

1 IN THE CIRCUIT COURT CITY OF ST. LOUIS

2 STATE OF MISSOURI

3 JUDITH BECHTOLD, wife of/and

4 STEPHEN E. BECHTOLD, ELIZABETH

5 TAMEWITZ, as Personal

6 Representative of her deceased

7 husband, Kenneth F. Tamewitz,

8 KELLIE LEE TRISLER, as Personal

9 Representative of her deceased

10 mother, NINA TRISLER, PHYLLIS

11 GOODMAN, as Personal Representative

12 of her deceased husband,

13 CHARLES GOODMAN, JR.,

14
15 Plaintiffs, Volume 2

16
17 vs. NO. 922 00911

18
19 MONSANTO COMPANY and

20 WESTINGHOUSE ELECTRIC

21 CORPORATION,

22
23 Defendants.

24 Cont'd. Deposition of ROBERT EMMET KELLY, M.D.

25 Taken on June 6, 1994

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24 Defendants.

Continued Deposition of ROBERT EMMET

KELLY, M.D., taken on behalf of the
Plaintiffs, at the law offices of Husch &
Eppenberger, 100 North Broadway, Suite 1300,
in the City of St. Louis, State of Missouri,
on the 6th day of June, 1994, before Victoria
L. Wilson, Registered Professional Reporter
and Notary Public.

Kelly, R. Emmet M.D. (frmr Mons Med Dir) in BECHTOLD

TOWOLDMON0013336

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INDEX

PAGE

Examination by Mr. Race 126

Examination by Ms. Rutter 218

EXHIBITS

(None marked)

1 ROBERT EMMET KELLY, M.D.,
2 of lawful age, having been first duly sworn to
3 testify the truth, the whole truth, and
4 nothing but the truth in the case aforesaid,
5 deposes and says in reply to oral
6 interrogatories propounded as follows, to wit:

7 EXAMINATION

8 QUESTIONS BY MR. RACE:

9 Q Okay. Dr. Kelly, you are still under
10 oath and this is a continuation of the
11 deposition we had taken last week. You
12 understand that?

13 A Fine.

14 Q I have gone over the deposition and I
15 don't want to repeat any questions and I will
16 try to avoid anything that we have gone into
17 before. I did look at it for that purpose and
18 if I do mention something or ask you questions
19 about something you previously answered, I
20 apologize; it is not my intention, okay?

21 A Yes, sir.

22 Q Okay. Dr. Kelly, if there were
23 medical problems at any of the production
24 facilities of Monsanto, you would be an
25 individual informed; is that correct?

1 A Yes, sir. It depends if it is a
2 self limiting thing but, yes, if there were
3 any serious medical problems. If a man had a
4 slight burn or something on his hand, I
5 wouldn't.

6 Q However, if there were any outbreaks
7 of chloracne, for example, you would be
8 informed?

9 A Oh, yes, I would.

10 Q Do you know of any problems which
11 occurred at the Sauget plant in Illinois in
12 the fifties or sixties?

13 A With PCB's?

14 Q Yes.

15 A No, sir.

16 Q Was there any outbreaks of chloracne
17 at the Sauget plant that you were aware of?

18 A With PCB's?

19 Q With any chemical?

20 A Yes, we manufactured 24D and we
21 manufactured 245T.

22 Q What is 245D?

23 A 24 it is 24D was an ingredient in
24 agent orange. It is a weed killer. And 245T
25 is a brush killer.

1 Q Okay. And

2 A They were not outbreaks. Did you say
3 "outbreaks"?

4 Q Were there any cases?

5 A Yes, there was an occasional case,
6 yes, sir.

7 Q Were any PCB's manufactured at the
8 Sauget plant?

9 A Yes, there were.

10 Q Okay. Do you have any means of
11 determining whether or not the chloracne noted
12 at Sauget was attributed to PCB or the 24D or
13 the 245T?

14 A It was not attributed to PCB's as far
15 as I know. In fact, it wasn't. It was in the
16 24D department and 245T department. These men
17 were not working in both departments.

18 Q How many cases of chloracne were
19 there?

20 A Gosh, I can't answer with less
21 than half a dozen. Less than half a dozen.

22 Q And did you definitively determine
23 that these individuals were not exposed to
24 PCB's in the work place?

25 A Yes, sir.

1 Q And that is by department?

2 A That's correct.

3 Q Did you determine whether or not the
4 PCB's that were manufactured there could have
5 been airborne and have come in contact with
6 the individuals even if they weren't working
7 in the specific PCB department?

8 A Yes, sir. There was no possibility
9 of them being airborne. I don't know that
10 I don't remember the geographical relationship
11 of the departments but they were physically
12 separated considerably.

13 Q Okay. The 24D and the 245T compounds
14 are generically referred to as what?

15 MS. RUTTER: Objection to the
16 confusing form of the question.

17 Q Subject to the objection, can you
18 answer that?

19 A Generically?

20 Q Well, Doctor, it is quite simple. I
21 don't want to keep saying, "24D and 245T."
22 What would I refer to them as?

23 A Herbicides.

24 Q Okay. Thank you very much. So the
25 herbicides, in your opinion, cause and the

1 herbicides are also referred to these
2 particular herbicides are referred to as
3 dioxins, correct?

4 A Beg your pardon?

5 Q These are dioxins; is that correct?

6 A They are not dioxins. They could
7 have had dioxin as an ingredient as a
8 contaminant in them.

9 Q So it could have been the dioxin in
10 the herbicides which caused the chloracne?

11 MS. RUTTER: Objection, calls for
12 speculation and conjecture and you are far
13 afield from your corporate designation list.

14 Q Subject, can you answer that?

15 A What was the question?

16 Q It could be the dioxins that caused
17 the chloracne?

18 A It could. It is possible.

19 Q What is the component in PCB's that
20 cause chloracne?

21 MS. RUTTER: When?

22 Q At any time.

23 MS. RUTTER: Well, he has testified
24 that there wasn't any chloracne at Monsanto.

25 Q Was there any chloracne noted in

1 conjunction with any PCB manufacturing
2 process?

3 A Not by Monsanto.

4 Q But by anybody?

5 A By Swan there was one episode that
6 was never determined what the compound was
7 that caused that.

8 Q Was it also not true that there was
9 chloracne as noted outbreaks in chloracne
10 as noted in the Mission report of 1954?

11 A I can't hear you.

12 Q The Mission report published in 1954,
13 are you familiar with that?

14 A Yes.

15 Q Did Mission not report several cases
16 of chloracne?

17 A Yes, they did.

18 Q And the cases that Mission reported
19 of chloracne were in association with PCB's?

20 A They were associated with a non
21 dielectric PCB.

22 Q So the question is there were cases
23 in which PCB's were associated with
24 chloracne.

25 A Yes, sir, there were.

1 Q Okay. Swan was one; is that correct?

2 A That's correct.

3 Q And as noted by Mission, there were
4 others that occurred in the fifties, correct?

5 A Correct.

6 Q Okay. Now, do you know of any other
7 substance other than PCB's and dioxins
8 strike that.

9 Do you know of any substance other
10 than PCB's which caused chloracne?

11 A Yes.

12 Q What is that?

13 A Chlorinated naphthalene,
14 pentachlorophenyl. There may be others but
15 those are the two that come to mind.

16 Q Chlorinated naphthalene?

17 A Right.

18 Q And chlorinated

19 A Pentachlorophenyl.

20 Q Are these both chemicals which
21 Monsanto produces?

22 A They do not produce chlorinated
23 naphthalene. I do not know if they still
24 produce pentachlorophenyl but they did for a
25 while.

1 Q Did they ever produce chlorinated
2 naphthalene?

3 A No, sir.

4 Q Chlorinated naphthalene is the same
5 family of PCB; in other words, it is a
6 chlorinated aromatic hydrocarbon, correct?

7 A That's a big family though.

8 Q But it is part of the same family?

9 A Well, it all depends on what you mean
10 by "family."

11 Q Well, we have got seven kids in our
12 family. It is a big family. We are Catholic
13 and we call it a big family. They are all a
14 member of the big family, correct?

15 A Well, not exactly because what you
16 mean what you may interpret as a big
17 family, I don't because I don't think there is
18 that close a relationship between the
19 chlorinated naphthalene and a chlorinated
20 biphenyl.

21 Q They both are classified as
22 chlorinated naphthalenes and
23 polychlorinated biphenyls are classified as
24 chlorinated aromatic hydrocarbons, correct?

25 A Yes, sir.

1 Q Thank you. In the outbreak of
2 chloracne at Swan in the thirties, was it ever
3 determined the source or the cause of that
4 chloracne outbreak?

5 A No, sir. The specific actual
6 chemical that caused it was not determined.
7 It was determined that it was a contaminant of
8 the benzol they used for several rugs. They
9 had no chloracne before they used this benzene
10 from this one supplier. They went to another
11 supplier, they got a benzene and they got
12 chloracne after several months, stopped the
13 second supplier and went back to their old
14 supplier.

15 Q So they had placed chlorinated
16 benzenes

17 MS. RUTTER: Counsel, I object. You
18 interrupted him.

19 MR. RACE: I apologize. I
20 apologize. Rightly so.

21 Q Do you have anything else to say?

22 A I said when they went back to their
23 regular supplier, they had no more chloracne
24 and Monsanto did not have any chloracne in
25 their PCB workers from 1936 to '74 when I

1 left.

2 Q Okay. So it was determined or
3 thought that the chlorinated benzene had a
4 role in causing the chloracne; is that a fair
5 statement?

6 A That's correct.

7 Q Is it also not true that chlorinated
8 benzene can, under proper conditions, produce
9 dioxin?

10 A Yes, sir.

11 Q Is it also true that chlorinated
12 benzene is mixed with PCB's in the compound
13 known as Inerteen PPO; is that not true?

14 A Yes, sir.

15 Q And it is Monsanto that mixes the
16 chlorinated benzene with the PCB's in
17 manufacturing Inerteen PPO, correct?

18 MS. RUTTER: Objection to the vague
19 form of the question. Give him a time period,
20 please, and a customer.

21 Q At any time, any customer.

22 A At some particular time but it was
23 not an extensive part of their PCB production.

24 Q Okay. It was done but to a limited
25 extent?

1 A Beg your pardon?

2 Q It was mixed but to a limited extent?

3 A That's correct.

4 Q Okay. Now, let me just ask you two
5 quick questions and we will then move on to
6 something else. The chlorinated naphthalene,
7 does that in and of itself produce chloracne
8 or is it a contaminant in the chlorinated
9 naphthalene such as a possible dioxin?

10 A I can't answer that. I don't know.
11 We did not manufacture it. We did not I
12 don't recall whether a specific contaminant
13 was caused but chloracne has been known with
14 chlorinated naphthalene since the turn of the
15 century.

16 Q With respect to the chlorinated
17 pet

18 A Pentachlorophenyl.

19 Q pentachlorophenyl. Thank you.
20 With respect to the chlorinated
21 pentachlorophenyl, is it thought that that
22 substance in and of itself produced chloracne
23 or is it a contaminant in that substance?

24 A I don't think that's been resolved.
25 I don't know.

1 Q Now, you produced today several
2 warnings were produced. As you previously
3 testified, it was a part of your function as
4 medical director to draft the appropriate
5 warnings, correct?

6 A That's correct.

7 Q Okay. As medical director, was it
8 part of your function to ensure that the
9 warnings were disseminated to customers and
10 end users?

11 MS. RUTTER: Objection to the form of
12 the question in that it contains a legal term
13 of art that's not defined, "end users."

14 Q Subject to the objection, can you

15 A I didn't even hear the objection.

16 MS. RUTTER: My objection was that I
17 objected to the form as containing an
18 undefined legal term of art, quote, "end
19 users," close quote, but you may answer the
20 question subject to the objection. I will ask
21 the court reporter to repeat the question.

22 Q Are you hearing me okay?

23 A At times. Not as well as last week.

24 Q Okay. I will try to project a little
25 bit better.

1 A Thank you.

2 (The requested portion of the record read
3 by the reporter)

4 A Usually disseminating bulletins was a
5 function of the marketing department. The
6 medical department would answer any questions
7 that came to us from customers when they
8 inaugurated the question. We did not the
9 medical department did not send out the
10 bulletins routinely to every customer. It
11 went with the marketing and with the billing
12 people and other departments of Monsanto
13 rather than the medical department.

14 Q Okay. So would it be a fair
15 statement that you would draft the warning and
16 bulletins and the marketing department would
17 ensure where these bulletins were placed on
18 the products and to whom the bulletins and
19 warnings were forwarded? Is that correct?

20 A Well, except labels, obviously, were
21 placed by the labeling committee and the
22 labeling people.

23 Q Okay.

24 A The bulletins, it all depends on what
25 the proposed use of the product was. It could

1 be by development people, could be by research
2 people or ultimately it could be by the
3 marketing people.

4 Q Okay. When you drafted a warning,
5 was it your intention that the users of the
6 product would read your warning?

7 A Would they heed it?

8 Q Read.

9 A Read it, yes.

10 Q Okay. So it was your intention that
11 they would by some means receive that warning,
12 correct?

13 A Yes, sir.

14 Q In conjunction with the warnings
15 program, did you ever recommend to any
16 customer to institute a training program with
17 respect to the handling of PCB's?

18 A No, sir, I did not.

19 Q Okay. Did anyone from Monsanto to
20 your knowledge make recommendations of
21 training programs in the safe handling of
22 PCB's?

23 A Well, I don't know what you did mean
24 by a "training program." Obviously they did
25 the right thing because they didn't have any

1 problems.

2 Q That's not my question. Could you
3 listen to my question, please?

4 A Well, yes, but I don't know what you
5 mean by a "training program."

6 Q Okay. Did you institute any types of
7 training programs for the handling of
8 chemicals?

9 A No, sir.

10 MS. RUTTER: You are talking about to
11 customers as opposed to internally at
12 Monsanto?

13 A Oh, internal?

14 Q Yes.

15 A Well, we had safety meetings and that
16 was a function of the production department.

17 Q Did you inform the production
18 department of what should take place at those
19 safety meetings?

20 A Yes.

21 Q Okay. So you had input into training
22 with respect to safe handling of chemicals, in
23 general, PCB's, in specific, at Monsanto,
24 correct?

25 A I want to get this straight. What

1 was it?

2 Q Let me break the question down. You
3 informed the production personnel at Monsanto
4 of topics that should be covered during the
5 safety meetings, correct?

6 A That's correct.

7 Q And those topics included the safe
8 handling of PCB's, correct?

9 A Yes, sir.

10 Q Okay. And that information was
11 necessary to ensure that the employees handled
12 PCB's in a manner in which they would not
13 result in harm, correct?

14 MS. RUTTER: Objection to the
15 overbroad and vague form of the question. You
16 may answer.

17 A I have lost it, the thrust of the
18 question.

19 MR. RACE: Could you read it back,
20 please?

21 (The requested portion of the record read
22 by the reporter)

23 A That's correct.

24 Q However, you never recommended a
25 training program similar to that which was

1 conducted at Monsanto to any customer
2 purchasing PCB's; is that correct?

3 A I did not recommend a training
4 program. I recommended what should be done to
5 avoid problems and the two simple things that
6 had to be done was avoid repeated or
7 continuous skin contact and, number two, don't
8 breathe at elevated temperatures or in
9 confined spaces.

10 Q Okay. Now, those were the two golden
11 rules of PCB's, correct?

12 A That's correct.

13 Q Doctor, what does "repeated" mean?

14 A More than once.

15 Q Okay. So, in other words, to avoid
16 repeated contact means strike that.

17 So what you were telling the customer
18 was do not come in contact with PCB's twice?

19 A No, that isn't what I said. Repeated
20 can be from once to a thousand times.

21 Q Okay. So are you telling the
22 customer that once is okay?

23 A No, I am not telling them once is
24 okay but I am also not saying that if you get
25 a spoonful on yourself, you should immediately

1 take you should immediately take a shower.

2 Q Well, that's fine. You have
3 explained that to me now. How was that
4 conveyed to the customer?

5 A Well, I give the customer, the worker
6 of the customer and the management of the
7 company of the customer credit for
8 intelligence. If you tell them, "Don't get it
9 on your skin," they see that and that's it.

10 Q But you didn't say, "Don't get it on
11 your skin," did you?

12 A I said, "Avoid repeated or continuous
13 skin contact."

14 Q Now, moving on with the warnings
15 issue, did you convey to the customer what
16 should be done in the event there was repeated
17 skin contact?

18 A Well, I think "avoid repeated or
19 continuous skin contact" is conveyed to the
20 customer that he should now allow repeated
21 skin contact.

22 Q No, the question is did you explain
23 to the customer what should be done if, in
24 fact, there was repeated skin contact?

25 A I tried to recollect how in some

1 cases I actually did tell the customer what
2 not to do if it got on you wipe it off,
3 wash yourself; if the coverall is soaked, get
4 rid of it but as far as telling a customer
5 how he should avoid repeated or continuous
6 skin contact was not feasible because I did
7 not know how the man was using it.

8 Q Let's talk about how the man was
9 using it. If there was a continuous violation
10 of your warnings to avoid repeated contact and
11 inhalation of vapors at elevated temperatures,
12 what actions, did you, as the medical director
13 of Monsanto, recommend?

14 A Well, in the first place, there
15 wasn't any repeated or continuous skin
16 contact. There wasn't enough. If there was
17 enough, it was not sufficient if there was
18 such contact, it was not sufficient to cause
19 any health effects. This is not my statement,
20 this is put out by Kemper of the U.S. EPA or
21 wherever she is where she said with the
22 exception of an occasional case of chloracne,
23 there were no health problems in the
24 industrial workers using PCB. That was a
25 statement in 1987 and that was my belief all

1 the time up until 1974.

2 Q Okay. Let me ask my question again.

3 If there were repeated contact, did Monsanto

4 have a policy as to what would be done?

5 MS. RUTTER: With Monsanto workers?

6 Q Yes, let's start with Monsanto.

7 A Are we talking about Monsanto

8 workers?

9 Q Yes.

10 A I thought we were talking about

11 customers.

12 Q Well, let's talk about Monsanto now.

13 A Okay. Let's talk about them.

14 THE WITNESS: What did he ask me

15 about Monsanto?

16 Q Let me ask you the question again.

17 In a Monsanto facility if there was repeated

18 skin contact or inhalation, what was

19 Monsanto's policy?

20 A We would stop it. We would stop such

21 contact

22 Q Okay.

23 A of the worker to avoid repeated

24 skin contact.

25 Q Okay. And if a worker had been

1 exposed to substantial skin contact, repeated
2 skin contact or inhalation for an extended
3 period of time, would you recommend any
4 medical examination or monitoring of Monsanto
5 employees?

6 A No, sir, we did not because we
7 considered that chloracne was the hallmark of
8 injury from PCB.

9 Q So, in other words, you considered
10 that there would be no other that there
11 would be no other injury strike that.

12 It is your position that there will
13 be no systemic injury unless chloracne is
14 first observed; is that correct?

15 A With the exception of acute
16 episodes. If a worker, as I explained, the
17 three or four cases where workers were using
18 functional fluids, PCB's, not electrical uses,
19 had leaking operations and developed after
20 three days an acute episode of epiglottitis
21 would occur and chloracne would not occur
22 until later but if you were looking for
23 problems of repeated skin contact, it was my
24 belief that the first warning sign would be
25 chloracne.

1 Q Okay. What about if there was
2 inhalation but no skin contact?

3 A With the exception of the acute
4 episodes that I had mentioned in the course of
5 this deposition, I believe, where people
6 inhaled for three days PCB's at a heat
7 transfer operation at elevated temperatures,
8 they developed a chemical hepatitis without
9 chloracne because it takes some time for
10 chloracne to develop.

11 Q Now, the question is did Monsanto
12 have a policy if there was exposure to PCB's
13 in violation of your two golden rules?

14 MS. RUTTER: At Monsanto?

15 Q At Monsanto.

16 A Not to my knowledge they did not.

17 Q Okay. And so, therefore, you made no
18 recommendations to any customers as to what
19 should strike that.

20 Accordingly, you made no
21 recommendations to your customers with respect
22 to what actions should be taken if their
23 workers were exposed to PCB's, correct?

24 MS. RUTTER: Objection to the form of
25 the question. Please have her read it back.

1 Listen carefully to the question and you may
2 answer it.

3 (The requested portion of the record read
4 by the reporter)

5 A Are we back at customers now?

6 Q Right, customers.

7 A Well, we told them to avoid to
8 avoid such operations. We did not know how
9 the customer was using them, the material.

10 Q Okay. So the question is you did not
11 inform your customer what actions, medical
12 actions or otherwise, should be taken if the
13 employee failed to avoid contact with PCB's?

14 MS. RUTTER: Objection,
15 mischaracterizes prior testimony.

16 MR. RACE: Well, he can agree or
17 disagree.

18 Q Do you agree or disagree?

19 Could you read it back? I think that
20 would be necessary.

21 (The requested portion of the record read
22 by the reporter)

23 A We told them how to prevent any
24 problem with PCB's, if that is what you mean
25 by "action." We told them on our labels and

1 on our bulletins what to do to avoid it. If
2 your question related to what happens after
3 the person gets exposed, we did not know how
4 the man was being exposed in the customers'
5 plants so we were not in a position to avoid
6 them to give them specific statements of
7 how to avoid such exposure.

8 Q I'm not talking about avoiding
9 exposure, I'm talking about after the fact,
10 after the exposure occurs, in the event that
11 the worker is exposed to repeated skin
12 contact, were there any medical advices given
13 by Monsanto to its customers as to the
14 appropriate course of action?

15 A Well, when we tell the person to
16 avoid skin contact or breathing the material,
17 that appears to me to be the type of action.
18 We did not know the manner in which this man
19 was exposed. We had not been in the
20 customer's plant. We did not know what
21 procedures were being carried out with PCB's
22 during manufacturing.

23 Q Now, you say you have not been in
24 these plants?

25 A Beg your pardon?

1 Q Monsanto has not been in these
2 plants; is that what you are telling me?

3 A I'm telling you the medical
4 department has not been in these plants.

5 Q Okay. Do you know whether any
6 department from Monsanto had inspected the
7 plants of customers to whom PCB's were sold?

8 MS. RUTTER: Objection to the use of
9 the term "inspected." I think it is leading
10 and misleading.

11 Q Subject to the objection

12 A What did you say? Subject to what
13 the objection?

14 Q Subject to the objection, you may
15 answer.

16 MS. RUTTER: You may answer the
17 question. Do you need to have it read back?

18 A I know Papageorge went to some of the
19 plants.

20 Q Papageorge went to some of the
21 plants. Do you know the reason why he went to
22 some of the plants?

23 A No, sir.

24 Q Do you know whether Monsanto had a
25 policy to inspect or observe the operations of

1 customers of PCB's in order to ensure that
2 they were properly handled?

3 MS. RUTTER: Counsel, this witness is
4 not designated on that topic. Mr. William B.
5 Papageorge is designated on that topic and you
6 are

7 MR. RACE: I want to point out what
8 the medical department was informed by
9 Mr. Papageorge.

10 MS. RUTTER: That's not what you are
11 asking.

12 MR. RACE: Inspections and knowledge
13 of Monsanto's inspection of Westinghouse's
14 facility, Monsanto's appreciation of safety
15 procedures instituted at Westinghouse and if
16 any infractions by Westinghouse with respect
17 to recommended safety procedures.

18 MS. RUTTER: Those are two topics on
19 your list, they are topic numbers 10 and 11,
20 and W. B. Papageorge is designated on those
21 topics, not this witness.

22 MR. RACE: So it is your position
23 that this witness as medical director has no
24 knowledge and will not testify and
25 Mr. Papageorge has knowledge and will testify

1 as to the medical department?

2 MS. RUTTER: This doesn't ask about
3 the medical department, it asks about visits
4 to the Bloomington plant which, as you well
5 know, Mr. Papageorge is the one who visited
6 the Bloomington plant, not Dr. Kelly.

7 MR. RACE: Monsanto's appreciation of
8 the safety procedures. This is the individual
9 that lays down the safety procedures.

10 MS. RUTTER: Well, then talk to him
11 about his discussions with the Westinghouse
12 medical director. Dr. Kelly has told you he
13 was not personally in the plants.

14 MR. RACE: I want to know about his
15 discussions with Mr. Papageorge.

16 MS. RUTTER: I'm not telling you you
17 can't ask about that. You were asking him an
18 entirely different group of questions.

19 MR. RACE: Well, then let me change
20 it. I'm sorry. That's fine.

21 Q Did you have any discussions with
22 Mr. Papageorge regarding his inspections of
23 Westinghouse facilities?

24 MS. RUTTER: I object to the use of
25 the word "inspections." I believe that is a

1 misleading term and

2 MR. RACE: Why don't we make that a
3 continuous objection since I find it
4 impossible to leave that word out.

5 MS. RUTTER: I'm going to object to
6 that word every time you do it. I think it is
7 misleading and unfair.

8 MR. RACE: Okay.

9 A Is there a question?

10 Q Did you have any discussions with
11 Mr. Papageorge regarding his visits/
12 inspections of the Westinghouse facilities,
13 subject to the "inspections" objection by your
14 counsel?

15 A No, sir, I did not.

16 Q Okay. If Monsanto employees saw
17 customers using PCB's improperly, did Monsanto
18 have a policy for that information to be
19 brought to the attention of the medical
20 department?

21 A No, sir.

22 Q Did Monsanto set up any hotline for
23 customers to call the medical department with
24 medical problems?

25 A No, sir.

1 Q Did Monsanto's medical department
2 make any attempt to take air samplings of its
3 PCB customers' facilities?

4 A No, sir.

5 Q Did Monsanto make any attempt to
6 ensure that air sampling was done?

7 A No, sir, not that I know of.

8 Q Okay.

9 MS. RUTTER: I object to the
10 relevance of this entire line of questioning.

11 MR. RACE: That's fine. Let's move
12 on here.

13 Off the record.

14 (Discussion off the record).

15 Q I'm going to hand you a document
16 entitled, "Recommended Instructions for
17 Handling PCB's in Electrical Industries," with
18 a Bates stamp number of MONS040440. Do you
19 recognize that document?

20 MS. RUTTER: Let's see if there is a
21 date on it.

22 MR. RACE: Carol, off the record.

23 (Discussion off the record)

24 (Recess)

25 THE WITNESS: I have no recollection

1 of ever seeing this before.

2 Q No recollection whatsoever. Do you
3 know whether or not that's a Monsanto
4 document?

5 A I don't know.

6 Q Does Monsanto have any facilities in
7 Australia?

8 A Did they have facilities in
9 Australia?

10 Q Yes.

11 A Yes.

12 Q Okay. Do you know whether this
13 document strike that.

14 As you testified last time, chloracne
15 is a systemic injury; is that correct?

16 A That's correct.

17 Q So you would distinguish between
18 chloracne and temporary skin lesions, would
19 you not?

20 A Yes.

21 Q They are not the same thing, are
22 they?

23 A No.

24 Q Okay. Did Dr. Kimbrough's slides
25 show carcinomas?

1 A According to her pathologist, yes.

2 Q In your opinion, did they show
3 carcinomas?

4 A I didn't see them. I'm not a
5 pathologist. I can't make a judgment.

6 Q Did Monsanto have a policy one way or
7 the other strike that.

8 Did Monsanto take a position as to
9 whether Kimbrough's slides showed carcinomas.

10 MS. RUTTER: During the time you were
11 medical director?

12 A This all occurred after I left.

13 Q The Kimbrough studies came out in the
14 early 70's; is that correct?

15 A Right.

16 Q Okay. And Dr. Kimbrough

17 MS. RUTTER: Specifically 1974 is the
18 date that comes to my mind, Mr. Race.

19 Q Last time we chatted, Dr. Kelly, we
20 spoke about the Treon study.

21 A Yes, sir.

22 Q And if I recall it correctly, that
23 was a 150 day inhalation study conducted by
24 Dr. Treon, correct?

25 A Correct.

1 Q Isn't it true, Doctor, that Dr. Treon
2 recommended additional tests to be conducted?

3 A I don't recall. Do you have it?

4 Q Yes. There is a highlighted portion
5 there?

6 MS. RUTTER: Dr. Kelly, since this
7 test dates back to the 1950's, please take
8 your time and look it over. You can look over
9 the entire document, not just the

10 MR. RACE: Carol, I mean I did
11 furnish you that document. Off the record.

12 (Discussion off the record)

13 A I don't see where he has asked for
14 without going over this point by point, he
15 doesn't mention it in his summary.

16 Q I draw your attention to the sentence
17 saying "For practical purposes, this
18 conclusion was subject to the critique of
19 further experiments involving more prolonged
20 exposures of animals to somewhat lower
21 concentrations." Is that not to be construed
22 as a recommendation for further testing?

23 A Well, what he is saying in there, it
24 seems to me, is that he had fatalities from
25 intercurrent infections both in the controls

1 and in the test animals and if he wanted to be
2 absolutely certain that these deaths, these
3 fatalities in the controls, which would
4 have and compare that to the treated
5 animals, he needed some more work but I don't
6 think that altered his viewpoint as to what
7 the particular toxicity of the material was.

8 Q Okay. But in other words, he did, in
9 fact, recommend further testing?

10 MS. RUTTER: Objection to the form of
11 the question.

12 Q With that caveat?

13 MS. RUTTER: The document will speak
14 for itself.

15 A He recommended that they could use a
16 lower a lower level of exposure but he
17 still stated that the level of the exposure he
18 found a safe level because regardless of
19 whether he needed a lower exposure or not, he
20 said when he did 1242 at eight micrograms per
21 liter, it demonstrated no injury so I don't
22 know what the relevancy of

23 Q The question is, Doctor, just simply,
24 in that document

25 A A little louder.

1 Q The question is very simply,
2 Dr. Kelly, in his report, Doctor Treon had
3 requested or recommended additional medical
4 studies; is that correct?

5 MS. RUTTER: Objection to the form of
6 the question, mischaracterizes a document
7 which will speak for itself.

8 A Now, what's your question again,
9 now? Your voice dropped off.

10 Q Mine drops off as hers picks up. Let
11 me try it again. Let me ask you this
12 question, Doctor: Is it your appreciation that
13 Dr. Treon recommended additional studies? For
14 whatever reason, did he recommend additional
15 studies?

16 A Yes, but that is only a half truth.
17 He did not recommend any additional studies to
18 validate his data that was expressed in the
19 summary. He only asked for additional studies
20 if we wanted to be sure that intercurrent
21 infections were the cause of illnesses both in
22 the control and in the subject animals so, in
23 essence, what he was doing was saying we found
24 a safe level.

25 Q Okay.

1 MR. WUNDERLICH: Joe, are you marking
2 these?

3 MR. RACE: No, because we have marked
4 these before.

5 MR. WUNDERLICH: When?

6 MR. RACE: I think last time around
7 or this is the Treon study which we have.

8 MS. RUTTER: The Treon study was not
9 marked before.

10 MR. RACE: It was produced as a
11 result of Dr. James' deposition so it is in
12 Dr. James'.

13 MR. WUNDERLICH: I understand that.
14 My problem is you have got documents that you
15 are using that I may not have copies of.

16 MR. RACE: You have got

17 MR. WUNDERLICH: I may have that one
18 there, that particular document, but you sent
19 Carol apparently a pack of documents.

20 MR. RACE: All of these came from
21 that pack and they are on the way to you.

22 MR. WUNDERLICH: Okay, but I don't
23 have them yet. I want to make sure that I
24 know that I am looking at the same group of
25 documents that you are asking questions about.

1 MR. RACE: They are in there and I
2 gave you the Bates stamp number so you can get
3 it from that.

4 MR. WUNDERLICH: Okay. Do something
5 at least to make sure that the record reflects
6 what he is talking about.

7 MR. RACE: Okay. And this is
8 referring to the Treon study dated June 1956.

9 MR. WUNDERLICH: If it has a Bates
10 stamp on it, read it for the record.

11 MR. RACE: And the Bates stamp is
12 MONS096370.

13 MR. WUNDERLICH: And you say copies
14 are coming to me?

15 MR. RACE: Yes. I have got a box.

16 Q Is it not true that test results of
17 the Treon study indicated deaths among the
18 exposed groups of animals are attributed to
19 pulmonary disease?

20 A Yes, sir.

21 Q And pulmonary disease, for the sake
22 of the jury, is a lung disease, correct?

23 A Yes, but

24 Q And is it also not true that

25 MS. RUTTER: You cut off his answer,

1 Counsel.

2 MR. RACE: Excuse me.

3 MS. RUTTER: He said

4 A Pulmonary disease can be due to
5 several things, either the test material
6 that's being tested or intercurrent infections
7 and that's what he says in there, that he
8 believes that these illnesses are attributable
9 not to the compound itself inasmuch as they
10 occurred in control animals.

11 Q But he doesn't state they occurred to
12 the control animals, he states they occurred
13 with the exposed group.

14 A Wait a minute.

15 MS. RUTTER: Let him see the
16 document, Counsel.

17 Q Second highlighted portion,
18 Dr. Kelly.

19 MR. WUNDERLICH: Off the record.

20 (Discussion off the record)

21 A He says here, "The similarity of the
22 lesions in test and control animals," so he
23 had problems with both his tests and his
24 control animals.

25 Q With various diseases but with the

1 pulmonary disease, it was, is it not true, the
2 exposed groups in which pulmonary diseases
3 were noted?

4 MS. RUTTER: Dr. Kelly, he is asking
5 you a very specific question about a long
6 document that dates back to the 1950's.
7 Please just take whatever time you need to
8 review the document.

9 MR. RACE: I will withdraw the
10 question. Could you give me the document?

11 Q Are you aware, Dr. Kelly, of any
12 lesions in the brain that were observed during
13 the Treon study?

14 A I have no recollection of any. If
15 they are there, show it to me.

16 Q Okay. You have no independent
17 recollection?

18 A No, sir.

19 MR. RACE: The document will speak
20 for itself.

21 Q I will hand you a document previously
22 marked as Plaintiff's Exhibit 1090 entitled,
23 "Comments on Aroclors," dated March 25th,
24 1969. Do you recognize that document?

25 MR. WUNDERLICH: Where was that

1 marked 1090?

2 MR. RACE: In the Scott trial.

3 MR. WUNDERLICH: If you could, make a
4 reference like that, Joe, so I can easily find
5 it in case it is something I have not seen.

6 MR. RACE: Okay.

7 MR. WUNDERLICH: Off the record.

8 (Discussion off the record)

9 A Yes, sir.

10 Q Okay. Do you recognize that
11 document?

12 A I don't recall when I first saw it.
13 I may very well have seen it during one of
14 these depositions but I have no recollection
15 and I could be wrong on that, that I saw this
16 at the time in March of '69.

17 Q Okay. Do you know whether or not you
18 had seen that document while in the employ of
19 Monsanto prior to 1974 when you retired?

20 A No, sir, I'm not sure and I don't
21 even know who Alvin Mehler is.

22 Q Okay. In 1969, had Monsanto
23 established safe limits of exposures for
24 PCB's?

25 A Yes.

1 Q Okay. That had already been
2 established, correct?

3 A Yes.

4 Q Okay. When was that established?

5 A On the basis of Treon's work, on the
6 basis of a statement by the American
7 Conference of Industrial Hygienists.

8 Q And so that was established in the
9 mid fifties, correct?

10 A Yes, towards the '56, around then.

11 Q I'll get back to that issue but I'll
12 move through the documents and try to get this
13 thing finished.

14 Would you agree that chronic
15 poisoning could occur if there are repeated
16 exposures to sufficient concentrations of PCB?

17 A That chronic what?

18 Q Chronic poisoning could occur if
19 there are repeated exposures to sufficient
20 concentrations of PCB's?

21 A Yes.

22 Q Would you agree that swallowing PCB's
23 could cause death?

24 A That

25 Q Swallowing PCB's?

1 A If you swallow enough of it.

2 Q Okay. How much would be enough? Do
3 you have any idea?

4 A Well, the LD50 for rats is four grams
5 per kilogram. You transpose that to a 70
6 kilogram man, that would be 280 grams, which
7 is almost ten ounces of the stuff.

8 Q A big beer?

9 A Yeah.

10 Q Okay. So if you swallowed a little
11 beer, it wouldn't kill you?

12 A There have been no reports of any
13 deaths in humans from swallowing PCB's so I
14 can't give you a positive number. When you
15 transpose from an animal to a man, it isn't
16 100 percent certain of whether you can do that
17 correctly.

18 Q Okay. I'm going to hand you four
19 handwritten pages, which the first page is
20 dated 10 22 69, Bates stamp Monsanto 057303
21 through 057317. Do you recognize that
22 document?

23 A No, sir, I don't recognize it.

24 Q Okay. Do you recognize the
25 handwriting at all?

1 A No, sir.

2 Q Do you recognize any of the names
3 contained in that document

4 A I didn't even see the names.

5 Q if there are any names?

6 A What?

7 Q If there are any names. I'm not even
8 sure. May I ask you this: Are there any
9 facts contained in that document which you
10 recognize?

11 MS. RUTTER: Objection to the vague
12 and confusing form of the question.

13 Q Subject to the objection, could you
14 answer that, if you can?

15 A Well, I don't see facts in here at
16 all. They are just statements of what the
17 writer of this believed was needed to
18 establish opposition in October '69.

19 Q And you have no idea who the author
20 of this document is?

21 A No, sir. I don't even know the
22 purpose of it.

23 Q Now, we talked before about safe
24 levels. That's something that's referred to
25 in the industry as MAC; is that correct?

1 A It used to be. It is threshold.

2 Q Limit value now?

3 A Limit, right.

4 Q Okay. Now, MAC stands for maximum
5 allowable concentration.

6 A Correct.

7 Q What was the MAC established or
8 accepted by Monsanto?

9 A When?

10 Q At the time of your retirement.

11 MS. RUTTER: For what product,
12 Counsel?

13 Q For PCB's.

14 A It was one milligram per cubic meter
15 for 1242 and .5 milligrams per cubic meter for
16 1254.

17 Q How long had that MAC been accepted
18 by Monsanto?

19 A Since around '56.

20 Q Okay. What was the MAC prior to '56?

21 A I don't recall. I'm not sure whether
22 there was one established.

23 Q Has your opinion changed strike
24 that.

25 Are you still of the opinion that an

1 acceptable MAC is one milligram per cubic
2 meter for 1242 and .5 milligrams per cubic
3 meter for 1254?

4 A Yes.

5 Q I'm going to apologize because I
6 think I asked you these names but I don't
7 recall off the top of my head. Dr. Barrett
8 was whom?

9 A He was of Monsanto of England,
10 Monsanto of Europe.

11 Q And he was in the medical department?

12 A No, he was not. He was either in
13 research or development.

14 Q Okay. And D.V.M. Hardy?

15 A He was also at Monsanto of Europe and
16 I don't know if he was in research or in
17 development, also. I don't know.

18 Q Okay. Do you know if the same MAC's
19 were use in England as were used in the United
20 States for PCB's?

21 A I don't know.

22 Q Would there be any reason to utilize
23 a different MAC?

24 A No.

25 Q Okay. Because the MAC is the maximum

1 allowable concentration for human beings
2 whether that human being is English or
3 American; is that correct?

4 A That's correct.

5 Q Okay. So you would anticipate that
6 the same MAC was recommended by Monsanto in
7 England as was in the United States, correct?

8 A Yes.

9 MS. RUTTER: Objection, calls for
10 speculation and conjecture.

11 Q Subject to the objection
12 Doctor, is it not true that animal
13 tests had shown prior to 1955 that 1.5
14 milligrams per cubic meter can produce damage
15 to liver and kidney in test animals.

16 MS. RUTTER: Counsel, you are reading
17 from a specific document without doing the
18 witness the courtesy of showing him the
19 document.

20 MR. RACE: You are right.

21 MS. RUTTER: I would note for the
22 record.

23 MR. RACE: You are right.

24 Q Do you have a recollection?

25 A No, I don't.

1 Q Okay. So you are not aware of any
2 animal tests which showed liver damage at 1.5
3 milligrams per cubic meter, correct?

4 A At the present time, no. I may have
5 in the past. If you show me an article, I
6 will be happy to tell you.

7 Q Doctor, is it not true that when
8 establishing MAC, we use a ten fold a
9 safety factor of ten when looking at the MAC
10 in the context of safe human exposure?

11 MS. RUTTER: Objection to the
12 overbroad and vague form of the question.

13 A The people who establish the MAC
14 would have to answer that question.

15 Q Are you familiar with the
16 establishing of MAC's at all?

17 A Well, I am familiar with pre '74 and
18 post '74 with EPA when OSHA came in, but
19 prior to that the MAC's were established by
20 the American Conference of Government
21 Industrial Hygienists.

22 Q Did Monsanto not make any independent
23 efforts to establish what the maximum
24 allowable concentration of its chemicals were?

25 A Certainly we did in the case of

1 PCB's.

2 Q Okay. Are you familiar with the
3 process whereby those figures were attempted
4 to be arrived at?

5 A The process? Yes. You do animal
6 experimentation.

7 Q And why don't you explain that
8 process to me.

9 A Why don't I explain it?

10 Q Yes.

11 A Well, you give animals a certain
12 level and see if it harms them and if it
13 doesn't harm them, use that as a basis for the
14 threshold limit or the MAC depending on which
15 was in vogue at the time.

16 Q Okay. Now, I want to suggest to you
17 that it was found that animals were harmed at
18 a level of 1.5 grams per cubic meter.

19 A Grams?

20 Q Micrograms?

21 A Not micrograms.

22 Q Milligrams?

23 A Okay.

24 MR. RACE: Strike that. And when I
25 say, "strike that," that means knock it out

1 and don't write, "strike that."

2 MS. RUTTER: That does not mean that
3 under Missouri procedure. You can practice
4 whatever way you want in Louisiana, Counsel,
5 but here the stricken question appears in the
6 transcript with Counsel's statements.

7 MR. RACE: Off the record.

8 (Discussion off the record)

9 MR. RACE: I hired you. Strike it.

10 MS. RUTTER: I request that the
11 question be left in the transcript as is the
12 current procedure in Missouri, along with
13 Counsel's instruction that it be stricken.

14 MR. RACE: Okay. Let me clarify that
15 I wanted it stricken only because it was a
16 little confusing and I acknowledge that it was
17 a little confusing and at some point we might
18 have to strike it if it is going to be read to
19 the jury anyway but, nevertheless, why not an
20 extra page, huh?

21 MR. WUNDERLICH: Three pages by now.
22 The court reporter smiles every time you say
23 that.

24 MR. RACE: Yeah, okay.

25 Q Okay. Doctor, so you are aware that

1 tests, in order to establish a MAC, tests are
2 conducted on animals and it is determined at
3 what level there is injury noted to the
4 animal; is that correct?

5 A Yes, that is one of the methods.
6 Presumably they have looked at some of the
7 clinical findings of workers but I'm not
8 certain of whether that is a function that's
9 one of the bases of a governmental group or
10 not.

11 Q Okay. And is it also not true that
12 once you have established the level at which
13 animal studies have revealed harm to the
14 animal, a factor of ten is utilized to
15 establish the MAC?

16 MS. RUTTER: Objection, calls for
17 speculation and conjecture, overbroad and
18 vague.

19 Q Subject to the objection, can you
20 answer that?

21 A I think you would have to ask the
22 government people how they arrive at it.

23 Q You previously testified that
24 Monsanto made independent efforts to establish
25 MAC's, correct?

1 MS. RUTTER: Objection,
2 mischaracterizes prior testimony.

3 A I don't think I did. I said we ran
4 the animal studies to give the basis for the
5 MAC development. We don't establish MAC's.
6 The government people establish MAC's.

7 Q While you were medical director at
8 Monsanto, did Monsanto attempt to establish
9 the maximum levels that were safe for human
10 beings?

11 A I think we did. We established we
12 didn't use analytical figures. We used safe
13 working procedures but there were no figures,
14 no analytical data to support it. We did not
15 run animal testing to establish MAC's with the
16 exception of PCB's.

17 Q Okay. So you did run animal testing
18 to establish MAC's for purposes of PCB's?

19 A To form the basis for somebody to
20 establish the MAC and, after all, the
21 government did take Treon's work, which was
22 Monsanto sponsored, and we gave it to them.
23 Of course, it was in the literature, also, but
24 we did give that basis but we did not
25 establish the MAC on our own authority. We

1 didn't have the authority to do it.

2 Q Did you not attempt to establish a
3 MAC in order to ensure the safety of Monsanto
4 workers?

5 A No, because we had had 20 years of
6 manufacturing experience that proved safe for
7 Monsanto workers by the time the MAC's were
8 established.

9 Q Okay. Then can you tell me what the
10 purpose of the animal studies were?

11 A Yes. We were using PCB's in a
12 different operation where they would be
13 exposed to dropping on a hot metal surface or
14 at an extrusion or an extrusion die cast
15 where there could be exposure repeated
16 exposure to elevated temperatures. We did not
17 anticipate, nor had we had repeated exposures
18 in the electrical field or in the plasticizer
19 field but where we got into the hydraulic
20 fluid field, there was exposure. We had to
21 find that out. That's what the safe level
22 would be.

23 Q Okay. And could you explain to me
24 how that was done?

25 A Certainly. You took animals, various

1 animals, and ran inhalation studies at two
2 levels over 120 to 150 days.

3 Q And you found out at what level the
4 animals died; is that correct?

5 A Well, no, we found out what the safe
6 level was when the animals didn't die or
7 didn't get any problems.

8 Q How do you find the safe levels?

9 A For an animal?

10 Q Yes.

11 A You give them a measured amount and
12 if he doesn't have any symptoms or any
13 pathology from it, you consider it safe.

14 Q Okay. And then it is accepted that
15 the humans can operate in an environment at
16 that same level; is that correct?

17 A Well, the government cut the safe
18 level in half over the one that Treon
19 recommended.

20 Q What was the level that Treon
21 recommended?

22 A I think it was one for 1254 and I
23 don't know if it was as high as ten milligrams
24 for 1242; I'm not sure.

25 Q So the use of the safety factor of

1 ten is something not known to you at all; is
2 that correct?

3 A No, that's not correct.

4 Q Okay.

5 A I have heard it bandied around but I
6 do not know whether the people who are
7 establishing the MAC's used that safety factor
8 of ten. I don't know that. I said they take
9 into account the clinical experience of the
10 workers who have been handling the material
11 for years.

12 Q Is it true, Doctor, that pathological
13 changes were noted from exposure to PCB's as
14 early as the forties?

15 MS. RUTTER: Objection to the vague
16 and confusing form of the question.

17 A Tricker did some work on PCB's in '37
18 or '38 and found some pathological changes.

19 Q Are you familiar with the public
20 health reports?

21 A Which one?

22 Q Generally, that journal of public
23 health reports?

24 A Do you have it there?

25 Q No, I'm just talking about them in

1 general.

2 A In general, public health reports?

3 Q Yes.

4 A Yes, I know they used to put out a
5 lot of them. They don't seem to do it
6 anymore.

7 Q And in the forties public health
8 reports were put out, correct?

9 A Yes, sir.

10 Q And was this something that you as
11 medical director would monitor?

12 A Well, I don't know how you could
13 monitor them because you couldn't subscribe to
14 them but I think once you get on their mailing
15 list, you got them.

16 Q Are you familiar with the

17 A There were four years that I was not
18 available to the from when I was in the
19 service, I was not close to it, any public
20 health reports.

21 Q Are you familiar with the document
22 Public Health Report dated August 18th, 1944?

23 A This came when I was gone. I was in
24 the service at this time.

25 Q Okay. Had you reviewed it, that

1 document, after you came back from the
2 service?

3 A I think so, yes, sir.

4 Q And this would be a document that was
5 kept in the normal course of business at
6 Monsanto; is that correct?

7 A Yes.

8 Q Okay. And it is something that you
9 would refer to as the medical director at
10 Monsanto; is that correct?

11 A Refer to it for what purpose?

12 Q To see what materials are published
13 in the industry; is that correct?

14 A Well, yes, I would I'm sure we've
15 got a copy of it someplace or other.

16 Q Okay. I don't have any further
17 questions of that document.

18 A Beg your pardon?

19 MR. WUNDERLICH: Does that have a
20 stamp on it?

21 MR. RACE: Yes. I will give you the
22 Bates stamp.

23 Q I'm not going to ask you any more
24 about it at this time.

25 MS. RUTTER: It is MONS07

1 MONS076181. That's just the first page.

2 Q Okay. Can I have that? I'm not
3 going to ask anymore questions about it so I
4 don't know if it is relevant to review it.

5 THE WITNESS: You ask me.

6 MS. RUTTER: Okay.

7 Q Dr. Kelly, would you agree with me
8 that prior to 1970, some harmful effects from
9 PCB's were noted either to Monsanto employees
10 or to its employees of its customers?

11 MR. WUNDERLICH: I'll object to the
12 form of the question.

13 A Yes, in nonelectrical applications.
14 I told you about two cases of heat transfer
15 problems that occurred in Monsanto customers
16 due to acute exposures. There were none in
17 Monsanto employees.

18 Q But there were to Monsanto customers?

19 A Beg pardon?

20 Q The harmful effects did occur to the
21 customers of Monsanto?

22 MS. RUTTER: Objection to the
23 overbroad form of the question as phrased. It
24 mischaracterizes his prior very specific
25 testimony.

1 MR. WUNDERLICH: I will join in that
2 objection.

3 MR. RACE: I will withdraw the
4 question. Thank you.

5 Q When we spoke last time, Doctor, you
6 told me that you had maintained a cancer
7 index.

8 A Yes, sir.

9 Q Okay. And you noted a high incidence
10 of lung cancer.

11 A Yes, sir.

12 Q But you had not made any attempt
13 prior to 1974 when you retired to establish
14 whether that lung cancer rate was in
15 conformity with the nation at large, did you?

16 A I think we did. I think we found
17 that the amount of lung cancer in our employee
18 population and, remember, we did not take
19 into account any confounding aspects such as
20 smoking, all we did was check whether or not a
21 cancer occurred of the lung, and we did
22 come up with a conclusion that it was not in
23 excess of the amount of cancers that you would
24 expect in males at that particular age group.

25 MR. WUNDERLICH: Was not in excess?

1 A Was not in excess, yes, sir.

2 Q Okay. And you had done that shortly
3 before your retirement?

4 A No, we looked at it all the way
5 through.

6 Q All the way through. And as a
7 medical director, that's part of your job, to
8 see whether there is any occupational related
9 diseases?

10 A Yes, sir.

11 MS. RUTTER: Are you talking about in
12 Monsanto's workers?

13 MR. RACE: Yes, in Monsanto's
14 workers.

15 A Yes.

16 Q Now, I'm not sure, Doctor, if we
17 discussed or tried to identify this document
18 during our last discussions. Can I hand you
19 something that we received from Monsanto,
20 Bates stamped number MONS95218?

21 MS. RUTTER: Are you asking him
22 whether you discussed this with him last week
23 or are you asking him to review the document,
24 Counsel?

25 MR. RACE: Well, I'm asking him if I

1 discussed it last week so I won't go into it
2 this time.

3 Q Do you recall that document?

4 A No, sir, I don't recall it but I'm
5 sure I got it because they refer to me pretty
6 often in there.

7 Q Okay. Who is Mr. Brown?

8 A I do not know.

9 Q Okay. Why don't you peruse that and
10 let me take a one minute break.

11 A Beg your pardon?

12 Q Why don't you look at it just a
13 second and I will take a one minute break.

14 (Recess)

15 Q Doctor, have you had a chance to take
16 a look at that?

17 A I'm on page three right now.

18 Q I think the questions that I'm going
19 to ask you are confined to page two.

20 MS. RUTTER: No, I would ask that he
21 read the entire document.

22 A I'll get down to it pretty fast.
23 They talk about a whole bag of things outside
24 of PCB's.

25 Q That's why I'm not going to ask you

1 about the whole document but, now, because of
2 your attorney, you are knowledgeable about
3 that.

4 MS. RUTTER: I need to take a look at
5 the document, as well.

6 MR. RACE: Counsel?

7 Q Do you recall, Doctor, the contents
8 of or the subject matter as addressed in the
9 first page or two of that document with
10 respect to laying out various schemes for
11 toxicity tests?

12 A Yes.

13 Q Okay. And that was back in the
14 mid fifties, correct?

15 A Right.

16 Q And, for example, that was a cost
17 effort or cost analysis, correct?

18 A Well, I don't know what you mean by
19 "cost analysis." It was the pricing of it.

20 Q Okay. For example, the LD50's cost
21 \$50 to \$75, didn't they?

22 A Back then, yes, in England.

23 Q Okay. Were they comparable costs in
24 the United States?

25 A We were higher because we did the

1 four tests and well, we got yes, we were
2 somewhat higher.

3 Q Why were the English prices quoted?

4 A Why were they what?

5 Q The English prices as opposed to the
6 American prices quoted?

7 A I haven't the slightest idea.

8 MS. RUTTER: For the record, before
9 handing the document to the witness, Counsel
10 detached it from something that appeared to be
11 a cover memo. I do not know if it was, in
12 fact, a cover memo or it was a separate
13 document.

14 MR. RACE: Counsel, for the record,
15 this document was attached as part of the
16 documents that you produced in the shuffled
17 fashion. It was attached to a document that
18 was totally irrelevant to this document. I am
19 assuming that the cover letter to this
20 document is somewhere in that 130,000
21 documents and I am also quite positive it's
22 been shuffled in a way that I can't find it
23 and perhaps you can. I detached it from a
24 document that was totally irrelevant and if
25 you wish, I will attach both of them to this

1 record and bring it to the Court's attention
2 if that becomes an issue, okay?

3 MS. RUTTER: Have you finished your
4 speech, Counsel?

5 MR. RACE: Yes. Yes, I have.

6 MS. RUTTER: Counsel for Monsanto
7 disputes the numerous characterizations made
8 by Counsel for the plaintiff,
9 characterizations and accusations; however, in
10 order to avoid unnecessarily prolonging this
11 deposition with speeches of counsel, I will
12 just note my general statement.

13 Q Okay. How do you know that the
14 toxicity costs are quoted based on the U.K.
15 market as opposed to the U.S. market?

16 A How do I know? Well, I know what
17 the what the cost in the United States was
18 and they gave me the figure for Europe.

19 Q So this starts off with toxicity
20 costs?

21 A Yes, sir.

22 Q And the first statement is:
23 "Dr. Kelly first outlined the various schemes
24 of toxicity tests that MCC arranged to have
25 conducted on their products," and then under

1 that it says: "Minimum LD50 test cost \$50 to
2 \$75"?

3 A Yes, sir.

4 Q Okay. So that's not you telling
5 Mr. Brown or someone else that is the cost of
6 the test?

7 MS. RUTTER: Let the record reflect
8 that Counsel has now handed the witness the
9 document.

10 A No, that's a minimum test of U.S. but
11 it says: "Dermal and ocular tests are also
12 carried out, which brings the cost up to
13 \$200," in whatever year this was and
14 inhalation is another \$75 so we are getting up
15 to \$300 or \$400. Now, I thought they
16 mentioned someplace in here the cost to MCC
17 MCL.

18 Q Is MCL

19 A That's Monsanto Chemical, Limited.
20 That's Europe.

21 Q "MCC" denotes America, correct?

22 A Correct.

23 Q And at the bottom of the paragraph
24 here it was estimated that it would cost MCC
25 \$200,000 a year to carry out their own

1 toxicity investigation. So that's the
2 estimated cost for Monsanto in the United
3 States; is that correct?

4 A Correct.

5 Q And that would be an estimate that
6 you would have provided to the corporation in
7 making determinations as to whether an
8 in house toxicity at the lab would be set up,
9 correct?

10 A Correct.

11 Q And you were head of the department,
12 correct?

13 A Yes, sir.

14 Q And you had been appointed head of
15 that department in the forties, correct?

16 A Yes, sir.

17 Q Since 1946, was it?

18 A Yes, sir.

19 Q Okay. And you had eight physicians
20 or personnel in the medical department; is
21 that correct?

22 A Right.

23 MS. RUTTER: Off the record.

24 (Discussion off the record)

25 Q And the medical department was given

1 a budget; is that correct?

2 A Yes, sir.

3 Q And you were to work within that

4 budget, correct?

5 A Well, it depends. If a problem came

6 up that was going to be expensive and it was

7 urgent, it was done and the cost was approved

8 by the sponsoring division.

9 Q Okay. Did you attempt to try to work
10 within your given budget?

11 A Yes, sir.

12 Q Okay. And Monsanto was, after all, a

13 corporation that was in the business to make

14 money; is that correct?

15 A Yes, sir.

16 Q And you make money by selling

17 products and by holding costs down; is that

18 correct?

19 MS. RUTTER: Objection to the
20 overbroad and vague form of the question.

21 Q Subject to the objection, can you
22 answer that one?

23 A There are other ways of making
24 money. You gave two: Holding costs down and
25 what was the other one?

1 Q And selling the product.

2 A Selling at a profit? Well, sure.

3 Q Okay. So you sell at a profit?

4 MS. RUTTER: Well, he had not
5 finished, Counsel.

6 MR. RACE: I don't mean to cut you
7 off and if I did cut you off, tell me.

8 A I will tell you or my counsel will
9 tell you.

10 No, there are probably other reasons
11 for making money, other avenues of making
12 money but that's outside my field.

13 Q Okay. But you do recognize that the
14 two ways that a corporation makes money is by
15 obtaining a profit on its product and holding
16 its cost down; is that correct?

17 MS. RUTTER: Objection,
18 mischaracterizes prior testimony.

19 MR. RACE: Nothing difficult about
20 that one.

21 Q Is it correct?

22 A Those are two very important factors.

23 Q Okay. And part of your
24 responsibility as the head of a department was
25 to attempt to hold down costs; is that

1 correct?

2 A Well, yes. You don't want to waste
3 money.

4 Q Okay. Now, is it not also true that
5 in 1954, Monsanto had done two year chronic
6 studies to rats in testing some of its
7 chemicals?

8 A It may have. I don't know when we
9 had agricultural chemicals tested for a two
10 year study. We did not have any testing on
11 purely two year testing on purely
12 industrial chemicals.

13 Q But the concept of two year chronic
14 studies were known to the medical department
15 in 1954; is that correct?

16 A Yes.

17 Q Okay. And as a matter of fact, you
18 even quote in here a price for two year
19 studies being in the range of \$30,000. Do you
20 recall that?

21 A It was cheap at that time.

22 Q Gotten a little more expensive,
23 hasn't it?

24 A About ten times.

25 Q Especially if you have to have your

1 own conclusions written.

2 MR. RACE: You can strike that.

3 MS. RUTTER: Please do.

4 MR. RACE: No, leave it on there.

5 No, strike it.

6 MS. RUTTER: You can strike it,

7 Missouri style.

8 Q And in 1954, you were of the opinion
9 that it was not economically sound judgment to
10 establish an in house toxicity lab at a cost
11 of \$200,000?

12 A That was a yearly cost.

13 Q Yes.

14 A Yes.

15 Q What was your yearly expenditure for
16 testing in this year?

17 MS. RUTTER: What year are you
18 referring to, Counsel?

19 Q 1954.

20 A I don't remember.

21 Q Can you give me a ballpark?

22 A I would just be guessing. I
23 couldn't.

24 Q It didn't exceed 200,000, correct?

25 MS. RUTTER: Objection, asked and

1 answered.

2 A I really don't know. I don't know
3 what our cost was but you are only picking one
4 item out of there. We did not believe we had
5 enough compounds to be tested that we could
6 fully utilize a laboratory of our own and that
7 was as a part of the cost of the laboratory.

8 Q Who was W. R. Richard?

9 A He was research and development in
10 St. Louis.

11 Q Is he someone that you had contact
12 with during your professional employment at
13 Monsanto?

14 A Yes.

15 Q Okay. You had testified that the
16 long term safe exposure level was established
17 in the fifties, particularly, I believe, 1956
18 as a result of the Treon study; is that
19 correct?

20 A Right.

21 Q And these exposure levels, long term
22 exposure levels, remained in effect until your
23 retirement, correct?

24 A Correct.

25 Q Was there any need to recheck those?

1 Were the tests conducted with Treon
2 sufficiently comprehensive?

3 A Yes, they were. Yes.

4 Q Yes, the tests by Treon were
5 sufficiently comprehensive?

6 A That's correct.

7 Q So there was no need to retest the
8 safe long term exposure levels?

9 A That's correct.

10 Q Okay. In establishing the long term
11 exposure levels, that was within your realm of
12 responsibility, the medical department,
13 correct?

14 MS. RUTTER: Objection, asked and
15 answered.

16 A Well, you generally use the
17 experiment or who is more knowledgeable about
18 toxicology or more knowledgeable about levels
19 than I was.

20 Q So that was done out house, correct?

21 A Beg pardon?

22 Q That was done outside Monsanto.

23 A That's right.

24 Q So Monsanto had to use someone
25 outside of its facility to determine what the

1 safe level of chemicals Monsanto produced was;
2 is that correct?

3 A No, it isn't correct because we ran
4 testing on PCB's to find out whether
5 particular working conditions would be safe or
6 not and our particular working condition was
7 that we would have volatilization of the
8 material either by hitting heated objects or
9 extrusion, which was a hot apparatus, a hot
10 procedure, so we then would talk to the
11 experimenter, Treon in this case, and say we
12 want a safe level and we want a level where we
13 would get some pathology, that we would come
14 out with a safe working level.

15 Q Okay. But the actual work on the
16 animals and the pathology was done by a firm
17 outside of Monsanto, correct?

18 A That's correct.

19 Q And that's because Monsanto didn't
20 want to spend the \$200,000 for a lab?

21 A No, that was not the reason.

22 Q Okay. As medical director, you never
23 developed a list of employees who had been
24 involved in the manufacture of PCB's; is that
25 correct?

1 MS. RUTTER: At Monsanto?

2 Q At Monsanto.

3 A Whoever no.

4 Q No. You never requested that the
5 personnel department specifically segregate
6 PCB workers in order for you to conduct any
7 epidemiological tests; is that correct?

8 A In a union plant, you could not
9 segregate workers to any one particular
10 department.

11 Q You never asked the personnel
12 department or any other entity at Monsanto to
13 segregate the records of workers in order to
14 establish which ones worked with PCB's?

15 MS. RUTTER: You are asking what
16 Dr. Kelly did before he retired in 1974?

17 MR. RACE: You got it.

18 MS. RUTTER: Good.

19 A No, sir, I did not.

20 Q Okay. Was that request made of the
21 personnel department and that tack taken at
22 any time during your tenure as medical
23 director?

24 MS. RUTTER: Objection to the
25 confusing and vague form of the question.

1 Q Understand it?

2 A No, I don't.

3 Q Let me repeat it. Did anyone else
4 attempt to segregate the employment records at
5 Monsanto or suggest that the employment
6 records be so categorized so as to allow
7 Monsanto to conduct studies as to the medical
8 condition of PCB workers?

9 MS. RUTTER: On or before November
10 '74?

11 Q At any time that you know of while
12 working at Monsanto as medical director?

13 A As any time what?

14 Q While you were working as medical
15 director?

16 A No, sir, with the one exception that
17 our physicians who were carrying out
18 examinations in our PCB manufacturing plants
19 knew the workers when they came in for their
20 periodic examination, knew they were working
21 in PCB's.

22 Q How did they know they were working
23 in PCB's?

24 A They would ask them, "Where are you
25 working?"

1 Q Was there any official list taken of
2 that?

3 A No, sir.

4 Q Okay. That was something that could
5 have been done if you had instructed it to
6 have been done; is that correct?

7 A Yes, it could be. In the absence of
8 any illness, it didn't seem like it was that
9 important.

10 Q And at no time up until November of
11 '74 did you consider that necessary?

12 A No, sir, I did not consider it
13 necessary.

14 Q Okay. It appears that you previously
15 testified that Monsanto did, in fact, conduct
16 two year chronic studies with IBT in the late
17 sixties, correct?

18 A Yes, sir.

19 Q And is it not true that the toxicity
20 of PCB's in those chronic studies was greater
21 than anticipated?

22 A Well, that might have been a
23 supposition, yes.

24 Q Do you know the chemicals that were
25 provided to Westinghouse?

1 A No, sir.

2 MS. RUTTER: Counsel, he is not
3 designated in that area.

4 Q Would you agree with me that PCB's
5 are as toxic as DDT?

6 MS. RUTTER: Objection, repetitious.

7 A I don't think they are and I don't
8 think either one is particularly toxic. They
9 are environmentally dangerous but as far as
10 toxicity is concerned, they are both of a mild
11 to moderate toxicity as far as a worker is
12 concerned. DDT is obviously more toxic to
13 insects.

14 Q So you don't think that either DDT or
15 PCB's are very toxic; is that your testimony?

16 A Is very toxic?

17 Q Yes.

18 A No, I don't think so.

19 Q Would you agree with me that furans
20 are as much as 10,000 times more toxic than
21 PCB's?

22 A I don't know about 10,000 but they
23 are certainly 1,000 times as toxic.

24 Q Who was E. P. Wheeler?

25 A He was in the medical department, he

1 was in charge of industrial hygiene and he was
2 in charge of administration in the medical
3 department.

4 Q Okay. Would you classify the
5 toxicity of PCB's to humans to be unknown or
6 only partially known?

7 A Would I

8 Q Classify the toxicity of PCB's to
9 humans as being either unknown or only
10 partially known?

11 MS. RUTTER: Objection to the vague
12 and confusing form of the question as to at
13 what time period are you inquiring?

14 Q June 4th, 1969.

15 A I would think you would have to
16 differentiate between the inherent toxicity of
17 the material that's certainly known because
18 we have two year testing, we have acute
19 testing, we have testing as far as inhalation
20 is concerned, both acute and chronic, but then
21 you have to consider the exposure of the
22 worker and it certainly has not been toxic as
23 far as the exposure to the worker is
24 concerned.

25 Q So you would disagree and say that

1 the toxicity of PCB's to humans was known in
2 1969?

3 MS. RUTTER: Well, disagree with
4 what, Counsel? You are referring to a
5 document.

6 MR. RACE: With this statement.

7 MS. RUTTER: You are referring to one
8 statement off of a two page document that you
9 are not sharing with the witness. If you are
10 asking him to agree or disagree with a
11 statement, that statement needs to be put in
12 the context of the document that you are
13 referring to but not showing to him.

14 MR. RACE: No, it doesn't.

15 MS. RUTTER: Yes, it does.

16 Q As a statement, Doctor, would you
17 agree or disagree?

18 A With what?

19 Q With the statement that the toxicity
20 of PCB's to human beings is unknown or only
21 partially known?

22 A Is unknown?

23 Q Unknown.

24 MS. RUTTER: Let me get an objection
25 in for the record. I strenuously object to

1 Counsel picking one sentence out of a two page
2 document which he has declined to show to the
3 witness and asking the witness whether he
4 agrees or disagrees with the statement without
5 allowing the witness to know the context of
6 the statement. I am going to state my
7 objection for the record. I think it is a
8 very well founded objection. And in an
9 attempt to move this along, I'm going to
10 permit Dr. Kelly to answer the question, if he
11 can, as phrased.

12 A Well, I don't know if the author of
13 that particular memorandum wait a minute.
14 Wait a minute if the author of that, what
15 he says is unknown, does he mean by that it's
16 never happened so they don't know anything
17 about it?

18 Q Dr. Kelly, I'm going to state a
19 statement. I'm going to give you a statement
20 and will you tell me, please, if you agree or
21 disagree? Okay?

22 A Well, I can't tell you whether I
23 agree or disagree because I don't know what he
24 is referring to.

25 Q It is not "he," it is me. I'm giving

1 you a statement, okay?

2 A What is your statement?

3 Q Okay.

4 MS. RUTTER: No, Counsel, you are not
5 giving him a statement. You are trying to
6 unfairly get the witness to agree or disagree
7 with a statement that you are reading out of
8 the middle of a two page document that you are
9 refusing to show him.

10 MR. RACE: Can you read it
11 upside down?

12 MS. RUTTER: You are giggling again,
13 Joe. I know you think these matters are
14 amusing. If you are asking him to agree or
15 disagree with a statement in the middle of a
16 two page document, then do the witness the
17 courtesy of giving him the document.

18 MR. RACE: Finished? Okay. That's
19 your objection.

20 Q My statement, Dr. Kelly, do you agree
21 or disagree that the toxicity of PCB's to
22 humans either unknown or only partially known?

23 MS. RUTTER: I object to the
24 question. Counsel is reading the statement
25 from a document he has repeatedly refused to

1 identify and he hasn't put a time frame on the
2 question. As phrased, the question is
3 incomprehensible and unanswerable.

4 A I can't answer it because I don't
5 know what he refers to when he says it is
6 unknown.

7 Q We are not talking about "he." This
8 is my statement, Doctor. This is just a
9 statement.

10 A You are stating

11 Q I am stating that in 1969 the
12 toxicity of PCB's is either unknown or only
13 partially known. Would you agree or
14 disagree?

15 A I think it was well known in 1969
16 '59.

17 Q So you would disagree with that
18 statement; is that correct?

19 A Yes.

20 MS. RUTTER: Counsel. Counsel, for
21 the record, that is entirely unfair.

22 MR. RACE: Counsel, that is not.

23 MS. RUTTER: That is the most unfair
24 tactic I have

25 MR. RACE: Giving me 130,000

1 documents and shuffling them is unfair and, as
2 the judge said, that's baseball.

3 MS. RUTTER: As the judge said, the
4 plaintiff sure did send broad discovery
5 requests and, gee, Monsanto responded to the
6 plaintiff's very broad discovery requests that
7 plaintiff sent on the eve of trial.

8 You have mischaracterized his
9 testimony. You told him that this was a
10 statement you were making in 1969 and now you
11 are trying to get him to agree or disagree
12 with the statement from a document you refuse
13 to show him. That's grossly unfair and
14 extremely objectionable under our practice and
15 I am going to object to the use of that
16 testimony for any purpose.

17 MR. RACE: Objection noted. Thank
18 you.

19 MS. RUTTER: How many more statements
20 are you going to pull out of the middle of
21 documents and read to him?

22 MR. RACE: Well, when you don't give
23 me the front page and don't give me the last
24 page and if I do give it to you, it takes you
25 ten minutes to read it. Maybe one or two

1 more.

2 MS. RUTTER: Amazing.

3 For the record, Counsel initially
4 advised that this would be a half hour
5 deposition and then it was changed to an
6 hour. We have now been going for
7 two and a half hours.

8 MR. RACE: Hope to be finished pretty
9 soon, Doc.

10 MS. RUTTER: If you are not finished
11 by 12:30, we will need to take a lunch break.
12 I also need to know what to do with my other
13 witnesses who are hanging around at your beck
14 and call.

15 MR. RACE: We will go to Papageorge.
16 What I think we are going to do is finish with
17 Dr. Kelly within the next half hour, take a
18 break and start with Papageorge this
19 afternoon.

20 MS. RUTTER: What am I supposed to do
21 with Dr. Kaley?

22 MR. MURRAY I will be doing Dr. Kaley.

23 MS. RUTTER: When are you starting
24 Dr. Kaley?

25 MR. MURRAY: Quarter to 2:00.

1 MS. RUTTER: Quarter to 2:00.

2 MR. RACE: Okay.

3 Q Now, produced today were the acute
4 and chronic toxicity studies that were
5 performed by or on the behalf of Monsanto and
6 I'm going to ask you some questions about
7 these acute studies, okay? You testified
8 before that Younger Laboratories conducted
9 several of these studies for Monsanto,
10 correct?

11 A Yes, sir, but you talked about
12 chronic studies.

13 Q And the only chronic study was
14 Dr. Treon prior to IBT; is that correct?

15 A That's correct.

16 Q We will agree on that. Okay. So in
17 reading this, this is the Younger Laboratories
18 toxicological investigation of MCS90. That
19 would indicate the substance which was the
20 subject of that study?

21 A That's correct.

22 Q Okay. Was

23 MR. WUNDERLICH: Does that document
24 have a

25 MR. RACE: Bates stamp number on

1 it? Yes, BEC135733 dated October 17th, 1966.

2 Q Okay. What is MCS90?

3 A I don't know. It is a functional

4 fluid and it is not an electrical grade.

5 Q It is dielectrical?

6 A It is not. It is a functional

7 fluid. The MCS series was nonelectrical use.

8 Q Nonelectrical use. Okay. But they

9 were PCB fluids?

10 A Yes, but I don't know exactly the
11 composition at this time of MCS whatever you
12 have there.

13 Q So the entire MCS line was non
14 dielectric fluid?

15 A That's correct.

16 Q Okay. Now, you testified that 50
17 acute studies were done of PCB fluids?

18 A Yes.

19 Q Before 1969?

20 A I said that was a ballpark.

21 Q A rough estimate, yes?

22 MS. RUTTER: I believe he said a
23 guess. I have reviewed his transcript but the
24 word 50 was used.

25 MR. RACE: Okay.

1 Q Is it not true that only five of
2 those tests actually concerned PCB Aroclor
3 1252?

4 A I don't know.

5 Q Would that sound about right to you?

6 A I don't know.

7 Q If I give you the five tests and you
8 take a look at them, can you tell me whether
9 or not there were any other tests conducted?

10 A I won't be able to but

11 Q Well, then I'm not going to have you
12 look at them.

13 A Well, because I don't

14 Q Doctor, I'll tell you what, I am
15 trying to avoid giving you something. You
16 both read the whole document and I'm trying to
17 get to lunch.

18 A Yes, sir. But what I am saying is I
19 don't recall I cannot recall in 1994 how
20 many other tests of PCB's we may or may not
21 have done, so if you give me five and you say,
22 "Did you do any more?" I won't be able to tell
23 you.

24 Q Okay. Let me ask you this: All the
25 tests that were conducted, reports were

1 authored in conjunction with those tests; is
2 that correct?

3 A That's correct.

4 Q Okay. So if I have a complete set of
5 acute study tests and only five of those
6 studies indicate Aroclor 1244, you would have
7 no reason to be of the opinion that more
8 Aroclor 1242 tests were conducted than those
9 that I have in my possession; is that correct?

10 A You have brought in 1244 which we

11 Q Excuse me. 1242.

12 A 1242.

13 MS. RUTTER: I object to the vague
14 and confusing form of the question.

15 MR. RACE: Of course. Now, let me
16 rephrase the question.

17 Q If I am given all of the acute
18 toxicity tests, the results, and of the
19 results that I am given, five of them are
20 involving 1242, would you have any reason to
21 believe that more than five acute toxicity
22 tests on 1242 were conducted?

23 MS. RUTTER: I object to the form of
24 the hypothetical question. Counsel is
25 hypothesizing that he has interpreted five of

1 these reports as relating to Aroclor 1242.

2 Are you saying that five reports that you
3 found say 1242 on them?

4 MR. RACE: Uh huh.

5 A Yes, I thought we did more.

6 Q You thought you did more than five?

7 A Yes, than five.

8 Q Okay. Do you know how many you
9 thought you did?

10 A Beg your pardon?

11 Q Do you know how many you thought you
12 did?

13 A No, I don't but I thought there were
14 considerably more than five.

15 Q How many isomers are there in 1242?

16 A Well, I can't answer the isomers. I
17 can tell you that there is the average is
18 42 percent chlorination. There are some with
19 less chlorination and some going up to 54.
20 There is a whole series of various
21 chlorinations. The configuration of the
22 different chlorines on the benzene rings which
23 would form the isomers I don't know.

24 Q Okay. Could you disagree or agree
25 that strike that.

1 Would you agree with me that there
2 are 70 known isomers in Aroclor 1242?

3 A I can't hear you when you are talking
4 out the window.

5 Q Oh. Would you agree that there are
6 70 known isomers in Aroclor 1242?

7 A I'm not certain of the number. I
8 don't know.

9 Q Does that sound about right to you?

10 MS. RUTTER: Counsel, on the record,
11 another witness has been designated on this
12 topic. I'm going to allow a few more a
13 very few more questions in this area but he is
14 not the witness designated on this area.

15 MR. RACE: That's fine, Counsel.
16 Thank you. And I thank you for that. I'll
17 tell you where I am going with this. I'm
18 trying to understand what number of tests were
19 conducted in the context of the chemistry of
20 the Aroclor involved so it is sort of relevant
21 and it will be if you will bear with me just a
22 few seconds. I'm not going to spend a lot of
23 time on it because I want to go eat lunch.

24 Q So you don't know whether or not the
25 number of Aroclors strike that.

1 You don't know the number of isomers
2 within Aroclor 1242?

3 A No, I do not.

4 Q Is it not true that there are a large
5 number of isomers in 1242 even though we don't
6 know the specific number but only a small
7 portion of those are actually considered
8 toxic?

9 A I don't think that toxicity data has
10 been established.

11 Q Okay. So you do not know whether
12 only a percentage of the total isomers that
13 are contained within 1242 are toxic?

14 MS. RUTTER: Objection to the
15 overbroad, vague and confusing form of the
16 question.

17 A I didn't say that. I said I did not
18 know that the toxicity of the various isomers
19 have been selectively tested or that toxicity
20 is known. The 1242, we manufactured it over
21 the years, was quite the toxicity tests on
22 the acute toxicity were pretty constant and I
23 don't know whether the isomers changed or not.

24 Q Okay. That is my question. Isn't it
25 possible, Doctor, that when you make an

1 Aroclor, that it may have any combination of
2 isomers, a set of isomers in it over which you
3 have no control?

4 MS. RUTTER: Objection, you are far
5 beyond his area right now. You are into an
6 area on which another witness has been

7 A I can't answer that.

8 MS. RUTTER: designated.

9 Q Is that something that's important to
10 know, that the toxicity of the same compound
11 may vary from batch to batch when you that
12 piece of information is important to know when
13 you are making the determination of how many
14 tests to run and the nature of the tests to
15 run to find out whether or not a substance is
16 toxic?

17 MS. RUTTER: Objection to the vague,
18 confusing and overbroad form of the question.

19 A I don't think it is important because
20 we ran enough to assure ourselves that our
21 material at various years of production was
22 quite close in the toxicity evaluation.

23 Q You ran five 1242 tests; is that
24 correct?

25 A I don't know if that's all that there

1 were. As I said, it surprised me that there
2 were only five.

3 MS. RUTTER: Let the record reflect
4 that it is Counsel's characterization that
5 there are only five, plaintiff's Counsel's
6 characterization.

7 MR. RACE: Off the record.

8 (Discussion off the record)

9 Q I want to make sure, Dr. Kelly, that
10 we have covered all the areas. You never
11 inspected the IBT facility, did you?

12 A Yes, I did. I was

13 Q You did. And you considered it a
14 first class operation?

15 A No question about it.

16 MS. RUTTER: You did cover that topic
17 yesterday, Counsel or not yesterday but on
18 May 31st.

19 MR. RACE: Okay.

20 Q Monsanto was the only producer of
21 PCB's in the United States; is that correct?

22 A That's correct, to the best of my
23 knowledge.

24 Q And the toxicity tests conducted
25 by the only toxicity tests conducted on

1 PCB's prior to, oh, '69 were by Monsanto, as
2 the sole producer; is that correct?

3 MS. RUTTER: Well, objection,
4 mischaracterizes the prior testimony. You
5 went to great lengths to establish that
6 Monsanto hadn't done its own testing. Your
7 question had Monsanto

8 Q Testing on behalf of Monsanto.
9 Monsanto paid for them.

10 A Yes. What year did you say, prior to
11 when?

12 Q '69.

13 A '69. Well, Kimbrough did some
14 testing.

15 Q Yes, other than Kimbrough, that's
16 what I'm trying to get.

17 A The National Cancer Institute did
18 testing of 1254, prolonged testing. I don't
19 know the exact date of that.

20 MR. RACE: That's all the questions I
21 have.

22 MS. RUTTER: Mr. Wunderlich, do you
23 have anything?

24 MR. WUNDERLICH: Not at this time.

25 MS. RUTTER: I have a couple of

1 clarifications.

2 EXAMINATION

3 QUESTIONS BY MS. RUTTER:

4 Q Dr. Kelly, on May 31st when you
5 started your deposition in this case, Mr. Race
6 asked you some questions and I believe you
7 testified that under certain conditions
8 involving high temperature and oxygen, the
9 pyrolysis of PCB's containing trichlorobenzene
10 could conceivably result in the production of
11 dioxin; is that correct?

12 A Yes. With high temperature and
13 trichlorobenzene together?

14 Q Yes.

15 A There is a certain window that
16 dioxins could be formed but as far as I
17 recollect, as far as I remember, we did not
18 know that that occurred before 1974.

19 Q So you are saying that was not known
20 while you were medical director?

21 MR. RACE: Object to the leading
22 nature of the question as to form.

23 MS. RUTTER: Okay.

24 A Yes.

25 Q Was that information of which you

1 were aware while you were medical director?

2 MR. RACE: Object to the form.

3 MS. RUTTER: What's your objection as
4 to form?

5 MR. RACE: Form.

6 MS. RUTTER: No, what is your
7 objection as to form?

8 MR. RACE: Leading the witness.

9 A What information?

10 Q During the time that you were medical
11 director at Monsanto, was it known that under
12 some conditions the pyrolysis of PCB's
13 containing trichlorobenzene could conceivably
14 result in the production of dioxin?

15 A Yes was it known it was not
16 known, no.

17 Q Okay. It was not known while you
18 were at Monsanto?

19 A That's correct.

20 Q Did you know Westinghouse's medical
21 director?

22 A Yes.

23 Q What was his name?

24 A T. Lyle, L y l e, Hazlett,
25 H a z l e t t.

1 Q Did you and Dr. Hazlett speak from
2 time to time while he was medical director of
3 Westinghouse and you were medical director of
4 Monsanto?

5 A Yes. We met at conventions. I do
6 not recall any particular telephone call where
7 he talked about any specific problem but I did
8 at these meetings ask him if he was having any
9 trouble with PCB's and he said no.

10 Q Do you recognize the name Wilbur
11 Spiker?

12 A Yes, I do.

13 Q Who is Wilbur or who was Wilbur
14 Spiker?

15 A He is, is or was, a member of the
16 Westinghouse Electric industrial hygiene
17 group. He had previously been an industrial
18 hygienist for some Midwestern state and our
19 industrial hygienist had considerable
20 correspondence with him over the toxic
21 properties of the safe handling of PCB's.

22 Q And what is the name of Monsanto's
23 industrial hygienist who had this?

24 A Albert Wheeler.

25 Q And Mr. Wheeler worked for you in the

1 medical department?

2 A That's correct.

3 Q Does the name Dr. Von Ottengen mean
4 anything to you?

5 A Yes. He was a very prominent
6 toxicologist who I believe worked for the
7 government but he spent most of his
8 professional career at DuPont.

9 Q What was the name of DuPont's
10 laboratory?

11 A Haskell Laboratories.

12 Q Are you familiar with any tests that
13 Dr. Von Ottengen ran on PCB's or Inerteen?

14 A Yes. I was not familiar with it
15 while I was working with Monsanto but I have
16 seen the reports at depositions following my
17 retirement.

18 Q Do you remember approximately the
19 year of those studies?

20 MR. RACE: I'm going to object.
21 Since this witness has been instructed not to
22 answer any of my questions subsequent to 1974
23 and his retirement, I object to his now
24 testifying at the behest of defendants for
25 years for which he was not allowed to testify

1 when I questioned him.

2 Subject to the objection, go ahead
3 and answer.

4 Q Do you remember the time frame of the
5 studies?

6 A The time frame? I thought it was the
7 mid thirties.

8 Q Okay. These von Ottengen tests on
9 Inerteens were not tests that Monsanto

10 A He tested the Inerteen and he also
11 tested the trichlorobenzene separately.

12 Q All I'm trying to ask is did Monsanto
13 to your knowledge participate in or sponsor or
14 pay for those tests?

15 A No, sir no ma'am. No.

16 MS. RUTTER: Okay. That's all I
17 have.

18 MR. RACE: Fine.

19 MS. RUTTER: He will read and sign.

20

21

22

23

24

25

COMES NOW THE WITNESS, ROBERT EMMET
KELLY, M.D., and having read the foregoing
transcript of the deposition taken on the 6th
day of June, 1994, acknowledges by signature
hereto that it is a true and accurate
transcript of the testimony given on the date
hereinabove mentioned.

ROBERT EMMET KELLY, M.D.

Subscribed and sworn to me before this
__ __ __ day of __ __ __ __ __ __ __ __ __ __ , 1994.

My Commission expires: __ __ __ __ __ __ __

Notary Public

vw

Bechtold, et al. V. Monsanto, et al.

1 State of Missouri

2 SS.

3 City of St. Louis

4 I, Victoria L. Wilson, a Notary Public in
5 and for the State of Missouri, duly
6 commissioned, qualified and authorized to
7 administer oaths and to certify to
8 depositions, do hereby certify that pursuant
9 to Notice in the civil cause now pending and
10 undetermined in the Circuit Court of the City
11 of St. Louis, State of Missouri, to be used in
12 the trial of said cause in said court, I was
13 attended at the offices of Husch &
14 Eppenberger, 100 North Broadway, Suite 1300,
15 in the City of St. Louis, State of Missouri,
16 by the aforesaid witness; and by the aforesaid
17 attorneys; on the 6th day of June, 1994.

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

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

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

15 Witness my hand and notarial seal at
16 St. Louis, Missouri, this _ _ _ _ day of
17 _ _ _ _ _ , 1994.

18 My Commission expires March 14, 1997.

19 _ _ _ _ _

20 Notary Public in and for the

21 State of Missouri
22
23
24
25

1 COURT MEMO

2 CIRCUIT COURT OF THE CITY OF ST. LOUIS

3 STATE OF MISSOURI

4 JUDITH BECHTOLD, et al.,

5 vs. CAUSE NO. 922 00911

6 MONSANTO COMPANY, et al.

7
8 CERTIFICATE OF OFFICER AND

9 STATEMENT OF DEPOSITION CHARGES

10 (Rule 57.03(g)(2)(a) & Sec. 492.590 RSMO 1985)

11 DEPOSITION OF ROBERT EMMET KELLY, M.D.

12 TAKEN ON BEHALF OF THE PLAINTIFFS

13 June 6th, 1994

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1 IN WITNESS WHEREOF, I have hereunto set my
2 hand and seal on this day of
3 1994.

4 My Commission expires March 14, 1997.

5

6

7

Notary Public

Transcript Word Index

[& - accepted]

&	130,000	200	54
&	186:20 205:25	188:13	212:19
123:3 124:12,18 224:13	1300	200,000	56
226:10,24,25 227:5,13,23	123:4 124:13 224:14 227:6	188:25 193:11,24 196:20	165:10 168:19,20
0	14	218	57.03
00911	225:18 228:4	125:4	226:10
121:17 122:18 226:5	150	22	59
057303	156:23 177:2	166:20	205:16
166:20	17th	24	6
057317	209:1	127:23	6
166:21	18th	245d	121:25
1	179:22	127:22	63102
1,000	1936	245t	124:14 227:7,15,25
200:23	134:25	127:21,24 128:13,16	63105
1.20	1944	129:13,21	124:20
227:8,16	179:22	24d	69
1.5	1946	127:20,23 128:12,16	164:16 166:20 167:18
170:13 171:2 172:18	189:17	129:13,21	217:1,12,13
10	1950's	2550	6th
151:19 166:20	157:7 163:6	124:7 226:18,22	123:6 223:3 224:17 226:13
10,000	1954	25th	7
200:20,22	131:10,12 192:5,15 193:8	163:23	70
100	193:19	280	166:5 213:2,6
123:4 124:13 166:16	1955	166:6	70112
224:14 227:6,24	170:13	3	124:8 226:19,23
105	1956	3.20	70's
226:24 227:8,16	161:8 194:17	226:24	156:14
1090	1966	30,000	74
163:22 164:1	209:1	192:19	134:25 171:17,18 198:10
11	1969	300	199:11
151:19	163:24 164:22 201:14	188:15	75
1175	202:2 205:11,15 206:10	31st	185:21 188:2,14
227:24	209:19	216:18 218:4	8
12:30	1970	336.00	81.00
207:11	181:8	226:24	226:25
120	1974	37	8182
177:2	145:1 156:17 164:19	178:17	124:19
121	182:13 197:16 218:18	38	9
121:1	221:22	178:18	909
1242	1985	4	124:7 226:18,22
158:20 168:15 169:2	226:10	400	922
177:24 211:8,11,12,20,22	1987	124:19 188:15	121:17 122:18 226:5
212:1,3,15 213:2,6 214:2,5	144:25	42	a
214:13,20 215:23	1994	212:18	able
1244	121:25 123:6 210:19 223:4	492.590	210:10,22
211:6,10	223:13 224:17 225:17	226:10	absence
1252	226:13 228:3	4th	199:7
210:3	1997	201:14	absolutely
1254	225:18 228:4	5	158:2
168:16 169:3 177:22	2	5	acceptable
217:18	121:15 122:16 226:10	168:15 169:2	169:1
126	2:00	50	accepted
125:3	207:25 208:1	185:21 188:1 209:16,24	168:8,17 177:14
126.00	20	500	
227:8,16	176:5	227:14	

Kelly, R. Emmet M.D. (frmr Mons Med Dir) in BECHTOLD

[account - authored]

account 178:9 182:19	agricultural 192:9	answered 126:19 194:1 195:15	art 137:13,18
accurate 223:5	ahead 222:2	answers 225:8	article 171:5
accusations 187:9	air 154:2,6	anticipate 170:5 176:17	asked 157:13 159:19 169:6 193:25 195:14 197:11 218:6
acknowledge 173:16	airborne 129:5,9	anticipated 199:21 227:21	asking 151:11 152:17 160:25 163:4 183:21,23,25 197:15 202:10 203:3 204:14
acknowledges 223:4	al 223:22,22 226:4,6	anybody 131:4	asks 152:3
action 148:25 149:14,17	albert 220:24	anymore 179:6 181:3	aspects 182:19
actions 144:12 147:22 148:11,12	allow 143:20 198:6 213:12	anyway 173:19	associated 131:20,23
actual 134:5 196:15	allowable 168:5 170:1 171:24	apologize 126:20 134:19,20 169:5	association 131:19
acute 146:15,20 147:3 181:16 201:18,20 208:3,7 209:17 211:5,17,21 214:22	allowed 221:25	apparatus 196:9	assuming 186:19
additional 157:2 159:3,13,14,17,19	allowing 203:5	apparently 160:19	assure 215:20
address 226:15	altered 158:6	appearances 124:1	attach 186:25
addressed 185:8	alvin 164:21	appeared 186:10	attached 186:15,17
administer 224:7	amazing 207:2	appears 149:17 173:5 199:14	attempt 154:2,5 175:8 176:2 182:12 190:9 191:25 198:4 203:9
administration 201:2	america 188:21	applications 181:13	attempted 172:3
advices 149:12	american 165:6 170:3 171:20 186:6	appointed 189:14	attendance 226:25
advised 207:4	amount 177:11 182:17,23	appreciation 151:14 152:7 159:12	attended 224:13
advised 207:4	amusing 204:14	appropriate 137:4 149:14	attention 153:19 157:16 187:1
afield 130:13	analysis 185:17,19	approved 190:7	attorney 185:2 225:12
aforementioned 225:2	analytical 175:12,14	approximately 221:18	attorneys 224:17 225:14
aforesaid 126:4 224:16,16,22	animal 166:15 170:12 171:2 172:5 174:4,13,14 175:4,15,17 176:10 177:9	area 200:3 213:13,14 215:5,6	attributable 162:8
afternoon 207:19	animals 157:20 158:1,5 159:22 161:18 162:10,12,22,24 170:15 172:11,17 174:2 176:25 177:1,4,6 196:16	areas 216:10	attributed 128:12,14 161:18
age 126:2 182:24	answer 128:20 129:18 130:14 136:10 137:19 138:6 141:16 148:2 150:15,16 161:25 167:14 171:14 174:20 190:22 203:10 205:4 212:16 215:7 221:22 222:3	aroclor 210:2 211:6,8 212:1 213:2 213:6,20 214:2 215:1	august 179:22
agent 127:24		aroclor 163:23 213:25	australia 155:7,9
agree 148:16,18 165:14,22 181:7 200:4,19 202:10,17 203:20 203:23 204:6,14,20 205:13 206:11 208:16 212:24 213:1,5		aromatic 133:6,24	author 167:19 203:12,14
agreement 225:10		arranged 187:24	authored 211:1
agrees 203:4		arrive 174:22	
		arrived 172:4	

authority 175:25 176:1	beck 207:13	breathe 142:8	cases 128:4,18 131:15,18,22 144:1 146:17 181:14
authorized 224:6	beer 166:8,11	breathing 149:16	cast 176:14
available 179:18	beg 130:4 136:1 149:25 180:18 181:19 184:11 195:21 212:10	bring 187:1	categorized 198:6
avenue 124:19	behalf 123:2 208:5 217:8 226:12	brings 188:12	catholic 133:12
avenues 191:11	behest 221:24	broad 206:4,6	cause 129:25 130:20 134:3 144:18 159:21 165:23 224:9,12 226:5
average 212:17	beings 170:1 175:10 202:20	broadway 123:4 124:13 224:14 227:6 227:14,24	caused 130:10,16 131:7 132:10 134:6 136:13 224:25
avoid 126:16 142:5,6,15 143:12 143:18 144:5,10 145:23 148:7,8,13 149:1,5,7,16 187:10 210:15	belief 144:25 146:24	brought 153:19 211:10	causing 135:4
avoiding 149:8	believe 147:5 152:25 194:4,17 209:22 211:21 218:6 221:6	brown 184:7 188:5	cautioned 224:20
aware 127:17 163:11 171:1 173:25 219:1	believed 167:17	brush 127:25	caveat 158:12
b	believes 162:8	budget 190:1,4,10	century 136:15
back 134:13,22 141:19 147:25 148:5,19 150:17 157:7 163:6 165:11 180:1 185:13 185:22	benzene 134:9,11 135:3,8,12,16 212:22	bulletins 138:4,10,16,17,18,24 149:1	burn 127:4
bag 184:23	benzenes 134:16	business 180:5 190:13 227:22	certain 158:2 166:16 172:11 174:8 213:7 218:7,15
ballpark 193:21 209:20	benzol 134:8	c	certainly 171:25 176:25 200:23 201:17,22
bandied 178:5	best 216:22	call 133:13 153:23 207:14 220:6	certificate 226:8
barrett 169:7	better 137:25	calls 130:11 170:9 174:16	certify 224:7,8 225:11
baseball 206:2	beyond 215:5	cancer 182:6,10,14,17,21 217:17	chance 184:15
based 187:14	big 133:7,12,13,14,16 166:8	cancers 182:23	change 152:19
bases 174:9	billing 138:11	carcinomas 155:25 156:3,9	changed 168:23 207:5 214:23
basis 165:5,6 172:13 175:4,19,24	biphenyl 133:20	career 221:8	changes 178:13,18
batch 215:11,11	biphenyls 133:23	carefully 148:1 224:19	characterization 216:4,6
bates 154:18 161:2,9,11 166:20 180:22 183:20 208:25	bit 137:25	carol 124:11 154:22 157:10 160:19	characterizations 187:7,9
bear 213:21	bloomington 152:4,6	carried 149:21 188:12	charge 201:1,2
bec135733 209:1	bottom 188:23	carry 188:25	charges 226:9 227:20,21
bechtold 121:3,4 122:4,5 223:22 226:4	box 161:15	carrying 198:17	charles 121:13 122:14
	brain 163:12	case 126:4 128:5 144:22 164:5 171:25 196:11 218:5 224:22	chatted 156:19
	break 141:2 184:10,13 207:11,18		cheap 192:21

[check - counsel]

check 182:20	coming 161:14	configuration 212:21	control 159:22 162:10,12,22,24 215:3
chemical 127:19 134:6 147:8 188:19	comments 163:23	confined 142:9 184:19	controls 157:25 158:3
chemicals 132:20 140:8,22 171:24 192:7,9,12 196:1 199:24	commission 223:14 225:18 228:4	conformity 182:15	conventions 220:5
chemistry 213:19	commissioned 224:6	confounding 182:19	convey 143:15
chloracne 127:7,16 128:11,18 130:10 130:17,20,24,25 131:9,9,16 131:19,24 132:10 134:2,4,9 134:12,23,24 135:4 136:7 136:13,22 144:22 146:7,13 146:21,25 147:9,10 155:14 155:18	committee 138:21	confusing 129:16 167:12 173:16,17 178:16 197:25 201:12 211:14 214:15 215:18	conveyed 143:4,19
chlorinated 132:13,16,18,22 133:1,4,6 133:19,19,22,24 134:15 135:3,7,11,16 136:6,8,14 136:16,20	company 121:19 122:20 124:10 143:7 226:6	conjecture 130:12 170:10 174:17	copies 160:15 161:13
chlorination 212:18,19	comparable 185:23	conjunction 131:1 139:14 211:1	copy 180:15 226:24 227:8,16
chlorinations 212:21	compare 158:4	consider 177:13 199:11,12 201:21	corporate 130:13
chlorines 212:22	complete 211:4 225:6	considerable 220:19	corporation 121:21 122:22 189:6 190:13 191:14
chronic 165:14,17,18 192:5,13 199:16,20 201:20 208:4,12 208:13	component 130:19	considerably 129:12 212:14	correct 126:25 129:2 130:3,5 132:1 132:2,4,5 133:6,14,24 135:6,17 136:3 137:5,6 138:19 139:12 140:24 141:5,6,8,13,23 142:2,11 142:12 146:14 147:23 155:15,16 156:14,24,25 159:4 161:22 165:2,9 167:25 168:6 170:3,4,7 171:3 174:4,25 177:4,16 178:2,3 179:8 180:6,10,13 185:14,17 188:21,22 189:3 189:4,9,10,12,15,21 190:1 190:4,14,18 191:16,21 192:1,15 193:24 194:19,23 194:24 195:6,9,13,20 196:2 196:3,17,18,25 197:7 199:6 199:17 205:18 208:10,14 208:15,21 209:15 211:2,3,9 215:24 216:21,22 217:2 218:11 219:19 221:2 225:6
circuit 121:1 122:1 224:10 226:2	composition 209:11	considered 146:7,9 214:7 216:13	correctly 156:22 166:17 225:1
city 121:1 122:1 123:5 224:3,10 224:15 226:2	compound 131:6 135:12 162:9 215:10	constant 214:22	correspondence 220:20
civil 224:9	compounds 129:13 194:5	construed 157:21	cost 185:16,17,19,20 187:17 188:1,5,12,16,24 189:2 190:7 191:16 193:10,12 194:3,7
clarifications 218:1	comprehensive 195:2,5	contact 129:5 142:7,16,18 143:13 143:17,19,21,24 144:6,10 144:16,18 145:3,18,21,24 146:1,2,23 147:2 148:13 149:12,16 194:11	costs 185:23 187:14,20 190:17 190:24 191:25
clarify 173:14	conceivably 218:10 219:13	contained 167:3,9 214:13	counsel 124:1 134:17 151:3 153:14
class 216:14	concentration 168:5 170:1 171:24	containing 137:17 218:9 219:13	
classified 133:21,23	concentrations 157:21 165:16,20	contains 137:12	
classify 201:4,8	concept 192:13	contaminant 130:8 134:7 136:8,12,23	
clinical 174:7 178:9	concerned 200:10,12 201:20,24 210:2	cont'd 121:24	
close 133:18 137:19 179:19 215:22	conclusion 157:18 182:22	contents 185:7	
combination 215:1	conclusions 193:1	context 171:10 202:12 203:5 213:19	
	condition 196:6 198:8	continuation 126:10	
	conditions 135:8 196:5 218:7 219:12	continued 123:1	
	conduct 197:6 198:7 199:15	continuous 142:7 143:12,19 144:5,9,15 153:3	
	conducted 142:1 156:23 157:2 174:2 187:25 195:1 208:8 210:9 210:25 211:8,22 213:19 216:24,25		
	conference 165:7 171:20		

counsel (cont.)	d	depending	dioxin
162:1,16 168:12 170:16	d.v.m.	172:14	130:7,9 135:9 136:9 218:11
173:4 183:24 185:6 186:9	169:14	depends	219:14
186:14 187:4,6,8,11 188:8	damage	127:1 133:9 138:24 190:5	dioxins
191:5,8 193:18 200:2 202:4	170:14 171:2	deponent	130:3,5,6,16 132:7 218:16
203:1 204:4,24 205:20,20	dangerous	225:9	director
205:22 207:3 211:24	200:9	deposes	137:4,7 144:12 151:23
213:10,15 216:17 225:4,5	data	126:5	152:12 156:11 175:7
225:10,12	159:18 175:14 214:9	deposition	179:11 180:9 183:7 196:22
counsel's	date	121:24 123:1 126:11,14	197:23 198:12,15 218:20
173:6,13 216:4,5	154:21 156:18 217:19	147:5 160:11 187:11 207:5	219:1,11,21 220:2,3
couple	223:6	218:5 223:3 226:9,11	disagree
217:25	dated	depositions	148:17,18 201:25 202:3,10
course	161:8 163:23 166:20	164:14 221:16 224:8	202:17 203:21,23 204:6,15
147:4 149:14 175:23 180:5	179:22 209:1	dermal	204:21 205:14,17 206:11
211:15 227:22	dates	188:11	212:24
court	157:7 163:6	designated	disagrees
121:1 122:1 137:21 173:22	day	151:4,5,20 200:3 213:11,14	203:4
224:10,12 226:1,2	123:6 156:23 223:4,13	215:8	discovery
courtesy	224:17 225:16 228:2	designation	206:4,6
170:18 204:17	days	130:13	discussed
court's	146:20 147:6 177:2	detached	183:17,22 184:1
187:1	ddt	186:10,23	discussion
cover	200:5,12,14	determination	154:14,23 157:12 162:20
186:11,12,19 216:16	death	215:13	164:8 173:8 189:24 216:8
coverall	165:23	determinations	discussions
144:3	deaths	189:7	152:11,15,21 153:10
covered	158:2 161:17 166:13	determine	183:18
141:4 216:10	deceased	128:22 129:3 195:25	disease
credit	121:6,9,12 122:7,10,13	determined	161:19,21,22 162:4 163:1
143:7	declined	131:6 134:3,6,7 135:2	diseases
critique	203:2	174:2	162:25 163:2 183:9
157:18	defendant	determining	disputes
cubic	124:10,16	128:11	187:7
168:14,15 169:1,2 170:14	defendants	develop	disseminated
171:3 172:18	121:23 122:24 221:24	147:10	137:9
current	defined	developed	disseminating
173:12	137:13	146:19 147:8 196:23	138:4
custody	definitively	development	distinguish
226:16	128:22	139:1 169:13,17 175:5	155:17
customer	delivery	194:9	division
135:20,21 138:10 139:16	227:1,9,17,19	die	190:8
142:1,17,22 143:4,5,6,7,15	demonstrated	176:14 177:6	doc
143:20,23 144:1,4 148:9,11	158:21	died	207:9
customers	denotes	177:4	doctor
137:9 138:7 140:11 145:11	188:21	dielectric	129:20 142:13 157:1
147:18,21 148:5,6 149:4,13	department	131:21 209:14	158:23 159:2,12 170:12
150:7 151:1 153:17,23	128:16,16 129:1,7 138:5,6	dielectrical	171:7 173:25 178:12 182:5
154:3 181:10,15,18,21	138:9,13,16 140:16,18	209:5	183:16 184:15 185:7
customer's	150:4,6 151:8 152:1,3	different	202:16 205:8 210:14
149:20	153:20,23 154:1 169:11	152:18 169:23 176:12	214:25
cut	189:11,15,20,25 191:24	212:22	document
161:25 177:17 191:6,7	192:14 195:12 197:5,10,12	differentiate	154:15,19 155:4,13 157:9
	197:21 200:25 201:3 221:1	201:16	157:11 158:13,24 159:6
	departments	difficult	160:18 162:16 163:6,8,10
	128:17 129:11 138:12	191:19	163:19,21,24 164:11,18

document (cont.) 166:22 167:3,9,20 170:17 170:19 179:21 180:1,4,17 183:17,23 184:3,21 185:1,5 185:9 186:9,13,15,17,18,20 186:24 188:9 202:5,8,12 203:2 204:8,16,17,25 206:12 208:23 210:16	effects 144:19 181:8,20 effort 185:17 efforts 171:23 174:24 eight 158:20 189:19 either 162:5 169:12 181:9 196:8 200:8,14 201:9 204:22 205:12 225:12 electric 121:20 122:21 124:16 220:16 electrical 146:18 154:17 176:18 209:4 elevated 142:8 144:11 147:7 176:16 elizabeth 121:4 122:5 emmet 121:24 123:1 126:1 223:1 223:11 226:11 employ 164:18 employee 148:13 182:17 employees 141:11 146:5 153:16 181:9 181:10,17 196:23 employment 194:12 198:4,5 england 169:9,19 170:7 185:22 english 170:2 186:3,5 ensure 137:8 138:17 141:11 151:1 154:6 176:3 entire 154:10 157:9 184:21 209:13 entirely 152:18 205:21 entitled 154:16 163:22 entity 197:12 environment 177:15 environmentally 200:9 epa 144:20 171:18	epidemiological 197:7 epiglottitis 146:20 episode 131:5 146:20 episodes 146:16 147:4 eppenberger 123:4 124:12 224:14 227:5 especially 192:25 essence 159:23 establish 167:18 171:13,23 174:1,15 174:24 175:5,6,8,15,18,20 175:25 176:2 182:13 193:10 197:14 217:5 established 164:23 165:2,4,8 168:7,22 171:19 174:12 175:11 176:8 194:16 214:10 establishing 171:8,16 178:7 195:10 estimate 189:5 209:21 estimated 188:24 189:2 et 223:22,22 226:4,6 europe 169:10,15 187:18 188:20 evaluation 215:22 eve 206:7 event 143:16 149:10 exact 217:19 exactly 133:15 209:10 examination 125:3,4 126:7 146:4 198:20 218:2 examinations 198:18 examined 224:19 example 127:7 185:16,20 exceed 193:24 exception 144:22 146:15 147:3	exception (cont.) 175:16 198:16 excess 182:23,25 183:1 excuse 162:2 211:11 exhibit 163:22 exhibits 125:6 expect 182:24 expenditure 193:15 expensive 190:6 192:22 experience 176:6 178:9 experiment 195:17 experimentation 172:6 experimenter 196:11 experiments 157:19 expires 223:14 225:18 228:4 explain 143:22 172:7,9 176:23 explained 143:3 146:16 exposed 128:23 146:1 147:23 149:3 149:4,11,19 161:18 162:13 163:2 176:13 exposure 147:12 149:7,9,10 158:16 158:17,19 171:10 176:15 176:16,20 178:13 194:16 194:21,22 195:8,11 201:21 201:23 exposures 157:20 164:23 165:16,19 176:17 181:16 expressed 159:18 extended 146:2 extensive 135:23 extent 135:25 136:2 extra 173:20
documents 160:14,19,25 165:12 186:16,21 206:1,21 doing 159:23 170:17 207:22 dozen 128:21,21 dr 126:9,22 152:6,12 155:24 156:16,19,24 157:1,6 159:2 159:13 160:11,12 162:18 163:4,11 169:7 181:7 187:23 197:16 203:10,18 204:20 207:17,21,22,24 208:14 216:9 218:4 220:1 221:3,13 draft 137:4 138:15 drafted 139:4 draw 157:16 dropped 159:9 dropping 176:13 drops 159:10 due 162:4 181:16 duly 126:2 224:5,19 dupont 221:8 dupont's 221:9	e		
early 156:14 178:14 easily 164:4 eat 213:23 economically 193:9 effect 194:22			

[extremely - handing]

extremely 206:14	find (cont.) 186:22 196:4 215:15	founded 203:8	going (cont.) 180:23 181:3 184:18,25
extrusion 176:14,14 196:9	findings 174:7	four 146:17 166:4,18 179:17 186:1	190:6 203:6,9,18,19 206:15 206:20 207:6,16 208:6 210:11 212:19 213:12,17 213:22 221:20
f	fine 126:13 143:2 152:20 154:11 213:15 222:18	frame 205:1 222:4,6	golden 142:10 147:13
facilities 126:24 152:23 153:12 154:3 155:6,8	fingersh 124:18 227:13	front 206:23	good 197:18
facility 145:17 151:14 195:25 216:11	finish 207:16	full 225:6	goodman 121:11,13 122:12,14
fact 128:15 143:24 149:9 158:9 186:12 192:17 199:15	finished 165:13 187:3 191:5 204:18 207:8,10	fully 194:6	gore 227:23
factor 171:9 174:14 177:25 178:7	firm 124:6 196:16 226:15,17,21	function 137:3,8 138:5 140:16 174:8	gosh 128:20
factors 191:22	first 126:2 144:14 146:14,24 164:12 166:19 181:1 185:9 187:22,23 216:14 224:19	functional 146:18 209:3,6	gotten 192:22
facts 167:9,15	five 210:1,7,21 211:5,19,21,25 212:2,6,7,14 215:23 216:2 216:5	furans 200:19	government 171:20 174:22 175:6,21 177:17 221:7
failed 148:13	fluid 176:20 209:4,7,14	furnish 157:11	governmental 174:9
fair 135:4 138:14	fluids 146:18 209:9,17	further 157:19,22 158:9 180:16 225:11	grade 209:4
familiar 131:13 171:15,17 172:2 178:19 179:16,21 221:12 221:14	fold 171:8	g	grams 166:4,6 172:18,19
family 133:5,7,8,10,12,12,13,14 133:17	following 221:16	gee 206:5	great 217:5
far 128:14 130:12 144:4 200:9 200:11 201:19,23 215:4 218:16,17	follows 126:6	general 140:23 179:1,2 187:12	greater 199:20
fashion 186:17	foregoing 223:2 224:23 225:1	generally 178:22 195:16	grossly 206:13
fast 184:22	form 129:16 135:19 137:11,17 141:15 147:24 158:10 159:5 167:12 171:12 175:19 178:16 181:12,23 190:20 197:25 201:12 211:14,23 212:23 214:15 215:18 218:22 219:2,4,5,7	generically 129:14,19	group 152:18 160:24 162:13 174:9 182:24 220:17
fatalities 157:24 158:3	formed 218:16	geographical 129:10	groups 161:18 163:2
favor 226:20 227:4,12	forth 225:2	getting 188:14	guess 209:23
feasible 144:6	forties 178:14 179:7 189:15	giggling 204:12	guessing 193:22
field 176:18,19,20 191:12	forwarded 138:19	give 135:19 143:5 149:6 163:10 166:14 172:11 175:4,24 177:11 180:21 193:21 203:19 206:22,23,24 210:7 210:21	h
fifties 127:12 132:4 165:9 185:14 194:17	found 158:18 159:23 172:17 177:3,5 178:18 182:16 212:3	given 149:12 189:25 190:10 211:17,19 223:6 225:8	half 128:21,21 159:16 177:18 207:4,7,17
figure 187:18		giving 203:25 204:5,17 205:25 210:15	hallmark 146:7
figures 172:3 175:12,13		go 184:1 207:15 213:23 222:2	hand 127:4 154:15 163:21 166:18 183:18 225:15 228:2
find 153:3 164:4 176:21 177:8		going 153:5 154:15 157:14 166:18 169:5 173:18	handed 188:8
			handing 186:9

[handled - intention]

handled 141:11 151:2	hereunto 228:1	i	infections 157:25 159:21 162:6
handling 139:17,21 140:7,22 141:8 154:17 178:10 220:21	high 177:23 182:9 218:8,12	ibt 199:16 208:14 216:11	inform 140:17 148:11
handwriting 166:25	higher 185:25 186:2	idea 166:3 167:19 186:7	information 141:10 153:18 215:12 218:25 219:9
handwritten 166:19	highlighted 157:4 162:17	identify 183:17 205:1	informed 126:25 127:8 141:3 151:8
hanging 207:13	hired 173:9	illinois 127:11	infractions 151:16
happened 203:16	hitting 196:8	illness 199:8	ingredient 127:23 130:7
happens 149:2	hold 191:25	illnesses 159:21 162:8	inhalation 144:11 145:18 146:2 147:2 156:23 177:1 188:14 201:19
happy 171:6	holding 190:17,24 191:15	immediately 142:25 143:1	inhaled 147:6
hardy 169:14	hope 207:8	important 191:22 199:9 215:9,12,19	inherent 201:16
harm 141:13 172:13 174:13	hot 176:13 196:9,9	impossible 153:4	initially 207:3
harmed 172:17	hotline 153:22	improperly 153:17	injury 146:8,11,13 155:15 158:21 174:3
harmful 181:8,20	hour 207:4,6,17	inasmuch 162:9	input 140:21
harms 172:12	hours 207:7	inaugurated 138:8	inquiring 201:13
haskell 221:11	house 189:8 193:10 195:20	incidence 182:9	insects 200:13
hazlett 219:24 220:1	huh 173:20 212:4	included 141:7	inspect 150:25
head 169:7 189:11,14 191:24	human 170:1,2 171:10 175:9 202:20	incomprehensible 205:3	inspected 150:6,9 216:11
health 144:19,23 178:20,23 179:2 179:7,20,22	humans 166:13 177:15 201:5,9 202:1 204:22	independent 163:16 171:22 174:24	inspection 151:13
hear 131:11 137:15 213:3	husband 121:7,12 122:8,13	index 125:1 182:7	inspections 151:12 152:22,25 153:12 153:13
heard 178:5	husch 123:3 124:12 224:13 227:5	indicate 208:19 211:6	institute 139:16 140:6 217:17
hearing 137:22	hydraulic 176:19	indicated 161:17	instituted 151:15
heat 147:6 181:14	hydrocarbon 133:6	individual 126:25 152:8	instructed 199:5 221:21
heated 196:8	hydrocarbons 133:24	individuals 128:23 129:6	instruction 173:13
heed 139:7	hygiene 201:1 220:16	industrial 144:24 165:7 171:21 192:12 201:1 220:16,17,19 220:23	instructions 154:16
hepatitis 147:8	hygienist 220:18,19,23	industries 154:17	intelligence 143:8
herbicides 129:23,25 130:1,2,10	hygienists 165:7 171:21	industry 167:25 180:13	intention 126:20 139:5,10
hereinabove 223:7	hypothesizing 211:25	inerteen 135:13,17 221:13 222:10	
hereto 223:5	hypothetical 211:24	inerteens 222:9	

Kelly, R. Emmet M.D. (frmr Mons Med Dir) in BECHTOLD

TOWOLDMON0013449

[intercurrent - lot]

intercurrent 157:25 159:20 162:6	jurat 226:25	know (cont.) 205:5 207:12 209:3,10 210:4,6 212:8,11,23 213:8 213:24 214:1,6,11,18,23 215:10,12,25 217:19 218:18 219:20	legal 137:12,18
interested 225:13	jury 161:22 173:19		lengths 217:5
internal 140:13	k		lesions 155:18 162:22 163:12
internally 140:11	kaley 207:21,22,24	knowledge 139:20 147:16 151:12,24 151:25 216:23 222:13	letter 186:19
interpret 133:16	keep 129:21	knowledgeable 185:2 195:17,18	level 158:16,17,18 159:24 172:12,18 174:3,12 176:21 177:3,6,16,18,20 194:16 196:1,12,12,14
interpreted 211:25	kellie 121:8 122:9	known 135:13 136:13 178:1 192:14 201:6,10,17 202:1 202:21 204:22 205:13,15 213:2,6 214:20 218:19 219:11,15,16,17	levels 167:24 175:9 177:2,8 194:21,22 195:8,11,18
interrogatories 126:6	kelly 121:24 123:2 126:1,9,22 152:6,12 156:19 157:6 159:2 162:18 163:4,11 181:7 187:23 197:16 203:10,18 204:20 207:17 216:9 218:4 223:2,11 226:11	I	lewis 124:18 227:13
interrupted 134:18	kemper 144:20	la 124:8 226:19,23	limit 168:2,3 172:14
investigation 189:1 208:18	kenneth 121:7 122:8	lab 189:8 193:10 196:20	limited 135:24 136:2 188:19
involved 196:24 213:20	kept 180:5	labeling 138:21,22	limiting 127:2
involving 157:19 211:20 218:8	kidney 170:15	labels 138:20 148:25	limits 164:23
irrelevant 186:18,24	kids 133:11	laboratories 208:8,17 221:11	line 154:10 209:13
isomers 212:15,16,23 213:2,6 214:1 214:5,12,18,23 215:2,2	kill 166:11	laboratory 194:6,7 221:10	list 130:13 151:19 179:15 196:23 199:1
issue 143:15 165:11 187:2	killer 127:24,25	large 182:15 214:4	listen 140:3 148:1
item 194:4	kilogram 166:5,6	late 199:16	liter 158:21
j	kimbrough 156:13,16 217:13,15	law 123:3 124:6 226:17,21	literature 175:23
james 160:11,12	kimbrough's 155:24 156:9	lawful 126:2	little 137:24 158:25 166:10 173:16,17 192:22
job 183:7	knew 198:19,20	laying 185:10	liver 170:15 171:2
joe 160:1 164:4 204:13	knock 172:25	lays 152:9	long 163:5 168:17 194:16,21 195:8,10
join 182:1	know 127:10 128:15 129:9 132:6 132:9,23 136:10,25 139:23 140:4 144:7 148:8 149:3,18 149:20 150:5,18,21,24 152:5,14 154:7 155:3,5,12 158:22 160:24 164:17,21 167:21 169:16,17,18,21 177:23 178:6,8 179:4,12 181:4 184:8 185:18 186:11 187:13,16,16 192:8 194:2,2 198:11,22 199:24 200:22 203:5,12,16,23 204:13	ld50 166:4 188:1	look 126:17 157:8,8 184:12,16 185:4 210:8,12
joseph 124:4,5		ld50's 185:20	looked 174:6 183:4
journal 178:22		leading 150:9 218:21 219:8	looking 146:22 160:24 171:9
jr 121:13 122:14		leaking 146:19	lost 141:17
judge 206:2,3		leave 153:4 193:4	lot 179:5 213:22
judgment 156:5 193:9		lee 121:8 122:9	
judith 121:3 122:4 226:4		left 135:1 156:12 173:11	
june 121:25 123:6 161:8 201:14 223:4 224:17 226:13			

Kelly, R. Emmet M.D. (frmr Mons Med Dir) in BECHTOLD

[louder - monsanto's]

louder 158:25	march (cont.) 228:4	mehler 164:21	mission 131:10,12,15,18 132:3
louis 121:1 122:1 123:5 124:14 124:20 194:10 224:3,11,15 225:16 226:2 227:7,15,25	marked 125:8 160:3,9 163:22 164:1	member 133:14 220:15	missouri 121:2 122:2 123:5 124:14 124:20 173:3,12 193:7 224:1,5,11,15 225:16,21 226:3 227:7,15,25
louisiana 173:4	market 187:15,15	memo 186:11,12 226:1	mixed 135:12 136:2
lower 157:20 158:16,16,19	marketing 138:5,11,16 139:3	memorandum 203:13	mixes 135:15
lunch 207:11 210:17 213:23	marking 160:1	men 128:16	moderate 200:11
lung 161:22 182:10,14,17,21	maryland 124:19	mention 126:18 157:15	money 190:14,16,24 191:11,12,14 192:3
lyle 219:24	material 148:9 149:16 158:7 162:5 178:10 196:8 201:17 215:21	mentioned 147:4 188:16 223:7	monitor 179:11,13
m	materials 180:12	metal 176:13	monitoring 146:4
m.d. 121:24 123:2 126:1 223:2 223:11 226:11	matter 185:8 192:17	meter 168:14,15 169:2,3 170:14 171:3 172:18	mons040440 154:18
ma'am 222:15	matters 204:13	methods 174:5	mons07 180:25
mac 167:25 168:4,7,17,20 169:1 169:23,25 170:6 171:8,9,13 172:14 174:1,15 175:5,20 175:25 176:3	maximum 168:4 169:25 171:23 175:9	micrograms 158:20 172:20,21	mons076181 181:1
mac's 169:18 171:16,19 174:25 175:5,6,15,18 176:7 178:7	mcc 187:24 188:16,21,24	mid 165:9 185:14 222:7	mons096370 161:12
mailing 179:14	mcl 188:17,18	middle 204:8,15 206:20	mons95218 183:20
maintained 182:6	mcs 209:7,11,13	midwestern 220:18	monsanto 121:19 122:20 124:10 126:24 130:24 131:3 132:21 134:24 135:15 138:12 139:19 140:12,23 141:3 142:1 144:13 145:3,5 145:6,7,12,15,17 146:4 147:11,14,15 149:13 150:1 150:6,24 153:16,17,22 154:5 155:3,6 156:6,8 164:19,22 166:20 168:8,18 169:9,10,15 170:6 171:22 174:24 175:8,8,22 176:3,7 180:6,10 181:9,15,17,18,21 183:19 187:6 188:19 189:2 190:12 192:5 194:13 195:22,24 196:1,17,19 197:1,2,12 198:5,7,12 199:15 206:5 208:5,9 216:20 217:1,6,7,8,9 219:11,18 220:4 221:15 222:9,12 223:22 226:6
making 189:7 190:23 191:11,11 206:10 215:13	mcs90 208:18 209:2	mild 200:10	monsanto's 145:19 151:13,14 152:7 154:1 183:12,13 220:22
males 182:24	mean 133:9,16 139:23 140:5 142:13 148:24 157:10 173:2 185:18 191:6 203:15 221:3	milligram 168:14 169:1	
man 127:3 144:7,8 149:4,18 166:6,15	means 128:10 139:11 142:16 172:25	milligrams 168:15 169:2 170:14 171:3 172:22 177:23	
management 143:6	measured 177:11	mind 132:15 156:18 224:18	
manner 141:12 149:18	medical 126:23 127:3 137:4,7 138:6 138:9,13 144:12 146:4 148:11 149:12 150:3 151:8 151:23 152:1,3,12 153:19 153:23,24 154:1 156:11 159:3 169:11 175:7 179:11 180:9 183:7 189:20,25 192:14 195:12 196:22 197:22 198:7,12,14 200:25 201:2 218:20 219:1,10,20 220:2,3 221:1	mine 159:10	
manufacture 136:11 196:24	meetings 140:15,19 141:5 220:8	minimum 188:1,10	
manufactured 127:20,21 128:7 129:4 214:20		minute 162:14 184:10,13 203:13 203:14	
manufacturing 131:1 135:17 149:22 176:6 198:18		minutes 206:25	
march 163:23 164:16 225:18		mischaracterized 206:8	
		mischaracterizes 148:15 159:6 175:2 181:24 191:18 217:4	
		misleading 150:10 153:1,7	

Kelly, R. Emmet M.D. (frmr Mons Med Dir) in BECHTOLD

[months - oxygen]

months 134:12	notary (cont.) 228:7	obtaining 191:15	okay (cont.) 212:24 214:11,24 216:19
mother 121:10 122:11	note 170:21 187:12	obviously 138:20 139:24 200:12	218:23 219:17 222:8,16
move 136:5 154:11 165:12 203:9	noted 128:11 130:25 131:9,10	occasional 128:5 144:22	old 134:13
moving 143:14	132:3 163:3 174:3 178:13	occupational 183:8	once 142:14,20,22,23 174:12
murray 124:4,6 207:22,25 226:17 226:21	notice 224:9	occur 146:21,21 165:15,18	179:14
n	november 198:9 199:10	181:20	ones 197:14
name 219:23 220:10,22 221:3,9 226:15	number 142:7 154:18 161:2 166:14	occurred 127:11 132:4 156:12	operate 177:15
names 167:2,4,5,7 169:6	183:20 208:25 213:7,18,25	162:10,11,12 181:15	operation 147:7 176:12 216:14
naphthalene 132:13,16,23 133:2,4,19 136:6,9,14	214:1,5,6	182:21 218:18	operations 146:19 148:8 150:25
naphthalenes 133:22	numbers 151:19	occurs 149:10	opinion 129:25 156:2 168:23,25
nation 182:15	numerous 187:7	october 167:18 209:1	193:8 211:7
national 217:17	o	ocular 188:11	opposed 140:11 186:5 187:15
nature 215:14 218:22	oath 126:10	officer 226:8	opposition 167:18
necessary 141:11 148:20 199:11,13	oaths 224:7	offices 123:3 224:13	oral 126:5
need 150:17 163:7 185:4 194:25 195:7 207:11,12	object 134:17 152:24 153:5 154:9	official 199:1	orange 127:24
needed 158:5,19 167:17	181:11 202:25 204:23	oh 127:9 140:13 213:5 217:1	order 151:1 174:1 176:3 187:10
needs 202:11	206:15 211:13,23 218:21	okay 126:9,20,22 128:1,10	197:6,13
nevertheless 173:19	219:2 221:20,23	129:13,24 132:1,6 135:2,24	original 226:16,24
new 124:8 226:19,23	objected 137:17	136:4 137:7,22,24 138:14	orleans 124:8 226:19,23
nina 121:10 122:11	objection 129:15,17 130:11 135:18	138:23 139:4,10,19 140:6	osha 171:18
non 131:20 209:13	137:11,14,15,16,20 141:14	140:21 141:10 142:10,15	ottengen 221:3,13 222:8
nonelectrical 181:13 209:7,8	147:24 148:14 150:8,11,13	142:21,22,24 145:2,13,22	ounces 166:7
normal 180:5 227:22	150:14 153:3,13 158:10	145:25 147:1,17 148:10	outbreak 134:1,4
north 123:4 124:13 224:14 227:6 227:14,24	159:5 167:11,13 170:9,11	150:5 153:8,16 154:8	outbreaks 127:6,16 128:2,3 131:9
notarial 225:15	171:11 174:16,19 175:1	155:12,24 156:16 158:8	outlined 187:23
notary 123:8 223:18 224:4 225:20	178:15 181:22 182:2	159:25 160:22 161:4,7	outside 184:23 191:12 195:22,25
	190:19,21 191:17 193:25	163:16 164:6,10,17,22	196:17
	195:14 197:24 200:6	165:1,4 166:2,10,18,24	overbroad 141:15 171:12 174:17
	201:11 202:24 203:7,8	168:4,20 169:14,18,25	181:23 190:20 214:15
	204:19 206:17 214:14	170:5 171:1 172:2,16,23	215:18
	215:4,17 217:3 219:3,7	173:14,24,25 174:11	oxygen 218:8
	222:2	175:17 176:9,23 177:14	
	objectionable 206:14	178:4 179:25 180:8,16	
	objections 225:5	181:2,6 182:9 183:2 184:7	
	objects 196:8	184:9 185:13,20,23 187:2	
	observe 150:25	187:13 188:4 189:19 190:9	
	observed 146:14 163:12	190:12 191:3,13,23 192:4	
		192:17 194:15 195:10	
		196:15,22 197:20 199:4,14	
		201:4 203:21 204:1,3,18	
		208:2,7,16,22 209:2,8,16	
		209:25 210:24 211:4 212:8	

[pack - producer]

p	pcb's (cont.)	picking	poydras
pack	139:22 140:23 141:8,12	194:3 203:1	124:7 226:18,22
160:19,21	142:2,11,18 146:18 147:6	picks	ppo
page	147:12,23 148:13,24	159:10	135:13,17
125:2 166:19 173:20 181:1	149:21 150:7 151:1 153:17	piece	practical
184:17,19 185:9 202:8	154:17 164:24 165:20,22	215:12	157:17
203:1 204:8,16 206:23,24	165:25 166:13 168:13	place	practice
pages	169:20 172:1 175:16,18	128:24 140:18 144:14	173:3 206:14
166:19 173:21 225:1	176:11 178:13,17 181:9	placed	pre
226:24 227:8,16	184:24 196:4,24 197:14	134:15 138:17,21	171:17
paid	198:21,23 199:20 200:4,15	plaintiff	present
217:9 227:20,21	200:21 201:5,8 202:1,20	187:8 206:4,7	171:4
papageorge	204:21 205:12 210:20	plaintiffs	presumably
150:18,20 151:5,9,20,25	216:21 217:1 218:9 219:12	121:15 122:16 123:3 124:3	174:6
152:5,15,22 153:11 207:15	220:9,21 221:13	226:12	pretty
207:18	pending	plaintiff's	184:5,22 207:8 214:22
paragraph	224:9	163:22 206:6 216:5	prevent
188:23	pentachlorophenyl	plant	148:23
pardon	132:14,19,24 136:18,19,21	127:11,17 128:8 149:20	previously
130:4 136:1 149:25 180:18	people	152:4,6 197:8	126:19 137:2 163:21
181:19 184:11 195:21	138:12,22 139:1,2,3 147:5	plants	174:23 199:14 220:17
212:10	171:13 174:22 175:6 178:6	149:5,24 150:2,4,7,19,21	price
part	percent	150:22 152:13 198:18	192:18
133:8 135:23 137:3,8 183:7	166:16 212:18	plasticizer	prices
186:15 191:23 194:7	percentage	176:18	186:3,5,6
partially	214:12	please	pricing
201:6,10 202:21 204:22	performed	135:20 140:3 141:20	185:19
205:13	208:5	147:25 157:7 163:7 193:3	prior
participate	period	203:20	148:15 164:19 168:20
222:13	135:19 146:3 201:13	point	170:13 171:19 175:2 181:8
particular	periodic	151:7 157:14,14 173:17	181:24 182:13 191:18
130:2 135:22 158:7 160:18	198:20	poisoning	208:14 217:1,4,10
182:24 196:5,6 197:9	permit	165:15,18	probably
203:13 220:6	203:10	policy	191:10
particularly	perry	145:4,19 147:12 150:25	problem
194:17 200:8	227:23	153:18 156:6	148:24 160:14 190:5 220:7
parties	person	polychlorinated	problems
225:12,14	149:3,15 226:15	133:23	126:23 127:3,10 140:1
pathological	personal	population	142:5 144:23 146:23
178:12,18	121:5,8,11 122:6,9,12	182:18	153:24 162:23 177:7
pathologist	personally	portion	181:15
156:1,5	152:13	138:2 141:21 148:3,21	procedure
pathology	personnel	157:4 162:17 214:7	173:3,12 196:10
177:13 196:13,16	141:3 189:20 197:5,11,21	position	procedures
pay	peruse	146:12 149:5 151:22 156:8	149:21 151:15,17 152:8,9
222:14	184:9	positive	175:13
pcb	pet	166:14 186:21	process
128:12 129:7 131:1,21	136:17	possession	131:2 172:3,5,8
133:5 134:25 135:23	phrased	211:9	produce
144:24 146:8 154:3 165:16	181:23 203:11 205:2	possibility	132:22,24 133:1 135:8
197:6 198:8,18 209:9,17	phyllis	129:8	136:7 170:14
210:2	121:10 122:11	possible	produced
pcb's	physically	130:18 136:9 214:25	136:22 137:1,2 160:10
127:13,18 128:7,14,24	129:11	post	186:16 196:1 208:3
129:4 130:19 131:19,23	physicians	171:18	producer
132:7,10 135:12,16 139:17	189:19 198:17		216:20 217:2

[produces - registered]

produces 132:21	purpose 126:17 167:22 176:10 180:11 206:16	race (cont.) 154:22 156:18 157:10 160:3,6,10,16,20 161:1,7 161:11,15 162:2 163:9,19 164:2,6 170:20,23 172:24 173:7,9,14,24 180:21 182:3 183:13,25 185:6 186:14 187:5 191:6,19 193:2,4 197:17 202:6,14 204:10,18 205:22,25 206:17,22 207:8 207:15 208:2,25 209:25 211:15 212:4 213:15 216:7 216:19 217:20 218:5,21 219:2,5,8 221:20 222:18	recognize (cont.) 191:13 220:10
product 138:25 139:6 168:11 191:1 191:15	purposes 157:17 175:18		recollect 143:25 218:17
production 126:23 135:23 140:16,17 141:3 215:21 218:10 219:14	pursuant 224:8		recollection 154:25 155:2 163:14,17 164:14 170:24
products 138:18 187:25 190:17	put 144:20 179:4,8 202:11 205:1		recommend 139:15 142:3 144:13 146:3 158:9 159:14,17
professional 123:7 194:12 221:8	pyrolysis 218:9 219:12		recommendation 157:22
profit 191:2,3,15	q		recommendations 139:20 147:18,21
program 139:15,16,24 140:5 141:25 142:4	qualified 224:6	ran 175:3 177:1 196:3 215:20 215:23 221:13	recommended 141:24 142:4 151:17 154:16 157:2 158:15 159:3 159:13 170:6 177:19,21
programs 139:21 140:7	quarter 207:25 208:1	range 192:19	record 138:2 141:21 148:3,21 154:13,14,22,23 157:11,12 161:5,10 162:19,20 164:7,8 170:22 173:7,8 186:8,14 187:1 188:7 189:23,24 202:25 203:7 205:21 207:3 213:10 216:3,7,8
project 137:24	question 129:16 130:15 131:22 135:19 137:12,20,21 138:8 140:2,3 141:2,15,18 143:22 145:2,16 147:11,25 148:1 148:10 149:2 150:17 153:9 158:11,23 159:1,6,8,12 163:5,10 167:12 171:12,14 173:5,11 178:16 181:12,23 182:4 190:20 197:25 201:12 203:10 204:24 205:2,2 211:14,16,24 214:16,24 215:18 216:15 217:7 218:22	rate 182:14	records 197:13 198:4,6
prolonged 157:19 217:18		rats 166:4 192:6	refer 129:22 180:9,11 184:5
prolonging 187:10		read 138:2 139:6,8,9 141:19,21 147:25 148:3,19,21 150:17 161:10 173:18 184:21 204:10 206:21,25 210:16 222:19 223:2	reference 164:4
prominent 221:5		reading 170:16 204:7,24 208:17	referred 129:14 130:1,2 167:24
proper 135:8	questioned 222:1	really 194:2	referring 161:8 193:18 202:4,7,13 203:24
properly 151:2	questioning 154:10	realm 195:11	refers 205:5
properties 220:21	questions 126:8,15,18 136:5 138:6 152:18 160:25 180:17 181:3 184:18 208:6 213:13 217:20 218:3,6 221:22 225:3,7	reason 150:21 159:14 169:22 196:21 211:7,20	reflect 188:7 216:3
proposed 138:25		reasons 191:10	reflects 161:5
propounded 126:6 225:4,7	quick 136:5	recall 136:12 156:22 157:3 164:12 168:21 169:7 184:3 184:4 185:7 192:20 210:19 210:19 220:6	refuse 206:12
proved 176:6	quite 129:20 186:21 214:21 215:22	receive 139:11	refused 204:25
provided 189:6 199:25	quote 137:18,19 192:18	received 183:19	refusing 204:9
public 123:8 178:19,22 179:2,7,19 179:22 223:18 224:4 225:20 228:7	quoted 186:3,6 187:14	recess 154:24 184:14	regarding 152:22 153:11
published 131:12 180:12	r	recheck 194:25	regardless 158:18
pull 206:20	race 124:5 125:3 126:8 134:19 141:19 148:16 151:7,12,22 152:7,14,19 153:2,8 154:11	recognize 154:19 163:24 164:10 166:21,23,24 167:2,10	registered 123:7
pulmonary 161:19,21 162:4 163:1,2			
purchasing 142:2			
purely 192:11,11			

Kelly, R. Emmet M.D. (frmr Mons Med Dir) in BECHTOLD

TOWOLDMON0013454

[regular - serious]

regular 134:23	requested (cont.) 159:3 197:4	rough 209:21	samplings 154:2
related 149:2 183:8 225:13	requests 206:5,6	routinely 138:10	sauged 127:11,17 128:8,12
relating 212:1	research 139:1 169:13,16 194:9	rsmo 226:10	saw 153:16 164:12,15
relationship 129:10 133:18	resolved 136:24	rugs 134:8	saying 129:21 142:24 157:17,23 159:23 210:18 212:2 218:19
relevance 154:10	respect 136:16,20 139:17 140:22 147:21 151:16 185:10	rule 226:10	says 126:5 162:7,21 188:1,11 203:15 205:5
relevancy 158:22	respects 225:6	rules 142:11 147:13	schemes 185:10 187:23
relevant 181:4 213:20	responded 206:5	run 175:15,17 215:14,15	scott 164:2
remained 194:22	responsibility 191:24 195:12	rutter 124:11 125:4 129:15 130:11,21,23 134:17 135:18 137:11,16 140:10 141:14 145:5 147:14,24 148:14 150:8,16 151:3,10 151:18 152:2,10,16,24 153:5 154:9,20 156:10,17 157:6 158:10,13 159:5 160:8 161:25 162:3,15 163:4 167:11 168:11 170:9 170:16,21 171:11 173:2,10 174:16 175:1 178:15 180:25 181:6,22 183:11,21 184:20 185:4 186:8 187:3,6 188:7 189:23 190:19 191:4 191:17 193:3,6,17,25 195:14 197:1,15,18,24 198:9 200:2,6 201:11 202:3 202:7,15,24 204:4,12,23 205:20,23 206:3,19 207:2 207:10,20,23 208:1 209:22 211:13,23 213:10 214:14 215:4,8,17 216:3,16 217:3 217:22,25 218:3,23 219:3,6 222:16,19	seeing 155:1
remarks 225:4	result 141:13 160:11 194:18 218:10 219:14	s	seen 164:5,13,18 221:16
remember 129:10 182:18 193:20 218:17 221:18 222:4	results 161:16 211:18,19		segregate 197:5,9,13 198:4
repeat 126:15 137:21 198:3	retest 195:7	safe 139:21 140:22 141:7 158:18 159:24 164:23 167:23 171:10 175:9,12 176:6,21 177:5,8,13,17 194:16 195:8 196:1,5,12,14 220:21	selectively 214:19
repeated 142:6,13,16,19 143:12,16 143:18,20,24 144:5,10,15 145:3,17,23 146:1,23 149:11 165:15,19 176:15 176:17	retired 164:19 182:13 197:16	safety 140:15,19 141:5 151:14,17 152:8,9 171:9 176:3 177:25 178:7	self 127:2
repeatedly 204:25	retirement 168:10 183:3 194:23 221:17,23	sake 161:21	sell 191:3
repetitious 200:6	revealed 174:13	sampling 154:6	selling 190:16 191:1,2
rephrase 211:16	review 163:8 181:4 183:23		send 138:9 206:4
reply 126:5	reviewed 179:25 209:23		sent 160:18 206:7
report 131:10,12,15 159:2 179:22	rice 124:18 227:13		sentence 157:16 203:1
reported 131:18 224:24	richard 124:17 194:8		separate 186:12
reporter 123:7 137:21 138:3 141:22 148:4,22 173:22 226:25	rid 144:4		separated 129:12
reporting 227:23	right 132:17 139:25 148:6 156:15 168:3 170:20,23 184:17 185:15 189:22 194:20 195:23 210:5 213:9 215:5		separately 222:11
reports 166:12 178:20,23 179:2,8 179:20 210:25 212:1,2 221:16	rightly 134:20		series 209:7 212:20
representative 121:6,9,11 122:7,10,12	rings 212:22		serious 127:3
request 173:10 197:20	robert 121:24 123:1 126:1 223:1 223:11 226:11		
requested 138:2 141:21 148:3,21	role 135:4		

[service - sufficient]

service 179:19,24 180:2	skin 142:7 143:9,11,13,17,19,21 143:24 144:6,15 145:18,24 146:1,2,23 147:2 149:11,16 155:18	spend 196:20 213:22	stating 205:10,11
set 153:22 189:8 211:4 215:2 225:1 228:1	slides 155:24 156:9	spent 221:7	stephen 121:4 122:5
seven 133:11	slight 127:4	spiker 220:11,14	stop 145:20,20
sharing 202:9	slightest 186:7	spoke 156:20 182:5	stopped 134:12
shorthand 224:24	small 214:6	sponsor 222:13	straight 140:25
shortly 183:2	smiles 173:22	sponsored 175:22	street 124:7 226:18,22
show 155:25 156:2 163:15 171:5 203:2 204:9 206:13	smoking 182:20	sponsoring 190:8	strenuously 202:25
showed 156:9 171:2	soaked 144:3	spoonful 142:25	stricken 173:5,13,15
shower 143:1	sold 150:7	ss 224:2	strike 132:8 142:16 146:11 147:19 155:13 156:7 168:23 172:24,25 173:1,9 173:18 193:2,5,6 212:25 213:25
showing 170:18 202:13	sole 217:2	st 121:1 122:1 123:5 124:14 124:20 194:10 224:3,11,15 225:16 226:2 227:7,15,25	studies 156:13 159:4,13,15,17,19 174:13 175:4 176:10 177:1 192:6,14,19 198:7 199:16 199:20 208:4,7,9,12 209:17 211:6 221:19 222:5
shown 170:13 224:23	somebody 175:19	stamp 154:18 161:2,10,11 166:20 180:20,22 208:25	study 156:20,23 160:7,8 161:8,17 163:13 192:10 194:18 208:13,20 211:5
shuffled 186:16,22	someplace 180:15 188:16	stamped 183:20	stuff 166:7
shuffling 206:1	somewhat 157:20 186:2	stands 168:4	style 193:7
sign 146:24 222:19	soon 207:9	start 145:6 207:18	subject 129:17 130:14 137:14,20 150:11,12,14 153:13 157:18 159:22 167:13 170:11 174:19 185:8 190:21 208:20 222:2
signature 223:4 225:9	sorry 152:20	started 218:5	subscribe 179:13
similar 141:25	sort 213:20	starting 207:23	subscribed 223:12
similarity 162:21	sound 193:9 210:5 213:9 224:18	starts 187:19	subsequent 221:22
simple 129:20 142:5	source 134:3	state 121:2 122:2 123:5 162:11 203:6,18 220:18 224:1,5,11 224:15 225:21 226:3	substance 132:7,9 136:22,23 208:19 215:15
simply 158:23 159:1	spaces 142:9	stated 158:17	substantial 146:1
sir 126:21 127:1,15 128:6,25 129:8 131:25 133:3,25 134:5 135:10,14 139:13,18 140:9 141:9 146:6 150:23 153:15,21,25 154:4,7 156:21 161:20 163:18 164:9,20 166:23 167:1,21 179:9 180:3 182:8,11 183:1 183:10 184:4 187:21 188:3 189:13,16,18 190:2,11,15 197:19 198:16 199:3,12,18 200:1 208:11 210:18 222:15	speak 158:13 159:7 163:19 220:1	statement 135:5 138:15 144:19,25 165:6 187:12,22 202:6,8,11 202:11,16,19 203:4,6,19,19 204:1,2,5,7,15,20,24 205:8 205:9,18 206:10,12 226:9	sufficient 144:17,18 165:16,19
sixties 127:12 199:17	specific 129:7 134:5 136:12 140:23 149:6 163:5 170:17 181:24 214:6 220:7	statements 149:6 167:16 173:6 206:19	
	specifically 156:17 197:5	states 162:12 169:20 170:7 185:24 187:17 189:3 216:21	
	speculation 130:12 170:10 174:17		
	speech 187:4		
	speeches 187:11		

[sufficiently - treon]

sufficiently 195:2,5	talking 140:10 145:7,10 149:8,9	tests 157:2 162:23 170:13 171:2	times (cont.) 200:20,23
suggest 172:16 198:5	161:6 178:25 183:11 205:7	174:1,1 185:11 186:1	today 137:1 208:3
suit 225:13	tamewitz 121:5,7 122:6,8	187:24 188:11 195:1,4	told 148:7,23,25 152:12 181:14
suite 123:4 124:7,13,19 224:14	taxed 226:20 227:4,12	197:7 210:2,7,9,20,25	182:6 206:9
226:18,22 227:6,24	telephone 220:6	211:1,5,8,18,22 213:18	top 169:7
summary 157:15 159:19	tell 143:8 144:1 149:15 171:6	214:21 215:14,14,23	topic 151:4,5,19 213:12 216:16
supplier 134:10,11,13,14,23	176:9 191:7,8,9 203:20,22	216:24,25 221:12 222:8,9	topics 141:4,7 151:18,21
support 175:14	temperatures 155:18	222:14	total 214:12 227:2,10,18
supposed 207:20	ten 166:7 171:8,9 174:14	thank 129:24 134:1 136:19 138:1	totally 186:18,24
supposition 199:23	177:23 178:1,8 192:24	182:4 206:17 213:16,16	toxic 200:5,8,12,15,16,20,23
sure 159:20 160:23 161:5	tenure 197:22	thereto 225:5	201:22 214:8,13 215:16
164:20 167:8 168:21	term 137:12,18 150:9 153:1	thing 127:2 139:25 155:21	220:20
177:24 180:14 183:16	194:16,21 195:8,10	165:13	toxicity 158:7 185:11 187:14,19,24
184:5 191:2 206:4 216:9	test 157:7 158:1 161:16 162:5	things 142:5 162:5 184:23	189:1,8 193:10 199:19
surface 176:13	162:22 170:15 188:1,6,10	think 133:17 136:24 143:18	200:10,11 201:5,8,16 202:1
surprised 216:1	tested 162:6 192:9 194:5 214:19	148:19 150:9 153:6 158:6	202:19 204:21 205:12
swallow 166:1	222:10,11	160:6 169:6 174:21 175:3	208:4 211:18,21 214:9,18
swallowed 166:10	testified 130:23 137:3 155:14	175:11 177:22 179:14	214:19,21,22 215:10,22
swallowing 165:22,25 166:13	174:23 194:15 199:15	180:3 182:16,16 184:18	216:24,25
swan 131:5 132:1 134:2	208:7 209:16 218:7 224:22	200:7,8,14,18 201:15 203:7	toxicological 208:18
sworn 126:2 223:12 224:20	testify 126:3 151:24,25 221:25	204:13 205:15 207:16	toxicologist 221:6
symptoms 177:12	224:20	214:9 215:19	toxicology 195:18
systemic 146:13 155:15	testimony 148:15 175:2 181:25	thirties 134:2 222:7	training 139:16,21,24 140:5,7,21
t	191:18 200:15 206:9,16	thought 135:3 136:21 145:10	141:25 142:3
tack 197:21	217:4 223:6 224:24 225:2	188:15 212:5,6,9,11,13	transcribed 224:25
tactic 205:24	testing 157:22 158:9 175:15,17	222:6	transcript 173:6,11 209:23 223:3,6
taken 121:25 123:2 126:11	192:6,10,11 193:16 196:4	thousand 142:20	224:23 225:7 226:16
147:22 148:12 197:21	201:18,19,19 217:6,8,14,18	three 146:17,20 147:6 173:21	transcripts 227:19
199:1 223:3 226:12	217:18	184:17	transfer 147:7 181:14
talk 144:8 145:12,13 152:10		threshold 168:1 172:14	transpose 166:5,15
184:23 196:10		thrust 141:17	treated 158:4
talked 167:23 208:11 220:7		time 130:22 135:19,21,22 145:1	treon 156:20,24 157:1 159:2,13
		146:3 147:9 153:6 155:14	160:7,8 161:8,17 163:13
		156:10,19 157:8 160:6	177:18,20 194:18 195:1,4
		163:7 164:16 168:10 171:4	196:11 208:14
		172:15 173:22 176:7	
		179:24 180:24 182:5 184:2	
		192:21 197:22 198:11,13	
		199:10 201:13 205:1	
		209:11 213:23 217:24	
		219:10 220:2,2 222:4,6	
		times 137:23 142:20 192:24	

Kelly, R. Emmet M.D. (frmr Mons Med Dir) in BECHTOLD

[treon's - workers]

treon's 165:5 175:21	undetermined 224:10	viewpoint 158:6	westinghouse (cont.) 153:12 199:25 220:3,16
trial 164:2 206:7 224:12	unfair 153:7 205:21,23 206:1,13	violation 144:9 147:13	westinghouse's 151:13 219:20
trichlorobenzene 218:9,13 219:13 222:11	unfairly 204:6	visited 152:5	we've 180:14
tricker 178:17	union 197:8	visits 152:3 153:11	whatsoever 155:2
tried 143:25 183:17	united 169:19 170:7 185:24 187:17 189:2 216:21	vogue 172:15	wheeler 200:24 220:24,25
trisler 121:8,10 122:9,11	unknown 201:5,9 202:20,22,23 203:15 204:22 205:6,12	voice 159:9	whereof 228:1
trouble 220:9	unnecessarily 187:10	volatilization 196:7	wife 121:3 122:4
true 131:8 135:7,11,13 157:1 161:16,24 163:1 170:12 171:7 174:11 178:12 192:4 199:19 210:1 214:4 223:5 225:6	upside 204:11	volume 121:15 122:16	wilbur 220:10,13,13
truth 126:3,3,4 159:16 224:20,21 224:21	urgent 190:7	von 221:3,13 222:8	william 151:4
try 126:16 137:24 159:11 165:12 190:9	use 138:25 150:8 152:24 158:15 169:19 171:8 172:13 175:12 177:25 195:16,24 206:15 209:7,8	vs 121:17 122:18 226:5	wilson 123:7 224:4
trying 204:5 206:11 210:15,16 213:18 217:16 222:12	users 137:10,13,19 139:5	vw 223:20	window 213:4 218:15
turn 136:14	uses 146:18	w	
twice 142:18	usually 138:4	wait 162:14 203:13,14	wipe 144:2
type 149:17	utilize 169:22 194:6	waived 225:9	wish 186:25
types 140:6	utilized 174:14	want 126:15 129:21 140:25 151:7 152:14 160:23 172:16 173:4 192:2 196:12 196:12,20 213:23 216:9	wit 126:6
typewriting 224:25	v		withdraw 163:9 182:3
u		wanted 158:1 159:20 173:15	witness 145:14 151:3,21,23 154:25 170:18 181:5 186:9 188:8 202:9 203:3,3,5 204:6,16 213:11,14 215:6 219:8 221:21 223:1 224:16,18 225:3,8,15 228:1
u.k. 187:14	vague 135:18 141:15 167:11 171:12 174:18 178:15 190:20 197:25 201:11 211:13 214:15 215:17	warning 138:15 139:4,6,11 146:24	witnesses 207:13
u.s. 144:20 187:15 188:10	validate 159:18	warnings 137:2,5,9 138:19 139:14 143:14 144:10	word 152:25 153:4,6 209:24
uh 212:4	value 168:2	wash 144:3	words 133:5 142:15 146:9 158:8
ultimately 139:2	vapors 144:11	waste 192:2	work 128:24 158:5 165:5 175:21 178:17 190:3,9 196:15
unanswerable 205:3	various 162:25 176:25 185:10 187:23 212:20 214:18 215:21	ways 190:23 191:14	worked 197:14 220:25 221:6
undefined 137:18	vary 215:11	weed 127:24	worker 143:5 145:23,25 146:16 149:11 200:11 201:22,23
understand 126:12 160:13 198:1 213:18	victoria 123:6 224:4	week 126:11 137:23 183:22 184:1	workers 134:25 144:24 145:5,8 146:17 147:23 174:7 176:4 176:7 178:10 183:12,14 197:6,9,13 198:8,19
		went 134:10,13,22 138:11 150:18,20,21 217:5	
		westinghouse 121:20 122:21 124:16 151:15,16 152:11,23	

[working - younger]

working
128:17 129:6 175:13 196:5
196:6,14 198:12,14,20,22
198:25 221:15
write
173:1
writer
167:17
written
193:1
wrong
164:15
wunderlich
124:17 160:1,5,13,17,22
161:4,9,13 162:19 163:25
164:3,7 173:21 180:19
181:11 182:1,25 208:23
217:22,24
y
yeah
166:9 173:24
year
188:13,25 192:5,10,11,13
192:18 193:16,17 199:16
201:18 217:10 221:19
yearly
193:12,15
years
176:5 178:11 179:17
214:21 215:21 221:25
yesterday
216:17,17
younger
208:8,17