

7 A It's disturbance of the purine metabolism
8 which causes a precipitation of uric acid in the joint
9 cavities.

10 Q Liver problems?

11 MR. CARNEY: I'm gong to object to that as
12 being undefined, what you mean by liver problems.

13 MR. McCREA: Swelling of the liver.

14 MR. CARNEY: I'm not sure that these -- there
15 was any measuring of the liver. I don't know that people
16 know if their liver is swollen or not.

17 You can answer.

18 A It is possible.

19 MR. CARNEY: He's asking whether there's
20 anything in the literature in Yusho?

21 A I think there was to the best of my
22 recollection, but we have defined liver problems to the
23 swelling of the liver.

24 Q (By Mr. McCrea) Hepatitis?

25 A Yes. If the liver is swollen it could be due

1 to hepatitis.

2 Q Porphyria cutanea tarda?

3 A Do we get that one? I don't see it in here.

4 Q As a liver problem?

5 A What?

6 Q As a liver problem?

7 A I thought you were asking for that. I done
8 know if that was reported in the Japanese Yusho incident
9 are or not.

10 Q Elevated porphyrins as part of liver
11 problems?

12 A If they had liver problems they may have had
13 elevated porphyrins. I do not know if they were, at the
14 present time, I do not recollect whether or not they
15 tested for them or whether they were elevated to a
16 statistical positivity.

17 Q Primary liver tumor?

18 A Is that also under problems?

19 Q Yes, sir.

20 A I don't recall if the Japanese PCB's with the
21 chlorinated benzofurans, et cetera, caused primary liver
22 tumors. I am of the opinion it did not.

23 Q Fatty degeneration?

24 A That's possible.

25 Q Induction of enzymes?

1 A That's possible. There's inductions of
2 enzymes isn't all bad all the time.

3 Q Cirrhosis, which is the next one on the
4 chart?

5 A I do not know whether or not cirrhosis has
6 been reported in the Yusho literature.

7 Q Hepatitis we have discussed. Tumors, and by
8 this, doctor, non-cancerous tumors?

9 A We mentioned that, too. You said hepatoma
10 above. Didn't you mention hepatoma under liver problems?
11 I thought that was one of your subsidiary questions.

12 Q Primary liver tumor?

13 A That's a hepatoma.

14 Q You answered that?

15 A And I said I did not know that that was
16 reported.

17 Q And now the question is, excuse me, is
18 unrelated to the liver. This is to the body, tumors in
19 the body, non-cancerous tumors?

20 A I do not recall any such association in a
21 causal manner.

22 Q What about non-cancerous tumors of the liver?

23 A Again, I do not know if any of them had
24 occurred. I'd have to re-review the literature.

25 Q Cancer?

1 A Any place?

2 Q Yes, sir.

3 MR. CARNEY: You're again talking about the
4 Japanese ingestion of the Japanese PCB's with the furans?

5 MR. McCREA: Correct.

6 A I do not know if it has been statistically
7 proven that cancer has resulted from the oral intake of
8 the Japanese PCB's.

9 Q (By Mr. McCrea) Food allergies?

10 MR. CARNEY: Objection to the form, it's
11 vague.

12 A I don't know enough about the delineation of
13 that symptom and I would have to re-review the literature
14 to answer the question.

15 Q Motion sickness?

16 A Same answer.

17 Q Stomach problems?

18 MR. CARNEY: Objection to the form. It's
19 vague.

20 A I presume by this you mean anything from a
21 person having to take the Japanese equivalent of Maalox to
22 a cancer of the stomach?

23 Q (By Mr. McCrea) Yes, sir.

24 A Well, I would have to know more about the
25 stomach problems and to re-review the literature.

1 Q Ulceration of the esophagus?

2 A It's been stated that that occurred. At
3 least one case there, in Yusho.

4 Q I think that's a repeat of one on the first
5 page. No -- well, yes, it is, and you've answered that.
6 Can you tell us what you recall about that one case,
7 Doctor?

8 A Not except that someone had -- I'd have to
9 re-review the literature, but one person had an ulcerated
10 esophagus.

11 Q Problems with intestines?

12 A I'm going to give you the same answer on the
13 next one, two, three, four, five, six, seven; it will save
14 some time. The answer is --

15 Q All right.

16 A The answer is I would have to know more about
17 the delineation of these symptoms, the time factor
18 involved and I would have to know -- I'd have to re-review
19 the literature to see if in fact these occurred.

20 Q As a subcategory, Dr. Kelly, on problems with
21 intestines, fatty tumors of the intestines?

22 A I'd have to know more about where this fatty
23 tumor was. I mean, the intestine is coated with fat.
24 There are pieces of fat hanging down all along the
25 intestines and I don't know if that's considered a fatty

1 tumor or not, if it's a piece of fat. The omentum which
2 hangs over almost the complete intestine is almost
3 completely composed of fat, so --

4 Q Doctor, I think these next two have been
5 previously answered -- No, they haven't. Unusual weight
6 gain?

7 MR. CARNEY: I don't -- I guess I'll object.
8 I don't know what you mean by unusual weight gain versus
9 usual, usual. I don't know if there's a difference in
10 your mind or not.

11 A Well, Mr. McCrea, I'd have to find out what
12 they mean by unusual weight gain and what they mean by
13 unusual weight loss. I'd have to look up in these
14 articles and see if some people gained weight and some
15 people lost weight as a result of the exposure to the
16 Japanese eating the Japanese PCB's. So I would have to
17 see, there'd have to be a preponderance of one; I don't
18 believe you'd have it both ways. Some people would gain
19 weight and some people would lose weight as a result of
20 PCB's, so I can't answer that.

21 Q (By Mr. McCrea) Allergies to medications?

22 MR. CARNEY: Objection. I don't know what
23 you mean, what type of medications? Question's vague.

24 A I don't think that was talked about in there.
25 I would have to review the literature to give you an

1 answer to that.

2 Q (By Mr. McCrea) Can enzyme induction alter
3 the effectiveness of medications?

4 A Well, sometimes it can enhance it. Sometimes
5 it can all hurt.

6 Q So it can both make it more effective and
7 make it less effective?

8 A It's a possibility.

9 Q Do you know how enzymes do that?

10 A No, I don't.

11 Q Is that proven, that enzyme induction can
12 enhance and decrease the effectiveness of medications?

13 MR. CARNEY: I'm going to object to the word
14 proven. That's an undefined term as to what you mean by
15 proven. I assume you're talking about the literature
16 here --

17 MR. McCREA: No.

18 MR. CARNEY: And I don't think the literature
19 uses the word proven.

20 MR. McCREA: No. I'm not talking about the
21 Yusho literature. I'm asking Dr. Kelly if it's a proven
22 fact that enzyme induction can both improve or lessen the
23 effectiveness of medication?

24 MR. CARNEY: Well, I'm going to object to the
25 use of the word proven fact. I don't know what you mean

1 by proven fact; has it been proved in a law -- proved up
2 in a lawsuit. I don't know that this witness is an expert
3 as to what's been proven in the courts of the United
4 States or not.

5 Q (By Mr. McCrea) Has it been proven in
6 medical science that enzyme induction can enhance the
7 effects of enzyme induction?

8 MR. CARNEY: I'm going to object on the same
9 grounds, the use of the word proven. I don't know what
10 you mean by that, it's an undefined term.

11 A If one takes antipyrine, which is a drug that
12 has been used previously in the reduction of fever and you
13 have enzyme induction you will speed up the elimination of
14 that antipyrine from the body. Whether that's good or bad
15 for the body I don't know, but it does effect that.

16 Q (By Mr. McCrea) How long has that been
17 known, Doctor?

18 A Ten years, give or take a few years.

19 Q Do you recall where that was reported?

20 A Oh, it's reported often.

21 Q Are there any other medications?

22 A There may well be.

23 Q Which can be likewise affected in addition to
24 antipyrine?

25 A Antipyrine?

1 Q Yes, sir.

2 MR. CARNEY: Objection to the form. It's
3 vague.

4 A There may have been. I mean, there may be.
5 I just don't recall at the present time.

6 Q (By Mr. McCrea) Now Doctor, loss of appetite
7 and we're talking about you she PCB ingestion?

8 A Well, I'll have to answer that the same way I
9 answered unusual weight gain, unusual weight loss.
10 There's loss of appetite and there's too much appetite. I
11 would have to know more about the symptoms and I'd have to
12 know more about -- I'd have to re-review the literature to
13 answer that question.

14 Q In 1933 the individual working for Swann
15 Chemical complained of loss of appetite, is that not
16 correct?

17 A My I see Exhibit 1 again?

18 Q Page 1024 under Report of Case, the first
19 full paragraph, second to the last line?

20 A Yes, he complained of loss of appetite, yes,
21 sir.

22 Q Uncontrolled urge to eat, Yusho ingestion?

23 A I don't know. I'd have to re-review the
24 literature on that.

25 Q Colitis?

1 A Again, that is a catch-all phrase for
2 everything from amoebic colitis to ulcerative colitis to
3 to spastic colitis to allergic colitis. I'd have to know
4 more about the type of colitis. I'd have to review the
5 literature to be able to tell it.

6 Q Kidney pain?

7 A Same answer to that, kidney pain could be
8 kidney stone, could be pain in the region, could be pain
9 on emptying the bladder.

10 Q Bladder problems?

11 A Again, I'd have to know more about what they
12 are talking about. I think we could take all three of
13 these, bladder problems, colon problems, spleen problems.
14 I'd have to know what the problems with. I don't think
15 the spleen has very many problems unless it gets too big;
16 but I'd have to know more about that and re-review the
17 literature on the Yusho incident using the Japanese PCB's.

18 Q Rectal bleeding?

19 A There again I'd have to know whether that's
20 associated with constipation, hemorrhoids, whether they do
21 a lot of stooping or lifting and I don't know without
22 re-reviewing the literature whether that was prominent at
23 Yusho.

24 Q Painful urination?

25 A I do not know whether that was a prominent

1 symptom or not.

2 Q Unusual color in urine?

3 A I haven't the slightest idea what color they
4 are talking about. Purple, green, red? I don't know.

5 Q Fair enough. Blood in urine?

6 A I think that has not been proven at all in
7 the Yusho people.

8 Q Would your answer be none?

9 A I know of none, yes.

10 Q Frequent urination?

11 A The same answer. I would have to say that I
12 would have to know more about this, what other causes
13 there may have been for the urination and I would have to
14 re-review the literature to see if that was a prominent
15 finding in the Yusho episode after the ingestion of
16 Japanese PCB.

17 Q Dizziness?

18 A I think we can take the next four.

19 Q All right, sir.

20 A Because the answer is just going to be the
21 same as I have just given you, periods of disorientation,
22 blacking out, fainting and memory loss.

23 Q All right, sir. What is your answer?

24 A That I would have to know more about a
25 description of these symptoms, when they occurred, how

1 often they occurred, what their relationship was to the
2 exposure, what was the extent of the exposure and then I'd
3 have to re-review the literature to find out whether it
4 was a prominent findings at Yusho.

5 Q Amnesia?

6 A That's pretty close to memory loss, I think I
7 would include that under it.

8 Q Were the -- Were the Yusho -- Strike the
9 question. Disorientation?

10 A That I'd have to have more information what
11 were they disoriented around time, place, people or what.

12 Q Speech disorder?

13 A Didn't we have that before?

14 Q Very similar; speech problems I think it was.

15 A My answer would be the same for speech
16 disorder as I was for speech problems.

17 Q Okay. Lethargy?

18 A I would have to know more about it and
19 re-review the literature to see if it was prominent in the
20 Yusho episode.

21 Q Trouble sleeping?

22 A I think we can combine that with insomnia.
23 That's pretty close.

24 Q All right, sir?

25 A I would have to say I would have to know more

1 about it. I would have to know more about the symptoms
2 and would have to re-review the literature to see if it
3 was a positive finding.

4 Q Trouble concentrating?

5 A Same answer.

6 Q Nervousness?

7 A I'd have to know what they mean by
8 nervousness. Does that mean a person is jittery, does
9 that mean a person has tremors, does that mean a person is
10 afraid to go out in the street, get hit by a ricksha.

11 Q First jittery, under the category of
12 nervousness, at Yusho.

13 A Beg your pardon? I can't hear you.

14 Q First, the subsymptom of jittery, under
15 nervousness?

16 A I do not know if that was a prominent symptom
17 at Yusho, so I cannot answer.

18 Q Tremors?

19 MR. CARNEY: I think that's vague. What kind
20 of tremors.

21 A I think I answered that before someplace.
22 No, maybe I didn't; but I would have to know more about
23 when the tremors came on, how long they came on, what
24 muscles were involved and I'd have to re-review the
25 literature to see if it was a significant finding.

1 MR. CARNEY: And I'll object on the ground
2 that further you haven't indicated what type of tremor.

3 Q (By Mr. McCrea) Tremors of the hand?

4 MR. CARNEY: Well, I would object. There are
5 various types of tremors of the hand and I'd have to know
6 which ones you mean. Otherwise the question's overbroad
7 and vague.

8 Q (By Mr. McCrea) Tremors of the hand?

9 MR. CARNEY: Talking about a postural tremor
10 or --

11 A My answer is the same, I'd have to know more
12 about it. Is it a tremor when you reach for a glass of
13 water. Is it shaking all the time like Parkinson's? I
14 don't know, I'd have to know more about it.

15 Q (By Mr. McCrea) Scared?

16 MR. CARNEY: Objection.

17 A Scared?

18 Q (By Mr. McCrea) Yeah. You said scared,
19 scared of being hit by a ricksha?

20 A I do not believe that that was a prominent
21 symptom that I can recall.

22 Q Anxiety?

23 A I do not believe that was prominent symptom
24 in Yusho. I would have to re-review the literature to
25 find out.

1 Q Irritability?

2 A Same answer.

3 Q What is your answer on irritability, that you
4 need more information?

5 A I would need more information to know what
6 they would be irritated about, how often it would be
7 irritated, how long the periods of irritability would last
8 and then I would have to review the Yusho literature to
9 find out if the ingestion of the Japanese PCB caused
10 people to be more irritable than they were previously.

11 Q Injury to the immune system?

12 A That's possible.

13 Q Predisposed to cancer?

14 A No, I do not believe so.

15 Q Depression?

16 A I would have to review the literature to find
17 out if that was a prominent symptom at Yusho and I do not
18 recall it being.

19 Q Change in personality?

20 A Same answer.

21 Q Unexplained crying?

22 A Same answer.

23 Q Claustrophobia?

24 A I never heard of that before. It may have
25 been, but I never heard of it, at Yusho after the

1 ingestion of the Japanese PCB's.

2 Q Vertigo?

3 A There again, people get very confused. Does
4 vertigo mean you stand up and the room goes around, or do
5 you get lightheaded. So there's got to be a very definite
6 definition of what they mean by vertigo and what I mean by
7 vertigo and what medical -- what is accepted as vertigo.
8 But to answer your question I would have to know more
9 about that symptom and I would have to re-review the
10 literature.

11 Q Dr. Kelly, Exhibit 4, we have gone over every
12 symptom on that exhibit?

13 A Yes, sir.

14 Q As medical director of --

15 A May I correct you a minute? Because I said
16 yes and I want to correct that answer.

17 Q Yes, sir.

18 A You have gone over signs and symptoms. Skin
19 cancer is not a symptom, it's a sign. It's not a symptom.
20 A boil is not a symptom. High blood pressure is not a
21 symptom.

22 Q All right. We have gone over all of the
23 signs, which is something you can see, and all of the
24 symptoms, which is something that's reported?

25 A That's correct.

1 Q On Plaintiff's Exhibit 4?

2 A Yes, sir.

3 Q My question to you, as medical director of
4 Monsanto Company did you ever ask a single worker if he
5 had any of these specific problems? In other words, when
6 you sat down and did your medical evaluation of the
7 workers did you ask the worker a question such as: "Mr.
8 Worker, I'm going to ask you a series of questions. Have
9 you had any of the following: Asthma, skin irritation,
10 skin rashes?" Did you ever go through a list of questions
11 with the workers?

12 MR. CARNEY: Let me object. I think you
13 covered this in questions about what he did in his
14 physical examinations at length last week when you were
15 examining the witness, and I'm going to object to that. I
16 think the question is vague and ambiguous. Are you asking
17 did he ask specifically and each one of those or are you
18 asking on one? I don't know what the question is, very
19 vague.

20 Q (By Mr. McCrea) And I appreciate the
21 objection and it's important for us to understand this
22 answer. I'm not talking about these symptoms, Dr. Kelly,
23 what I am asking you is did you ever specifically ask a
24 worker about specific signs or symptoms?

25 A Yes. Not these, now, you're not talking

1 about those you've said.

2 Q No?

3 A Yes, I asked them if they had gained weight.
4 I asked them if they lost weight. I mean, when you take a
5 physical examination you don't have a list to sit down and
6 say okay, "Do you have asthma? "No" do you have skin
7 irritation? "No." You go by symptoms. You start with
8 the head, you ask them about whether they had headaches,
9 you develop when they got the headaches, if they had
10 headaches. If they had eye problems you ask them about
11 that. You ask them when they have had their glasses
12 checked. You ask them -- you cover all these specific
13 things but not specifically each one.

14 Q Did you ever have a list of questions like
15 when you go in for a driver's license, you know how they
16 sit there and they ask you if you had any of these. Did
17 you ever have a list of questions in which you checked off
18 the signs or symptoms on a written list?

19 A We have had some -- We would have asked
20 people about conditions that occurred infrequently in the
21 industrial environments. We would ask people if they had
22 back pain. We would ask people who were exposed --

23 Q Now we're talking about PCB workers?

24 A No. You didn't mention PCB. You said did I
25 ever talk to any Monsanto workers.

1 Q Right. Let's restrict it to PCB workers.

2 Did you ever have a specific list of signs and symptoms
3 which you asked workers exposed to PCB's in Anniston or
4 Sauget, Illinois?

5 A Well, now remember, the people that I
6 examined were the -- What was it, seventeen or
7 twenty-seven people at East St. Louis. I did not examine
8 the workers at Anniston, the PCB workers. I talked to the
9 workers at Anniston, when I asked them how they were
10 getting along, asked them if they had any problems, asked
11 them when they went back to the doctor, asked them when
12 they went to St. Louis. The people in St. Louis where I
13 gave the thorough examination in that one group that were
14 still working there, I covered these things under the
15 systems.

16 Q Did you specifically ask them about specific
17 signs or symptoms on a written list?

18 MR. CARNEY: I think we're out of time. So
19 we don't cut off the answer, save it for the break.

20 MR. McCREA: Break.

21 (Whereupon, a short break was taken.)

22 Q Dr. Kelly, your attorneys asked you about
23 documents which were identified as K-1 through K- 87?

24 A Me?

25 Q K-87.

1 A K what?

2 Q K-87.

3 A Eighty-six documents in there?

4 Q Right. Your attorneys asked you about those
5 documents.

6 MR. CARNEY: Do you have a second set that
7 you could give to Dr. Kelly?

8 (Whereupon, a discussion was held off the record.)

9 Q (By Mr. McCrea) Doctor, I'm going to ask you
10 a few questions about certain documents in this stack and
11 I will refer to them by the exhibit number in the lower
12 right corner?

13 A Yes, sir.

14 Q The first one --

15 MR. CARNEY: Why don't we just, so that we
16 can have -- if you just mention the exhibit number I could
17 have my associate hand the doctor that. That way he wont
18 have to juggle. I think our -- just for the record our
19 exhibits went from K-1 through K-108.

20 MR. MCCREA: K- 108, all right.

21 Q (By Mr. McCrea) Dr. Kelly, can you review
22 please Exhibit K-3?

23 A Yes, sir, I have it.

24 Q Would you turn to page 298?

25 A Yes, sir.

1 Q First of all, the title of this document is
2 what?

3 A Symposium on Certain Chlorinated
4 Hydrocarbons.

5 Q Does that include PCB's?

6 A It includes what he called PCB's. He did not
7 test PCB's as he stated in his 1939 article, he tested
8 P -- polychlorinated diphenyl benzene, which is not a PCB.
9 But he referred to that particular compound as a PCB
10 through all these articles in 1937.

11 Q All right. On page 298 can you see in the
12 second column the heading discussion?

13 A Yes, sir.

14 Q The first sentence under that heading states
15 "These experiments leave no doubt as to the possibility of
16 systemic effects from the chlorinated naphthalenes and
17 chlorinated diphenyl." Is chlorinated diphenyl
18 synonymous, the same as PCB?

19 A Yes, it is. But remember now, he was not
20 using chlorinated diphenyl. This is an error that he
21 accepted and changed when he found out he was not testing
22 chlorinated diphenyl so that whenever he refers to that in
23 these 1937 articles when he refers to chlorinated
24 diphenyl, he is in error, he is referring to chlorinated
25 diphenyl benzene and for accuracy we will have to get his

1 1939 article in which he reverses his nomenclature.

2 Q Would you define systemic effects as written
3 in this sentence?

4 A Yes, affects the body as a whole.

5 Q Would you turn to page 307?

6 A Yes, sir.

7 Q When did you determine the cause of the
8 chloracne in the workers at Swann Chemical?

9 A When I read the literature on it. When I
10 read Jones' article.

11 Q Would you read the paragraph in the left
12 column? Dr. R. Emmet Kelly, is that you?

13 A That is I. The name is spelled wrong but
14 that is all right. One T in Emmet.

15 Q And would you read those two paragraphs into
16 the records?

17 A "I can't contribute anything to the
18 laboratory studies; but there has been quite a little
19 human experimentation in the last several years,
20 especially in our plant where we have been manufacturing
21 this chlorinated diphenyl. It has been our observation
22 that although on one occasion we did have a more or less
23 extensive series of skin eruptions which we were never
24 able to attribute as to the cause whether it was an
25 impurity in the benzene we were using or the chlorinated

1 diphenyl, we have never had any systemic reactions at all
2 in our men."

3 Q Let's stop right there. Did you make that
4 statement on the date of June 30, 1970?

5 A Yes, I did.

6 Q And before June 30, 1970 had you read the
7 article by Jones and Alden?

8 A I very probably did.

9 Q And on June 30, 1937 was that statement which
10 you gave accurate in which you state: "It has been our
11 observation that although on one occasion we did have a
12 more or less extensive series of skin eruptions which we
13 were never able to attribute as to cause, whether it was
14 impurity in the benzene we were using or to the
15 chlorinated diphenyl, we have never had any systemic
16 reactions at all in our men." Was that statement accurate
17 on that date?

18 A Well, it depends what is meant by we, what I
19 meant by we at that time. I don't believe that at that
20 particular time in June the 30th, 1937 I was going to go
21 into the structure, the subsidiary structures of Swann and
22 when we bought Swann and I believe I used we in the
23 all-inclusive sense meaning Monsanto and Swann.

24 Q Was that statement accurate on that date?

25 A With that provision it's accurate, yes. That

1 it was Swann workers and they had it -- but I wasn't going
2 to say when we bought a company that had it, I used the
3 word we for simplicity.

4 Q Was the statement accurate when you state,
5 "We were never about to attribute as to cause whether it
6 was impurity in the benzene we were using or to the
7 chlorinated diphenyl." Was that statement accurate on
8 that date?

9 A I think so, yes.

10 Q And chlorinated diphenyl is synonymous with
11 PCB?

12 A Yes.

13 Q And when you said chlorinated diphenyl on
14 this date that was one and the same as PCB?

15 A Well, not exactly, you are oversimplifying
16 it; because we didn't know -- at least I didn't know at
17 that time whether the impurity in the benzene caused a
18 chlorinated diphenyl, chlorinated styrene, chlorinated
19 diphenyl benzene or God knows what. So I didn't know
20 that -- so I believe this was an ad-lib statement I made
21 there that probably in hindsight I might have been more
22 precise.

23 Q And that statement was made after you read
24 the Jones and Alden article?

25 A That's right, but after all Jones and Alden

1 did not precisely know either. They said in our opinion
2 this is probably -- in our opinion this is probably
3 chlorinated styrene or something else.

4 Q Was that statement made after you talked to
5 the workers at the Anniston, Alabama plant?

6 A I can't answer that.

7 Q You go down in that paragraph at the end and
8 you say also from chlorinated diphenyl alone there have
9 been no cases of systemic poisoning reported?

10 A That's correct.

11 Q What do you consider a report of systemic
12 poisoning?

13 A A government report, a case report, a series
14 of papers on -- a paper that, such as Jones and Alden had.

15 Q Do you consider a worker's report of
16 lassitude, loss of appetite and loss of libido a report?

17 A To whom?

18 Q To you?

19 A Well, I never got those.

20 Q To Jones. You consider that a report?

21 MR. CARNEY: Well, I'm going to object to the
22 form of the question. I don't know what you mean by
23 report.

24 MR. McCREA: I'm asking him.

25 MR. CARNEY: Well, I done know what you mean

1 in your question. The question is vague.

2 Q (By Mr. McCrea) Dr. Kelly, you state here:

3 "We have examined them very closely both from what
4 laboratory tests we thought might help us and from the
5 clinical viewpoint." When you say them, are you referring
6 to the sixteen men who experienced chloracne?

7 A That's correct.

8 Q And did you inquire of those men as to their
9 reports of lassitude, loss of appetite and loss of libido?

10 A No, sir; but in this report I am talking
11 about medical reports in the medical literature, not a
12 report of an individual to a doctor, that is not what's
13 usually considered to be a report.

14 Q And when you say also from chlorinated
15 diphenyl alone there have been no cases of systemic
16 poisoning reported. Were there cases of systemic
17 poisoning reported from chlorinated diphenyl and other
18 chemicals?

19 A They were reported, yes. They were reported
20 by Drinker but then Drinker changed his mind. I mean, he
21 not only changed his mind, he accepted the fact that he
22 was in error. So I didn't know that at that time that he
23 was going to then double-check the chlorinated diphenyl.
24 He had reported it.

25 He had said that these people had systemic effects

1 from certain chlorinated hydrocarbons and he called it
2 chlorinated diphenyl when in truth it should have been
3 chlorinated diphenyl benzene.

4 So I went on his statement in 1937 and then when I
5 found out that -- Well, there never were any cases where
6 chlorinated diphenyl was used by itself that had systemic
7 poisonings. Tremors were cases of chlorinated diphenyl
8 benzene, which was included as ten percent and chlorinated
9 naphthalene that caused systemic poisoning.

10 Q What were the effects resulting from the
11 systemic poisoning of that combination of chemicals and
12 when were they reported?

13 A Well, they were reported obviously sometime
14 before 1937 but I don't know when.

15 Q What were the effects of the systemic
16 poisoning?

17 A Both.

18 Q Of those combinations of chemicals?

19 A There were cases that had chlorinated
20 naphthalene alone that developed jaundice and death and
21 chloracne, not exactly in that order. There were cases of
22 chlorinated naphthalene that had what was called ten
23 percent chlorinated diphenyl in them which were also
24 reported in the literature as causing chloracne, jaundice
25 and death. But there were no cases reported that had

1 chlorinated diphenyl by itself or chlorinated diphenyl by
2 itself by -- in conjunction with naphthalene reported as
3 causing any systemic illness.

4 Q Dr. Kelly, isn't it a fact that Dr. Jones and
5 Dr. Alden received a report from a worker that he suffered
6 lassitude, loss of appetite and loss of libido, isn't that
7 that a fact?

8 A Yes, but the fact -- that's one fact. The
9 other fact is he didn't know what those people were
10 exposed to. He said, "We've got an impurity in here, we
11 don't know what it is. We think it may be chlorinated
12 styrene."

13 Q But in your paragraph above you state that
14 you don't know if it was the impurity or the PCB?

15 A Well, that's correct, I didn't know it then.
16 But then I knew afterwards when we had forty years of
17 experience just having chlorinated -- PCB's without
18 impurities and no ill effect then I was certainly
19 positive. I didn't know in 1937 but I certainly knew in
20 1939 all the way up to 1974.

21 Q Do you have any statistics available for your
22 workers in PCB's to show the percentage of workers on an
23 epidemiological basis who had lassitude, loss of appetite
24 or loss of libido?

25 A No, sir.

1 MR. CARNEY: I'm going to object to the
2 question before the doctor answers and that's the question
3 is vague and ambiguous. I don't know what you mean by
4 several terms including the epidemiological basis. The
5 question's compound. So I object to the form and I object
6 on the grounds that it's vague and ambiguous.

7 MR. McCREA: Could the reporter reread the
8 question.

9 (Reporter read back from the record as directed:

10 "Q. Do you have any statistics available
11 for your workers in PCB's to show the percentage of
12 workers on an epidemiological basis who had lassitude,
13 loss of appetite or lass of libido?")

14 A That's the question?

15 Q (By Mr. McCrea) Yes, sir.

16 A No, I did not do any epidemiological studies
17 as to the presence or absence of lethargy, loss of libido
18 or loss of appetite.

19 Q Do you have any numbers for those symptoms?

20 MR. CARNEY: I'm going to object. I don't
21 know what you mean by do you have any numbers.

22 Q (By Mr. McCrea) The number of people who
23 experienced those symptoms who worked in PCB's?

24 A We have no record of any of them ever telling
25 their examining physician that, so the number would be

1 zero.

2 Q And no record of ever asking those questions?

3 MR. CARNEY: Well, let me object to the --

4 You mean a written record as opposed to a memory of
5 asking? If we get hung up on this whether the doctor had
6 a written checklist, was asking certain questions or
7 whether he had people fill out a form.

8 MR. McCREA: I think we established he had
9 no written checklist. I think we have established that he
10 did an examination, a standard examination, a standard
11 physical examination, but there was no checklist.

12 Q (By Mr. McCrea) My question is: Do you have
13 any numbers in writing of workers who experienced those
14 three symptoms, lassitude, loss of appetite, also of
15 libido?

16 A We have no numbers in writing of oral that
17 these people did have these symptoms. If you ask that, we
18 have no written record that these workers reported those
19 three symptoms.

20 Q I think we have been over that enough,
21 Doctor.

22 A Good.

23 Q What information did you gain after June 30,
24 1937 with respect to the chloracne of the sixteen
25 individuals who worked for Swann?

1 A You mean from then on out?

2 Q Right.

3 A Fifteen, twenty years?

4 Q Right.

5 A Well, I obtained the information that the
6 chloracne had receded markedly in the years that I went to
7 Anniston before the war.

8 Q Any other information which you obtained
9 after June 30, 1937?

10 MR. CARNEY: Other than what he's already
11 testified to about saying that they felt fine? Do you
12 want him to repeat what he already said?

13 Q (By Mr. McCrea) I think that -- Was that
14 before or after June 1937 when you interviewed the workers
15 in the plants?

16 MR. CARNEY: Again I want to object to you're
17 characterizing as interviewing. I think he's already
18 described what he did.

19 A I saw them on almost yearly intervals.

20 Q (By Mr. McCrea) Did you obtain any
21 information after June 30th of '37?

22 A No positive information that they had any
23 complaints of libido, loss of appetite or loss of --

24 Q They didn't come out and tell you that?

25 A No. They said they felt fine.

1 Q And you didn't ask?

2 A No, I didn't ask them.

3 Q Doctor, I want to ask you about Renate

4 Kimbrough. Would you turn to Exhibit K-7? Who is Renate
5 Kimbrough?

6 A Renate Kimbrough is a scientist who works for
7 the United States government, she is probably the premier
8 worker in PCB's. She's been a laboratory individual, she
9 is a pathologist, she's a -- has done a great deal of work
10 in epidemiology, and in 1987 she was for the Center of
11 Environmental Health at the Centers for Disease Control of
12 the Public Health Service.

13 Q When she did her experiments on rats and
14 determined that PCB's caused liver cancer --

15 A A PCB, 1260.

16 Q Did she get that from Monsanto?

17 A Yes.

18 Q What was the chemical again?

19 A Aroclor 1260, which is a PCB chlorinated to
20 sixty percent.

21 Q When she did her studies on rats with the PCB
22 obtained from Monsanto and determined that it caused
23 cancer in the livers of the rats did you hold her in
24 regard as the premier scientist?

25 A Yes, I did.

1 Q And did you --

2 A May I explain?

3 Q Certainly.

4 A Yes, but there's often differences of opinion
5 between scientists.

6 Q Did you find any flaws with her work in which
7 she took your PCB's from your factory and used them in an
8 experiment and produced cancer in rats?

9 A Yes. There were flaws because there's an
10 interpretation by her pathologists. Her pathologists had
11 a different viewpoint than the two independent
12 pathologists we picked.

13 Q Was she wrong?

14 A In our opinion she was, in hers she wasn't.

15 Q Did you tell her she was wrong?

16 A No. We didn't have our scientists,
17 independent pathologists look at her slides by the time,
18 at that particular time.

19 Q Was she untrustworthy?

20 A No, she wasn't untrustworthy. What leads you
21 to believe that?

22 Q I just want to know your feelings.

23 A My feeling is she's entirely trustworthy.
24 She's an excellent scientist, but scientists have
25 different opinions.

1 Q And was the protocol which she did using your
2 PCB which produced cancer done in an appropriate protocol
3 under excellent scientific standards?

4 A I didn't investigate the protocol. I took
5 her word for it, and I accepted the fact that she's a good
6 scientist and what she did is good work. Now if her other
7 pathologists came out with a point of view that was
8 different for other pathologists, you've got to weigh both
9 of them.

10 Q Who were the pathologists who disagreed with
11 her pathologic interpretation that there was cancer?

12 A Dr. Parvis, P-a-r-v-i-s, P-o-u-r, of the
13 Eppeley, E-p-p-e-l-e-y, Institute of Cancer of the
14 University of Nebraska Medical School --

15 Q Did he --

16 A And wait, that's one and Dr. Gordon Richter,
17 R-i-c-h-t-e-r. I think it's Gordon Richter, but it's
18 Richter of the Department of Pathology of Northwestern
19 University Medical School.

20 Q Are you knowledgeable about the trip Dr.
21 Gordon Richter took with the Monsanto personnel to
22 Washington D.C. in which he reviewed the slides of the
23 cancer in the rats and told your people that was cancer?

24 A No, sir, I'm not. When was that?

25 Q I'll be glad to furnish you a transcript of

1 his testimony?

2 A Fine. Would you give me the date?

3 Q I certainly will.

4 A Fine. But I'm not familiar with that, I
5 don't recall it at present.

6 Q Where is Dr. Richter now?

7 A I don't know.

8 Q But your testimony is that this individual
9 looked at the slides and said there was no cancer?

10 A No. He did not. He didn't say there was no
11 cancer. He said there were many fewer than the 186 or
12 something that Dr. Kimbrough's pathologist said.

13 Q Were you employed at Monsanto when Monsanto
14 flew him out there to look at the slides?

15 A I don't know when they flew him out.

16 Q Did you ever talk to Mr. Lavinskas about
17 that?

18 A No, I didn't.

19 Q So you're not familiar, Dr. Kelly, with his
20 review of those slides?

21 A I don't recall I've seen his review, no.
22 I've been told about his review.

23 Q Where did -- Who told you about his review?

24 A Somebody at Monsanto. I don't recall the
25 name.

1 Q What did they tell you?

2 A They said Richter and Parvis Pour didn't find
3 as many cancers as Dr. Kimbrough's pathologists.

4 Q When did they tell you that?

5 A Sometime after 1974, between 1974 and 1980.
6 I don't know the first time I heard it.

7 Q Did Dr. Parvis, is that his name?

8 A That's right.

9 Q Publish a study on his review of the cancer
10 slides?

11 A I don't know if he -- I have never seen it in
12 a medical journal, whether he published the report and
13 sent it to Dr. Kimbrough and sent it to Monsanto. I would
14 imagine he did but I don't recall seeing it.

15 Q Did anyone other than Dr. Parvis and Dr.
16 Richter by your testimony disagree with the results of the
17 Kimbrough studies using your PCB's?

18 MR. CARNEY: Again you're talking about the
19 rat studies?

20 MR. McCREA: Correct.

21 A I don't know. I mean, I don't know anyone
22 else. I don't know; they may have, they may not. I don't
23 know of any else. I know these two had different points
24 of view than Dr. Kimbrough's pathologists.

25 Q (By Mr. McCrea) But you've never seen

1 anything in writing from either one of them?

2 A Well, I may very well have. I don't recall
3 it.

4 Q Was that significant finding by Dr. Kimbrough
5 with regard to the manufacture and use of PCB's as far as
6 Monsanto was concerned?

7 MR. CARNEY: Objection to the form of the
8 question. It contained undefined terms.

9 A Would you repeat the question, please?

10 MR. McCREA: Could you reread the question,
11 please?

12 (Reporter read back from the record as directed.)

13 A Well, it certainly was a matter of concern.
14 We had a two year study and that gave negative results and
15 we had -- here was this other study that gave positive
16 results. So it was a matter of concern, yes.

17 Q (By Mr. McCrea) Your two year study was done
18 by who?

19 A By. Dr. Calandra, I.B.T.

20 Q Was he indicted for fraudulently preparing
21 reports and giving them to the United States government?

22 MR. CARNEY: With regard to the PCB study?

23 MR. McCREA: No, with regard to the work he
24 did at I.B.T.

25 A I don't know if Dr. Calandra was indicted or

1 not.

2 Q (By Mr. McCrea) What does it mean to be
3 indicted?

4 MR. CARNEY: I'm going to object, this is not
5 a lawyer talking but a doctor and you're asking him about
6 a technical legal term. I don't know that he's claiming
7 any expertise in the area of criminal law.

8 Q (By Mr. McCrea) Was your toxicologist, Paul
9 Wright, a participant in the I.B.T. studies, which is
10 Industrial Bio-Test, Northbrook, Illinois?

11 MR. CARNEY: I'm going to object to the form
12 of the question, mischaracterizes the record.

13 A He was not a Monsanto employee when he was
14 working at I.B.T.

15 Q (By Mr. McCrea) Did Monsanto pay his
16 attorney's fees of about a million, \$400,000?

17 A I don't know that of myself. That would be
18 hearsay. I just don't know.

19 Q Have you talked to Paul Wright about the work
20 he did at Industrial Bio-Test and the laboratory studies
21 which he carried out?

22 MR. CARNEY: Are you talking about after he
23 finished his work at I.B.T.?

24 MR. McCREA: At any time.

25 A Well, I'm sure I had, when he came back it's

1 natural to say, "Paul, what have you been doing up there,
2 what have you been working on?" But I don't have the
3 details of it. I never received in the slightest inkling
4 that everything was not in accord with good scientific
5 methods and principles.

6 Q (By Mr. McCrea) Did you review the I.B.T.
7 studies in coming to that conclusion?

8 A Well, I read them. I had George Lavinskas
9 who was our pathologist review them. We also had the Food
10 and Drug people review them, we sent the results to the
11 Food and Drug Administration, they reviewed them.

12 Q And you determined that everything which was
13 done at I.B.T. according to the information presented to
14 you was done in a scientifically appropriate manner?

15 MR. CARNEY: Well, I'm going to object. I
16 think you're mischaracterizing by he determined. Are you
17 saying did he make an independent investigation or did
18 he -- I don't know what you mean by he determined.

19 Q (By Mr. McCrea) Let's tell the jury a little
20 bit about I.B.T. Why did Monsanto make the decision to do
21 tests at I.B.T.?

22 A Because we had used I.B.T. almost since they
23 started the laboratory.

24 Q What information did you not have that you
25 wanted when you started these studies at I.B.T.?

1 A I don't follow you all at all. What
2 information did I want when I started the studies at
3 I.B.T.? I wanted information on the toxicity of some
4 products. I don't know which the products they were.
5 They may have been plasticizers. I don't know which our
6 first product was. We sent them products from the
7 agriculture department. We sent them products from the
8 organic division. We sent them products from the
9 inorganic division. I don't know which the first ones we
10 used.

11 Q Who made the decision to do toxicological
12 studies on PCB's at I.B.T. in 1970?

13 A I did.

14 Q What factors did you take into account in
15 making that decision to do toxicological studies of PCB's
16 at I.B.T. in 1970?

17 A Several factors, one, the reputation of the
18 laboratory, which was of the highest, it's list of
19 customers, Dow, DuPont, U.S. Army, Food and Drug
20 Department, many pharmaceutical companies. Two, our
21 experience with the individuals and the laboratory on our
22 own products that were done prior to using -- prior to
23 I.B.T. using the PCB's.

24 This was not the first one we had. We had -- I
25 can't tell you when they started but we had at least five

1 to eight years of experience with them. Our results were
2 excellent, our results were accepted as gospel by the
3 government.

4 Q Why did you feel it was necessary in 1970 for
5 Monsanto to obtain this toxicological data from I.B.T. on
6 PCB's?

7 A Well, you mean from I.B.T. or from anybody?

8 Q From I.B.T.?

9 A Because I thought they were the best
10 laboratory to do it.

11 Q But why did you need to do the test?

12 A Well, that was what I was asking, the reason
13 for the tests or the reason we had done at I.B.T.

14 Q I think you established the reason for using
15 I.B.T., it was reputation, their experience and excellent
16 results.

17 A And also their list of satisfied customers.

18 Q Why did you feel it was necessary to run
19 these tests?

20 A Because there was no long term studies on
21 I.B.T. -- I mean, on PCB's that it was showing up in the
22 environment. It was showing up in some of the fish, sport
23 fish and I don't know when it started showing up in milk,
24 but there was no long term studies on it so we wanted to
25 find out what the long term effects were.

1 Q And by long term effects, is that the same as
2 chronic effects?

3 A Yes.

4 Q You as medical director at Monsanto Company
5 made the decision to use I.B.T. because there were no long
6 term or chronic studies showing the effects of PCB?

7 A That's correct.

8 Q Who made the decision to send Paul Wright
9 from Monsanto to I.B.T.?

10 A I don't think there ever was a decision made
11 to send Paul Wright from Monsanto to I.B.T. I believe
12 Paul Wright was either recruited by I.B.T. or applied
13 himself. He was not sent by anybody as far as I know.

14 Q Who made the decision to employ Paul Wright
15 at Monsanto after he finished his work at I.B.T.?

16 A That was a decision made by the medical
17 department. I was the ultimate individual to say go or no
18 go. It was on the recommendation of our people who knew
19 Paul Wright from his days in the agricultural division. I
20 didn't know him but other people did know him.

21 I don't know if -- I think George Lavinskas was
22 with us then, and certainly Elmer Wheeler knew him from
23 going up to Calandra to I.B.T. during those two years Paul
24 was up there.

25 Q Was Paul write indicted for falsifying

1 toxicological studies at I.B.T.?

2 A I do not know if details of the indictment.

3 Q Was he convicted in a jury trial of

4 falsifying studies?

5 A He was convicted. I don't know of what he
6 was convicted. I don't know whether it was a jury trial
7 or a judge, I do not know.

8 Q Did he serve time in prison?

9 A That I don't know either.

10 Q When Paul Wright left Monsanto to go to
11 I.B.T. did you, and by you I mean you yourself, have an
12 understanding that when he finished at I.B.T. he would be
13 welcome back at Monsanto?

14 A No. In fact I have really no recollection of
15 when Paul went up there, because he wasn't working in the
16 medical department at that time. He was working in the
17 agricultural research department.

18 Q Dr. Kelly, do you understand that we cannot
19 take the deposition of Dr. Kelly -- or Dr. Wright, do you
20 understand that?

21 A I don't know.

22 MR. CARNEY: I'm going to object to that.

23 A I mean, I don't know anything about the legal
24 ramifications of what you can or you can't do in this
25 case.

1 Q (By Mr. McCrea) Do you understand that he
2 takes the Fifth Amendment when asked about I.B.T., against
3 self-incrimination?

4 A I understand he has, yes.

5 Q Can you explain to the jury the reasons he
6 elected to depart from Monsanto and go to I.B.T.?

7 MR. CARNEY: Well, I'm going to object
8 because I think this would call for speculation. There's
9 been no foundation that he even had much contact with Mr.
10 Wright.

11 Q (By Mr. McCrea) Did Paul Wright tell you why
12 he wanted to leave Monsanto and go to I.B.T.?

13 A Not that I can recollect.

14 Q Did you discuss with him his departure from
15 Monsanto and new job at I.B.T.?

16 A I really don't know. I mean, he may have
17 said what kind of an outfit is I.B.T., do you know Joe
18 Calandra, or something like that; but remember he was not
19 working for me. He was in an entirely different building.
20 He was in a different division, he was in the agricultural
21 division. He was in the research department over there.
22 I doubt if I say Paul twice in my life before he went up
23 to I.B.T.

24 Q Did anyone explain to you why he left
25 Monsanto and went to I.B.T.?

1 A There may have been, but it didn't seem like
2 a big deal to me one way or the other. He was a man going
3 into a toxicological laboratory; I guess he wanted do some
4 work in toxicology.

5 Q Do you know that while he was at I.B.T. he
6 was involved in Monsanto's toxicological studies of the
7 long term or chronic effects of PCB's?

8 A He may. I may have known that or may not. I
9 don't know whether he was or not. I didn't -- I don't
10 know whether he was. His name may be on some of those
11 reports. I don't know. If they are on the reports
12 obviously he was.

13 Q Did you receive any updates from Paul Wright
14 while he was working at I.B.T. on the Monsanto PCB long
15 term studies?

16 MR. CARNEY: By updates are you talking about
17 anything prior to the formal report?

18 MR. McCREA: Correct.

19 A There were quarterly reports, whether they
20 were quarterly or semiannual reports sent by I.B.T. Paul
21 Wright may have been one of the signatures on those.
22 Usually there was a more senior person than Dr. Wright on
23 these reports. So Paul's name may very well have been on
24 one of those.

25 But I believe that Paul was not only working for on

1 Monsanto projects. He wasn't working just on PCB's. I
2 don't know how many various compounds the I.B.T. was
3 working on at that time. I don't know if Paul was in
4 charge of the acute testing, chronic testing or what kind
5 of testing.

6 Q (By Mr. McCrea) Were the studies done by
7 I.B.T. for Monsanto on the long term effects of PCB's done
8 in a scientifically appropriate manner?

9 A Yes.

10 Q Were the studies done by I.B.T. reliable?

11 A On PCB's?

12 Q On the long term effects of PCB's?

13 A Yes, they certainly were.

14 Q Were the studies trustworthy?

15 A Yes.

16 Q Were the studies accurate?

17 A Yes.

18 Q Were the studies honest?

19 A Yes.

20 Q And do you believe the United States
21 government should rely on those studies?

22 A Yes. They do.

23 Q And do you believe that the citizens of this
24 country should relay on those studies?

25 A Yes.

1 Q Dr. Kelly, isn't it a fact that
2 representatives of Monsanto Company were highly critical
3 of the work done at I.B.T., its reliability, its veracity,
4 and its accuracy?

5 A I don't believe that's correct. I would like
6 you to show me those papers.

7 Q All right, sir. Have you seen any documents
8 that have been prepared by individuals on be half of
9 Monsanto Company which sharply criticized the work done at
10 I.B.T., its accuracy, veracity and reliability?

11 A No, sir.

12 MR. CARNEY: I'm going to object to the
13 question. I done know what you mean by sharply
14 criticized. I assume you're talking about PCB studies?

15 A Are you talking about PCB now?

16 Q (By Mr. McCrea) Yes, sir.

17 A No, I never seen any. On PCB's?

18 Q Right.

19 A No, sir. I never seen any.

20 Q Did Monsanto ever change the wording on
21 studies prepared by I.B.T.?

22 MR. CARNEY: I object here. I think the
23 question is vague. And to be talking about the actual
24 findings?

25 MR. McCREA: No.

1 MR. CARNEY: Are you talking about
2 conclusions or summaries of the findings? I don't know
3 what you mean.

4 Q (By Mr. McCrea) Did Monsanto ever change the
5 conclusions on reports done by I.B.T. on toxicological
6 studies on PCB's?

7 A No. They did not change the conclusions
8 there may be some changes suggested as to how the
9 conclusions should be worded.

10 Q What do you know about that?

11 A Well, there was a question whether something
12 should be called tumorogenic or not carcinogenic.

13 Q Did you participate in that decision-making
14 process?

15 A No, I did not.

16 Q Tell us what happened in that regard.

17 A Well, I don't know. I mean, all I know is
18 what I saw during one of these depositions the last six
19 years or something.

20 Q Since you last worked at Monsanto in '74 the
21 only information you have is what you saw at a deposition?

22 A Well, I may have seen some Monsanto papers.
23 I may have been, there may have been some anecdotal
24 remarks made. I don't know if I'm having lunch out there
25 and the question comes up I may hear about it. But I've

1 had no reports that I have seen or discussions as to if or
2 when or why Monsanto would have wanted to do some
3 editorial comment on the reports.

4 Q Have you ever changed the wording on a
5 conclusion of a toxicological study?

6 A I can't --

7 MR. CARNEY: Are you talking about a summary
8 or a conclusion?

9 MR. McCREA: Just what the question says?

10 A Well, you said the wording.

11 Q (By Mr. McCrea) Right.

12 A Well, a person may have used a particular
13 term and I may have said this is what you want to change
14 it to, yes. I certainly also changed it on the Drinker
15 study when it came out and called chlorinated diphenyl and
16 I called him up and said, "Look, this isn't -- How do you
17 know this is a chlorinated diphenyl?" So I think I'm
18 responsible for his next paper. That not only changed the
19 study, it changed the paper.

20 Q Did the studies at I.B.T. establish that
21 PCB's were slightly tumorogenic?

22 A Yes, I don't know whether they said slightly.
23 I don't know if that was the term. They did say that at
24 some levels there were non-malignant tumors found.

25 Q And do you understand how the PCB's produced

1 the non-malignant tumors?

2 MR. CARNEY: Could you read that question
3 back?

4 (Reporter read back from the record as directed:

5 Q "And do you understand how the PCB's
6 produced the non-malignant tumors?")

7 A I do not believe that the secret of how
8 chemicals cause tumors is understood. It certainly isn't
9 understood by me and I don't know if by people much
10 smarter than I have written down how a particular compound
11 causes a tumor.

12 Q (By Mr. McCrea) Did Monsanto -- Strike the
13 question. Were the studies at I.B.T. peer reviewed by the
14 independent scientists?

15 A Well, if you give them to the scientists of
16 the government -- I don't really know what you mean by
17 peer review, now, Mr. McCrea. If you send a compound to a
18 laboratory they do the work and send it back to you. Do
19 they send it out to competing laboratories and say, "Hey
20 look, did we do this all right?" That's never done.

21 But we sent this data to the government, it
22 certainly was peer reviewed by the government because they
23 had the data. The sliding were peer reviewed by the
24 government, if that's what you mean. But if you think or
25 you're equating that a report you get from an independent

1 commercial laboratory with a paper in the New England
2 journal of medicine, they are worlds apart.

3 Q All right, sir, that's exactly what I meant.

4 A Yes. They are never peer reviewed in that
5 sense, no.

6 Q Did you know that Monsanto paid the
7 attorney's fees for Paul Wright?

8 A I don't know, myself. I've heard --
9 MR. CARNEY: You've already asked that.

10 A -- anecdotal rumors, but I don't know.

11 Q (By Mr. McCrea) Have you talked to Paul
12 Wright since he was indicted?

13 A Yes.

14 Q Can you tell us when you talked to him and
15 what you said to him and what he said to you?

16 A Sure.

17 Q All right.

18 A I said, "Paul, there's a case down in Texas,
19 I understand you don't want to testify," and he said, "No,
20 I don't want to testify on advice of counsel." I said
21 "Okay, fine. How's everything else going?" That's the
22 extent of it.

23 Q Did he tell you why he did not want to
24 testify in a PCB case?

25 A Yeah. On advice of counsel.

1 Q And to what did the advice of counsel relate?

2 A I didn't believe that was my business.

3 Q Why did you call him and ask him about Texas?

4 A Well, I wanted to know why he didn't want to
5 testify.

6 Q What?

7 A I wanted to know why he didn't want to
8 testify.

9 Q Is that the only reason?

10 A I think that's a -- that was a good enough
11 reason. I mean, whatever a counsel may have said, Paul
12 doesn't want to testify on the advice of counsel, do you
13 want to talk to him and see if you can get any reasons?

14 Q And do you know the reason?

15 A No, I didn't inquire that much. That was his
16 business. I just wanted to be sure that he was definite
17 in his mind on the advice of counsel he didn't want to
18 testify.

19 Q Other than that conversation have you talked
20 to Paul Wright since he was indicted?

21 A No, sir.

22 Q Have you ever asked Paul if he falsified
23 data?

24 A No.

25 Q Have you ever asked --

1 A I didn't believe he would.

2 Q But you've never asked him?

3 A No, I never asked him.

4 Q Have you ever questioned him about the
5 accuracy of the I.B.T. studies?

6 MR. CARNEY: You know, I think this is
7 misleading in that I believe this all occurred after Dr.
8 Kelly was retired from the company and I don't know that
9 he has any right to pry into somebody's life and ask them
10 personal questions of the sort you're suggesting. I think
11 you ought to at least make it clear to the jury that Dr.
12 Kelly was no longer employed by Monsanto, but retired, to
13 put it in context.

14 Q (By Mr. McCrea) The I.B.T. studies were done
15 from '70 to '75?

16 A If you show me the final report I'll be able
17 to -- Let's be accurate on this.

18 Q All right, sir.

19 A If you just show me the final report I could
20 give you an estimation.

21 Q Was the entire series of studies done
22 pursuant to authorization?

23 A Yes, in conjunction with the United States
24 government, the Department of Food and Drug
25 Administration. We went up there before we started these

1 studies. We told them where we were going to go, what we
2 were going to do and do you have any suggestions. It's
3 those big thick ones down there.

4 Q Thank you. All right, Dr. Kelly, I'll look
5 at this with Counsel. Exhibit K-71, Report to Monsanto
6 Chemical Company. Subacute Dermal Toxicity of Aroclor
7 1248?

8 A Oh, no, that isn't the one, because that only
9 takes two months to do.

10 Q That was 1963?

11 A Right.

12 MR. CARNEY: I thought you were talking about
13 the long term studies?

14 MR. McCREA: I am, excuse me.

15 (Whereupon, a discussion was held off the record.)

16 A Here it is, K-76. The final report was dated
17 November the 21st, 1971. They were probably started
18 sometime in the latter months of 1968 because to run a two
19 year testing you have got to run a range finding to be
20 sure you've got a dose that the animals can take for two
21 years, so you're fooling around with those doses until you
22 get the right dose.

23 Then after you sacrifice the animals after two
24 years you've got to fix the tissues and wait around to get
25 the pathologist to read the slides which also takes time.

1 Then you've got to get the report together. So it's
2 at least three years and we started these sometime in
3 1968.

4 Q (By Mr. McCrea) Do you know if when they
5 started Paul Wright was working for I.B.T.?

6 A I don't know that.

7 Q Now were there additional studies, Dr. Kelly,
8 other than the one that ended November of '71?

9 A Well, sure they were doing some on ducks or
10 chickens, they were doing skin testing on rabbits.

11 Q Were those done pursuant to your authority or
12 someone else?

13 A No, mine.

14 Q And when did those studies end?

15 A Well, you have them there and I'll tell you.

16 Q I don't see it.

17 A Don't you have chickens there someplace?
18 It's not a big thick one. You've got a dermal, which is
19 skin on rabbits, and you've got -- I think a chicken
20 study.

21 Q I'll have to have you locate that.

22 A The dermal toxicity was finished in March of
23 1963.

24 Q That's not what we're talking about, is it?

25 A Uh-huh.

1 Q That's not what we're talking about?

2 A What were we talking about?

3 Q The long term studies?

4 A I thought we were off that. The long term,
5 dermal is not long term. That was started presumably in
6 1968 sometime.

7 Q And ended in '71?

8 A That's right.

9 Q Were there studies subsequent to that?

10 A I don't know when the chickens were done. We
11 had some testing done on chickens. I thought that was
12 subsequent to these.

13 Q All right. Maybe we can take some time
14 during the break and line those dates up. Dr. Kelly, if
15 an individual called you from Westinghouse Electric
16 Corporation and asked to summarize the results of the long
17 term or chronic studies what would you have told them?

18 MR. CARNEY: Well, I'm going to object
19 because I think it's overbroad as to what area. I mean,
20 they --

21 A I would have told them I will sit down and
22 make a summery of these and send it to you.

23 Q (By Mr. McCrea) You couldn't answer that
24 question --

25 A Right off the top of my head, no. We're

1 dealing remember with three different substances, three
2 different levels, two different species and I wanted to
3 give him the figures on all of them.

4 Q If an individual from Westinghouse Electric
5 Corporation called you in 1973 and asked you if based on
6 the studies which were done at I.B.T. if you felt there
7 was any cause of concern for the workers in the
8 Bloomington, Westinghouse plant from the long term effects
9 of PCB's what would your answer have been?

10 A Well, I'd say, "What is your exposure?" I
11 don't know how they're working with the material.

12 Q If he said that the exposure was moderate
13 what would you tell him, what advice would you give him
14 based on the studies at I.B.T.?

15 MR. CARNEY: Objection to the use of the word
16 moderate as vague?

17 A Any information I would give a worker at any
18 plant would be based on several things. It would be based
19 on the testing we did back in 1954, an analysis of air
20 test, inhalation studies for ninety days. It would be
21 based on information in the literature on PCB's in 1963.
22 I don't think there was much at that time. It would be
23 based on lack of information or the lack of any positive
24 results.

25 It would be based on my own experience, that with

1 our own workers, so I would take into account the PCB
2 studies at I.B.T., yes, and I would say you have a product
3 that you should avoid breathing at elevated temperatures
4 or in confined spaces, you should avoid repeated or
5 prolonged skin contact.

6 Q Based on the I.B.T. studies, you would tell
7 them that?

8 A I said based on all three.

9 MR. CARNEY: I think we've got no time.

10 MR. McCREA: Break.

11 (Whereupon, a short break was taken.)

12 MR. CARNEY: I'd just like to say when we
13 took this last break to change tapes we had agreed to go
14 one more tape or one more hour and now when we're ready to
15 start up Mr.McCrea has indicated he wants to quit. I
16 would be prepared to go a couple more hours and I think
17 Dr. Kelly would, too. I can understand putting some
18 reasonable time limit on it.

19 On the other hand, I think we have been going at
20 this for a long time and we were told, Mr.McCrea, when we
21 broke last time early and decided to not make a formal
22 objection to going the next day and this deposition was
23 supposed to continue until concluded, that you would
24 complete the deposition in one more day.

25 Now we're at 4:00 o'clock or it's now 4:15 on this

1 one more day and we're not only not complete but
2 apparently another half a day isn't going to complete the
3 deposition, and so I'm just objecting to that for the
4 record, and I guess the only other thing I'd like to at
5 least put on the record is that we are agreeable that
6 we're going to start at 7:30 and going until 11:30
7 tomorrow?

8 MR. McCREA: That's awful early to start. I
9 would agree to 8:30. I just -- I don't, 8:30 to 11:30, I
10 think, 7:30 is awful early.

11 MR. CARNEY: Well, we're only going to do --
12 I thought we had an agreement, Mr. McCrea. We asked the
13 studio if they would come in early so they could start at
14 7:30. I thought we had an agreement. Now we're not only
15 quitting early but we in an effort to try to get this
16 done. I thought we had an agreement that we start at
17 7:30.

18 MR. McCREA: Let's make it 8:00 o'clock. If
19 we can do three full tapes tomorrow morning -- how long
20 are the tapes, an hour?

21 MR. CARNEY: Yes.

22 MR. McCREA: We can do three tapes tomorrow
23 that should take us to about 11:30.

24 MR. CARNEY: Are you going to finish?

25 MR. McCREA: I doubt it.

1 MR. CARNEY: Well, I --

2 MR. McCREA: I might, but look --

3 MR. CARNEY: It seems to me and I'm not
4 trying to be difficult but we're -- This thing's getting
5 stretched out over a lengthy period, you know, we're
6 talking about trial testimony and here we have had a week
7 intermission already and we came back thinking that one
8 day would do it and I agreed to that. I'd prefer to get
9 the deposition done in consecutive days. I was prepared
10 to do that, the --

11 MR. McCREA: We're driving from Bloomington,
12 Indiana to St. Louis to do this deposition so it's no
13 picnic from our standpoint. Secondly, we've got a hundred
14 and eight documents here, none of which I had. I was not
15 given copies. I did give you copies of my exhibits, which
16 Dr. Kelly has and you have. I didn't receive copies of
17 yours and I think you get to the point of diminishing
18 returns when you extend things to a point where it's just
19 not productive, so my recommendation is we do three tapes
20 tomorrow.

21 I absolutely have got to be back in Bloomington by
22 3:00 o'clock or 3:30 or 4:00 to interview a client who has
23 a work comp hearing the next day, Thursday, and I mean I
24 have to be there. His name is a Larry Martin. So
25 that's -- I think if we can get in three tapes tomorrow

1 that would be productive.

2 Also on the record I need to know the cases in
3 which Dr. Kelly testified and you stated you were going to
4 ask Monsanto for those and I would like to have those
5 before tomorrow if you can get them.

6 MR. CARNEY: Well, you know, Dr. Kelly has
7 given you all of the information --

8 MR. McCREA: Well --

9 MR. CARNEY: -- that he has on that and I
10 simply don't know whether there's any other information to
11 be had.

12 THE WITNESS: One Market Plaza, One Market
13 Plaza, that's whatever, A.D.R or something like that.

14 MR. CARNEY: Well, let's --

15 MR. McCREA: Maybe we can go off the record
16 and figure out some of those other cases.

17 MR. CARNEY: Let me just while you're on the
18 record you made some comments about the exhibits. I
19 believe that we have had an extra copy of the exhibits in
20 the courtroom or in the studio here and you have been
21 looking at those from time to time during the three days
22 that we have had the depositions.

23 I just for the first time this morning you handed
24 me some exhibits that you intend to use. I haven't had
25 time to look at them but I don't think it's fair to say

1 that we have held back on exhibits and that you have given
2 us exhibits. I think you have had those exhibits in this
3 courtroom.

4 MR. McCREA: I'm not saying that, and I
5 acknowledge that I think I've been through these exhibits
6 but I just, to me, there's not much I want out of this
7 stack, okay.

8 THE WITNESS: You talking to me now?

9 MR. McCREA: No, I can't turn that far. But
10 there's not much I want out of this stack, but I think if
11 I can take this with me tonight and go through it.
12 There's just not a whole lot that I want.

13 MR. CARNEY: I'm willing to give you my only
14 copy of it. Appreciate your not marking the copies.

15 MR. McCREA: I have marked them. I have
16 marked them.

17 MR. CARNEY: Well, I appreciate since that's
18 my only clean copy I'd like to keep those clean. They are
19 not working copies. I have got the court reporter's
20 exhibits, that's not -- My only other copies are those
21 exhibits; I know you have put a quite a few marks on it
22 already.

23 MR. McCREA: I put a few marks on it.

24 THE WITNESS: At what time is it tomorrow?

25 MR. CARNEY: 8:00 o'clock tomorrow.

1 THE WITNESS: And then what's the next time?

2 MR. CARNEY: And are we agreeable that if we
3 don't conclude tomorrow you will start in the morning on
4 8:00 o'clock Friday and go to conclusion.

5 MR. McCREA: Did you check the calendar for
6 Friday?

7 (Whereupon, a discussion was held off the record.)

8 MR. McCREA: We can't do it on Thursday
9 because of your conflict?

10 MR. CARNEY: It's the doctor's conflict and
11 your conflict.

12 MR. McCREA: True, that's agreed.

13 MR. CARNEY: I'd like to just so we have --
14 If you don't conclude on Friday can we go into Saturday to
15 conclude?

16 MR. McCREA: Yes.

17 MR. CARNEY: Okay.

18 MR. McCREA: There is no way this is going
19 to go beyond Friday.

20 THE WITNESS: What time we start on Friday?

21 MR. CARNEY: 8:00 o'clock.

22 THE WITNESS: And what time tomorrow?

23 MR. CARNEY: 8:00 o'clock.

24 (Deposition continued.)

25

1 NOTARIAL CERTIFICATE

2 State of Missouri)

3 City of St. Louis)

4 I, TOD MINNIGERODE, a Certified Shorthand
5 Reporter and a duly commissioned Notary Public within and
6 for the State of Missouri, do hereby certify that pursuant
7 to agreement there came before me at the offices of
8 Communitronics, 1907 S. Kingshighway, St. Louis, Missouri.

9 R. EMMET KELLY, M.D.,
10 who was by me first duly sworn to testify to the truth and
11 nothing but the truth of all knowledge touching and
12 concerning the matters of controversy in this cause; that
13 the witness was thereupon examined under oath and said
14 examination was reduced to writing by me; that the
15 deposition is to be continued by agreement of all parties;
16 and that this deposition is a true and correct record of
17 the testimony given by the witness.

18
19 I further certify that I am neither attorney
20 nor counsel for nor related nor employed by any of the
21 parties to the action in which this deposition is taken;
22 further, that I am not a relative or employee of any
23 attorney or counsel employed by the parties hereto or
24 financially interested in this action.

25
26 IN WITNESS WHEREOF, I have set my hand and
27 seal on July 18, 1990.

28 My commission expires June 3, 1991.

29
30 -----

31 Notary Public
32
33
34
35

1 COURT MEMO

2 IN THE CIRCUIT COURT OF THE CITY OF ST. LOUIS

3 STATE OF MISSOURI

4
5 Glenn Brown, et al, vs. Monsanto Company

6 862-00694

7
8 CERTIFICATE OF OFFICER AND

9 STATEMENT OF DEPOSITION CHARGES

10
11 DEPOSITION OF R. EMMET KELLY, M.D.

12 TAKEN ON BEHALF OF THE DEFENDANT

13 6/12/1990

14 Name and address of person or firm having custody of
15 the original transcript:

16 Mr. Thomas M. Carney

17 Husch & Eppenberger

18 190 Carondelet Plaza, Suite 600

19 St. Louis, MO 63105

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19 Notary Public

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