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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

NEVADA POWER COMPANY,)
)
Plaintiff,)
)
-vs-) # CV-S-89-555-LDG (LRL)
)
)
MONSANTO COMPANY, et al.,)
)
Defendants.)

DISCOVERY DEPOSITION OF WITNESS, to be used in an
action pending in the District Court of the United States,
for the District of Nevada, wherein NEVADA POWER COMPANY is
Plaintiff, and MONSANTO COMPANY, et al., are the
Defendants, pursuant to Notice, under the provisions of
Rule 26 of the Rules of Civil Procedure, taken on April 1,
1993, at the law offices of Messrs. Husch & Eppenberger,
100 N. Broadway, St. Louis, Missouri, before Mark D.
Concannon, a Notary Public within and for the State of
Missouri.

A P P E A R A N C E S

The Plaintiff was represented by Attorney Ralph A.
Bradley of the law firm of Jones, Jones, Close & Brown,
Chartered, 700 Bank of America Plaza, 300 South Fourth
Street, Ste. 700, Las Vegas, Nevada 89101, and Richard
Hinckley, Vice-President/General Counsel, Nevada Power.

The Defendant, Monsanto, was represented by Attorney
Bruce A. Featherstone of the law firm of Kirkland & Ellis,
1999 Broadway, Ste. 4000, Denver, Colorado 70202.



A P P E A R A N C E S (:continuing)

The Defendant, Westinghouse, was represented by
Attorney Laurie Basch of the law firm of Weil, Gotshal &
Manges, 767 Fifth Avenue, New York, New York 10153.

Also present: Liz Gini, paralegal.

1 DAVID WOOD,
2 of lawful age, being first duly sworn to tell the truth,
3 the whole truth, and nothing but the truth, deposes and
4 says on behalf of the Plaintiff, as follows:

5 DIRECT EXAMINATION

6 QUESTIONS BY MR. BRADLEY:

7 Q. Would you please state your name and spell
8 your last for the record.

9 A. My name is David Wood, W-o-o-d.

10 Q. Mr. Wood, my name is Ralph Bradley. We intro-
11 duced ourselves to one another just a few moments ago; is
12 that true?

13 A. Yes.

14 Q. And you understand that I represent Nevada
15 Power Company in this lawsuit they brought against
16 Monsanto, General Electric, and Westinghouse; is that
17 correct?

18 A. Yes.

19 Q. If during the course of the deposition I ask a
20 question that you don't understand, will you tell me?

21 A. Yes.

22 Q. And if at any point during the deposition you
23 want to take a break for whatever reason, just let us know
24 and we'll accommodate you. All right?

25 A. Thank you.

1 Q. Did you review any documents in preparation
2 for today's deposition?

3 A. Yesterday I did look at one or two documents
4 that we produced containing my name that had been trans-
5 ferred to you.

6 Q. Do you recall which documents those were?

7 A. No, not in detail.

8 Q. Do you recall the date of them, roughly?

9 A. They covered part of a period between 1966 and
10 1975-'76.

11 Q. And were they -- The documents that you
12 reviewed, were those letters written by you?

13 A. Some of them were written by me and some of
14 them were received by me.

15 Q. Other than letters written to you or by you,
16 did you review any other materials in preparation for
17 today's deposition?

18 A. The package of documents contained certain
19 attachments that were attached to what had been sent to me.

20 Q. All right. Other than the letters and the
21 attachments, did you review any documents to prepare for
22 today's deposition?

23 A. I believe not.

24 Q. Okay. Have you had your deposition taken
25 before?

1 A. Yes, I have.

2 Q. When did you have your deposition taken
3 before?

4 A. My deposition was taken in 1992, and in an
5 earlier period which would probably have been in the period
6 of 1986 or '87.

7 Q. What case was it in '92 that resulted in your
8 having your deposition taken?

9 A. I don't recollect.

10 Q. Was your deposition taken here in St. Louis?

11 A. Yes, it was.

12 Q. What subject matters were covered in your
13 deposition?

14 A. My understanding of the use of Aroclor, PCB-
15 related dielectric fluids in electrical equipment.

16 Q. And can you be more specific about what the
17 subject matter of your deposition was in '92? For example,
18 what particular use of PCB-related dielectric fluids did
19 you discuss in your deposition?

20 A. I really don't recall in 1992 the particular
21 subject matter, or indeed the case in question.

22 Q. Do you remember what legal issue was involved?

23 A. In that particular case, no, I don't.

24 Q. Okay. Were you represented by an attorney in
25 1992 when you had your deposition taken?

- 1 A. Yes, I was.
- 2 Q. And who was that attorney?
- 3 A. I don't recall.
- 4 Q. Was your deposition transcribed?
- 5 A. Yes, it was.
- 6 Q. Did you sign it?
- 7 A. Yes, I did.
- 8 Q. Do you have a copy of it?
- 9 A. No, I don't.
- 10 Q. Who has a copy, do you know?
- 11 A. The -- I assume that the Monsanto counsel
- 12 would have a copy of that.
- 13 Q. Are you represented by an attorney today?
- 14 A. Yes.
- 15 Q. Mr. Featherstone?
- 16 A. Yes.
- 17 Q. What was the subject matter of the deposition
- 18 you had taken in 1986 or 1987?
- 19 A. That was a case that involved a transformer
- 20 fire in San Francisco.
- 21 Q. Going back to the 1992 deposition, do you
- 22 recall the names of any of the parties in that lawsuit?
- 23 A. My mind is a blank on the 1992 deposition.
- 24 Q. Does Stroh Die Casting sound familiar to you?
- 25 A. No.

1 Q. Do you recall the names of any attorneys that
2 were present during your 1992 deposition?

3 A. No.

4 Q. Do you know whether the case in which you gave
5 a deposition in 1992 resulted in a trial?

6 A. It didn't.

7 Q. It did not result in a trial?

8 A. Correct.

9 Q. Did it settle?

10 A. I don't know. To the best of my recollection,
11 the deposition I gave in 1992 did not involve chlorinated
12 biphenyls.

13 Q. All right. What was the nature of the deposi-
14 tion you gave in 1986-'87?

15 A. There had been, in a large building in San
16 Francisco, fume damage to the interior of the building
17 resulting from the involvement in a volt transformer in the
18 street outside the building, and the damage to the interior
19 of the building had resulted in renovation of the interior
20 of the building. The insurance company who had processed
21 the claim for the damage to the interior of the building
22 was seeking to recover certain of their damage from
23 Monsanto and others.

24 Q. And did you testify in that deposition about
25 the work you had done at Monsanto related to chlorinated

1 biphenyls?

2 A. Yes, I did.

3 Q. I now would like you to give me a summary of
4 your educational history beginning with your first college
5 attendance.

6 A. I attended Trinity College Cambridge, in
7 England, and I have a degree in the Natural Sciences, and
8 part two of the Law Tripos.

9 Q. Okay.

10 A. That gave me a Bachelor of Arts in Natural
11 Science.

12 The degree system of an expert is different in
13 England to the United States. When I left Cambridge Uni-
14 versity I joined Monsanto in Great Britain and have worked
15 with Monsanto from that time to the present.

16 Q. Does the degree you received indicate you
17 received a Bachelor's Degree?

18 A. I received a Bachelor's Degree, yes.

19 Q. All right. And in Great Britain is that the
20 equivalent of some similar degree from American universi-
21 ties?

22 A. The degree system in Cambridge University says
23 that I could, in a three-year period, which I spent at
24 Cambridge University, gain the equivalent in American terms
25 of a BSC in science, and have proceeded through a one-year

1 law course which would have exempted me from two years of
2 chambers work had I chosen to pursue the law as an active
3 legal profession.

4 Q. And you indicated that you studied Natural
5 Sciences; is that correct?

6 A. That is correct.

7 Q. And when did you attend Trinity College?

8 A. 1957 to '59.

9 Q. How old were you when you began college?

10 A. Seventeen.

11 Q. As part of your study of natural sciences, did
12 you study polychlorinated biphenyls?

13 A. No, I did not.

14 Q. You also indicated that you studied part two
15 of the Law Tripos?

16 A. That is correct.

17 Q. What is the Law Tripos?

18 A. The Law Tripos is the three-year study of law,
19 which is then followed by another two years of chamber
20 work, which would have equipped me to practice law and be
21 called to the bar in Great Britain.

22 In part two of the Law Tripos, I essentially
23 covered the theoretical study of contract law, communal
24 property, history of law. Those were the major areas of
25 study.

1 Q. When you began work with Monsanto, was that in
2 their Great Britain office?

3 A. Yes, it was.

4 Q. What year did you begin work for Monsanto?

5 A. 1959.

6 Q. What job title did you have when you began
7 work for Monsanto in 1959?

8 A. Sales trainee.

9 Q. What work did you do as a sales trainee?

10 A. I began to learn about Monsanto, Monsanto's
11 line of products, the benefits that those products could
12 bring to the British industry, and to learn how to sell
13 those products to British industrial users of the chemicals
14 that Monsanto produced.

15 Q. As a sales trainee, I take it you were receiv-
16 ing training from one person or several people?

17 A. I was receiving training from many people.

18 Q. And how long were you a sales trainee?

19 A. Approximately one year.

20 Q. During the one year you were a sales trainee,
21 did you learn that Monsanto manufactured polychlorinated
22 biphenyls?

23 A. No, I did not.

24 Q. What work -- Excuse me. What was your next
25 job title?

1 A. The next job title was salesman in the United
2 Kingdom.

3 Q. How long were you a salesman in the United
4 Kingdom for Monsanto?

5 A. Approximately two to three years.

6 Q. Who was your supervisor when you were a sales-
7 man at Monsanto?

8 A. Dennis Hope.

9 Q. H-o-p-e?

10 A. Uh-huh.

11 Q. What work did you do as a salesman for
12 Monsanto in the United Kingdom?

13 A. I was selling organic silicates, which were
14 used in the precision casting of toughened metals for
15 applications such as the rotating blades in jet aviation.

16 Q. During that two-to-three-year period when you
17 were a salesman, did you sell products containing poly-
18 chlorinated biphenyls?

19 A. No, I did not.

20 Q. What was your next job title?

21 A. I was a European-wide salesman.

22 Q. What was your job title?

23 A. Sales representative.

24 Q. And was it sales representative, period, or
25 sales representative for Europe?

1 A. I don't believe we made that distinction.

2 Q. All right. But your job responsibilities
3 involved sales throughout Europe?

4 A. At that point, yes, throughout Europe.

5 Q. And what year did you become a sales repre-
6 sentative?

7 A. I don't recall.

8 Q. Would it have been in roughly 1962 or '63?

9 A. Given the time I joined Monsanto, it would
10 have been likely to have been in that period.

11 Q. How long were you a sales representative for
12 Monsanto?

13 A. Essentially through 1966 or '67.

14 Q. During the time you were a sales representa-
15 tive, were you involved in the sale of Monsanto products
16 containing polychlorinated biphenyls?

17 A. Yes, I was.

18 Q. What information -- Well, let me ask this:
19 What products were you selling as a sales representative
20 that contained PCBs manufactured by Monsanto?

21 A. I was involved in sales of Aroclor capacitor
22 fluids and Pyroclor transformer fluids.

23 Q. Were you involved in the sale of Pyranol
24 transformer fluids, as well?

25 A. I should explain. That's when I sold

1 Pyroclor. In Europe Monsanto sold PCB-containing trans-
2 former fluids under a trademark, Pyroclor. They were
3 similar to the fluids which were sold in the United States
4 under various other corporate, such as GE, Pyranol,
5 Westinghouse -- Pyranol was a trademark of General
6 Electric. Inerteen was a trademark of Westinghouse.

7 Q. During the 19 -- During the time you were a
8 sales representative, did you sell products that contained
9 the equivalent of Aroclor 1242?

10 A. Yes, I did.

11 Q. Under what brand name?

12 A. Pyroclor, probably.

13 Q. During the time you were a sales representa-
14 tive, how many formulations of Pyroclor were you selling?

15 A. Pyroclor was -- There were no more than two
16 formulations that I recall of Pyroclor.

17 Q. What were the formulations that you recall
18 selling while you were a sales representative?

19 A. One was a mixture of a higher chlorinated
20 Aroclor, Aroclor 1260, with trichlorobenzene, with a small
21 addition of tetra phenyl tin as a scavenger.

22 Q. Would you spell that for me?

23 A. T-e-t-r-a, tetra, phenyl, p-h-e-n-y-l, tin,
24 t-i-n.

25 And the other was a mixture of higher

1 chlorinated biphenyl, with trichlorobenzene, with PPO as a
2 scavenger.

3 Q. Did the Pyroclors have specific names that you
4 referred to them by?

5 A. Pyroclor.

6 Q. Did the different formulations have specific
7 names?

8 A. I don't recall.

9 Q. You had indicated earlier -- Let me ask it
10 this way: Did the first formulation relate to the trade-
11 mark of Inerteen or Pyranol?

12 A. I'm sorry. I'm not sure I understand your
13 question.

14 Q. Did the first formulation resemble Inerteen or
15 Pyranol?

16 A. The first formulation that I mentioned related
17 to Pyranol, the second formulation related more closely to
18 Inerteen.

19 Q. Who within Monsanto, if you know, was
20 responsible for selling PCB products in Europe that were
21 similar but not identical to Pyranol?

22 A. Are you asking me, were there other companies
23 selling similar materials or who was responsible within
24 Monsanto for those products?

25 Q. Within Monsanto.

1 MR. FEATHERSTONE: Well, you're obviously
2 excluding Mr. Wood, who sold a Pyroclor that was similar to
3 but not identical to Pyranol.

4 THE WITNESS: You're going to have to ask me
5 the question again.

6 Q. (by Mr. Bradley) I'm interested in knowing
7 who within Monsanto determined that for its European sales
8 it would sell a product that was similar to but not identi-
9 cal to Pyranol, which was sold in the United States.

10 MR. FEATHERSTONE: Object to the form of the
11 question.

12 Q. (by Mr. Bradley) The way the rules for depo-
13 sitions work, when an objection is made, you're still
14 required to answer unless you're instructed not to. So go
15 ahead and answer my question.

16 A. The formulation of transformer fluids that
17 Monsanto sold in that period in Europe would be proposed by
18 the business management in the United States, and at such
19 time as they had recommended a formulation to be sold, we
20 would conduct studies in Europe to make sure that material
21 sale was compatible with responsible business practice in
22 comparison to competitive materials sold by French, German
23 and Italian producers of similar materials.

24 Q. Did you ever speak with anyone within the
25 business group of Monsanto in the United States where they

1 indicated to you the reason for the particular formulation
2 of PCB that was sold throughout Europe by you when you were
3 a sales representative?

4 A. Yes. I talked to Mr. Paul Benignus,
5 B-e-n-i-g-n-u-s.

6 Q. Did you speak with Mr. Benignus during the
7 time you were a sales rep?

8 A. Yes, I did.

9 Q. Was that in person or via the telephone or
10 both?

11 A. Both.

12 Q. What did Mr. Benignus tell you was the reason
13 that Monsanto was selling the particular formulations of
14 PCBs in Europe during the time you were a sales representa-
15 tive?

16 MR. FEATHERSTONE: You're now talking about
17 the Pyroclor?

18 MR. BRADLEY: Yes.

19 MR. FEATHERSTONE: Okay.

20 A. Mr. Benignus told me at that point in time
21 that we in Monsanto were making materials that were related
22 to formulations that had been invented by General Electric,
23 and that, as such, the formulations that we were selling,
24 if we were to use performance data which had been generated
25 in the United States, the formulations had to be aligned

1 with the formulations that we made for General Electric in
2 the States.

3 Q. (by Mr. Bradley) Did Mr. Benignus tell you
4 why you would not be selling the specific formulation made
5 by GE in the States?

6 MR. FEATHERSTONE: You have not established
7 that. I object to the form of the question.

8 Q. (by Mr. Bradley) Go ahead and answer.

9 A. I'd like you to rephrase the question.

10 Q. As I understand it the formulation of Pyroclor
11 that was sold was similar to but not identical to the
12 formulation made by GE in the United States; is that
13 correct?

14 A. Pyranol, as formulated by General Electric,
15 itself had several formulation forms. They could vary
16 depending on whether trichlorobenzene was used as an
17 additive, whether a tritetra chlorobenzene was used as the
18 additive, to the percentage ratio between the chlorinated
19 benzene and the chlorinated biphenyl, and to the concentra-
20 tion of the scavenger that I had talked about, the tetra
21 phenyl tin. We decided to standardize on one of the formu-
22 lations for sale in Europe, which was an exact replication
23 of one of the Pyranol grades sold by General Electric in
24 the United States.

25 Q. Do you recall which of the Pyranol grades sold

1 in the United States you sold in Europe?

2 A. No, I don't. But here we're talking small
3 distinctions between these various grades of product.

4 Q. Was the other formulation that you sold while
5 a sales representative identical to an Inerteen formulation
6 that was manufactured and sold in the United States?

7 A. Yes. The basic difference between the two
8 grades of Pyroclor was in the scavenger that was used. And
9 essentially, the product that we sold in Europe was the
10 same as Inerteen KA, I believe was the designation.

11 Q. Did you receive any training prior to becoming
12 a sales representative regarding Pyroclor?

13 A. Once I had assumed responsibility for sales of
14 Pyroclor, I received training.

15 Q. Where did you receive the training?

16 A. I received some training in Europe and I
17 received some training in the United States.

18 Q. Was the training just for you, or were you
19 part of a group that was being trained on Pyroclor?

20 A. In terms of sales of dielectric fluids in
21 Europe, at that point in time I was the person responsible
22 for selling dielectric fluids in Europe.

23 Q. And I take it, then, the training was directed
24 just towards you when you received training regarding
25 Pyroclor?

1 A. Yes --

2 Q. Who gave you --

3 A. -- at that time.

4 Q. And we're talking about during the time that
5 you were a sales representative.

6 A. Uh-huh.

7 Q. In fact, until I ask you questions about your
8 next job responsibility, I will assume that all of your
9 answers relate to the work you did as a sales representa-
10 tive. Fair enough?

11 A. Yes.

12 Q. All right. Who gave you the training regard-
13 ing Pyroclor?

14 A. In Europe I was trained by John Campbell, by
15 Colin Coleman, C-o-l-e-m-a-n, and Richard Baxter.

16 Q. Okay.

17 A. In the United States I received training from
18 Paul Benignus.

19 Q. What job title did John Campbell have when you
20 received training from him?

21 A. Product supervisor, specialty chemicals.

22 Q. Was John Campbell a medical doctor?

23 A. No, he wasn't.

24 Q. Was he a toxicologist?

25 A. No.

1 Q. Was he an epidemiologist?

2 A. No, he was not.

3 Q. Was he a businessman?

4 A. Yes, he was.

5 Q. Was his training in business?

6 A. His training was in science. He adopted a
7 business career.

8 Q. Do you know whether John Campbell had received
9 a doctorate degree when you received training from him?

10 A. John had received a Doctor of Science degree
11 before he trained me.

12 Q. All right. And what job title did Colin
13 Coleman have when you received training from him?

14 A. He was an MTS representative. MTS is a term
15 in Monsanto used to mean Marketing Technical Services.

16 Q. I take it, then, Colin Coleman was not a
17 medical doctor?

18 A. He was not a medical doctor. He was not a
19 doctor.

20 Q. Nor was he a toxicologist?

21 A. No.

22 Q. Nor was he an epidemiologist?

23 A. He was not an epidemiologist.

24 Q. Do you know whether his educational background
25 was in business?

1 A. His training was in science.

2 Q. And do you recall what science he received
3 training in?

4 A. Chemistry and physics.

5 Q. And what job title did Richard Baxter have
6 when you received training from him?

7 A. He was manager of research in our laboratory
8 in North Whales, England.

9 Q. Was Richard Baxter a doctor?

10 A. Yes. He was a doctor of science.

11 Q. He was not a medical doctor, then?

12 A. He was not a medical doctor.

13 Q. Was he a toxicologist.

14 A. No, he was not a toxicologist.

15 Q. Was he an epidemiologist?

16 A. No.

17 Q. What was his specialty in science?

18 A. Chemistry.

19 Q. Do you know what area of chemistry he
20 specialized in? If there was an area.

21 A. Chemical synthesis.

22 Q. What was Paul Benignus's job title when you
23 received training from him?

24 A. Product manager, dielectras.

25 Q. Is Paul Benignus a doctor?

1 A. No, he is not.

2 Q. Is he a toxicologist?

3 A. No, he is not.

4 Q. Is he an epidemiologist?

5 A. No, he is not.

6 Q. Do you know whether his educational background
7 is in business?

8 A. Yes, it is.

9 Q. You indicated that you received training from
10 Mr. Benignus in the United States; is that correct?

11 A. I want to revisit that question because you
12 asked me to confine my comments to the time when I was a
13 sales representative, and I don't believe I received
14 training from Paul in the United States while I was a sales
15 representative. I certainly met and was instructed by Paul
16 in Europe during the time that I was a sales representa-
17 tive.

18 (Thereupon, a short recess was taken.)

19 Q. (by Mr. Bradley) All right. Did you receive
20 any written materials as part of the training you received
21 from John Campbell, Colin Coleman, Richard Baxter or Paul
22 Benignus regarding Pyroclor?

23 A. I'm sure I did.

24 Q. Do you recall the nature of the written
25 material that you received from those gentlemen?

1 A. In the period that I was a sales representa-
2 tive I would have received and I would have reviewed with
3 them such things as technical literature about the product
4 at that time. I would have received the material related
5 to the maintenance of equipment containing those fluids at
6 that time. I would have received reports about the nature
7 of the marketplace and use of these materials in the
8 European community, including Great Britain. That would
9 have included packaging and handling information surround-
10 ing the transportation and storage of these materials. I
11 would have received industrial hygiene information as to
12 how workers in our customers' plants were to use these
13 materials.

14 Now, that list, I must have you understand at
15 this later stage, is not exhaustive or complete. I
16 probably received information on other subjects, but those
17 specific areas, definitely I would have received and did
18 receive information about.

19 Q. Do you recall the titles of any of the docu-
20 ments that you received while a sales rep as part of your
21 training on Pyroclor?

22 A. I would have received the technical literature
23 which I can recall at this date. It was a blue binder of
24 material with a title, "Pyroclor," and I would have
25 received copies of a document related to the servicing and

1 maintenance of equipment which was called an Askarel
2 Maintenance Guide. Askarel, A-s-k-a-r-e-l.

3 Q. What was in the blue binder of material
4 entitled "Pyroclor"?

5 A. Information about the areas in which fire-
6 retardant transformers would be used. It would have
7 contained information about compatible solid elastomeric
8 materials that would be used in the construction of
9 transformers in combination with chlorinated biphenyl
10 liquid dielectrics.

11 Q. What do you mean when you refer to technical
12 literature?

13 A. When I refer to technical literature, I refer
14 to literature which will define the product in technical
15 terms. It will define the area of application of such
16 chemical products. It will define the relationship between
17 that chemical material and other materials that will be
18 combined with it in chemical application. It will define
19 how the material should be stored and handled. It will
20 include industrial hygiene practice related to the
21 material. It will include disposal methodology for waste
22 materials. It will include detailed technical specifica-
23 tions for the product, and it will probably include, in
24 many cases, relevant codes and industry codes and standards
25 which relate to the material, and it will often contain

1 charted material by the way of charts and graphs which will
2 relate to the performance properties of the material.

3 In the case of something like Pyroclor, it
4 would include such things as the dielectric strength, the
5 variation of dielectric strength and temperature, the
6 variation of dielectric strength with the frequency of the
7 power which was being controlled by the transformer.

8 This is an overview of the types of things
9 that a piece of technical literature related to a chemical
10 insulating fluid would have to portray to the customer, a
11 very wide range of information involving both the proper-
12 ties and the usage and handling of that material.

13 Q. Was the technical literature in the blue
14 binder of material entitled "Pyroclor" primarily literature
15 developed in-house by Monsanto?

16 A. There certainly was information that was
17 solely generated by Monsanto, but equally, our Pyroclor
18 literature would draw on information that had been
19 generated by standards and code-setting committees in the
20 United States, and it would give reference and credit to
21 those particular data sources.

22 Q. Other than standard and code publications were
23 there any other publications within the binder material
24 entitled "Pyroclor" that were not in-house-generated docu-
25 ments by Monsanto?

1 MR. FEATHERSTONE: You mean specifically cited
2 in the brochure? Because you have not established that he
3 actually drafted the document.

4 MR. BRADLEY: I assumed that he didn't. He
5 said that he was provided it.

6 MR. FEATHERSTONE: Right. But how would he
7 know what material was looked at to develop this if he
8 didn't draft it?

9 MR. BRADLEY: I didn't ask him what he -- what
10 material was looked at to draft it. I asked him what was
11 in the blue binder. At least that's what I thought I asked
12 him.

13 MR. FEATHERSTONE: Okay. Then I make --

14 Q. (by Mr. Bradley) Okay. Let me ask the ques-
15 tion again. Within the blue binder of material entitle
16 "Pyroclor," was there any other technical literature
17 generated outside Monsanto other than by code-setting
18 groups?

19 A. I think the most direct way I can answer that
20 question is that the Pyroclor literature in Europe was
21 based on the dielectric fluid literature which had been
22 generated by Monsanto in the United States, and that
23 literature had been developed by Monsanto in combination
24 with our customers in the United States.

25 Q. For example, in the blue binder of material

1 entitled "Pyroclor," were there any copies of any studies
2 done by individuals or groups of people other than Monsanto
3 employees relating to the health and safety of people
4 exposed to PCBs?

5 A. I don't recall.

6 Q. Do you recall there being any reference in the
7 blue binder of material entitled "Pyroclor" to a 1937
8 round-table discussion that was reported in the Journal of
9 Industrial Hygiene?

10 A. No, I don't.

11 Q. As I understand your testimony, you ceased
12 being the sales representative around 1967?

13 A. It's not clear in my own mind. At a point in
14 time I was not the sales representative for dielectric
15 fluids. I essentially became the marketing manager for
16 dielectric fluids, replacing John Campbell's role of the
17 same period of time. Although I had European-wide
18 responsibility, I was relocating from the United Kingdom to
19 the Brussels headquarters during that period.

20 We moved the European headquarters from London
21 to Brussels, and essentially I still maintained the same
22 contact and relationship with the European electrical
23 industry, but there had been a subtle shift in my
24 responsibilities from that of purely the sales contact with
25 the marketplace to rather establishing what our sales and

1 performance strategy for that particular product line was
2 in Europe.

3 Q. And when you became marketing manager, did the
4 blue binder of material entitle "Pyroclor" still exist?

5 A. Yes, it did.

6 Q. Did you use -- Let me rephrase the question.
7 During the time that you were marketing manager did you
8 maintain the blue binder of material entitle "Pyroclor"?

9 A. We maintained technical literature relative to
10 the use and handling of Pyroclor. Whether it remained blue
11 during that whole period, I really don't remember.

12 MR. BRADLEY: Could you read back that answer,
13 please?

14 (Thereupon, the reporter read back the answer.)

15 Q. (by Mr. Bradley) Did you have files of
16 literature on PCBs during the time that you were sales
17 representative, other than materials contained in the blue
18 binder entitled "Pyroclor"?

19 A. Would you repeat that question, please?

20 Q. Did you have materials on PCBs during the
21 period of time you were sales representative, other than
22 the material that was in the blue binder entitled
23 "Pyroclor"?

24 A. We would have had equivalent literature which
25 related to the use of the Aroclor family of products in

1 capacitors. We would have in certain situations made use
2 of American literature.

3 Q. Okay.

4 A. And our market technical service group would
5 prepare specific project reports on issues which were
6 raised by specific customers relative to their individual
7 use of our materials.

8 Q. And this was all material that you would have
9 maintained but would not have been within the blue binder
10 of material entitled "Pyroclor"?

11 A. This is true.

12 Q. And where was this literature or -- Excuse me.
13 Where was this material kept?

14 A. Copies of this literature would be kept in our
15 -- certainly it was maintained in our Brussels office. But
16 in our regional sales offices, people would have access to
17 sets of that data to send to both current and prospective
18 customers.

19 MR. FEATHERSTONE: We're now switching between
20 the time period that you were sales rep and the time period
21 you were marketing manager, because you just now made
22 reference to the Brussels office.

23 A. Uh-huh. I thought we had already made that
24 bridge, anyway.

25 Q. (by Mr. Bradley) All right. So that I under-

1 stand your answer, the period of time that you had the
2 literature outside of the blue binder of material entitled
3 "Pyroclor" was during the time you were marketing manager?

4 A. We had literature about our products through-
5 out the period when I was sales representative and when I
6 was marketing manager.

7 Q. And the separate set of documents that were in
8 existence while you were sales rep were maintained where?

9 A. At that particular time when I was a sales
10 rep, our European headquarter office was in London, and the
11 main literature center was at that time in London. When we
12 moved the European headquarters from London to Brussels,
13 then our central literature source would be maintained in
14 Brussels, not in London. But all sales offices would have
15 access and would have a more limited storage of technical
16 literature for product which they were selling in that
17 particular region, and if their particular region contained
18 customers of dielectric fluids, that regional office would
19 have copies of the dielectric literature.

20 Q. Okay. While you were sales representative,
21 did Monsanto have a medical department in its European
22 operations?

23 A. Yes, we did.

24 Q. And where was it located?

25 A. In London.

1 Q. While you were sales representative, who was
2 the head of the medical department in London for Monsanto?

3 A. We had a medical department which had a number
4 of functions. One was that purely of having a medical
5 office in a headquarters' building to look after strictly
6 personnel medical affairs. We equally had associated with
7 that department an individual who was responsible for
8 product issues of a medical nature, but that latter func-
9 tion operated as an extension of the headquarters product
10 safety groups in the United States.

11 Q. During the time you were sales representative,
12 who was the person within Monsanto's medical department in
13 London responsible for product issues of a medical nature?

14 A. Doug Hardy, H-a-r-d-y.

15 Q. At the time you were sales representative, do
16 you know whether the Monsanto headquarters product safety
17 group in the United States was run by a medical doctor?

18 MR. FEATHERSTONE: Sorry. May I hear the
19 question again, please?

20 (Thereupon, the reporter read back the question.)

21 A. No, I don't.

22 Q. (by Mr. Bradley) While sales representative,
23 do you know whether the Monsanto headquarters product
24 safety group in the United States was run by a toxicolo-
25 gist?

1 A. No, I don't.

2 Q. Do you know whether the person in charge of
3 the headquarters product safety group in the U.S., while
4 you were sales rep, was an epidemiologist?

5 A. No, I don't.

6 Q. Do you know whether, while you were sales rep,
7 the person in charge of the Monsanto headquarters product
8 safety group in the United States had any training whatso-
9 ever in the medical and toxicological aspects of
10 polychlorinated biphenyls?

11 A. No, I don't.

12 Q. While you were sales representative, did you
13 ever hear the term "business group" in relation to the
14 manufacture and sale of polychlorinated biphenyls?

15 A. Can you repeat that question?

16 MR. BRADLEY: Would you read it?

17 (Thereupon, the reporter read back the question.)

18 A. Yes.

19 Q. (by Mr. Bradley) Was the product safety group
20 at Monsanto's headquarters in the United States part of the
21 business group working with Monsanto products containing
22 PCBs?

23 A. No.

24 Q. While you were sales rep, what persons by
25 title or name were part of the business group working with

1 Monsanto products that contained PCBs?

2 A. Whilst I was a sales representative with
3 Monsanto in Europe, my contact in the United States in the
4 business group was Paul Benignus.

5 Q. Did Mr. Benignus indicate to you who else, if
6 anyone, was part of the business group relating to Monsanto
7 products containing PCBs?

8 A. To the extent that Paul Benignus himself re-
9 ported to supervisory management within a broader business
10 division than dielectric chlorinated biphenyls, there were
11 people senior to Mr. Benignus who had management responsi-
12 bility for a range of products, including the chlorinated
13 biphenyl dielectras.

14 Specifically, since you asked me to be
15 specific, we would be visited occasionally in Europe by Mr.
16 George Buchanan, who was responsible for the specialty
17 products area, or he may at that time have been called the
18 function fluid business within the organic division, and
19 within whose group Mr. Benignus worked.

20 Q. Did Mr. Benignus indicate to you that his
21 supervisor was part of the business group for Monsanto
22 products that contained PCBs?

23 A. Yes.

24 Q. Did Mr. Benignus indicate to you anyone else
25 who was part of the business group for Monsanto products

1 containing PCBs?

2 A. In the United States?

3 Q. Yes.

4 A. Dr. Ralph Munch, M-u-n-c-h, was responsible
5 for the technology, the applicational technology of the PCB
6 fluids at that point in time.

7 Q. And Mr. Benignus indicated to you that Dr.
8 Munch was part of the business group for Monsanto products
9 that contained PCBs?

10 A. Yes.

11 Q. Who else, if anyone, did Mr. --

12 MR. FEATHERSTONE: Are you talking about
13 dielectrics, David?

14 MR. BRADLEY: I'm talking about dielectrics.

15 MR. FEATHERSTONE: He's talking about products
16 containing PCBs. So, Mr. Bradley, are you talking about
17 dielectrics, or are you broadening this?

18 Q. (by Mr. Bradley) So that I understand your
19 answer, your answer is related to dielectric products
20 manufactured by Monsanto that contained PCBs; is that
21 correct?

22 A. As was related to dielectric fluids.

23 Q. All right. Did Mr. Benignus indicate to you
24 who else was a part of the business group working within
25 Monsanto for dielectric products containing PCBs?

1 A. At the time that I was a sales representative
2 the only two people I had contact with and that I was aware
3 of as being members of the dielectrics business group for
4 fluids including chlorinated biphenyls were Paul Benignus
5 himself and Dr. Munch.

6 Q. Was there the business group -- Let me
7 rephrase it. Was there a European business group for
8 dielectric products manufactured by Monsanto that contained
9 PCBs?

10 A. It was not referred to as a dielectric busi-
11 ness group. I mean, the business in Europe was managed by
12 -- At the time that I was sales representative, essential-
13 ly, dielectric fluids in Europe in a commercial management
14 sense were managed by John Campbell. I was the salesman,
15 and Colin Coleman was the technical service representative.

16 Q. When you have -- Do you consider polychlori-
17 nated terphenyls to be part of the group of polychlorinated
18 biphenyls?

19 A. I'd ask you to repeat that question, please.

20 Q. Do you consider polychlorinated terphenyls to
21 be part of the group known as polychlorinated biphenyls?

22 A. No.

23 Q. Did Monsanto manufacture products sold
24 throughout Europe while you were sales representative that
25 contained polychlorinated terphenyls?

1 A. Monsanto manufactured a number of polychlori-
2 nated terphenyls, but they were part of the polychlorinated
3 polyphenol family. There is no way that you can -- A
4 polychlorinated biphenyl by definition cannot be a
5 polychlorinated terphenyl, and vice versa.

6 Q. And you indicated that they're all part of the
7 polychlorinated polybiphenyl family?

8 A. No. No.

9 Q. That's why I asked.

10 A. I said that, if you begin to link benzene
11 rings together, at one point or juncture, one is a phenyl
12 group, two is a biphenyl group, three is a terphenyl group,
13 four is a quatraphenyl group. So, something which contains
14 three rings can never be a biphenyl. Something that con-
15 tains two rings cannot be a terphenyl. That terminology
16 discretely defines the difference between the number of
17 rings you have in the particular molecule. You can combine
18 and cover the whole group by a descriptor which is not
19 widely used which is a polyphenol.

20 Q. At the time that you were a sales rep, did the
21 Monsanto corporate headquarters in the United States have a
22 medical department?

23 A. I'm sorry?

24 Q. At the time that you were a sales representa-
25 tive, did the Monsanto corporate headquarters in the United

1 States have a medical department?

2 A. I don't know.

3 Q. Does Monsanto still have a corporate head-
4 quarters in Brussels?

5 A. Monsanto has its European headquarters of its
6 agricultural company and its chemical group in Brussels.

7 Q. Do you know whether the European headquarters
8 for Monsanto in Brussels still maintains files of material
9 it had on PCBs?

10 A. I do not know whether the company consolidated
11 records about PCBs in Europe within Europe or whether we
12 combined those records in our consolidated PCB records in
13 St. Louis.

14 Q. And if they were consolidated within Europe,
15 they would be at the headquarters in Brussels?

16 A. I don't know.

17 Q. Did you receive any additional training in
18 Pyroclor when you became marketing manager for dielectric
19 fluids?

20 A. The time that they changed my responsibili-
21 ties from sales representative to that of marketing mana-
22 ger, I'm not conscious that I received any specific addi-
23 tional training.

24 The reason for my appointment to the marketing
25 management role was essentially because of the experience

1 that I had gained in being the sales representative for
2 those materials. And so, if education includes that period
3 of osmosis of learning on the job, yes, I received more
4 training.

5 Q. Do you recall whether you received any addi-
6 tional written material specifically directed towards
7 Pyroclor when you became marketing manager for dielectric
8 fluids?

9 A. As we developed and updated technical litera-
10 ture, I would receive new materials and new additional
11 material to include in further additions of our technical
12 literature.

13 A piece of technical literature is not static.
14 As your knowledge evolves, so does -- you update your
15 technical literature.

16 Q. Would the technical literature that was
17 evolving include instruction manuals for customers purchas-
18 ing Monsanto products containing PCBs?

19 A. Yes, it would.

20 Q. Did the European Monsanto instruction manuals
21 differ from instruction manuals distributed by Monsanto to
22 its customers within the United States?

23 MR. FEATHERSTONE: Object to the form of the
24 question. It's vague and indefinite.

25 A. I'll answer it.

1 Our American literature was in the American
2 form of the English language. Our European literal was in
3 several languages, including British English.

4 Q. (by Mr. Bradley) Would the European instruc-
5 tion manual simply take the English versions developed by
6 Monsanto's corporate headquarters in the United States and
7 translate them into various languages?

8 MR. FEATHERSTONE: Object to the form of the
9 question. Also vague.

10 A. Would you care to rephrase the question?

11 Q. (by Mr. Bradley) Yeah. When -- Do you know
12 whether the instruction manuals that were sent to customers
13 of Monsanto's European operations received instruction
14 booklets that were identical to the instruction booklets
15 distributed to Monsanto's customers in the United States,
16 with the exception that they were simply written in another
17 language?

18 A. By extension of the definition of "other
19 language," you need to appreciate that technology is itself
20 a language. So that, to the extent that some of our
21 European customers were advanced enough to use a different
22 system of measurement, the metric system, there was not
23 just translation of language to language. Charts, graphs,
24 tables would need to be changed from the duodecimal system
25 operated in the United States to the more broadly used

1 metric systems.

2 In terms of standardization, where material
3 standards in Europe differed from the ASTM standards
4 exercised in the United States, then the relevant national
5 standards, such as DIN in Germany or the British Standards
6 Institute in Britain, would need to be checked, and we
7 would need to change the material content so that it
8 related to that particular national emphasis. Even then,
9 Monsanto was strategizing globally and acting locally.

10 Q. So as I understand it, the differences were in
11 -- involved conversion of the measuring system in the
12 United States to the metric system. That was one change in
13 the instruction booklet; is that correct?

14 A. Yes.

15 Q. And another change came about if there were
16 different code-setting standards in different nations?

17 A. This is true.

18 Q. Were there any other changes?

19 A. Probably, yes.

20 Q. And what were they?

21 A. I don't recall minute by minute everything
22 that happened twenty years ago. I'm sorry.

23 Q. Of course I don't expect you to recall every-
24 thing in detail, but I'm interested in what you do recall.

25 Who would know -- Let me rephrase it. Who, if

1 anyone, was in charge within Monsanto's European operation
2 for development of the instructions manuals that
3 accompanied Monsanto products containing PCBs that were
4 sold throughout Europe?

5 A. At that stage the procedure, as I -- Now, are
6 we talking about -- am I a sales representative or am I a
7 marketing manager?

8 Q. Sales rep.

9 A. Okay. When I am sales rep, then John
10 Campbell, as the marketing manager, would be responsible
11 for clearing any new literature before it was public and
12 issued to our customer base. He would make sure that our
13 technology as represented by Richard Baxter and Colin
14 Coleman had signed off, that they agreed that the technical
15 information contained therein was accurate and was
16 expressed correctly in units. There would be a sign off by
17 Doug Hardy in terms of saying that he agreed that the
18 representation for material handling instructions were
19 essentially suitable for understanding in Europe.

20 Q. And when you became marketing manager, did you
21 have the role that previously Mr. Campbell had?

22 A. Dr. Campbell.

23 Q. Dr. Campbell.

24 A. Yes, I did.

25 Q. And when you undertook that responsibility as

1 marketing manager, did you review any medical or toxico-
2 logical information relating to PCBs?

3 A. Purely for clarification are we going to be
4 jumping back and forth at this point between my marketing
5 management role or my sales representative role, or -- In
6 terms of my trying to openly answer your questions, it
7 really would be helpful if I know what period I'm answering
8 from, because my role changed, as I said, and I need to
9 know what role I'm in if I'm going to be responsive to your
10 questions.

11 Q. I apologize if my question wasn't clear. I
12 thought my question started by when you were marketing
13 manager, but if it didn't, that's what I intended.

14 So, while you were marketing manager, did you
15 review any material relating to the medical or
16 toxicological issues involving PCBs prior to your work with
17 updating instruction manuals?

18 A. I was not qualified to comment on the handling
19 and industrial hygiene materials. Personally, it was my
20 responsibility to make sure that literature that we were
21 going to be sending to the marketplace had received review
22 in Europe from Doug Hardy as to his understanding that this
23 was an appropriate representation of the safety of that
24 product and the handling of that material. And if he
25 required to ask questions of his contacts in the United

1 States, then he would so do.

2 Q. Do you know whether Doug Hardy was relying on
3 information forgiven to him by Monsanto employees in the
4 United States when he reviewed the proposed changes, if
5 there were any, to instruction manuals?

6 A. Okay. Now, am I marketing manager?

7 Q. Yes.

8 A. Marketing manager. Okay. At that time I know
9 that Doug Hardy would make his judgments about material in
10 Europe based on his view of what he was receiving from his
11 peers in the United States, and individual contacts that he
12 would make within the Monsanto technical community as
13 opposed to the commercial community, and outside of the
14 Monsanto technical community in the European technical
15 community.

16 Q. When you refer to "his peers," do you mean his
17 peers within the Monsanto corporate headquarters in the
18 United States?

19 A. Yes. Doug Hardy was seeking to find out how
20 to -- what was the United States view of handling materials
21 made by Monsanto. Protocol suggested he should elicit such
22 information from his peers within Monsanto.

23 Q. Was Doug Hardy's role different at all during
24 the period of time when you were sales rep versus when you
25 were marketing manager regarding that one issue we've just

1 discussed?

2 A. Not considerably different.

3 MR. BRADLEY: If it's acceptable, this would
4 be a good time for me to be taking a break. Ten minutes.

5 (Thereupon, a short recess was taken, after which
6 the reporter read back the last question.)

7 A. Not considerably different.

8 Q. (by Mr. Bradley) I take it, during the time
9 you were marketing manager, that you submitted changes in
10 instruction manuals to Doug Hardy for his review for
11 products containing PCBs?

12 A. Yes.

13 Q. Did you send a letter to Mr. Hardy requesting
14 that he review those changes in the instruction manuals?

15 A. It would have been normal practice that, if a
16 draft change of any sort had been suggested, proposed, that
17 I would send a copy to Hardy's office and say, "Need your
18 commentary on this suggested change."

19 Q. Okay. And would Doug Hardy then provide you
20 with written comments regarding any suggested changes?

21 A. It would have been the appropriate action for
22 him to take, yes.

23 Q. Do you recall whether he, whether Doug Hardy
24 ever provided my written material to you regarding any of
25 the proposed changes in instruction manuals for products

1 containing PCBs?

2 A. Specifically, no.

3 Q. What was your job title following your being
4 marketing manager?

5 A. I became marketing manager, food and fine
6 chemicals.

7 Q. When did you become marketing manager for food
8 and fine chemicals?

9 A. 1970 slash '71.

10 Q. When you became marketing manager for food and
11 fine chemicals, did you have any responsibility for
12 dielectric fluids containing PCBs?

13 A. I did not.

14 Q. What fine chemicals were you responsible for
15 when you became marketing manager for food and fine
16 chemicals?

17 A. The major product area for which I had
18 responsibility was for the marketing of aspirin.

19 Q. What was your next job title?

20 A. After the food-and-fine job?

21 Q. Yes.

22 A. My next job title was international sales
23 manager, fluids.

24 Q. When did you become international sales
25 manager, fluids?

1 A. 1974.

2 Q. As international sales manager for fluids, did
3 you have any responsibility for dielectric fluids contain-
4 ing PCBs?

5 A. Yes, I did.

6 Q. What responsibilities did you have?

7 A. I had the responsibility to manage the sale of
8 dielectric fluids containing PCBs in marketplaces outside
9 of the United States, around the rest of the world, as part
10 of a product range of functional fluids, which included
11 aviation fluids, industrial heating fluids. So it was one
12 product line component of a product line for which I had a
13 responsibility for sales outside of North America.

14 Q. Okay.

15 A. And that job was based in America.

16 Q. As international sales manager for fluids, did
17 you have any responsibility for selling transformers or
18 capacitors containing PCBs? I mean -- Strike the question.

19 As International sales manager for fluids, did
20 you have responsibility for selling any Monsanto products
21 that were intended for use in electrical transformers or
22 capacitors to be used by the electrical industry?

23 A. Yes, I did.

24 Q. What were you selling in that regard?

25 A. I was selling Pyroclor, I was selling

1 Inerteen, and I was selling Pyranol.

2 Q. Was the Inerteen that you were selling manu-
3 factured by Monsanto?

4 A. Yes, it was.

5 Q. Was it manufactured on -- in plants owned and
6 operated by Monsanto?

7 A. Yes, it was.

8 Q. Was the Pyranol you were selling manufactured
9 by Monsanto?

10 A. Yes, it was.

11 Q. And was it manufactured in plants owned and
12 operated by Monsanto?

13 A. Yes, it was.

14 Q. And were those plants that manufactured
15 Pyranol within the United States?

16 A. The plants that manufactured the Inerteen and
17 Pyranol that I sold were in the United States. If I were
18 selling Pyroclor, then it would have been manufactured in
19 our British plant.

20 Q. As international sales manager for fluids, did
21 you have any responsibilities regarding instruction manuals
22 that accompanied products manufactured by Monsanto that
23 contained PCBs and were dielectric fluids?

24 A. My responsibility as sales manager of fluids
25 would be to insure that any customer or perspective

1 customer in my geographical area of responsibility had
2 received a copy of our instruction manuals. It would not
3 have had -- My job at that stage did not contain a
4 responsibility for actually producing the instruction
5 manuals.

6 Q. While you were international sales manager for
7 fluids, who within Monsanto was responsibility for produc-
8 ing the instruction manuals for Monsanto dielectric fluids
9 containing PCBs?

10 A. Paul Benignus.

11 Q. Do you know how long Mr. Benignus had that
12 responsibility?

13 A. At the time that I was in the international
14 salesman management job in 1974, Mr. Benignus had certainly
15 been responsible for the dielectric fluid line for
16 materials containing chlorinated biphenyls for at least ten
17 years.

18 Q. And did those responsibilities that Mr.
19 Benignus had include determining what would be contained
20 within the instruction manuals accompanying Monsanto
21 dielectric -- Monsanto products containing dielectric
22 fluids with PCBs?

23 MR. FEATHERSTONE: Well, I think you had it
24 right the first time, which was Monsanto dielectric fluids.
25 You said Monsanto products containing dielectric fluids.

1 Q. (by Mr. Bradley) Let me re-ask the question.
2 Did Mr. Benignus have responsibility during that ten-year
3 period for determining what would be included in the
4 instruction manuals for Monsanto dielectric fluids
5 containing PCBs?

6 A. As product manager, he would have responsi-
7 bility for issuing instruction manuals. He would be guided
8 as to content of certain chapters of the instruction book
9 by inputs from other disciplines within Monsanto.

10 Q. And after he received that guidance, the final
11 decision, though, was his?

12 A. No. He could not -- If for example, our
13 technology department insisted that certain dielectric
14 performance data were included, he could not preclude them
15 and say, "No, we're not going to include that." So he had
16 responsibility for making sure that Monsanto had in its
17 marketplaces technical support literature relative to our
18 products. He would have to obtain clearance that such
19 literature followed corporate guidelines beyond just his
20 product authority relative to certain areas of contact.

21 Q. I want to take you back in time to 1970.
22 Whatever your job title was doesn't matter to me.

23 A. Okay.

24 Q. In 1970 were there any European nations that
25 had proposed elimination of PCBs?

1 MR. FEATHERSTONE: Object to the form of the
2 question.

3 A. Could you ask the question --

4 Q. (by Mr. Bradley) I will re-ask it. In 1970
5 had any European nations outlawed the use of PCBs?

6 A. Not to my knowledge.

7 Q. In 1970 had any European nation proposed --
8 Let me rephrase it. In 1970 had there been proposed
9 legislation in any European nation that would restrict or
10 eliminate the use of PCBs?

11 A. No.

12 Q. In 1971 was there any European nation that had
13 legislation restricting or eliminating the use of PCBs?

14 A. Not to my knowledge.

15 Q. Was there ever a time when any European nation
16 enacted legislation restricting or eliminating the use of
17 PCBs?

18 A. I am not aware of any point when my job within
19 Monsanto contained responsibility for fluids associated
20 with PCBs or through my general knowledge of anything that
21 be happening whilst my job was not related to PCBs, of any
22 European country that went as far as early, in terms of
23 regulating PCBs, as the United States of America.

24 Q. Didn't Sweden take any regulatory action
25 relating to PCBs during the 1970s?

1 A. I can't talk for the whole of the 1970s,
2 because I was not involved with PCBs during the totality of
3 the 1970s.

4 Q. When did you cease your involvement with PCBs
5 during the period of the 1970s?

6 A. In 1977.

7 Q. By 1977 had Sweden taken any action to
8 restrict or eliminate the use of PCBs?

9 A. Sweden may -- I do not specifically know. If
10 there were anything going on in Sweden at that point in
11 time, it was probably going to be regulating the use or
12 restricting the use, but I am not specifically aware of
13 Swedish regulations concerning the use of PCBs.

14 Q. So that I understand your answer -- I'm not so
15 much interested in what your specific knowledge is of
16 specific regulations in Sweden regarding the use of PCBs,
17 but I am interested in knowing if you know when Sweden
18 first enacted regulations, if it ever did, restricting or
19 eliminating the use of PCBs.

20 A. I am not aware of any regulations issued by
21 Swedish authorities reference the use of PCBs.

22 Q. And when I say "regulations," I include laws
23 in that. Is that your understanding?

24 A. Yes.

25 Q. Okay. Prior to 1977 did Japan enact any laws

1 or regulations restricting or eliminating the use of PCBs?

2 A. For clarification may I ask whether we're
3 talking about dielectric situations or generic uses of
4 PCBs?

5 Q. Generic uses of PCBs.

6 A. I believe that Japan did issue regulations
7 concerning the use of PCBs, excluding them from certain
8 applications.

9 Q. And when do you believe that Japan took that
10 action?

11 A. In the seventies.

12 Q. In the early, mid, or late seventies? If you
13 know.

14 A. Early to mid.

15 Q. Do you know whether the restrictions imposed
16 by Japan on PCBs included restrictions on PCBs in
17 dielectric fluids?

18 A. I believe it did not.

19 Q. Did Great Britain prior to 1977 enact any laws
20 or regulations restricting or eliminating the use of PCBs?

21 A. I am not aware of regulations in Great Britain
22 restricting the use of PCBs generically or limiting the use
23 of PCBs generically. At that point in time Monsanto was
24 only involved in dielectric uses of PCBs.

25 There were regulations passed in a number of

1 countries after the fact of Monsanto's withdrawal from
2 certain nonelectrical applications. Again, I'm not sure of
3 details because they were irrelevant to us, because, in the
4 1970s, essentially, Monsanto at a point in time was only
5 involved with dielectric uses of PCBs.

6 Q. When did you cease being international sales
7 manager for fluids?

8 A. Late 1974, early 1975.

9 Q. So you had that job for about a year?

10 A. About a year.

11 Q. What was your next job title?

12 A. I was manager of dielectric fluids.

13 Q. Did that job begin in 1975?

14 A. It was either November or December of 1974, or
15 January of 1975; it was about the turn of the year.

16 Q. Did you receive any additional training re-
17 garding PCBs when you became manager of dielectric fluids?

18 A. Yes, I did.

19 Q. What training did you receive?

20 A. Informal training.

21 Q. From whom?

22 A. From Paul Benignus; from my immediate super-
23 visor, Dr. Paton, P-a-t-o-n; from the research departments
24 within Monsanto; and from people who were involved with
25 Monsanto's positions relative to the use and application of

1 PCBs, such as Mr. Papageorge, P-a-p-a-g-e-o-r-g-e.

2 Q. Okay.

3 A. And again, that list is a list of significant
4 people who talked to me at the time that I changed -- I
5 made that transition. It is not exhaustive.

6 Q. What -- I want you to tell me as much as you
7 can remember about the content of your discussions with Mr.
8 Papageorge as part of your informal training when you
9 became manager of dielectric fluids.

10 MR. FEATHERSTONE: That's the question?

11 MR. BRADLEY: Yes.

12 THE WITNESS: Can I talk to Chris a moment?

13 MR. BRADLEY: Yes.

14 (Thereupon, a short colloquy was had, after which
15 the reporter propounded the previous question.)

16 A. The informal training essentially was a day-
17 to-day process; there would be very few days that I would
18 not be talking with Bill Papageorge.

19 The nature of the dielectrics business in the
20 United States and beyond the United States was such at that
21 point in time that we were routinely communicating with our
22 customers, with the users of electric equipment, with
23 regulators, with universities, and as such, very few days
24 would go by that I would not have occasion to discuss
25 emerging situations with Mr. Papageorge, and to the extent

1 that, in the course of those discussions I would learn
2 things that I had not been knowledgeable of previously, it
3 was part of my education.

4 Q. (by Mr. Bradley) So your informal training
5 with Mr. Papageorge is what you learned primarily from your
6 day-to-day contacts with him?

7 A. Yes, it was.

8 Q. You indicated that, because of the nature of
9 the dielectric fluids during the period of time you were
10 manager of dielectric fluids, that you would -- Excuse me
11 -- that Monsanto would routinely have communications with
12 customers; is that correct? Is that what you said?

13 MR. FEATHERSTONE: He said "Nature of the
14 dielectrics business."

15 MR. BRADLEY: Whatever.

16 Is it true that, because of the nature of the
17 dielectric business when you were manager of dielectric
18 fluids, that Monsanto would be routinely communicating with
19 customers?

20 A. We were routinely communicating with customers
21 throughout the period that I was manager of dielectrics.

22 Q. (by Mr. Bradley) Did those customers include
23 General Electric?

24 A. Yes.

25 Q. Did they include Westinghouse?

1 A. Yes.

2 Q. You also indicated that, because of the nature
3 of the dielectric business while you were manager of the
4 dielectric fluids, that Monsanto would have communications
5 with users of dielectric equipment; is that correct?

6 A. Monsanto had communications with users of
7 dielectric equipment. By virtue of our membership with
8 certain industrial panels, and at the request of our direct
9 customers, from time to time we would have communication
10 sessions with their customers. And through processors and
11 repairers of electrical equipment, we would have contact
12 with our customers' customers. Through participation in
13 EPA panels, we would have contact with our customers'
14 customers.

15 There were many ways during the period that I
16 was manager of dielectrics that Monsanto, myself, and more
17 broadly, other people within Monsanto, were in contact and
18 communicating with not only our direct customers, but their
19 customers, and other people involved in PCB considerations.

20 Q. What industrial panels was Monsanto a member
21 of that resulted in Monsanto communicating with users of
22 dielectrical equipment?

23 A. There were groups such as the ANSI C107
24 committee, the EPRI, Electrical Power Research Institute,
25 National Electrical Manufacturers Association, Edison

1 Institute.

2 Q. Is that Edison Electrical Institute, EEI?

3 A. Yes.

4 There were various conferences which were
5 specifically summoned to relate to PCBs. There was an EPA-
6 sponsored convention that related to these PCBs.

7 Q. Was that in Chicago in 1975?

8 A. Yes, it was. Widely attended by a broad
9 representation of the electrical industry.

10 Q. What leads you to that conclusion, that it was
11 broadly represented by the members of the electrical
12 industry?

13 A. I was a speaker at the conference; I know what
14 the attendance at the conference was.

15 Q. How do you know what the attendance was? By
16 speaking with people who were also in attendance?

17 A. Yes.

18 Q. And how else do you know whether there were
19 members of the electrical utility industry at the 1975
20 conference?

21 A. Because that convention was convened by the
22 EPA to keep people aware of how the convention was being
23 publicized and how it was being positioned, and I know that
24 the EPA sought a strong attendance from the utility
25 industry.

1 Q. Any other way that you know that members of
2 the electrical utility industry were present at that 1975
3 conference?

4 A. I guess at the time of the convention and
5 shortly thereafter we had some discussions regarding who
6 had been there, and short of reviewing any sign-up list for
7 the convention, I mean, I was aware that there had been a
8 fairly broad representation of the utility industry.

9 Q. Did you personally review the sign-up list?

10 A. No, I did not.

11 Q. Who did you speak with at the conference who
12 indicated to you they were a member of the electrical
13 utility industry? If you recall.

14 A. I don't -- I talked to an enormous number of
15 people at that convention.

16 Q. Well, do you recall whether any of them
17 informed you that they were a customer of General Electric?

18 A. Nobody advised me specifically that they were
19 a customer of General Electric. Many of them told me that
20 they were members of various United States utility corpora-
21 tions and they bought electrical equipment containing PCBs,
22 which was the subject of the conference.

23 Q. Were there written proceedings of the
24 conference following its completion?

25 A. Yes, there were.

1 Q. Do you know whether those were mailed to
2 electrical utility industries that purchased dielectric
3 fluids containing PCBs that were manufactured by Monsanto?

4 A. I know that we mailed copies of my papers --
5 my paper at that conference to a number of utility people
6 who said that either they had been and had not managed to
7 get a copy at the conference or had heard of the conference
8 and requested a copy of the paper. In terms of saying,
9 "Was there a Monsanto mailing of the proceedings of that
10 conference to our customers' customers," no, there was not.
11 It was not our conference; it was an EPA conference.

12 Q. Do you know whether -- Let me ask it this way:
13 We know Monsanto didn't do the mass mailing. Do you know
14 whether EPA did a mailing of the proceedings of that
15 conference to your customers' customers?

16 A. I know that they had the proceedings available
17 to those who requested it.

18 Q. You also indicated that you received informal
19 training when you became manager of dielectric fluids from
20 different research departments within Monsanto. Which
21 research departments did you receive informal training from
22 when you became manager of dielectric fluids?

23 A. I received -- Again, I routinely communicated
24 with our dielectric technology group, headed by Ralph
25 Munch. I communicated with our analytical services depart-

1 ment, specifically with Jim Muir at that time, and, as I
2 have said previously, I communicated routinely with Bill
3 Papageorge, representing the outreach from my particular
4 role into the toxicology and medical group of Monsanto.

5 Q. So Bill Papageorge, as I understand your last
6 answer, was your connection to Monsanto's medical and
7 toxicology departments while you were manager of dielectric
8 fluids?

9 A. He was my major contact with those depart-
10 ments.

11 Q. Who was director of Monsanto's medical depart-
12 ment when you were manager of dielectric fluids?

13 A. George Roush.

14 Q. Did you discuss anything with George Roush
15 while you were manager of dielectric fluids regarding the
16 medical or toxicological aspects of PCBs?

17 A. From time to time, yes.

18 Q. Tell me what you remember about those conver-
19 sations.

20 MR. FEATHERSTONE: With Dr. Roush?

21 MR. BRADLEY: Yes.

22 A. I can't recall specific conversations. If
23 occasions demanded that I reach out to the medical group,
24 and if for some reason Papageorge was traveling or
25 unavailable, there were occasions when I would contact

1 Roush. There would be few occasions when I would
2 intentionally reach out rather than through Papageorge if
3 Papageorge was available.

4 Q. (by Mr. Bradley) Do you recall any occasion
5 were you reached out to Dr. Roush and discussed with him
6 information regarding the medical or toxicological aspects
7 of PCBs?

8 A. No.

9 Q. Have you ever spoken with anyone from Nevada
10 Power Company?

11 A. To my recollection, no.

12 Q. Have you ever spoken with any salesmen who
13 have sold the dielectric fluids manufactured by Monsanto to
14 Nevada Power Company?

15 MR. FEATHERSTONE: Any salesman who has sold
16 dielectric fluid manufactured by Monsanto to Nevada Power?

17 MR. BRADLEY: Yes.

18 A. No. Because at the point that I became the
19 dielectric manager in 1975, at that particular point in
20 time I believe we had already ceased selling dielectric
21 fluids to anybody other than manufacturers of electrical
22 equipment.

23 Q. (by Mr. Bradley) Have you spoken with anyone
24 within Monsanto who claims that they have spoken with
25 anyone from Nevada Power Company?

1 A. To my recollection, no.

2 Q. Do you know whether PCBs enter the body
3 through the skin?

4 A. We, as a matter of course, for many years in
5 our industrial hygiene made recommendations to users of
6 PCBs, strongly recommended and advocated avoiding prolonged
7 skin contact to preclude any potential entry of PCBs to the
8 system through the skin. There is no question that PCBs
9 have solvency action; we pointed that out. And to the
10 extent that any solvent material can penetrate the skin,
11 there was a potential of the PCBs to enter the body through
12 the skin.

13 Q. Do you know whether PCBs enter the body
14 through the skin?

15 MR. FEATHERSTONE: Object to the form of the
16 question.

17 Q. (by Mr. Bradley) I'm not interested in what
18 you told your customers. I'm interested in whether you
19 know whether PCBs enter the body through the skin.

20 A. I don't know that they enter the body through
21 the skin.

22 Q. Have you ever heard the term "furan"?

23 A. Yes.

24 Q. Do you know what a furan is?

25 A. Yes.

1 Q. What is a furan?

2 A. It is a cyclable compound. It's an organic
3 cyclable material.

4 Q. Have you ever heard the term polychlorinated
5 dibenzofuran?

6 A. Yes.

7 Q. Do you know whether any of the dielectrical
8 fluids manufactured by Monsanto contained any polychlori-
9 nated dibenzofurans?

10 A. The alleged presence of chlorinated dibenzo-
11 furans in chlorinated biphenyls was a claim that came
12 fairly late in the discussions, regulation and control of
13 PCBs.

14 At the time that Monsanto became aware of
15 allegations surrounding chlorinated dibenzofurans, we again
16 initiated test work within Monsanto to be able for us to
17 verify whether, first, you have the presence, and the test
18 work, and we concluded that prior to exiting the PCB
19 dielectrics business, as I recall, confirmed only the
20 potential of extremely extraordinary low levels of furans
21 in higher chlorinated biphenyls that Monsanto had produced.

22 Q. What was your understanding about the levels
23 of the furans in the dielectric fluids manufactured by
24 Monsanto?

25 A. I thought I just answered that question.

1 Q. You did. You said there were extremely small
2 levels. But what were the levels that were found, that you
3 recall?

4 A. In Aroclor 1254, the one report that I saw of
5 work handled in Muir's department, suggested that they may
6 have identified presence in the parts-per-billion level.

7 Q. Have you ever heard the term "chloracne"?

8 A. Yes.

9 Q. What is it?

10 A. Chloracne is a condition which was really
11 defined during the Second World War, which was a condition
12 which carried symptoms of skin eruptions, a certain amount
13 of skin darkening, a certain amount of rash, pustules,
14 which was associated at that particular point in time with
15 the use of chlorinated materials, in insulation of cables
16 and certain power control systems in military equipment.

17 Q. Do you know whether there were any reported
18 cases of chloracne prior to the Second World War?

19 A. At the time that people were developing data
20 about the presence of PCBs in the environment and the
21 potential impact of such presence, review was carried out
22 of the previous medical literature concerning chloracne,
23 and, as I recall, there were some earlier reported claims
24 of similar symptoms in the thirties and forties, but which
25 subsequent generation of medical information certainly did

1 not relate specifically to chlorinated biphenyls.

2 MR. BRADLEY: Read it back, please.

3 (Thereupon, the reporter propounded the previous
4 question.)

5 Q. (by Mr. Bradley) When was the time period
6 that people were developing data about the presence of PCBs
7 in the environment and the potential impact of such
8 presence that resulted in a review being made of prior
9 cases of chloracne?

10 A. Considerations of the potential presence of
11 PCB in the environment and the possible impact of such
12 presence, if determined, of any lengthy duration, reached a
13 peak in the period starting from about 1966 and continued
14 until the present.

15 Q. So was there a review made of prior cases of
16 chloracne shortly after 1966 regarding any alleged correla-
17 tion between chloracne and PCBs?

18 A. I don't recall when the review of the earlier
19 cases was done.

20 Q. When did you learn that there had been a
21 review of the earlier cases?

22 A. In the 1974-'75 period.

23 Q. Who told you there had been a review of the
24 prior cases of chloracne?

25 MR. FEATHERSTONE: You called it the prior

1 cases of chloracne. He called it the literature. Are you
2 talking about the same thing, Mr. Bradley?

3 MR. BRADLEY: I have my question out there.
4 It's based upon the notes I have of his testimony.

5 MR. FEATHERSTONE: I object to the form of the
6 question.

7 Q. (by Mr. Bradley) Go ahead.

8 A. I think, given the objection of counsel, we
9 better rephrase the question.

10 Q. Did you not understand the question?

11 A. I'm now confused.

12 MR. BRADLEY: Would you read the last question
13 back, please?

14 (Thereupon, the reporter read back a portion of the
15 testimony.)

16 Q. (by Mr. Bradley) Who told you that a review
17 was made of previous medical literature regarding chlor-
18 acne?

19 A. It was either Paul Benignus or Bill
20 Papageorge.

21 Q. Did -- Whichever one of them gave you the
22 information, did they indicate to you that a peer-reviewed
23 study had been conducted that discounted the claims made in
24 the 1930s and '40s regarding chloracne and its relationship
25 to PCBs?

1 A. I am going to have to ask you to repeat that
2 question, because there are a lot of elements in the
3 question.

4 (Thereupon, the reporter propounded the previous
5 question.)

6 A. Neither one of them claimed a peer review.
7 The information was that a literature review had been
8 carried out which suggested that the symptoms which had
9 been perceived in certain people alleged to be suffering
10 from chloracne earlier was probably related to exposure to
11 chlorinated naphthalenes or other materials other than PCBs.

12 Q. (by Mr. Bradley) Did either Bill Papageorge
13 or Paul Benignus refer you to an article in the Journal of
14 Industrial Hygiene and Toxicology, dated September, 1937,
15 Volume 19, Number 7, by Cecil K. Drinker and others?

16 A. I don't recall.

17 Q. I'm going to show you Plaintiff's Exhibit 979
18 and ask you to review that for me.

19 MR. FEATHERSTONE: What do you want him to do?

20 MR. BRADLEY: I want him to review it to
21 indicate to me whether he's ever seen it before and whether
22 he's familiar with the information in it. So he is going
23 to have to read it.

24 MR. FEATHERSTONE: You want him to read this
25 entire article?

1 MR. BRADLEY: Unless he's already seen it.

2 THE WITNESS: I don't know whether I've seen
3 this article or not.

4 Q. (by Mr. Bradley) In your work at Monsanto
5 have you ever reviewed any articles concerning PCBs that
6 were published in the Journal of Industrial Hygiene and
7 Toxicology?

8 A. I don't recall.

9 Q. Did either Paul Benignus or Bill Papageorge
10 indicate to you that in 1937 a report was written regarding
11 the effects from exposure to vapors of chlorinated
12 diphenyl?

13 A. Either Bill Papageorge or Paul Benignus indi-
14 cated that the appropriate people in Monsanto were continu-
15 ously reviewing known hygiene effects of PCBs, as we did
16 with all our products.

17 It was not part of my job. It was not re-
18 quired of me or appropriate for me to attempt to encompass
19 the job of all expert functions within Monsanto that helped
20 us to good decision making around the commercialization of
21 the products that we sold.

22 MR. BRADLEY: I move to strike the answer as
23 nonresponsive.

24 My question was whether Bill Papageorge or
25 Paul Benignus indicated to you that in 1937 a study was

1 done regarding the effects of inhalation of vapors from
2 chlorinated diphenyl.

3 A. I don't recall.

4 Q. Have you heard the term, "chlorinated
5 diphenyl"?

6 A. Yes.

7 Q. Is that the same as chlorinated biphenyl?

8 A. Yes. Chlorinated diphenyl is the terminology
9 used in Europe, or chlorinated biphenyl, or the other way
10 around. I mean, there is a distinction across the Atlantic
11 between the use of the terms biphenyl and diphenyl.

12 Q. And are both of them referred to also as PCBs?

13 A. Today, yes.

14 Q. Do you know whether in 1937 anyone used the
15 term PCBs?

16 A. I have never seen the use of the term PCB at
17 that point in history.

18 Q. When did you know PCB began to be used as a
19 term?

20 A. Probably in the late sixties.

21 Q. And when it began being used as a term in the
22 late sixties, it referred in part, did it not, to what had
23 been referred to as chlorinated diphenyl?

24 A. That was probably not the case until the early
25 seventies.

1 Q. Did Bill Papageorge or Paul Benignus ever tell
2 you that in 1937 the effects of ingestion of chlorinated
3 diphenyls were studied?

4 MR. FEATHERSTONE: Object to the form.

5 A. I don't recall.

6 Q. (by Mr. Bradley) Are you familiar with the
7 term "halowax"?

8 A. I know the term halowax.

9 Q. What was halowax in 1937? If you know.

10 MR. FEATHERSTONE: If you know.

11 A. Yeah. I know the term halowax was used in
12 relationship to some chlorinated waxy type of products.
13 beyond that I cannot be more specific.

14 Q. (by Mr. Bradley) Do you know whether halowax
15 was comprised in part of chlorinated diphenyl?

16 A. No, I don't.

17 Q. Do you know whether it was comprised in part
18 of chlorinated naphthalene?

19 A. My recollection is that I associate halowax
20 relative to chlorinated paraffins and chlorinated
21 naphthalenes.

22 Q. Do you know whether Monsanto undertook any
23 studies between 1930 and the completion of your work with
24 PCB products at Monsanto regarding the health effects of a
25 combination of chlorinated naphthalene and chlorinated

1 diphenyl?

2 A. I have no detailed knowledge of such work.

3 Q. Did Bill Papageorge ever discuss with you any
4 studies that had looked at the effects of exposure to a
5 combination of chlorinated naphthalene and chlorinated
6 diphenyl?

7 A. I do not recall conversations relative to that
8 specific procedure.

9 Q. Do you recall specific conversations relative
10 to that topic with any Monsanto employee?

11 A. No.

12 Q. Did Bill Papageorge indicate to you that
13 Monsanto knew as early as 1937 that eight or ten General
14 Electric employees exposed to a combination of chlorinated
15 naphthalene and chlorinated diphenyl as part of a halowax
16 mixture were very severely afflicted, horrible specimens,
17 as far as their skin condition was concerned?

18 MR. FEATHERSTONE: Object to the form.

19 A. As I have already stated, I did not discuss in
20 detail with either Benignus or with Papageorge in any
21 extensive detail work that was relative to the early
22 thirties and forties.

23 Q. (by Mr. Bradley) Did anyone ever tell you
24 that, if there were a sufficient concentration of PCBs on
25 the skin to cause a skin condition or rash, systemic

1 poisoning may occur in some people who are hypersensitive
2 to PCBs?

3 A. Yes. And that would form the basis for the
4 good industrial hygiene practice which Monsanto communi-
5 cated, which was that, if people were working with PCBs and
6 were seen to have any rash or allergic condition, that they
7 should be withdrawn from work in a PCB environment.

8 MR. BRADLEY: I move to strike the answer
9 following the word "Yes," as nonresponsive and self-
10 serving.

11 Did Monsanto ever generate documents informing
12 readers that exposure to PCBs may cause systemic poisoning?

13 MR. FEATHERSTONE: Object to the form of the
14 question.

15 A. I don't recall exactly what the cautionary
16 statements of industrial hygiene were in the booklet, the
17 instruction manual. If you have one and want to show it to
18 me, then I could comment to it.

19 Q. (by Mr. Bradley) With your degree in science
20 and with your extensive work history at Monsanto, are you
21 familiar with the phrase "systemic poisoning"?

22 MR. FEATHERSTONE: Can I have the question
23 again, please?

24 (Thereupon, the reporter propounded the previous two
25 questions.)

1 MR. BRADLEY: Go ahead and answer.

2 THE WITNESS: I was waiting. Did my counsel
3 want -- Other than listen to those questions, do you want
4 to give me any advice, or --

5 MR. FEATHERSTONE: I've already objected to
6 the form of the question. So, If you can answer it, go
7 ahead. If you can't, tell him that.

8 A. I can't answer it.

9 Q. (by Mr. Bradley) Have you ever heard the term
10 "systemic poisoning"?

11 A. Yes.

12 Q. When you've heard that term, what has it meant
13 to you?

14 A. Systemic poisoning is a situation where an
15 exposure at a part of the body does not necessarily create
16 a symptom at that part of the body, but may affect or have
17 an impact on a central system so that symptoms elsewhere in
18 the body may then display further additional symptoms.

19 Q. What are the central systems in the body?

20 A. The heart -- Can I answer that question with-
21 out it being -- as a generalized thing? I'm not saying
22 that I'm associating in this answer in any way any of these
23 things that might concern the central system where there is
24 PCB activity.

25 Q. Yes.

1 A. The heart is a central system, the lungs are a
2 central system, the liver is a central system, the kidneys
3 are a central system.

4 Q. Do you know whether any central systems have
5 been shown to be poisoned by exposure to PCBs?

6 A. An exposure to PCBs has been shown to
7 potentially lead to a buildup of PCBs in adipose tissue.
8 Whether that, and when that would proceed to a point that
9 could be defined as poisoning, that gets us into another
10 definition and discussion.

11 Q. Other than the buildup of PCBs in adipose
12 tissue, are you aware of any other central systems that are
13 alleged to have been injured by exposure to PCBs?

14 A. No.

15 Q. Has anyone ever indicated to you that liver
16 damage may result from exposure to PCBs?

17 A. The liver is an organ which contains substan-
18 tial adipose tissue, and, therefore, buildup of PCBs in the
19 liver area has been associated with PCBs. To the extent
20 that a liver surrounded by adipose tissue containing PCBs
21 may have a change in function, and that the change in
22 function could be considered as damage, then, yes, there is
23 damage.

24 Q. Did anyone ever tell you that before March
25 18th, 1970, Monsanto admitted that all customers using

1 dielectric fluids containing PCBs had not been officially
2 notified about known effects, nor did Monsanto labels carry
3 information about known effects?

4 MR. FEATHERSTONE: Object to the form.

5 A. Relative to what Monsanto is saying about the
6 usage of PCBs, I have to ask you to divide that question
7 that you just asked me, taking into account and asking me
8 it in terms of, are you asking me about knowledge at the
9 time I was in the sales representative job, or at the time
10 that I was in the European marketing management job, are
11 you asking --

12 MR. FEATHERSTONE: I think the question is
13 narrower than that. I think the question is whether any-
14 body has ever admitted to you, whatever the question, and
15 then goes on to state. Why don't you ask to have the ques-
16 tion repeated.

17 (Thereupon, the reporter propounded the previous
18 question.)

19 A. No.

20 MR. BRADLEY: Off the record for just a
21 moment.

22 (Thereupon, a luncheon recess was taken.)

23 Q. (by Mr. Bradley) During the period of time in
24 the 1960s when you were working with dielectric fluids
25 containing PCBs, did you relay any information to any

1 electrical utility industry group regarding the effects of
2 exposure to PCBs?

3 A. At the time that I was involved with PCB
4 dielectrics in the sixties, there would be occasions when I
5 would talk to utilities that used the electrical equipment
6 about the handling and maintenance of the equipment. I can
7 recollect a few occasions when that sort of communication
8 occurred during that period.

9 Q. During the 1960s did you talk with any
10 electric utility companies within the United States regard-
11 ing the effects of PCBs?

12 A. No, I did not.

13 Q. During the 1960s were you aware of any
14 communications Monsanto Company made to electrical utility
15 companies within the United States regarding the effects of
16 exposure to PCBs?

17 A. Only to the extent that such communications
18 were translated into instruction manuals that would be
19 supplied to European users of our materials.

20 Q. What work did you do when you were no longer
21 manager of dielectric fluids? What was your next job
22 title?

23 A. Are we now in the late seventies period?

24 Q. That's my understanding.

25 A. Immediately after I was manager of

1 dielectrics, I was manager of heat transfer fluids.

2 Q. Over what period of time were you the manager
3 of heat transfer fluids?

4 A. That was about a two-to-three-year period.

5 Q. Beginning when, roughly?

6 A. '76, '77.

7 Q. Okay. During your work as manager of heat
8 transfer fluids, did you have any involvement with PCBs?

9 A. Yes, I did.

10 Q. And what was that involvement?

11 A. To the extent that there were residual
12 correspondence questions, issues after we had stopped
13 manufacturing and distributing and selling PCB-containing
14 dielectric fluids, I was called upon occasionally to handle
15 questions outside of Monsanto which pertained to the time
16 that we had been in that business.

17 Q. Were those questions posed from electrical
18 utility companies?

19 A. I believe I may have had a limited number of
20 isolated questions from utility companies during that
21 period of time.

22 Q. I take it, though, that the heat transfer
23 fluids that you were managing did not contain PCBs?

24 A. They did not.

25 Q. What was your next job title?

1 A. Manager of raw material purchases.

2 Q. When did you begin that job and when did it
3 end?

4 A. It began in the period of either 1979 or '80,
5 and it would have ended in 1982.

6 Q. What was your next job title?

7 A. I became commercial director for Monsanto
8 Chemical Company in Brazil.

9 Q. When did you begin and end that job?

10 A. End of March of 1982, and I finished it in
11 September of 1988.

12 Q. What was your next job title?

13 A. I then became business director for plasti-
14 cizers and specialty resins.

15 Q. When did that job begin?

16 A. That job began in September of 1988.

17 Q. When did it end?

18 A. Until sometime in 1989.

19 Q. What was your next job title?

20 A. Business director for polymer modifiers in the
21 specialties division.

22 Q. Did that begin in 1989?

23 A. Yes.

24 Q. And when did it end?

25 A. That job ended in 1991.

1 Q. What was your next job title?

2 A. Business director, Saflex Americas. S-a-f-
3 l-e-x, Americas, with an S on the end.

4 Q. What is Saflex Americas?

5 Q. Saflex is a plastic sheet which is used to
6 laminate glass in such applications as safety in automotive
7 windshields. Every windshield in the western world con-
8 tains a plastic laminate to protect passengers. It is all
9 plastic, and Monsanto is the major world producer of that
10 plastic sheet.

11 Q. Over what period of time were you director of
12 Saflex Americas?

13 A. From 1991 until the present time. Americas
14 implies that I have responsibility for that particular
15 business in North and South America.

16 Q. Were you -- Let me ask it this way: Do you
17 know whether Monsanto and its customers have entered into
18 indemnification agreements regarding the customer sale of
19 PCBs?

20 A. In the early 1970s, before I became responsi-
21 ble for the dielectric business in the Americas -- North
22 America, Monsanto had entered into agreements with our
23 customers who produced dielectric equipments in which they,
24 to a certain extent, indemnified Monsanto against the con-
25 sequences of their mishandling our PCBs.

1 Q. Do you know whether Monsanto's customers'
2 customers were informed of the indemnification agreement
3 that you just discussed?

4 A. No.

5 Q. Monsanto sold dielectric fluid beginning in
6 the 1930s; is that -- Let me rephrase the question.

7 Monsanto sold dielectric fluid containing PCBs
8 beginning in the 1930s; is that correct?

9 A. My recollection of the historical perspectives
10 that I was given when I became involved with the business
11 is that we entered that business sometime in the 1930s.

12 Q. Do you know whether Monsanto customers were
13 ever informed regarding the 1930s studies that associated
14 chloracne with exposure to chlorinated diphenyl?

15 MR. FEATHERSTONE: Object to the form.

16 A. At the time that I became involved with
17 dielectric fluids containing PCBs, I know that our instruc-
18 tion manuals which were supplied to producers of electrical
19 equipment containing such fluids certainly contained
20 industrial hygiene recommendations which recognized that
21 skin contact for a prolonged period was undesirable.
22 Beyond that it would be pure speculation on my part.

23 Q. Do you know whether Monsanto ever informed its
24 customers that chloracne was a condition known in the
25 thirties to be caused by exposure to a mixture of

1 chlorinated naphthalene and chlorinated diphenyl?

2 A. I do not have specific knowledge about that.

3 Q. Do you know whether Monsanto ever informed its
4 customers that pathologic changes in animals exposed to a
5 commercially chlorinated diphenyl were reported as early as
6 1944?

7 A. No.

8 Q. Do you know whether Monsanto ever informed its
9 customers that the toxicity of the vapors of Aroclor 1242
10 and 1254 were documented as early as 1956?

11 A. No.

12 Q. Do you know whether Monsanto ever reported to
13 its customers that ninety-nine percent of all Americans
14 reportedly have over five hundred parts per billion PCBs in
15 their adipose tissue?

16 A. Could you repeat the question?

17 Q. Do you know whether Monsanto ever informed its
18 customers that ninety-nine percent of all Americans
19 reportedly have over five hundred parts per billion PCBs in
20 their adipose tissue?

21 MR. FEATHERSTONE: Parts per billion? Is that
22 what you said?

23 MR. BRADLEY: Yes.

24 A. I don't believe Monsanto ever carried out any
25 work which would have caused us to make such an estimate

1 for us to communicate to our customers. There were
2 allegations that PCBs were broadly present in the adipose
3 tissue of the population of America, but, in that it was
4 not for us to fuel nonscientific speculation by reporting
5 every allegation that was made at that time, we probably
6 did not report such.

7 Q. (by Mr. Bradley) Are you familiar with the
8 term biomagnification?

9 A. Yes.

10 Q. What is it?

11 A. Biomagnification is the process by which a
12 material can be assimilated by a species in the ecological
13 chain, and as that particular species, as a natural food
14 for a higher species, is consumed, then the presence of the
15 material that may be in the adipose tissue of the consumed
16 species is magnified in the tissue of the consuming
17 species.

18 Q. Are you familiar with the phrase food chain?

19 A. Yes.

20 Q. Do PCBs biomagnify in the human food chain?

21 A. Yes, they can.

22 Q. Did Monsanto ever inform its customers that
23 PCBs can biomagnify in the human food chain?

24 A. Yes, we did.

25 Q. And how did you do that?

1 A. As part of the notification to our customers
2 of the need to avoid contaminating waters with PCBs. We
3 used examples, as I recall, of biomagnification in the fish
4 food chain.

5 Q. Where would that information have been?

6 MR. FEATHERSTONE: I'm sorry. Where would
7 that information have been?

8 Q. (by Mr. Bradley) Is that in the instruction
9 manual?

10 A. No.

11 Q. Where was it located?

12 MR. FEATHERSTONE: You mean, in what form was
13 it communicated?

14 Q. (by Mr. Bradley) Thank you. In what form was
15 it communicated?

16 A. As Monsanto over a period of time developed
17 information about the fate of PCBs in the environment, we
18 kept our customers aware on a continuing ongoing basis of
19 various studies that were carried out which related to
20 distribution of PCBs in the environment, and --

21 MR. FEATHERSTONE: I think he's asking you
22 whether it was done in a written form or whether it was
23 done in meetings. How was that information communicated?

24 Q. (by Mr. Bradley) Brochures, letters,
25 instruction manuals?

1 A. Letters and discussions.

2 Q. Did you ever author a letter to a customer --
3 Before I -- Let me stop that question for a moment and ask
4 to have the last question read back.

5 (Thereupon, the reporter propounded a portion of the
6 testimony.)

7 Q. (by Mr. Bradley) Let me start a new question:
8 Mr. Wood, did you author any letters to any Monsanto custo-
9 mers informing those customers that PCBs can biomagnify in
10 the human food chain?

11 A. Almost certainly not.

12 Q. Did you ever review any letter authored by a
13 Monsanto employee which informed Monsanto customers that
14 PCBs can biomagnify in the human food chain?

15 A. I believe, yes.

16 Q. Who authored that -- Who were the authors, if
17 there was more than one, of those letters, if there was
18 more than one?

19 A. That type of communication would probably have
20 been authored by Jim Muir, Bill Papageorge. These are the
21 names that come to mind as people who would compose such
22 letters.

23 Q. I'm interested in knowing whether you surmise
24 that these gentlemen wrote those letters or whether you
25 ever remember reviewing a letter written by anyone that

1 informed Monsanto customers that PCBs can biomagnify in the
2 human food chain.

3 A. I know that there were questions from our
4 customers about the issues of biomagnification, and, there-
5 fore, I know that individual letters would have been
6 authored by such people in response to such questions. I
7 am not aware of any general open customer letter
8 communication that they authored.

9 Q. And going back for a moment, do you recall
10 ever reviewing a letter written by a Monsanto employee to
11 Monsanto customers that discusses PCB biomagnification in
12 the human food chain?

13 A. I don't recall that.

14 Q. Did you have any discussions with any Monsanto
15 customers where Monsanto informed the customers that PCBs
16 can biomagnify in the human food chain?

17 A. Yes, I did.

18 Q. When did those occur?

19 A. Between 1975, January, and 1976, '77.

20 Q. With whom did you have those discussions?

21 A. At various points I would have had discussions
22 around those subjects with every one of our U.S. customers.

23 Q. So you had those discussions with General
24 Electric?

25 A. Yes.

1 Q. And you had those discussions with
2 Westinghouse?

3 A. Yes, I did.

4 Q. Do you know whether anyone within Monsanto
5 prior to 1975 informed its customers that PCBs can
6 biomagnify in the human food chain?

7 A. I surmise that they must have done because
8 biomagnification was not an alien term in discussions
9 between Monsanto and its customers when I became involved
10 in this business in 1975.

11 Q. Have you ever reviewed a letter written by any
12 of Monsanto's customers to their customers that indicates
13 that PCBs can biomagnify in the human food chain?

14 A. No.

15 Q. Have any of Monsanto's customers ever informed
16 you that they have told their customers that PCBs can
17 biomagnify in the human food chain?

18 MR. FEATHERSTONE: I think we're on Monsanto's
19 customers to its customers. Is that right?

20 THE WITNESS: I thought we had just departed
21 from that.

22 MR. FEATHERSTONE: Well, let's have the ques-
23 tion back, then, to prevent any confusion on this.

24 (Thereupon, the reporter propounded the previous
25 question.)

1 A. Monsanto's customers advised me that they were
2 communicating with their customers about the presence and
3 impact of PCB in the environment. Whether they specifical-
4 ly in such communication dealt with biomagnification, I
5 cannot with certainty say.

6 Q. (by Mr. Bradley) Do you know what the term
7 "synergism" means?

8 A. Yes.

9 Q. What does synergism mean?

10 A. Synergism means that a particular activity
11 related with two or more individual products can be
12 magnified more than by purely the additive affect of those
13 two activities when they are combined.

14 Q. Can PCBs work synergistically with other
15 compounds impairing an immune system?

16 MR. FEATHERSTONE: Objection. Calls for
17 speculation on this witness's part.

18 A. I have no knowledge.

19 Q. (by Mr. Bradley) Do you know whether Monsanto
20 ever informed its customers that PCBs can work syner-
21 gistically with other compounds by impairing the immune
22 system?

23 A. No.

24 Q. No, you don't know, or no, Monsanto didn't
25 relay that information to its customers?

1 A. You asked me if I knew if Monsanto had ever,
2 and I said no.

3 Q. Did Westinghouse ever inform you that it knew
4 as of 1938 that PCB contact with the skin can cause
5 systemic effects, including injurious effects to the liver?

6 A. Westinghouse never told me this.

7 Q. Did General Electric ever tell you that it
8 knew in 1938 that PCB contact with the skin can cause
9 systemic effects, including injurious effects on the liver?

10 A. General Electric never told me this.

11 MR. FEATHERSTONE: Could I have that last
12 question back?

13 (Thereupon, the reporter read back the question.)

14 A. In both cases, in answer to both of those
15 questions, I was never told that by Westinghouse and I was
16 never told that by General Electric.

17 Q. (by Mr. Bradley) Did Westinghouse ever tell
18 you that it knew in 1947 that chronic poisoning may occur
19 with repeated exposures to sufficient concentrations of PCB
20 vapor?

21 A. No.

22 Q. Did General Electric ever inform you that in
23 1947 it knew that chronic poisoning may occur with repeated
24 exposures to sufficient concentrations of PCB vapor?

25 A. No.

1 Q. Did Monsanto inform its customers prior to
2 1970 that chronic poisoning may occur with repeated
3 exposures to sufficient concentrations of PCB vapor?

4 MR. FEATHERSTONE: I'm sorry. Let me hear the
5 first part of that question back.

6 (Thereupon, the reporter propounded a part of the
7 previous question.)

8 MR. FEATHERSTONE: All right. That's all I
9 need.

10 (Thereupon, the reporter propounded the previous
11 question in its entirety.)

12 MR. FEATHERSTONE: I object to the form of the
13 question as calling for speculation on the part of the
14 witness as to what may have happened at Monsanto prior to
15 1970. No foundation for him to answer the question on
16 behalf of the entire company.

17 A. I certainly made no such disclosure to my
18 customer base in Europe.

19 Q. (by Mr. Bradley) Were you ever provided any
20 documents in the work that you did with Monsanto that
21 indicated Monsanto knew in 1947 that chronic poisoning may
22 occur with repeated exposures to sufficient concentrations
23 of PCB vapor?

24 A. No.

25 Q. Were you ever informed during your work at

1 Monsanto that repeated exposures to PCB vapor may produce
2 internal bodily injury which may be disabling or could be
3 fatal?

4 A. Sorry. It's just the form -- the form of
5 ingestion I didn't capture in that question.

6 MR. BRADLEY: Would you read the question
7 back?

8 (Thereupon, the reporter read back the question.)

9 A. I was informed by Monsanto that exposure to
10 vapors of PCBs at high levels at high temperatures should
11 be avoided. This was never communicated to me in a sense
12 that this was potentially fatal.

13 Q. (by Mr. Bradley) Did Monsanto ever inform its
14 customers that periodic physical examinations should be
15 conducted by medical personnel for workers exposed to PCBs?

16 MR. FEATHERSTONE: Object to the form of the
17 question and to the absence of foundation for this witness
18 to testify on behalf of Monsanto over a long period of
19 time. Calls for speculation.

20 A. The standard industrial hygiene practice that
21 was communicated in our instructional manuals to dielectric
22 users did not include recommendation as to routine medical
23 inspection.

24 Q. (by Mr. Bradley) And over what period of
25 years are you familiar with those instruction manuals?

1 A. An initial period between 1965 and 1970, and a
2 secondary phase between 1975 and 1978.

3 Q. Did you ever review instruction manuals
4 prepared prior to 1965?

5 A. No, I did not.

6 Q. Have you ever heard of Congressman Ryan?

7 A. I recall the name. I can't recall in what
8 context I know the name.

9 Q. Do you know whether Congressman Ryan in 1970
10 proposed legislation that would impact upon the sale of
11 PCBs?

12 A. No.

13 Q. Do you know whether in 1955 Monsanto knew that
14 production workers manufacturing PCBs experienced chlor-
15 acne, gastric troubles, and liver troubles?

16 Let me rephrase the question. I'm not happy
17 with that question. Do you know, during the period of time
18 you were employed at Monsanto, whether it ever informed its
19 customers that it was reported in 1955 that production
20 workers manufacturing PCBs experienced chloracne, gastric
21 troubles, and liver troubles?

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

24 MR. BRADLEY: What's wrong with the form of
25 the question?

1 MR. FEATHERSTONE: It misstates the evidence.

2 Q. (by Mr. Bradley) Go ahead and answer.

3 A. I'm unable to respond to that question. I
4 have no knowledge of such communications prior to my being
5 involved, and certainly I was not involved whilst I was
6 responsible with any such communication.

7 Q. You're familiar with the work of Professor
8 Widmark?

9 A. Professor Widmark, to my knowledge, did very
10 little work himself with any relevance to the subject we're
11 talking about.

12 Q. Are you familiar with the work of Dr. Jensen?

13 A. Yes.

14 Q. Did he issue a published report in 1967
15 regarding PCBs in the environment?

16 A. No.

17 Q. When did he issue a report? If he did.

18 A. I believe his report, which he commented about
19 the work earlier, but his report was issued no earlier than
20 1969.

21 Q. Was his report a published report?

22 A. Which one are we talking about?

23 Q. The one in '69, I guess.

24 A. I believe his work was finally presented in a
25 published form sometime in the 1969 time frame.

1 Q. Was it available in an unpublished form prior
2 to '69?

3 A. It had been -- Commentary about the direction
4 that his work was taking were released by Dr. Jensen and
5 Dr. Widmark in the winter of 1966.

6 Q. What was Dr. Jensen reporting?

7 A. I don't believe Jensen was a doctor at that
8 time, so that Dr. Jensen, he was not a doctor reporting
9 anything at that point in time.

10 Q. What was Mr. Jensen reporting?

11 MR. FEATHERSTONE: Object to the form.

12 Q. (by Mr. Bradley) What was Mr. Jensen
13 reporting in this unpublished study that came out in 1966?

14 MR. FEATHERSTONE: Wait a minute. The witness
15 has talked about commentaries in the winter of 1966. Is
16 that what you're talking about?

17 MR. BRADLEY: The witness has talked about a
18 published study that appeared in '69 and commentaries that
19 were are released in the winter of '66. That's what my
20 notes show.

21 Were the commentaries written by Mr. Jensen or
22 by others?

23 A. By others.

24 Q. (by Mr. Bradley) Were the commentaries
25 comments on an unpublished study prepared by Mr. Jensen?

1 A. The commentaries departed from an unpublished
2 study of work in progress by Mr. Jensen and extended them-
3 selves into areas of speculation which were of some
4 embarrassment to Mr. Jensen.

5 MR. BRADLEY: I move to strike the answer as
6 nonresponsive.

7 Were the commentaries evaluations of an un-
8 published work that was being circulated by Mr. Jensen?

9 A. No. Certainly not.

10 Q. (by Mr. Bradley) All right. What were --
11 Were the commentaries on -- Well, let me ask it this way:
12 What were the commentaries commenting on?

13 A. Commentaries in December of 1966, based on
14 some analytical studies which Mr. Jensen was conducting but
15 had not completed, were made essentially at the instigation
16 of people who were manufacturing an analytical -- a piece
17 of analytical equipment which they wished to promote at
18 that particular time.

19 The press releases about the performance of
20 that equipment related to the ability of such equipment to
21 determine the presence of the environmental contaminants of
22 a chlorinated nature in the environment. The commentary
23 related to some things or the presence of some molecules
24 other than BDT, which the particular study was involved
25 with, and beyond that point, the rest of the commentary was

1 speculative.

2 Q. Was there any discussion in the commentaries
3 of PCBs?

4 A. No. There was a commentary at that point in
5 time about some materials which were described by the
6 commentators as chlorinated diphenols. And this created
7 some major confusion as to what chlorinated species of
8 industrial or agricultural product was Jensen really
9 addressing in his analytical study.

10 Q. Was there a time when it was made clear that
11 chlorinated diphenols were chlorinated diphenyls?

12 MR. FEATHERSTONE: Wait a minute. That
13 doesn't follow. You mean that that's what he was talking
14 about?

15 MR. BRADLEY: Yes. Chlorinated diphenols, and
16 in fact, he was talking about chlorinated diphenyls.

17 Can you answer the question?

18 A. Sure.

19 MR. FEATHERSTONE: Then go ahead and answer
20 it.

21 A. To my mind, the query as to what chlorinated
22 species really were involved in Mr. Jensen's study, to my
23 mind, was not scientifically resolved until about 1969 or
24 even later.

25 Q. (by Mr. Bradley) When it was scientifically

1 resolved, what chlorinated compound was it that was
2 involved in Mr. Jensen's study?

3 A. Highly chlorinated biphenyls. PCPs, as they
4 became known.

5 MR. FEATHERSTONE: When you said "chlorinated
6 diphenols," would you spell that for the reporter?

7 THE WITNESS: Yes. The original Swedish
8 language articles commenting on Jensen talk about work
9 related to a chemical material described as chlorinated
10 diphenols, d-i-p-h-e-n-o-l-s.

11 MR. FEATHERSTONE: All right.

12 Q. (by Mr. Bradley) Okay. And how is that
13 different from the spelling of chlorinated diphenyls?

14 A. A phenol radical is a benzene ring with a
15 hydroxyl group associated with it.

16 Q. I'm just talking about the spelling? How does
17 the spelling differ?

18 A. Diphenyl has a Y in place of the O, but
19 they're very different chemical materials, and, therefore,
20 whether my answer is self-serving or not, we have to be
21 very precise on what we're talking about.

22 MR. BRADLEY: I move to strike as nonrespon-
23 sive.

24 MR. FEATHERSTONE: Off the record.

25 (Thereupon, a short colloquy was had.)

1 Q. (by Mr. Bradley) And at the time of the
2 Jensen published report in 1969, was he a doctor?

3 A. I don't know. I don't know whether he
4 received his doctorate or not.

5 Q. And following his report, do you know whether
6 Monsanto increased or decreased its production of PCBs?

7 MR. FEATHERSTONE: Which report, now?

8 MR. BRADLEY: The 1969 published report.

9 A. Chronologically, Monsanto's reduction of its
10 output of PCBs was after the publication of the Jensen
11 report, but I must insist that that is purely that. I
12 mean, chronologically we reduced production, in time, after
13 the publication of Jensen's report.

14 Q. (by Mr. Bradley) Well, let me ask this ques-
15 tion: Did you increase or decrease the production of PCBs
16 in 1970 versus 1969?

17 A. On a worldwide basis, I do not have that know-
18 ledge.

19 Q. How about on the -- using the United States as
20 a universe? Between 1969 and 1970, did Monsanto increase
21 or decrease its United States production of PCBs?

22 A. I don't know.

23 Q. Between 1969 and 1971, did Monsanto increase
24 or decrease its worldwide production of PCBs?

25 A. I don't know.

1 Q. Can you tell me what year Monsanto first
2 reduced its worldwide production of PCBs following issuance
3 of the published report by Jensen in 1969?

4 MR. FEATHERSTONE: Object to the form of the
5 question. Also calls for speculation on the part of the
6 witness, since he's already told you for several of those
7 years he doesn't know one way or the other.

8 Q. (by Mr. Bradley) Mr. Wood, if you don't know
9 the answer, just tell me you don't know it; if you do know
10 the answer, go ahead and answer it.

11 A. Because I was uninvolved with PCBs during that
12 period, I don't know the answer to that question.

13 Q. All right. Do you know what it means to bio-
14 degrade?

15 A. Yes, I do.

16 Q. Do PCBs manufactured by Monsanto biodegrade?

17 A. Yes.

18 Q. What does biodegrade mean?

19 A. Biodegrade means that when a chemical is
20 present in the environment in contact with other naturally-
21 occurring species in the environment, that the material
22 will gradually be broken down into smaller components.

23 Q. And if a compound breaks down into smaller
24 components but does not completely disappear, does it still
25 biodegrade?

1 A. Yes.

2 Q. And how is that expressed, as complete bio-
3 degradation, partial biodegradation, or some other phrase
4 or term?

5 MR. FEATHERSTONE: Object to the form of the
6 question.

7 Q. (by Mr. Bradley) What phrase is used to refer
8 to a compound that breaks down into smaller components but
9 does not completely disappear?

10 A. I would refer to it as a partially biodegrad-
11 able mixture.

12 Q. Are the PCBs manufactured by Monsanto com-
13 pletely biodegradable or partially biodegradable?

14 A. Partially biodegradable.

15 Q. Are there any PCBs manufactured by Monsanto
16 that are completely biodegradable? Excuse me. Let me
17 rephrase that. During the period of time that you were
18 working with Monsanto relative to the issue of PCBs, were
19 any of the PCBs manufactured by Monsanto completely bio-
20 degradable?

21 MR. FEATHERSTONE: Are you talking about
22 product mixtures, or are you talking about individual
23 isomers?

24 MR. BRADLEY: I understand, you know, from the
25 Tucker deposition that there is a difference. I want to

1 hear what his understanding is and explanation of it, so
2 I'm just going to leave the question as it is.

3 MR. FEATHERSTONE: Object to the form of the
4 question.

5 A. Polychlorinated biphenyls, as sold by Monsanto
6 for various dielectric applications, were complex mixtures
7 of isomers. The various isomers of chlorinated biphenyl
8 have differing biodegradation rates, and those varying
9 biodegradation rates will themselves vary depending on the
10 environment within which the biodegradation is occurring,
11 So discussion about complete or incomplete biodegradation
12 can only be discussed relative to specific PCB mixtures and
13 different specific environmental exposures.

14 Q. (by Mr. Bradley) During the time you were
15 working with PCBs at Monsanto, were there any PCB mixtures
16 that completely biodegraded?

17 A. Certain isomers of polychlorinated biphenyl in
18 tests carried out by Monsanto were shown to biodegrade com-
19 pletely.

20 Q. Were any tests conducted by Monsanto outside
21 of a laboratory situation which showed that -- Strike the
22 question.

23 Would you read back his answer to me?

24 (Thereupon, the reporter propounded the previous
25 answer.)

1 Q. (by Mr. Bradley) Did Monsanto perform any
2 test to determine whether the isomers which were shown to
3 biodegrade completely would biodegrade completely outside
4 of the laboratory?

5 MR. FEATHERSTONE: Object to the form.

6 A. That would not have been a fruitful line of
7 testing, so we did not.

8 Q. (by Mr. Bradley) I have shown you Plaintiff's
9 Exhibit 424 just before we started up again following the
10 lunch hour. Is that an exhibit you have ever seen before?

11 A. You said 424.

12 Q. Let me start the question again. I'm now
13 showing you Plaintiff's Exhibit 422 which I asked you to
14 review just before we started up again here following our
15 lunch break. Is that an exhibit that you have seen prior
16 to today?

17 A. No, I haven't.

18 Q. Okay. I'm going to show you Plaintiff's
19 Exhibit 435 and ask you to review that for me, please.

20 A. Yes.

21 Q. Is this a letter written by you?

22 A. Yes, it is.

23 Q. All right. And it's to George Buchanan in St.
24 Louis?

25 A. Yes, it is.

1 Q. And it's dated December 1, 1966?

2 A. Yes, it is.

3 Q. And attached to the letter is a copy of a
4 letter received from Ola Palm in Stockholm?

5 A. The signature appears to be "Ola," and given
6 my knowledge of the -- or remembrance of the organization,
7 that would have been Ola Palm.

8 Q. And is this exhibit a true and accurate copy
9 of the letter you authored December 1, 1966 to George
10 Buchanan with the attachment?

11 MR. FEATHERSTONE: Are you excluding the hand-
12 writing that's on the second and third pages?

13 Q. (by Mr. Bradley) Let me first ask: Is that
14 your handwriting on the letter from Ola Palm to you?

15 A. No.

16 MR. FEATHERSTONE: Let's go off the record.

17 (Thereupon, a discussion was had.)

18 Q. (by Mr. Bradley) Other than the handwriting
19 on the first page of the letter written to you by Ola Palm,
20 is this a true and accurate copy of the letter you wrote
21 December 1, 1966 to George Buchanan attaching the letter
22 directed to you from Ola Palm in Stockholm?

23 A. The copy of the letter from Rising & Strand is
24 indeed a copy of the letter I received from them. The
25 letter dated the 1st of December is my letter to George

1 Buchanan. Other than the handwritten notes on the Rising &
2 Strand letter, there are some underlinings of emphasis on
3 page two and some side-linings on page three which are not
4 mine.

5 Q. Otherwise, it's a true and accurate copy?

6 A. Yes, it is.

7 Q. Did you write the letter to George Buchanan,
8 December 1, 1966, shortly after you received the letter
9 from Ola Palm in Stockholm?

10 A. Given the normal mail transmission time, the
11 Rising & Strand letter you see is dated November 28th, and
12 almost immediately I wrote to Mr. Buchanan.

13 Q. Is this a document that you maintained in your
14 files at Monsanto as part of Monsanto's regularly-conducted
15 business activity?

16 A. It would normally have been in my dielectric
17 Sweden file.

18 Q. Okay.

19 MR. FEATHERSTONE: About that question, Mr.
20 Bradley, you were intending to ask him about his copy of
21 the letter without somebody else's handwritten marginal
22 notes?

23 MR. BRADLEY: That's correct. Without the
24 handwritten notes and without the underlinings and without
25 the lines drawn beside two paragraphs on the last page from

1 Ola Palm.

2 MR. FEATHERSTONE: Okay.

3 Q. (by Mr. Bradley) Mr. Wood, I have shown you
4 Plaintiff's Exhibit 358. Is that a memorandum that you
5 wrote to Bill Papageorge on October 30th, 1975?

6 A. The heading would suggest so.

7 Q. All right. Is this a true and accurate copy
8 of the letter that you wrote to Mr. Papageorge on that
9 date?

10 A. I don't recall every letter I wrote in 1975.
11 It does not seem to have been tampered with.

12 Q. And is this a document you wrote regarding
13 an EPA letter received October 17, 1975?

14 A. That's what the reference to this memo
15 suggests.

16 Q. Is this a document that you kept in your files
17 at Monsanto as part of its regularly-conducted business?

18 A. Yes.

19 Q. I'm now going to show you Plaintiff's Exhibit
20 357 and ask you to review that document.

21 Let's go off the record for a moment.

22 (Thereupon, a short recess was taken.)

23 Q. (by Mr. Bradley) Mr. Wood, you have before
24 you both Plaintiff's Exhibits 357 and 358?

25 A. Yes.

1 Q. Exhibit 358, which we have previously spoken
2 about, indicates that it's a comment on an EPA letter
3 received 10-17-1975. Is Plaintiff's Exhibit 357 the letter
4 from the EPA that is referenced in Exhibit 358?

5 A. Yes.

6 Q. Is that a true and accurate copy of the letter
7 that is referred to in Plaintiff's Exhibit 358, absent the
8 markings and handwriting?

9 A. Are we on 358 or 357?

10 Q. Let me start all over again. On 357 there are
11 some underlinings and there are some handwritten words.

12 A. Yes, there are.

13 Q. Did you write those handwritten words?

14 A. Yes.

15 Q. Did you underline those portions of Exhibit
16 357 that are underlined?

17 A. Yes.

18 Q. And did you put the markings next to certain
19 paragraphs, the straight line up and down?

20 A. Yes.

21 Q. And is this a true and accurate copy of the
22 letter that you received October 17, 1975 from the United
23 States Environmental Protection Agency?

24 A. Yes.

25 Q. Is this a document that you maintained within

1 your files at Monsanto as part of Monsanto's regularly-
2 conducted business?

3 A. Yes.

4 Q. Turning to 358, on the second page under item
5 twelve, you have listed Q10, which I assume means question
6 ten. It says, None, question mark; Yusho, question mark;
7 Cloracne years ago, hyphen, Dangerous Question. What were
8 you referring to when you indicated there was a dangerous
9 question?

10 A. Question ten in the EPA letter requests a
11 description of any adverse health or environmental effects
12 which you know or believe speculate to have resulted from
13 the introduction of PCB compounds.

14 It asked the correspondent to indicate
15 specifically occasions of dates, times, locations, amounts
16 and parties involved for which such effects are known, and,
17 in making a comment on this question ten to Bill
18 Papageorge, who would be responsible for Monsanto's re-
19 sponse to the EPA, I was trying to express a concern that,
20 in trying to succinctly and precisely to respond in an open
21 fashion to question ten, that there were issues of judg-
22 ment, and that we needed to be very clear and get consensus
23 that this indeed did represent a corporate position in our
24 responses.

25 I allude to Yusho because there had been an

1 awful lot of inaccurate reporting about exactly what was
2 the Yusho incident, who was involved, what had been the
3 effects.

4 Q. Well, let me ask this question: Number ten
5 asks, as you indicated, for a description of any adverse
6 health or environmental effects which you know or believe
7 to have resulted from the introduction of PCBs compounds or
8 mixtures into the environment, and then it asks for
9 specific information, and on Exhibit 358 regarding that
10 question you begin with none, question mark. Why did you
11 put none, question mark?

12 A. Because this was at a time when there were
13 allegations that perhaps PCBs were carcinogenic, and so, in
14 answering any type of response of this sort, by putting
15 those words with those question marks, I was saying there
16 needs to be some discussion, some debate as to, is there
17 any limit to the severity of affect. We need to -- Let's
18 talk about it, Bill.

19 Q. And by putting "None," was that intended as
20 an expression of prior corporate response to similar types
21 of questions?

22 MR. FEATHERSTONE: Object to the form.

23 A. No. I don't believe that was so.

24 Q. (by Mr. Bradley) Aren't you basically saying
25 here in Exhibit 358, "Geez, maybe we shouldn't tell them

1 anything. Maybe we should tell them about Yusho. Maybe we
2 should tell them about chloracne that happened years ago."
3 That's a pretty dangerous question; isn't that basically
4 what you're saying there?

5 A. No. I think that's your interpretation of
6 what you think was in my mind. It's not what I've just
7 stated was in my mind.

8 Q. Tell me -- I didn't understand your answer on
9 why you would list "None" for a description of any adverse
10 health or environmental effects. Did you believe that
11 "None" would be an appropriate response to question ten?

12 A. I think that "None" could have been appropri-
13 ate as a response to adverse human health effects.

14 Q. Well, the question says, "A description of any
15 adverse health or environmental effects..." Now --

16 MR. FEATHERSTONE: Well, that's not what it
17 says, so let's get it right. "... which you know or believe
18 to have resulted from the introduction of PCB compounds or
19 mixtures into the environment."

20 MR. BRADLEY: That's the reason that I talked
21 about environmental effects, Mr. Featherstone, is because
22 he had talked about adverse human health effects. I was
23 just trying to broaden it.

24 But in 1975 you were aware of the report by
25 Mr. Jensen describing PCBs in the environment; is that

1 true?

2 A. I saw the report of Mr. Jensen which reported
3 the presence of a previously unidentified chlorinated
4 species in the environment. That's all he was reporting,
5 the presence of a chlorinated species hitherto unidentified
6 in the environment.

7 Q. Lets me ask you this question, then, Mr. Wood:
8 By 1970 didn't you believe that PCBs were present in the
9 environment and were having some adverse affect on the
10 environment?

11 A. No. I believed the PCBs were in the environ-
12 ment. I would have been guilty of the worst sort of specu-
13 lation had I tried, from my knowledge base at that point in
14 time, to say what was the effect of those compounds in the
15 environment.

16 Q. Did you ever believe that PCBs in the environ-
17 ment caused eggshells to thin?

18 A. I believe that chlorinated species in the
19 environment could be connected with eggshell thinning. I
20 did not -- I was not capable at any time prior to 1975 of
21 really being able to satisfy myself intellectually that
22 PCBs were directly involved in eggshell thinning.

23 Q. What did you mean when you wrote on Exhibit
24 358, "Chloracne years ago - Dangerous Question," with a
25 hyphen in between there?

1 A. The hyphen in between was not relating to
2 dangerous question to chloracne. I was merely pointing out
3 that, in terms of the adverse effects, or adverse health
4 effects of PCB, chloracne had been raised as an adverse
5 affect of PCBs. That had nothing to do with their presence
6 in the environment in the sense that this question was
7 being asked. I mean, that was their presence in the work-
8 place which was leading to -- had been related to lead to
9 chloracne years ago.

10 And the question said, "...that you know or
11 believe to have resulted from the introduction of PCB
12 compounds or mixtures into the environment." Chloracne was
13 associated with its presence in the workplace, so it was
14 purely an industrial hygiene question, and I wanted to know
15 how Bill was going to handle that.

16 I then put a hyphen there, because I'm saying
17 now, the dangerous-question comment in this item twelve, it
18 relates to the whole of question ten in the EPA document.
19 So I said this is a dangerous question because by 1975 we
20 had already experienced as a corporation the ability of
21 people to take an honest display of information by Monsanto
22 and to extend that into speculation, conjecture, and to
23 departures which the information did not support, and
24 therefore, I'm saying that there is an issue here of danger
25 in how we respond to that question.

1 Q. By 1975 you've already indicated to us that
2 either Mr. Benignus or Mr. Papageorge had made a review of
3 the early studies regarding chloracne and determined that
4 they did not relate to PCBs. Is that correct, or am I
5 misunderstanding what you told us previously?

6 A. Yes, you are.

7 MR. FEATHERSTONE: Or misstating.

8 THE WITNESS: Well, certainly misstating, if
9 not misunderstanding.

10 Q. (by Mr. Bradley) What was the prior review of
11 -- Let me ask it this way: By 1975 had there been a review
12 made of the previous medical literature of chloracne
13 regarding similar symptoms in the thirties and forties, but
14 which either Mr. Benignus or Mr. Papageorge determined did
15 not relate specifically to PCBs?

16 A. Wow.

17 MR. FEATHERSTONE: Object to the form.

18 THE WITNESS: That is still a misstatement of
19 what we talked about earlier today.

20 MR. FEATHERSTONE: Well, all right. But all
21 he asked is did that happen, and if it's a misstatement,
22 then the answer is no.

23 A. No.

24 Q. (by Mr. Bradley) Okay. Was there a review
25 made of previous medical literature of chloracne by Mr.

1 Benignus or Mr. Papageorge prior to 1975?

2 A. No.

3 Q. Did Mr. Benignus or Mr. Papageorge ever make a
4 review of any literature regarding chloracne?

5 MR. FEATHERSTONE: Objection. Calls for
6 speculation.

7 Q. (by Mr. Bradley) Go ahead and answer.

8 A. I don't know. I do not believe that either
9 Mr. Benignus or Mr. Papageorge personally reviewed the
10 previous literature about chloracne, because neither of
11 them was competent so to do.

12 Q. Did either Mr. Benignus or Mr. Papageorge
13 inform you that a review had been made of previous medical
14 literature on chloracne?

15 A. Mr. Benignus or Mr. Papageorge, as part of my
16 education when I came on board, told me what their latest
17 thinking was about chloracne and PCBs.

18 Q. Did they tell you --

19 A. The basis of that I do not know.

20 Q. Did they tell you that a review had been made
21 of previous medical literature on chloracne?

22 A. I believe somebody told me that the informa-
23 tion had been reviewed.

24 Q. Did somebody tell you that, as a result of the
25 review, that they determined subsequent generation of

1 medical information indicated that those symptoms that were
2 reported in the thirties and forties did not relate
3 specifically to PCBs?

4 A. Yes.

5 Q. Why then, Mr. Wood, would you in Plaintiff's
6 Exhibit 358, item twelve, regarding question ten of Exhibit
7 357, write, "Cloracne years ago" in relation to a question
8 that asked for a description of any adverse health or
9 environmental effects which you know or believe to have
10 resulted from the introduction of PCB compounds or mixtures
11 into the environment?

12 A. Irrespective of whether I believed chloracne
13 was associated with the use of PCBs previously, there is no
14 question that there was a record which stretched for years
15 of people believing and people misstating causal connec-
16 tions between chloracne and PCBs. And it was clear to me
17 that as we respond to this particular EPA questionnaire and
18 as other people respond to this EPA questionnaire, that
19 there was a potential for old mythology to renew itself.

20 Q. Part of the reason you described question ten
21 as a dangerous question is because you believed it would
22 require Monsanto to tell that it knew that there were
23 problems associated with PCBs that it hadn't informed the
24 public about; isn't that true?

25 A. No.

1 Q. Mr. Wood, I'm going to show you Plaintiff's
2 Exhibit 1675. Have you -- Let me ask it this way: Are you
3 familiar with a 1975 or 1977 report from NIOSH on PCBs?

4 A. I recall that there was a report from NIOSH in
5 that sort of time frame on PCBs.

6 Q. Do you recall whether you reviewed the NIOSH
7 report that was generated sometime around '75 to '77?

8 A. It would have been reviewed by the department
9 within Monsanto that should review such data to give it
10 their -- who were technically equipped to so review, and
11 they would then -- normally they would either discuss with
12 the business group or write to the business group telling
13 us what they believed the -- was an appropriate executive
14 summary of drawing our attention to what they felt were the
15 critical public issues surrounding such a document.

16 Q. Perhaps my question wasn't clear. My question
17 was, do you ever recall reviewing a -- Well, let me ask it
18 this way: I'm now going to show you Plaintiff's Exhibit
19 1373 and ask you whether you have ever seen that document
20 before.

21 A. No.

22 Q. Is this the report -- Well, would you know
23 whether this is the report of NIOSH that you were referring
24 to as being generated in the 1975-to-1977 time frame? And
25 I refer you to the reference just above the date at the

1 bottom of the document.

2 A. I know that NIOSH published a report in that
3 time frame. Whether this particular document that I'm
4 looking at, which is a document which has an HEW cover but
5 with a NIOSH subhead down here -- since I know that the
6 NIOSH document published at that time related to exposure
7 to PCBs, I surmise that this is the document to which that
8 was referring.

9 Q. All right. Mr. Wood, I'm going to represent
10 to you that Plaintiff's Exhibit 1675 is a copy of the
11 reference section out of 1373. And if you would, for a
12 moment, I'd like you to compare the pages to make sure that
13 my representation is accurate.

14 MR. FEATHERSTONE: Well, do we need to do
15 that, or can we just simply assume that your representation
16 is accurate? Is that acceptable to you? It's acceptable
17 to us.

18 MR. BRADLEY: Yes. That's fine.

19 Now, my question, Mr. Wood, is, which of the
20 references listed on Plaintiff's Exhibit 1675 give you --

21 A. That's this reference?

22 Q. (by Mr. Bradley) Yes.

23 A. 1675?

24 Q. I'm going to start the question all over
25 again. Which of the references listed on Plaintiff's

1 Exhibit 1675 relate to any adverse health or environmental
2 affects which you know or believe to have resulted from the
3 introduction of PCB compounds or mixtures into the environ-
4 ment --

5 MR. FEATHERSTONE: Object to the question.

6 Q. (by Mr. Bradley) -- that precedes October 17,
7 1975?

8 And I assume you object to that, as well.

9 MR. FEATHERSTONE: I do. I object to the form
10 and object to the harassing nature of the question and
11 object to the form of the question.

12 THE WITNESS: Anything else?

13 MR. FEATHERSTONE: Well, I'll think about it
14 while you try to figure out how you'd ever answer a ques-
15 tion like that.

16 THE WITNESS: Well, I can't answer a question
17 like that.

18 Q. (by Mr. Bradley) Do you know whether any of
19 the references listed on Plaintiff's Exhibit 1675 relate to
20 adverse health or environmental effects alleged to have
21 resulted from the introduction of PCB compounds or mixtures
22 into the environment?

23 A. To answer that question we're going to have to
24 go through this one by one, and if I can recall having seen
25 the particular study, then I'll have to make a judgment as

1 to whether I have any comment about any potential hazard.
2 If we're going to do that, we'd better get to it.

3 MR. FEATHERSTONE: Off the record.

4 (Thereupon, a discussion was had.)

5 Q. (by Mr. Bradley) Have you completed your
6 review of the references on Plaintiff's Exhibit 1675?

7 A. Yes, I have.

8 Q. Would you answer my question now?

9 A. None of these references leads me to change my
10 conclusion about the adverse health questions on human
11 beings resulting from the introduction of PCB compounds or
12 mixtures into the environment.

13 As a clarification of an earlier answer, I am
14 -- that comment is restricted to adverse health effects
15 resulting from the introduction of PCBs into the environ-
16 ment.

17 Q. And how -- Do any of the references on Exhibit
18 1675 -- Just a moment.

19 I'm going to stop that question and go back
20 and ask you to read the question that he's responding to
21 that I posted to him just before the break.

22 (Thereupon, the reporter read back the question.)

23 Q. (by Mr. Bradley) Mr. Wood, I appreciate the
24 answer you have given me, and that partially answers my
25 question. Are there any references on Plaintiff's Exhibit

1 1675 that relates to any adverse environmental effect which
2 may have resulted from the introduction of PCB expounds or
3 mixtures into the environment?

4 A. I have not reviewed this list of reference on
5 1675 from the total viewpoint of effect on the environment.
6 Monsanto conceded very early on in our deliberations on PCB
7 that PCB was present in the environment. I'm trying to
8 wend my way through this one. If it's not responsive, then
9 stop me.

10 MR. FEATHERSTONE: Let's go off the record for
11 a second, and maybe we can come --

12 MR. BRADLEY: Okay.

13 (Thereupon, a short colloquy was had.)

14 Q. (by Mr. Bradley) Back on the record. Let me
15 ask it this way, Mr. Wood: In October, 1975 were there
16 adverse environmental effects which you knew or believed to
17 have resulted from the introduction of PCB compounds or
18 mixtures into the environment?

19 A. There was the adverse affect of there being
20 present in the environment unbiodegraded synthetic material
21 which was capable of biomagnification in food chains. I
22 consider that an adverse affect.

23 Q. Any other adverse effects, adverse environ-
24 mental effects?

25 MR. FEATHERSTONE: That the witness knew

1 about?

2 Q. (by Mr. Bradley) That you knew or believed to
3 have resulted from the introduction of PCB compounds or
4 mixtures into the environment in 1975.

5 A. At that stage my knowledge of the adverse
6 environmental effects was presence and the biorefractory
7 nature of the material that was present.

8 Q. Do you now have in front of you Plaintiff's
9 Exhibit 1475?

10 A. Yes. Is that an exhibit that you have seen
11 before?

12 A. Yes, it is.

13 Q. Is this a letter from Douglas Hardy to you,
14 among others, dated January 12, 1967?

15 A. Yes.

16 Q. Is the subject matter "Aroclor - Sweden"?

17 A. Yes.

18 Q. Is this a true and accurate copy of the letter
19 written to you and others by Douglas Hardy on that date?

20 A. Yes.

21 Q. Is this a document that you maintained in your
22 files at Monsanto as part of Monsanto's regularly-conducted
23 business?

24 A. Yes.

25 Q. Is that the Monsanto letterhead in the top

1 left-hand portion of that exhibit?

2 A. Yes.

3 Q. Would you now put in front of you Plaintiff's
4 Exhibit 1498?

5 A. Yes.

6 Q. Is your name listed on the top right-hand
7 corner as someone who received a carbon copy of this?

8 A. It is.

9 Q. Is this a document you have seen before today?

10 A. Yes.

11 Q. And is this a memo written by R. A. Baxter to
12 R. E. Keller dated August 19th, 1975?

13 A. Yes, it is.

14 Q. And is this a true and accurate copy of the
15 letter that you received a copy of from R. A. Baxter to R.
16 E. Keller dated August 19th, 1975?

17 A. It is, except I was not previously privy to
18 the comment on this particular copy H. S. Bergen made.

19 Q. Pardon me?

20 A. I had not previously seen the additional hand-
21 written comment that was made by somebody who received this
22 copy other than myself.

23 Q. You mention the name H. S. Bergen. Does it
24 appear to be his handwriting?

25 A. I can't tell whether that is Howard's copy or

1 whether this is somebody else's? I can't make out the
2 signature or the initialing of the comment.

3 Q. Can you make out what the comment is?

4 A. No.

5 Q. Does it appear to you to say European
6 something?

7 A. Again, speculating, I read it as "European
8 trip," but --

9 Q. Okay. And is this a memo that you maintained
10 in your files at Monsanto as part of Monsanto's regularly-
11 conducted business?

12 A. Yes.

13 Q. And this also has the Monsanto letterhead in
14 the top left-hand corner?

15 A. Yes, it does.

16 Q. Would you now examine Exhibit 1425?

17 A. Yes.

18 Q. Is this a copy of a memo you wrote to W. B.
19 Papageorge on August 29, 1975, regarding an August 29, '75
20 telephone call?

21 A. Yes, it is.

22 Q. Did you write this memorandum shortly after
23 you received the telephone call?

24 A. Yes, I did.

25 Q. Is this a true and accurate copy of the memo

1 you sent to W. B. Papageorge dated August 29, 1975?

2 A. Yes, it is.

3 Q. Did you maintain a copy of this exhibit in
4 your files at Monsanto as part of its regularly-conducted
5 business?

6 A. Yes, I did.

7 Q. Would you now look at Exhibit 1117?

8 A. I have it.

9 Q. On the top right-hand portion of that it indi-
10 cates you received a carbon copy of this; is that correct?

11 A. That is correct.

12 Q. And this is a letter from R. E. Keller to R.
13 Baxter dated August 15th, 1975 on the subject of chlori-
14 nated dibenzofurans?

15 A. Yes.

16 Q. What does the LLN hyphen 5045 indicate under
17 R. Baxter's name?

18 A. At that stage, our European Technical
19 Laboratory had moved from Ruabon in North Wales, England,
20 to Louvain-La-Neuve, Belgium, and the mail zone relative to
21 that location was 5045.

22 Q. There's also some handwriting on it which
23 appears to say "European trip file folder, pls," which I
24 assume means "please."

25 A. That's my assumption. It's not my handwrit-

1 ing.

2 Q. All right. And other than the handwriting, is
3 this a true and accurate copy of the letter that you
4 received a copy of, dated August 15, '75, from R. E. Keller
5 to R. Baxter?

6 A. Yes.

7 Q. And is this a document that you maintained in
8 your files at Monsanto as part of Monsanto's regularly-
9 conducted business?

10 A. Yes.

11 Q. Does this also have Monsanto's letterhead on
12 the top left-hand portion of the exhibit?

13 A. Yes, it does.

14 Q. I now ask you to look at Plaintiff's Exhibit
15 1242.

16 A. Okay.

17 Q. This document indicates that you were a
18 recipient of this exhibit with an attachment from G. to you
19 and a variety of others; is that correct?

20 A. Yes.

21 Q. And it's dated February 10, 1975?

22 A. Yes, it is.

23 Q. Subject matter is "Westinghouse"?

24 A. Yes, it is.

25 Q. It says, "Attached is a xerox copy of the

1 Westinghouse Codicil No. 7 which is part of the contract"?

2 A. Yes, it does

3 Q. Who is G.?

4 A. I think this is related to Gladys Burgos in
5 the New York offices who is the "from" in this particular
6 memo.

7 Q. And is this a true and accurate copy of the
8 letter she sent to you and others dated February 10, 1975?

9 A. I believe so.

10 Q. Okay. Is this a document you maintained in
11 your the files at Monsanto as part of its regularly-
12 conducted business?

13 A. C. Paton is asterisked, receiving the original
14 copy; Ray Ford received an original carbon copy; and the
15 way that the contract files were maintained, certainly
16 those files would have been maintained. I'm not sure that
17 I would have kept my copy of this particular document on
18 file because it would have been part of the corporate
19 contract file.

20 Q. But Monsanto would have retained a copy?

21 A. Yes.

22 Q. Okay. And I'll ask you to look at Plaintiff's
23 Exhibit 1419. Have you reviewed it?

24 A. Yes.

25 Q. Is this a copy of a letter from you to Mike