

ORIGINAL

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

NEVADA POWER COMPANY,

Plaintiff,

-vs-

MONSANTO COMPANY, GENERAL
ELECTRIC CORPORATION, et al.,

Defendants.

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) # CV-89-555-LDG (LRL)
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DEPOSITION OF GEORGE ROUSH, JR.

On the part of the Plaintiff

March 17, 1993

 **Concannon
& Jaeger**
General
Court
Reporters

705 Olive Street, Suite 604
St. Louis, Missouri 63101
(314) 421-1000

Defendants.

DEPOSITION OF JAMES MIEURE

On the part of the Plaintiff

March 29, 1993



**Concannon
& Jaeger**
General
Court
Reporters

705 Olive Street, Suite 604
St. Louis, Missouri 63101
(314) 421-1000

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

NEVADA POWER COMPANY,
a Nevada corporation,

Plaintiffs,

-vs-

MONSANTO COMPANY, et. al.,

Defendants.)

CV-5-89-555-LDG

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I N D E X

WITNESS:

Page:

JAMES MIEURE

Direct Examination by Mr. Bradley 4

Cross Examination by Mr. Featherstone 59

Redirect Examination by Mr. Bradley 62

E X H I B I T S

Plaintiff's Deposition Exhibit # 1428. 48

Plaintiff's Deposition Exhibit # 1491. 50

Plaintiff's Deposition Exhibit # 895 50

Plaintiff's Deposition Exhibit # 1249 52

Plaintiff's Deposition Exhibit # 1513 52

Plaintiff's Deposition Exhibit # 1511 53

1	Plaintiff's Deposition Exhibit # 1560	54
2	Plaintiff's Deposition Exhibit # 419	56
3	Defendant's Deposition Exhibit A	62

4
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7
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9
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1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE DISTRICT OF NEVADA

3 NEVADA POWER COMPANY, a)
4 Nevada corporation,)
 Plaintiffs,)
)
5 -vs-) # CV-5-89-555-LDG
)
6)
7 MONSANTO COMPANY, et. al.,)
 Defendants.)

8 DISCOVERY DEPOSITION OF WITNESS, to be used in an
9 action pending in the District Court of the United States,
10 for the District of Nevada, wherein NEVADA POWER COMPANY is
11 Plaintiff, and MONSANTO COMPANY, et. al. is Defendant,
12 pursuant to Notice, under the provisions of Rule 26 of the
13 Rules of Civil Procedure, taken on March 29, 1993, at the
14 law offices of Messrs. Husch & Eppenberger, 100 North
15 Broadway, St. Louis, Missouri, before Sharon M. Watson, a
16 Notary Public within and for the State of Missouri.

17 A P P E A R A N C E S

18 The Plaintiff was respresented by Mr. Ralph A.
19 Bradley of the law firm of Bradley & Merrell, 300 South
 Fourth Street, Suite 700, Las Vegas, Nevada 89101.

20 Defendant Monsanto was represented by Mr. Bruce
21 Featherstone of the law firm of Kirkland & Ellis.

22 Defendant Westinghouse was represented by Ms. Laurie
23 Basch of the law firm of Weil, Gotshal & Manges, 787 Fifth
24 Avenue, New York, New York 10153.
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JAMES MIEURE,

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

DIRECT EXAMINATION

QUESTIONS BY MR. BRADLEY:

Q. Dr. Mieure, my name is Ralph Bradley. We
introduced ourselves to one another just a few moments ago;
is that correct?

A. That's correct.

Q. You know that I'm an attorney and that I
represent Nevada Power Company in the lawsuit that they've
brought against Monsanto, Westinghouse and General Electric
Company; is that true?

A. Yes.

Q. Have you had your deposition taken on any
other occasions?

A. I've been deposed before.

Q. All right. And do you know the purposes of a
deposition?

A. I think so.

Q. All right. Well, let me go over some of the
purposes that I have in taking your deposition. One, I
want to know the information you have regarding the
questions that I ask. Second, if I ask you those same

1 questions at the time of trial in this matter, I'll expect
2 you to give the same answers, and if you don't I'll ask you
3 to explain yourself. Do you understand that?

4 A. Yes.

5 Q. If during the course of this deposition I ask
6 any questions that you don't understand, will you tell me?

7 A. Yes.

8 Q. And if at any time during the course of this
9 deposition you want to take a break, just let us know and
10 we'll accommodate you. All right?

11 A. Thank you.

12 Q. In what other cases have you had your
13 deposition taken?

14 A. I was deposed in the Sturgeon litigation case
15 about a chlorophenyl spill.

16 Q. When was that?

17 A. When was the deposition?

18 Q. Yes.

19 A. I don't --

20 Q. Roughly.

21 A. I don't recall. Mid 1980's. Early to mid
22 1980's.

23 Q. All right. Any other times?

24 A. I think I've been deposed on one or two PCB
25 issues, but it's been so long ago that I don't recall what

1 the issues were.

2 Q. All right. How long ago was this that you had
3 your deposition taken in cases involving PCB issues?

4 A. I don't know.

5 Q. In the last five years?

6 A. No. More than ten.

7 Q. All right. Did you have your deposition taken
8 in a case referred to as One Market Plaza? Do you know?

9 A. I don't know.

10 Q. Have you had your deposition taken in
11 California?

12 A. No.

13 Q. Where was your deposition taken?

14 A. In St. Louis, I believe.

15 Q. Do you know what the issues were regarding the
16 PCBs that were the subject of the lawsuit in which you gave
17 testimony?

18 A. No, I don't.

19 Q. Have you testified in trial before?

20 A. Yes.

21 Q. Which trials have you testified in?

22 A. The Sturgeon litigation, chlorophenyl spill.
23 Q. Any other case?

24 A. No.

25 Q. All right. Tell me about your educational

1 background.

2 A. After high school?

3 Q. Yes.

4 A. After high school I went to Kenyon College in
5 Ohio, got a bachelor's degree there. Then I went to Purdue
6 University, got a master's degree in chemistry and then
7 went to Texas A & M University and got a Ph.D in analytical
8 chemistry.

9 Q. Your master's degree was in chemistry from
10 Purdue?

11 A. Yes.

12 Q. Any particular type of chemistry?

13 A. No. Just generally.

14 Q. And what did you get your bachelor's degree
15 in?

16 A. It was in chemistry also.

17 Q. And was that an MS from Purdue?

18 A. Yes. Yes, an MS.

19 Q. All right. When did you get your Ph.D.?

20 A. 1968.

21 Q. How old are you now?

22 A. Fifty-one.

23 Q. What's your residential address?

24 A. 1242 Chavaniac, C-h-a-v-a-n-i-a-c, Drive,
25 Ballwin, B-a-l-l-w-i-n, Missouri, 63011.

1 Q. What did you do for work following completion
2 of your doctorate?

3 A. I came to work for Monsanto and began work as
4 an analytical chemist.

5 Q. What is the field of analytical chemistry?

6 A. The field of analytical chemistry is the
7 science of determining what materials are present and how
8 much of those materials are in a given material, given
9 sample.

10 Q. Would that be true whether the sample was
11 organic or inorganic?

12 A. The statement is true. The methodologies
13 would be vastly different.

14 Q. In your work as an analytical chemist did you
15 work with both organics and inorganics?

16 A. Probably.

17 Q. Did you focus on one or the other?

18 A. Yes.

19 Q. Which?

20 A. Organics.

21 Q. Did you receive your Ph.D. with an emphasis
22 in organics?

23 A. No.

24 Q. What was your first job title with Monsanto?

25 A. Senior research chemist.

1 Q. What did you do as a senior research chemist?

2 A. I worked in the general field of organic
3 analysis, utilizing gas chromatography and mass
4 spectrometry as the analytical tools.

5 Q. What chemicals were you searching for, if any,
6 when you were working with gas chromatography?

7 A. Wide variety of different -- I worked on a
8 wide variety of different projects, worked with many
9 different materials, almost everything that Monsanto made.

10 Q. Was there a period of time when you did some
11 work relating to polychlorinated biphenyls?

12 A. I did some, yes.

13 Q. When did you first begin work -- I'm going to
14 refer to them as PCBs. Is that how you know them as well?

15 A. Fine.

16 Q. When did you first do some work with PCBs?

17 A. I probably did some work with PCBs in 1968,
18 certainly no later than 1969.

19 Q. What work did you do with PCBs in 1968?

20 A. I was developing some analytical methods for
21 determining PCBs.

22 Q. Were there analytical methods for determining
23 PCBs prior to your beginning your work in 1968?

24 A. Yes, there were.

25 Q. Were you looking for different analytical

1 techniques or methods?

2 A. Yes. Primarily for ways of confirming.

3 Q. All right. And did you -- Were you
4 successful?

5 A. Yes.

6 Q. Okay. And what analytical method were you
7 able to -- Well, did you develop an analytical method to
8 test the presence of PCBs?

9 A. Yes.

10 Q. And what analytical method was that?

11 A. An analytical method for testing for the
12 presence of PCBs. I don't recall that it had a particular
13 title.

14 Q. All right. How did it differ, if at all, from
15 gas chromatography?

16 A. It utilized gas chromatography.

17 Q. All right. How did it utilize it?

18 A. The gas chromatography was the piece of
19 equipment at the front end that was performing the
20 separation that allowed us to measure the PCBs.

21 Q. What did you do next as part of your
22 analytical method for determining presence of PCBs?

23 A. Well, we linked up the gas chromatograph to a
24 mass spectrometer.

25 Q. For what purpose?

1 A. For getting a very sensitive readout, if you
2 will, of the PCB ions, the PCB molecules that might be
3 present in the samples.

4 Q. Did your method end after the sample was run
5 through mass spectrometry?

6 A. Did the method end after the samples were run
7 through mass spectrometry. Well, we had to do calculations
8 when you're done. I'm not sure I understand the context of
9 the question.

10 Q. You didn't do any further tests on the
11 material after it was run through the mass spectrometry?

12 A. I don't recall doing anything else, but it
13 would be hard to say unequivocally that I didn't do
14 something else. I could have weighed a sample, for
15 example.

16 Q. What was the purpose in your developing this
17 method?

18 A. To be able to look for PCBs in environmental
19 matrices.

20 Q. Who requested or directed that you do that?

21 A. I don't recall exactly. My management
22 requested I do that, but I don't recall who in particular
23 in my management.

24 Q. Who was your management?

25 A. Well, my boss at the time was Dr. Martin

1 Dietrich, D-i-e-t-r-i-c-h. His boss was Dr. Robert Keller.

2 Q. Did those two individuals comprise your
3 management team?

4 A. They were the primary ones that I interfaced
5 with, yes.

6 Q. And prior to beginning your work with Monsanto
7 had you done any work with PCBs?

8 A. No. Nothing related to chemistry, no.

9 Q. Did you do any other work relative to PCBs as
10 a senior research chemist at Monsanto?

11 A. Did I do any other work related to PCBs?

12 Q. As a senior research chemist.

13 A. As a senior research chemist. I don't recall.

14 Q. What was your next job title?

15 A. Research specialist.

16 Q. What work -- Well, first of all, when did you
17 become a research specialist?

18 A. In the early 1970's. I don't recall the year.

19 Q. What work did you do as a research specialist?

20 A. I did a lot of the same kind of work, just was
21 given a little bit more independent responsibility, still
22 doing GC-mass spec work.

23 Q. Were you still working with PCBs as a research
24 specialist?

25 A. Yes.

1 Q. Did you do any work with PCBs as a research
2 specialist other than working with gas chromatography and
3 mass spectrometry?

4 A. Well, as I said earlier, there were incidental
5 things that one had to do in order to do that, such as
6 measuring -- such as weighing materials. So, yes, I did a
7 number of incidental things of that type.

8 Q. Were the incidental things that you did with
9 PCBs all related to your work with the gas chromatography
10 and mass spectrometry?

11 A. As best as I can recall at this time.

12 Q. And how long were you a research specialist?

13 A. Three years maybe, plus or minus a year.

14 Q. What was your next job title?

15 A. I think I was promoted to group leader at that
16 time.

17 Q. What work did you do as a group leader?

18 A. Supervised a number of chemists and
19 technicians working on a variety of projects, mostly
20 related to organic analytical chemistry.

21 Q. When did you become a group leader?

22 A. I don't recall.

23 Q. Would it have been around 1974?

24 A. '74, '75, '76, somewhere in there.

25 Q. What work did you do as a group leader other

1 than work related to organic analytical chemistry?

2 A. We did do some bio -- At that time I was also
3 in charge of some environmental experiments,
4 biodegradation, that type of thing.

5 Q. Were you supervising chemists and technicians
6 regarding biodegradation studies?

7 A. Yes.

8 Q. And what chemicals were you studying as part
9 of the biodegradation studies?

10 A. Well, again, a wide variety. Most of the
11 products that Monsanto organic division made at that time.

12 Q. Were you studying either MCS-10 -- Well, let
13 me ask it this way. Were you studying the biodegradation
14 of MCS-1016?

15 A. Yes.

16 Q. Were you studying the biodegradation of
17 Aroclor 1016?

18 A. I'm not sure of the distinction between those
19 two.

20 Q. I'm not either, and I'm now going to ask you
21 if there is one. Have you ever heard of Aroclor 1016?

22 A. Yes.

23 Q. Have you heard of MCS-1016?

24 A. Yes.

25 Q. And they're the same chemical?

1 A. As far as I know.

2 Q. As I understand it, the MCS-1016 preceded the
3 label Aroclor 1016. Is that correct?

4 A. I'm sorry. Say it one more time. I want to
5 make sure I have the answer correct.

6 Q. Arochlor 1016 was first named MCS-1016?

7 A. That's correct.

8 Q. Why did that particular chemical begin with
9 the name MCS-1016?

10 A. Originally?

11 Q. Yes.

12 A. Well, the particular research unit that
13 developed that material named all of their materials MCS
14 followed by some serial number, and so it was named that
15 way because the product before it was named MCS-1015 and
16 the product after it was named MCS-1017. Just a sequential
17 number that was chosen and entered into a logbook.

18 Q. Were you familiar with the chemical properties
19 of the different Aroclors produced by Monsanto?

20 A. I have vague recollection of them. I can't
21 say I'm familiar with them, no.

22 Q. You've heard of Aroclor 1242?

23 A. Yes.

24 Q. Arochlor 1254?

25 A. Yes.

1 Q. Arochlor 1260?

2 A. Yes.

3 Q. Do you know what the twelve refers to in that

4 numbering system?

5 A. Twelve refers to biphenyl.

6 Q. Twelve biphenyl rings?

7 A. Well, no. Twelve atoms in the biphenyl

8 molecule.

9 Q. And what do the last two digits refer to?

10 A. The degree of chlorination.

11 Q. Does -- Excuse me. Did Aroclor 1016 also

12 contain twelve atoms in the biphenyl?

13 A. Yes.

14 Q. Do you know why it did not have a number that

15 began with the number twelve?

16 A. Well, when we took it to our customers they

17 said they'd rather have the name stay the same because

18 their people were used to working with the MCS-1016

19 designation and so they asked us to keep the name the same.

20 Q. Which customers asked you to do that?

21 A. I don't know.

22 Q. Did any customers ask you to do that?

23 A. No.

24 Q. Who told you that the customers were asking

25 that the product be named 1016?

1 A. I don't recall who told me that. Fairly
2 common knowledge around that time.

3 Q. And Aroclor 1016 has what percent chlorine?

4 A. I don't recall. Arochlor 1016? Is that what
5 you said?

6 Q. Yes.

7 A. I don't recall.

8 Q. Do you know whether it has between forty-one
9 and forty-two percent chlorine?

10 A. I know it's within the range of forty or
11 forty-five. I don't know beyond that.

12 Q. And do you know why the last two digits of
13 1016 did not reflect its chlorine content?

14 A. Yes. I think I answered that earlier.

15 Q. And what --

16 A. The customers basically said they were --
17 their employees were familiar with that designation and
18 they asked us to keep the name the same.

19 Q. If you were to determine who in Monsanto had
20 those discussions with customers, who would you expect that
21 person to be?

22 A. Our marketing people. But I don't know -- I
23 don't have a name for it. Someone in our marketing
24 department. Could also be marketing technical services.

25 Q. What is the difference between marketing and

1 marketing technical services?

2 A. The marketing technical services person is
3 usually technically trained and has a higher degree of
4 technical training than a marketing person and then they
5 sort of are the go-between between the customer -- the
6 marketing function, the customer and the technology
7 function. They'll provide guidance to people in terms of
8 how to use products.

9 Q. In 1974, '75, '76 when you were promoted to
10 group leader was there a business group within Monsanto
11 that worked with PCBs?

12 A. Yes, there was.

13 Q. Was the marketing part of the business group?

14 A. The marketing done by the business group, if I
15 could paraphrase?

16 Q. Yes.

17 A. Yes.

18 Q. And within the business group was there a
19 person from marketing, Monsanto's marketing department?

20 A. There were probably several.

21 Q. All right. And within the business group was
22 there someone from the marketing technical area within
23 Monsanto?

24 A. Again, probably several.

25 Q. Did you have any discussions with Monsanto

1 customers regarding PCB products manufactured by Monsanto
2 during the 1970's?

3 A. At various times I was involved in meetings
4 with customers.

5 Q. And which customers did you have any contact
6 with during the 1970's regarding PCBs manufactured by
7 Monsanto?

8 A. I can recall several different meetings with
9 GE, Westinghouse, Outboard Marine.

10 Q. Where were these meetings? Well, let me ask
11 it this way. When was the first meeting you recall that
12 you attended where someone from General Electric was
13 present and the subject was in whole or in part PCBs?

14 A. I'll have to guess. I guess early '70's. I
15 don't recall exactly when.

16 Q. Do you recall what the nature of the meeting
17 was?

18 A. No, I don't.

19 Q. Do you recall any topic at all that was
20 discussed at that meeting?

21 A. Not the first meeting, no.

22 Q. Okay. And when was the second meeting?

23 A. I don't know. I remember one meeting
24 basically.

25 Q. Okay. Tell me about the meeting you remember.

1 A. Okay. There was a meeting --

2 MR. FEATHERSTONE: Well, wait a minute. Is
3 that the question? Object to the form of the question
4 then.

5 Q. (By Mr. Bradley) Tell me who you remember
6 being at the meeting where you were present and General
7 Electric was present and the topic was in whole or in part
8 related to PCBs.

9 A. I don't know the names of the people that were
10 there.

11 Q. Okay. Tell me when it occurred.

12 A. Early '70's is my best -- Early to mid '70's
13 is my best recollection.

14 Q. Where did it take place?

15 A. It took place in St. Louis at Monsanto's
16 headquarters.

17 Q. At the corporate headquarters?

18 A. Yes.

19 Q. On campus?

20 A. Yes.

21 Q. In which building?

22 A. I don't recall which building.

23 Q. Do you recall whether Monsanto's attendees
24 included someone from its medical department?

25 A. No, I don't recall.

1 Q. Do you recall whether Monsanto had anyone in
2 attendance from industrial hygiene?

3 A. I don't recall.

4 Q. Who, if anyone, do you recall attending that
5 meeting from Monsanto?

6 A. I can't at this point. Let me think about
7 that for a minute. It would be speculation on my part.

8 Q. And what do you remember being discussed at
9 the meeting relative to PCBs?

10 A. Well, we talked about a PCB problem that
11 General Electric was having at Hudson River.

12 Q. Why did you attend that meeting?

13 A. Well, because I was the group leader at that
14 time of the group that was functioning in the environmental
15 property of PCBs.

16 Q. What was the result, if any, of that meeting?

17 MR. FEATHERSTONE: Object to the form.

18 Q. (By Mr. Bradley) Go ahead and answer.

19 MR. FEATHERSTONE: You can answer, if you
20 understand it.

21 A. Could I hear the question again, please.

22 Q. (By Mr. Bradley) What was the result, if any,
23 of that meeting?

24 A. We exchanged information.

25 Q. And who did you exchange information with?

1 A. The representatives from General Electric
2 exchanged information with the folks from Monsanto and vice
3 versa.

4 Q. Do you recall any one particular individual
5 from GE attending that meeting?

6 A. I recall one individual just because he
7 happened to sort of stand out as a very dynamic person, but
8 I don't recall his name.

9 Q. Do you recall the information that Monsanto
10 gave to GE at the meeting?

11 A. Specifically, no. We gave them a lot of
12 health and safety information about our products.

13 Q. Tell me about the health and safety
14 information you gave GE about your products at the meeting
15 we've been discussing.

16 A. I don't know what else there is to say. We
17 told them about what we knew about our products in terms of
18 their environmental properties, their behavior.

19 Q. What did you tell them were the environmental
20 properties of your products?

21 A. I don't recall at this time. We told them
22 what they were, I mean, the facts that were the result of
23 years of study.

24 Q. Who presented that information?

25 A. I probably presented some and I -- and whoever

1 else was there from Monsanto presented some. I just can't
2 recall who the individuals were.

3 Q. Did you distribute written materials to GE as
4 part of that meeting?

5 A. I don't recall.

6 Q. Where did you get your information regarding
7 the health and safety of Monsanto's products containing
8 PCBs?

9 A. Partly from the work that the group that I was
10 part of had done and then partly from our files, partly
11 from the literature.

12 Q. What work had your group done that you shared
13 with GE representatives at this meeting regarding health
14 and safety of Monsanto products containing PCBs?

15 A. We had done biodegradation experiments, as we
16 discussed, as I mentioned earlier.

17 Q. Anything else?

18 A. Soil mobility studies.

19 Q. Anything else?

20 A. A lot of analytical measurements on
21 environmental samples, analytical work to support
22 toxicological studies.

23 Q. Anything else?

24 A. That's all that comes to mind at the moment.

25 Q. All right. And what analytical measurements

1 on environmental samples did you report to GE that your
2 group had done during this -- when you were making your
3 presentation at this meeting?

4 A. I don't recall the details at this time.

5 Q. What do you recall generally about that?

6 MR. FEATHERSTONE: Well, before you answer
7 that, Doctor, may I hear the second to last question, the
8 question that Mr. Bradley is referencing in his last
9 question.

10 (Thereupon, the reporter propounded the second to
11 last question.)

12 Q. (By Mr. Bradley) What do you recall generally
13 about the analytical measurements on environmental samples
14 that you reported to GE at this meeting?

15 A. Well, we had a lot of data and we presented
16 the data to them.

17 Q. And what did the data state or support?

18 A. I don't know -- Are you asking what the data
19 supported? I don't know what the data supported. The data
20 basically showed that you could biodegrade a lot of PCBs.
21 Some of it wouldn't biodegrade very fast.

22 Q. Did any of your analytical measurements on
23 environmental samples that you discussed with GE at this
24 meeting relate to anything other than the biodegradation of
25 certain of the Aroclors?

1 A. I don't recall at this time.

2 Q. And which of the Aroclors, if any, did you
3 believe biodegraded when you made your presentation to GE
4 at this meeting?

5 A. Would you ask the question again, please.

6 Q. Let me ask it this way. At this meeting did
7 you report to GE that certain of the Aroclors biodegraded?

8 A. As I mentioned earlier, all -- as far as I
9 know, some components of all the PCBs biodegraded.

10 Q. And as far as you know, do all of the
11 components of some of the PCBs biodegrade?

12 A. Yes. Some components of all PCBs biodegrade.

13 Q. And which are those?

14 A. I couldn't tell you at this time. There's
15 seventy-five isomers or something like that.

16 Q. Well, let me approach it this way. When you
17 had the meeting with GE, did your data show that Aroclor
18 1242 biodegraded?

19 A. Under some conditions, I believe Aroclor 1242
20 biodegraded.

21 Q. The entirety of it, not just some of the
22 isomers?

23 A. I don't recall. I know a lot of the isomers
24 did.

25 Q. And what did your data show regarding Aroclor

1 1016. Did it biodegrade?

2 A. Yes. It was more biodegradable than 1242.

3 Q. And did it biodegrade in its entirety?

4 A. I believe it came close to it, if not all the

5 way.

6 Q. Do you know whether some of the isomers of

7 Aroclor 1016 have been shown to not biodegrade?

8 A. I don't recall any.

9 Q. What information regarding analytical work to

10 support toxicological studies did you give at this meeting?

11 A. I don't recall specifically.

12 Q. Tell me generally what you recall about that.

13 A. Well, I suspect we told them about studies

14 that we had done and what we found in the feeding samples,

15 feeding study samples.

16 Q. And which feeding samples were those?

17 A. Whatever we had done up to that time.

18 Q. Were those the ones that Monsanto had

19 submitted to Industrial Biotech Laboratories?

20 A. I don't know. Could have been.

21 Q. Which files did you review prior to making

22 your presentation at this meeting regarding the health and

23 safety of PCBs?

24 A. What meeting? I'm not sure what meeting.

25 Q. Talking about the same meeting.

1 A. What files did I review. I don't recall
2 specifically what files I reviewed. Probably the files in
3 my possession at the time that I thought were relevant to
4 the meeting.

5 Q. And did you review files from any other
6 department or division within Monsanto?

7 A. I don't recall doing so.

8 Q. How did you develop a file regarding health
9 and safety of PCBs prior to this meeting?

10 A. I don't recall that I had a file.

11 Q. I thought you indicated that you reviewed your
12 file.

13 A. I reviewed my file, but you just qualified the
14 file further and said it was a health and safety file.

15 Q. All right. So, prior to this meeting you
16 didn't have a file on the health and safety of PCBs?

17 A. I guess that depends on what you mean by
18 health and safety.

19 Q. Well, I'm going to ask you then what you meant
20 by health and safety when you indicated that you gave GE
21 health and safety information regarding your products at
22 this meeting. What did you mean when you --

23 A. If in fact I said health and safety at that
24 meeting then that was an improper statement and it's in
25 fact probably due more to my job responsibilities today

1 than it was then. By health and safety, I believe what I
2 meant was the environmental properties. Health and safety
3 is an acronym that has sort of grown up over time.

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

5 (Thereupon, a brief colloquy was had between
6 counsel, off the record.)

7 Q. (By Mr. Bradley) What literature did you
8 review prior to giving a presentation at this meeting with
9 General Electric that we've been referring to?

10 A. I don't know.

11 Q. Would it have been literature that was
12 contained in your file?

13 A. Probably.

14 Q. Did you search out additional literature?

15 A. Additional to what was in my file?

16 Q. Yes.

17 A. Not that -- I don't recall.

18 Q. Was there a system for providing you
19 information regarding the environmental properties of PCBs
20 that were studied by other researchers?

21 A. I don't believe we had a system, but we had
22 regular communication, monitored the literature closely.

23 Q. How did you monitor the literature?

24 A. By going to the library. Well, actually we
25 had a publication out of our library called Contents Review

1 which each month gave us a listing of the table of contents
2 of each journal that came into the library so we could very
3 quickly screen through those journals and see what was
4 relevant and what wasn't.

5 Q. Did you know what journals the library
6 subscribed to that had its contents reviewed in this
7 monthly content review publication?

8 A. I didn't personally, but it was published
9 information.

10 Q. Well, for example --

11 A. I mean, it was in the front of each monthly
12 edition. It listed the journals, here are the journals
13 that are contained in this month's edition.

14 Q. And was there ever a period of time when you
15 asked the library to order additional journals?

16 A. Probably.

17 Q. And how would that work?

18 A. If I asked them to order one and I gave them a
19 charge number, they would order it.

20 Q. And how would it happen that -- Well, let me
21 ask it this way. I assume that there were occasions when
22 you knew the library didn't have a particular journal that
23 you thought it ought to have?

24 A. I don't recall ever feeling that way.

25 Q. Well, do you recall ever asking the library to

1 order a journal?

2 A. To order a journal?

3 Q. Yes.

4 A. If you're talking -- If you mean order one
5 specific journal --

6 Q. Let me rephrase that question. I could tell
7 that you're being more specific than me, which is good.

8 A. Okay.

9 Q. Did you ever ask the library to subscribe to a
10 journal?

11 A. I don't think so.

12 Q. Which library did you go to, if any, to review
13 information regarding the environmental properties of PCBs?

14 A. The environmental library at Monsanto.

15 Q. And what is the environmental library?

16 MR. FEATHERSTONE: What was it then?

17 MR. BRADLEY: Yes.

18 A. Well, I'm talking about the Monsanto
19 information center. I think that's the official name of
20 the library.

21 Q. (By Mr. Bradley) Did you ever research the
22 properties of PCBs in any library other than the library
23 known as the Monsanto information center?

24 A. There was a Monsanto -- There was a library
25 called the toxicology library. I believe I probably looked

1 at some things there. There was another library called the
2 engineering library. I probably did some research there.

3 Q. Did you ever review any documents from the
4 medical library?

5 A. I don't recall whether I ever reviewed the
6 documents per se or not.

7 Q. The medical library was in the medical
8 department of Monsanto on campus back in -- when you were
9 the group leader. Is that your understanding?

10 A. That's probably accurate.

11 Q. And where was the engineering library when you
12 were group leader?

13 A. Probably in F building on Monsanto's campus.

14 Q. And when you became group leader where was the
15 toxicology library?

16 A. Probably the same place as the medical
17 library.

18 Q. Was it different than the medical library?

19 A. I don't know. You brought up the medical
20 library. I brought up the toxicological laboratory.

21 Q. Was the toxicology library within the floors
22 used by the medical department of Monsanto?

23 A. Probably. I'm not sure.

24 Q. What other meetings, if any, have you attended
25 where GE was present and the subject matter was in whole or

1 in part relating to PCBs?

2 A. What other meetings where the subject -- Well,
3 I went to visit the GE Hudson Falls facility to help them
4 with that problem that we mentioned earlier.

5 Q. What was the purpose of your visit?

6 A. To give them technical consultation on PCBs on
7 the Hudson River.

8 Q. Was the technical consultation relating to
9 removing PCBs from the Hudson River?

10 A. Primarily, yes.

11 Q. And did you give them technical assistance in
12 reducing PCBs to the Hudson River?

13 A. I don't know that.

14 MR. FEATHERSTONE: Let me get the question
15 again, please.

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

18 MR. FEATHERSTONE: Object to the form of the
19 question.

20 Q. (By Mr. Bradley) Did you understand that
21 question?

22 A. Well, I was ready with an answer. I don't
23 know whether I understood the question or not, but I was
24 going to try to answer the question.

25 Q. Okay. Go ahead.

1 A. I was going to say that I don't know that my
2 presence there really helped them clean up the river, but I
3 did provide them with suggestions and particularly with
4 respect to the properties of the materials.

5 Q. All right. Prior to your giving them
6 technical consultation, do you know what amounts of PCBs,
7 if any, they were -- GE was discharging into the Hudson
8 River?

9 A. No, I don't.

10 Q. Do you know generally the range of PCBs that
11 GE was discharging into the Hudson River?

12 A. No, I don't.

13 Q. Do you know the range of PCBs GE discharged
14 into the river following your giving GE technical
15 consultation?

16 A. No.

17 Q. Did you write a report to GE regarding your
18 technical consultation on the issue of their release of
19 PCBs into the Hudson River?

20 A. I don't remember.

21 MR. FEATHERSTONE: Object to the form.

22 A. I don't recall doing so.

23 Q. (By Mr. Bradley) Have you attended any
24 meetings with Westinghouse -- Well, let me back off for a
25 moment. What other meetings, if any, have you attended

1 with GE where the subject matter was in whole or in part
2 relating to PCBs?

3 A. I don't recall any others with GE.

4 Q. Have you attended any meetings with
5 Westinghouse personnel where the subject matter was in
6 whole or in part relating to PCBs?

7 A. I can recall one meeting with Westinghouse.

8 Q. And when did that meeting occur?

9 A. In the same general time frame that we've been
10 talking about, plus or minus a year or so.

11 Q. '74 to '76 roughly?

12 A. Roughly. But I'm not sure that it's within
13 that two year time frame.

14 Q. Was that meeting also at the St. Louis
15 corporate headquarters?

16 A. Yes.

17 Q. On the campus at Monsanto?

18 A. Yes.

19 Q. Who do you recall, if anyone, attending
20 besides yourself for Monsanto?

21 A. Tom Gossage, G-o-s-s-a-g-e.

22 Q. What was his title at the time this meeting
23 took place?

24 A. I don't know. He was something akin to a
25 business director, but I don't recall the exact title.

1 Q. Who else, if anyone, do you -- Who else, if
2 anyone, do you remember attending the meeting from
3 Monsanto?

4 A. Ralph Munch was there. Ralph was a senior
5 scientist.

6 Q. Anyone else from Monsanto?

7 A. Those are the only ones that I'm sure were
8 there.

9 Q. Do you recall anyone from Westinghouse who
10 attended that meeting?

11 A. No, I don't.

12 Q. What was the subject matter of the meeting?

13 A. We were looking for PCB replacements,
14 discussing PCB replacements.

15 Q. At that time was Aroclor 1016 on the market?

16 A. I don't know.

17 Q. Were there any conclusions reached about PCB
18 replacement products as a result of this meeting with
19 Westinghouse?

20 MR. FEATHERSTONE: Object to the form.

21 A. My recollection is that no conclusions were
22 reached at that point in time, that particular meeting.

23 Q. (By Mr. Bradley) Were you ever involved in
24 developing replacement fluids for PCBs?

25 A. Yes.

1 Q. Other than working on biodegradation studies
2 as a group leader, did you do any other work, either
3 directly or as a supervisor, relating to organic analytical
4 chemistry of PCBs?

5 A. Well, I mentioned earlier that we had done
6 soil mobilization studies.

7 Q. Anything else?

8 A. Well, I also mentioned earlier that we looked
9 at residues in samples from feeding studies.

10 MR. BRADLEY: Would you read that answer back,
11 please.

12 (Thereupon, the reporter propounded the previous
13 answer.)

14 Q. (By Mr. Bradley) What is a residue from a
15 feeding study?

16 A. A residue is the amount of material that's fed
17 to the animal that might still be in the feed or it might
18 be in the animal or it might be in the biological samples
19 from the animal, feces, urine.

20 Q. What work did you do regarding samples from
21 feeding studies as part of your work as a group leader?

22 A. We measured the amount of PCBs that were
23 present.

24 Q. In what -- In animals?

25 A. Well, in these -- the various matrices that I

1 just mentioned.

2 Q. And did the matrices come from animal organs?

3 A. Yes.

4 Q. And where did you obtain the animal organs?

5 A. From the laboratory that did the work.

6 Q. And was it a Monsanto laboratory that did the

7 work?

8 A. There were various laboratories.

9 Q. Did that include a Monsanto laboratory?

10 A. I don't know.

11 Q. Did it include IBT?

12 A. At that point in time I don't know. Obviously

13 we did some studies at IBT, but I don't know -- I can't

14 recall if the samples that I was working on came from IBT

15 or not.

16 Q. Have you ever visited -- Excuse me. Did you

17 visit the IBT labs in the 1970's?

18 A. No.

19 Q. Do you know from Monsanto who did visit the

20 IBT labs in the 1970's?

21 A. Not looking at PCB issues.

22 Q. And do you know of anyone from Monsanto who

23 visited IBT who might have -- who went into what was called

24 the swamp room?

25 A. The swamp room. No, I don't.

1 Q. Have you ever heard of the swamp room?

2 A. No.

3 Q. What was your next job title at Monsanto?

4 A. Research group leader two.

5 Q. What work did you do as a research group
6 leader two?

7 A. Essentially the same duties as before. Just
8 had a slightly broader range of people working for me.

9 Q. Did you have responsibility for any additional
10 work relating to PCBs other than what you've already told
11 us about?

12 A. It was probably during this time frame that we
13 developed a method for looking at impurities in a more
14 quantitative fashion.

15 Q. Which impurities were you looking for?

16 A. Well, basically we were looking for any
17 organic impurities that might be present.

18 Q. Why were you looking for organic impurities?

19 A. So we'd know what the composition was of the
20 product.

21 Q. What led you to conduct the studies though?
22 Had somebody reported certain organic impurities and you
23 were following up on it or --

24 A. Work had been reported in Europe.

25 Q. And what work was reported in Europe regarding

1 organic impurities and PCBs?

2 A. A group reported finding low levels of
3 chlorinated dibenzofurans.

4 Q. Is there a difference between a chlorinated
5 dibenzofuran and a polychlorinated dibenzofuran?

6 A. Well, only the degree of chlorination. A
7 chlorinated dibenzo -- No. For the purposes I think of
8 what we're trying to accomplish here, they're synonymous.

9 Q. When was it that the work was reported in
10 Europe regarding their finding chlorinated dibenzofurans?

11 A. Early '70's. I don't recall exactly when.

12 Q. Do you recall who it was that reported the
13 chlorinated dibenzofurans from Europe?

14 A. Vos is the name of the principal, V-o-s.

15 Q. Do you know whether Vos is a doctor, Ph.D.
16 doctor?

17 A. No, I don't know.

18 Q. Do you know whether it is Dr. Vos or Mr. Vos?

19 A. I don't know.

20 Q. Do you know whether Vos used different
21 analytical techniques for determining impurities than you
22 were using to determine -- in your work with gas
23 chromatography and mass spectrometry?

24 MR. FEATHERSTONE: Let me just -- I'll object
25 to this line of questioning on grounds of relevance and for

1 the other reasons set forth in the documents exchanged
2 between the parties regarding furans and dioxins. Having
3 said that, do you agree that if you examine this witness on
4 these subjects that it's not a waiver of my position
5 regarding the proper scope of discovery evidence in this
6 case, in other words, we do it with all reservation of
7 rights, your side and my side?

8 MR. BRADLEY: On the subject matter of furans?

9 MR. FEATHERSTONE: Yes.

10 MR. BRADLEY: Fine.

11 A. I'm sorry. I've forgotten the question now.

12 (Thereupon, the reporter propounded the previous
13 question.)

14 A. I'd have to think for a little bit to remember
15 just what techniques he was using. I don't know if he was
16 using the same techniques or not at that time.

17 Q. (By Mr. Bradley) What techniques did you use
18 when you began looking for organic impurities in the PCBs
19 manufactured by Monsanto?

20 A. We used a column chromatography separation
21 technique to isolate the PCBs from any dibenzofurans that
22 might be present and then we followed that up with some
23 type of gas chromatography, either chromatography with
24 electron capture detector or mass spectrometry detector.

25 Q. How did that differ, if at all, from the work

1 -- the technique you were using to determine the presence
2 and quantities of PCBs?

3 A. Well, for the presence of the PCBs you just
4 measure -- you can measure very trace amounts without
5 having to get rid of any large chlorinated matrix. When
6 you're looking for an isolated impurity in the PCB itself,
7 it's a much more difficult challenge. It's like looking
8 for a needle in a haystack, for example.

9 Q. Why is it a more difficult challenge?

10 A. Because you've got all the chlorinated PCBs
11 present that's interfering with looking for the minor
12 impurity.

13 Q. Is there a reason that Monsanto didn't perform
14 studies to determine organic impurities in PCB products
15 prior to this report out of Europe by Vos?

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

18 A. I'm not aware that we had any reason to
19 suspect dibenzofuran might be present, chlorinated
20 dibenzofuran.

21 Q. (By Mr. Bradley) Do you know whether Vos
22 suspected it before he did this study that you referred to?

23 A. That would be speculative on my part. I don't
24 know.

25 Q. And did you find impurities in -- Excuse me.

1 Did you find organic impurities present in the different
2 PCBs manufactured by Monsanto?

3 MR. FEATHERSTONE: Do we have a time period on
4 this?

5 MR. BRADLEY: As research group leader two.

6 THE WITNESS: Shall I answer that?

7 MR. FEATHERSTONE: Yes. If you can put a time
8 period to this. We still haven't established one.

9 A. I was trying to put some time periods on it.
10 The work -- When we found out about the report from Vos, we
11 set up some experiments to see if we could duplicate that
12 work and we were able to reproduce that method. This is in
13 the early '70's time frame somewhere. What we found was
14 basically the same as what he had reported, that samples of
15 the German product and the French product contained
16 dibenzofuran, but we didn't find any in the Monsanto
17 material.

18 Q. (By Mr. Bradley) Was there ever a time during
19 your work as research group leader two that you were able
20 to find the chlorinated dibenzofuran as an organic impurity
21 in any of the PCBs manufactured by Monsanto?

22 A. Yes..

23 Q. And when was that?

24 A. Mid '70's is my best recollection.

25 Q. Why was it that you were able to find it in

1 the mid '70's but you did not find it in the early '70's?

2 A. We made improvements in our analytical
3 methods.

4 Q. What improvements did you make?

5 A. Well, we learned how to run those absorption
6 -- We learned how to use different materials in the
7 absorption column to get more selectivity.

8 Q. Which PCB products manufactured by Monsanto
9 were you able to determine during your work as research
10 group leader two contained chlorinated dibenzofurans?

11 A. Arochlor 1254 is the only one that I can
12 recall for sure.

13 Q. Were you able to determine during your work as
14 research group leader two whether some of the Aroclors
15 manufactured by Monsanto did not contain chlorinated
16 dibenzofurans?

17 A. Well, throughout the time period we were
18 getting negative -- we were analyzing and not finding it in
19 a number of the products.

20 Q. And have you continued your work -- Well, let
21 me ask are you still a Monsanto employee?

22 A. I am.

23 Q. Following your work as research group leader
24 two, did you have any further work where you determined the
25 presence or absence of chlorinated dibenzofurans in PCBs

1 manufactured by Monsanto?

2 A. No. In my next job I had broader supervisory
3 responsibilities and wasn't directly directing research of
4 this type.

5 Q. What was your next job?

6 A. Manager of environmental sciences.

7 Q. When did you become manager of environmental
8 sciences?

9 A. Maybe 1978, plus or minus a year.

10 Q. What did you do as manager of environmental
11 sciences?

12 A. I was responsible for the section that did
13 aquatic biology experiments, that did environmental fade
14 experiments, provided the analytical support for those
15 activities.

16 Q. And did the aquatic biology experiments relate
17 to products manufactured by Monsanto that contained PCBs?

18 A. Not that I recall.

19 Q. And did the environmental fade experiment that
20 you were working with as manager of environmental sciences
21 relate to products manufactured by Monsanto that contained
22 PCBs?

23 A. I don't believe we were doing any work of that
24 type at that time.

25 Q. What job did you have next?

1 A. Let's see. Product acceptability manager.

2 Q. When did you become product acceptability
3 manager?

4 A. About the 1980 time frame.

5 Q. What products, if any, were you responsible
6 for as the product acceptability manager?

7 A. Plasticizers.

8 Q. When you became product acceptability manager
9 did the plasticizers under your direction contain PCBs?

10 A. No.

11 Q. Did you do any work with products containing
12 PCBs as product acceptability manager?

13 A. No.

14 Q. What was your next job title?

15 A. Product safety manager.

16 Q. When did you become product safety manager?

17 A. Approximately 1985.

18 Q. In your work as product safety manager did you
19 have any responsibility for products manufactured by
20 Monsanto that contained PCBs?

21 A. No.

22 Q. What's your next job title?

23 A. Product safety director.

24 Q. For what types of products?

25 A. All products made by Monsanto chemical group.

1 Q. Pardon?

2 A. All products made by the Monsanto chemical
3 group.

4 Q. When did you become product safety director?

5 A. 1980 -- I'm sorry. 1991.

6 Q. What job title did you have next?

7 A. That's it.

8 Q. Going back for a moment to GE and Hudson
9 Falls, do you recall what recommendations you gave to GE?

10 MR. FEATHERSTONE: It was Hudson River.

11 Q. (By Mr. Bradley) Hudson River. What is it,
12 Hudson River or Hudson Falls?

13 A. Hudson River is the name of the river. Hudson
14 Falls is the name of the town. I'm sorry. Could we have
15 the question repeated.

16 Q. I'm going to ask the question right now. Do
17 you recall what advice you gave, if any, to General
18 Electric at their Hudson Falls plant regarding containment
19 of PCBs from entering the Hudson River?

20 A. Well, my purpose for being there wasn't really
21 to tell them do this, don't do this, that sort of thing.
22 My purpose for being there was to be a resource person for
23 them to talk about water solubility of the products, make
24 sure they were aware of what the water solubility was, make
25 sure that they were aware of the volatility, and so I

1 didn't give them any particular direction in terms of if
2 you do this you'll clean it up, if you don't you won't. I
3 just helped them understand what the problems were.

4 Q. And when you discussed with them water
5 solubility, did they know about PCBs relative to water
6 solubility?

7 A. Yes. They already had a pretty good
8 understanding of that.

9 Q. How about volatility. When you had your
10 discussion with GE at the Hudson Falls plant, did the GE
11 personnel know about PCBs relative to volatility?

12 A. Yes, they did.

13 Q. Were there any other areas that you --
14 regarding the properties of PCBs that you had discussions
15 with at GE's Hudson Falls plant?

16 A. Well, we talked about biodegradation. I
17 mentioned that earlier.

18 Q. Anything else?

19 A. We talked about analytical methods. They were
20 having difficulty with some measurements in their plant
21 facility.

22 Q. Anything else?

23 A. That's all I recall.

24 Q. What were they measuring in their plant
25 facility?

1 A. Well, they probably measured a lot of things,
2 but what they were asking me about were the PCB
3 measurements.

4 Q. Were they taking PCB measurements of products
5 manufactured by GE?

6 A. I don't know.

7 Q. Were they taking measurements of soil around
8 the GE plant?

9 A. I don't know that either.

10 Q. Were they taking measurements of PCBs in the
11 Hudson River?

12 A. They were taking measurements in the Hudson
13 River, yes.

14 Q. And they had their own analytical lab set up
15 to do that there in the GE Hudson Falls facility?

16 A. Yes, they did.

17 Q. Do you know who ran the GE Hudson Falls
18 laboratory facility that was testing for PCBs in the Hudson
19 River?

20 A. Yes.

21 Q. Who was that?

22 A. Bob Stenger.

23 Q. I'm going to show you Plaintiff's Exhibit 1428
24 and ask you to review that for me. Have you reviewed it?

25 A. I'm about half way through.

1 Q. Okay. Let me know when you're done.
2 A. Okay.
3 Q. Is this a letter authored by you?
4 A. It appears to be, yes.
5 Q. And does that look like your signature?
6 A. Yes, it does.
7 Q. This is an October 29, 1975 -- would you call
8 it a letter?
9 A. I'd call it a memo.
10 Q. -- memo to W.B. Papageorge?
11 A. Yes.
12 Q. And I take it you wrote this letter on or
13 about October 29, 1975?
14 A. Yes.
15 Q. And is this -- Do you know whether you kept a
16 copy of this memorandum in your business files at Monsanto?
17 A. No, I don't know.
18 Q. Is this the sort of memorandum that you would
19 keep in your business files at Monsanto?
20 A. It's the general type that one would keep,
21 yes.
22 Q. All right. And in the first sentence it says,
23 "GE is aware of the chlorodibenzofuran issue and might
24 bring it up in their defense at the November hearings."
25 What is -- Excuse me. What was the chlorodibenzofuran

1 issue that you were referring to?

2 A. I don't recall at this time what I was
3 referring to then.

4 Q. What were the November hearings that you were
5 referring to in the first sentence of Exhibit 1428?

6 A. I don't recall that either.

7 Q. Were you in your work ever able to detect
8 chlorodibenzofurans in Aroclor 1016?

9 A. Not that I recall.

10 Q. I'm going to show you Plaintiff's Exhibit 1491
11 and ask you to review that for me, please.

12 A. Okay.

13 Q. Is this a document that you maintain in your
14 files at Monsanto?

15 A. It's the type of document that would have been
16 maintained.

17 MR. FEATHERSTONE: Let me just state it on the
18 record and he can correct me. Plaintiff's Exhibit 1491 we
19 stipulate is a letter from Dr. Mieure to Dr. Stenger dated
20 October 24, 1975. We stipulate it's signed by Dr. Mieure
21 and it was sent to Dr. Stenger.

22 A. Yes.

23 Q. (By Mr. Bradley) Dr. Mieure, I've shown you
24 Plaintiff's Exhibit 895. Have you had a chance to review
25 that?

1 A. I'm about half way through.

2 Q. All right. Is that a May 12, 1975, letter
3 that you wrote to Dr. Leonard Guarrrria?

4 A. Yes.

5 Q. And he's with the U.S. Environmental
6 Protection Agency?

7 A. That's correct.

8 Q. And do you recall whether you wrote this -- I
9 know the letter is dated May 12th, 1975. Did you write it
10 on or about that date?

11 A. I would assume on or about. I don't recall
12 writing it, no, but I would assume on or about.

13 Q. And is this the sort of document that you
14 would maintain in your files at Monsanto?

15 A. Yes.

16 Q. Was it the regular -- your regular practice to
17 write letters like this as part of the work you did at
18 Monsanto?

19 A. I would write letters discussing scientific
20 issues with scientists in organizations outside of
21 Monsanto.

22 Q. What was the March 13 version of the PCB
23 criteria document for the toxic pollutant effluent
24 standards referenced in the first sentence of this exhibit?

25 A. I don't know.

1 Q. I'm now going to show you Plaintiff's Exhibit
2 1249 and ask you to review that for me. Apparently that
3 doesn't -- Have you seen that document before?

4 A. I don't recall having seen it.

5 Q. I'm now going to show you Plaintiff's Exhibit
6 1513 and ask you to review that for me. Have you had a
7 chance to review that?

8 A. Yes. I've skimmed through that.

9 Q. Is this a letter - excuse me -
10 interdepartmental memo written by you to W.B. Papageorge
11 dated December 3, 1974?

12 A. Yes.

13 Q. Is that your signature at the bottom?

14 A. Yes.

15 Q. Does this appear to be a true and accurate
16 copy of the interdepartmental memo you wrote to Mr.
17 Papageorge on December 3rd, 1974?

18 A. It appears to be.

19 Q. I'll ask you -- Let me try one more time. Do
20 you recall whether you wrote this shortly after talking by
21 telephone with John Roach of the FDA regarding a paper he
22 presented at the national meeting of the Association of
23 Official Analytical Chemists?

24 A. I don't recall that, no, but that's what the
25 first sentence basically says.

1 Q. And is this the sort of document that you
2 would maintain in your files at Monsanto?

3 A. It's consistent, yes.

4 Q. And is it also consistent with the regular job
5 responsibilities you had at Monsanto to prepare documents
6 of this sort?

7 A. Yes.

8 Q. I'm now going to show you Plaintiff's Exhibit
9 1511 and ask you to review that. Have you had a chance to
10 review this document?

11 A. Very quickly skimmed it.

12 Q. Is this a copy of a letter written to you by
13 C.F. Jelinek, Ph.D. December 23rd, 1974, which attaches a
14 copy of a presentation made at the October 1974 AOAC
15 meeting?

16 A. It appears to be, yes.

17 Q. And do you recall whether this is a document
18 that you've seen before?

19 A. Yes. Absolutely.

20 Q. And is this a true and accurate copy of the
21 letter received by you from Dr. Jelinek and the
22 presentation made at the October '74 AOAC meeting?

23 A. It appears to be.

24 Q. And was it part of your work at Monsanto to
25 maintain copies of these kinds of letters in your work at

1 Monsanto?

2 A. Yes.

3 Q. And did you in fact maintain this in your
4 filing system within Monsanto?

5 A. I don't recall.

6 Q. Is this the sort of document that you would
7 imagine maintaining in your filing system at Monsanto?

8 MR. FEATHERSTONE: Object to the form.

9 Q. (By Mr. Bradley) Is this the sort of document
10 that you would have kept --

11 MR. FEATHERSTONE: Does this help. We agree
12 it was in our files.

13 Q. (By Mr. Bradley) I'm now going to show you
14 Plaintiff's Exhibit 1560 and I don't have a copy of it so
15 we'll have to have a copy made but if you'd review that for
16 me, please. Have you had a chance to review this exhibit?

17 A. Briefly.

18 Q. And what is it?

19 A. It appears to be minutes of a meeting.

20 Q. And what's the date of the meeting?

21 A. December 1st, 1972.

22 Q. And were you an attendee at the meeting?

23 A. I'm listed as being present, yes.

24 Q. And was it the regular practice of Monsanto to
25 record minutes of meetings?

1 A. Some meetings did, some didn't.

2 Q. And does this appear to be an accurate
3 representation of what was discussed at that meeting that
4 happened December 1, 1972?

5 A. I really can't comment on that.

6 Q. Was it part of your regular practice at
7 Monsanto to keep copies of minutes of meetings?

8 A. No.

9 Q. Do you know whether it was the practice at
10 Monsanto to keep a record in the -- of the meetings,
11 minutes of meetings as part of the ordinary course of
12 Monsanto's business activity?

13 A. The author of the report would probably keep
14 it, perhaps someone to whom it was addressed, not all the
15 attendees.

16 Q. Do you know -- Are you listed as someone who
17 received that?

18 A. I'm listed as someone who was present.

19 Q. May I see that. The first sentence of this
20 exhibit indicates that discussions were opened by Dr. R.E.
21 Keller who asked R.A. Ligett to review MCL plans for
22 present and future PCB work. R.A. Ligett presently
23 commented that they presently planned for further PCB
24 biodegradation studies and that emphasis would be placed
25 upon analytical support for the Pond and EVOP plant process

1 studies. Do you recall whether in December of 1972
2 Monsanto had no further plans to conduct PCB biodegradation
3 standards?

4 A. Well, we did biodegradation studies for quite
5 a period of time after that.

6 Q. Who was R.A. Ligett in December of '72?

7 A. I'm not sure what his job was. He was -- He
8 headed up a section in the European laboratories of
9 Monsanto.

10 Q. In the corporate structure he was not someone
11 who reported to you; is that correct?

12 A. That's correct.

13 Q. And in the corporate structure he was not
14 someone that you reported to?

15 A. That's also correct.

16 Q. The last sentence of this exhibit says the
17 remainder of the meeting was spent -- Excuse me. The last
18 two sentences says the remainder of the meeting was spent
19 reviewing current and future MICC PCB defense work and an
20 outline of the subjects reviewed follows. Do you know what
21 the PCB -- Excuse me. Do you know what the future MICC PCB
22 defense work was in December of 1972?

23 A. No, I don't.

24 Q. I'm now going to show you Plaintiff's Exhibit
25 419 and ask you to review that for me. Have you seen this

1 exhibit before today?

2 A. I don't know.

3 Q. This is a letter or interoffice memo to J.R.
4 Savage from W.B. Papageorge dated October 26, 1970; is that
5 correct?

6 A. That's correct.

7 Q. In October of 1970 what position did J.R.
8 Savage have?

9 A. I really don't know.

10 Q. Was he a Monsanto employee?

11 A. Yes. Well, he was a Monsanto employee at some
12 point in time. I assume he was in this time period.

13 Q. And on or about October 26 of 1970 had you
14 conducted work which indicated the presence of naphthalene
15 in biphenyl and anthracene or phenanthrene and dibenzofuran
16 in Santowax R used in the manufacture of Aroclors?

17 A. Well, certainly the first part of that, the
18 naphthalene and the anthracene and phenanthrene.

19 Q. You had not -- Well, how about the second part
20 of it? This exhibit indicates that you had located
21 dibenzofuran in Santowax R used in the manufacture of
22 Aroclors. Did your work on or before October 26, 1970,
23 indicate of the presence of dibenzofurans in Santowax R
24 used in the manufacture of Aroclors?

25 MR. FEATHERSTONE: Object to the form of the

1 question.

2 MR. BRADLEY: What's wrong with the form?

3 MR. FEATHERSTONE: Well, the first part of
4 your question talks about presence, uses some words other
5 than indicates. I think you may have said found. I can't
6 remember.

7 Q. (By Mr. Bradley) Well, let me rephrase it
8 then. On or before October 26, 1975 -- Excuse me. On or
9 before October 26, 1970, did your work determine the
10 presence of dibenzofuran in Santowax R used in the
11 manufacture of Aroclors?

12 A. No. Not in this context. This was later
13 found to be incorrect.

14 Q. Did you do any work prior to October 26, 1970,
15 to determine the presence of dibenzofuran in Santowax R
16 used in the manufacture of Aroclors?

17 A. Prior to this time was your question. I don't
18 know.

19 Q. Do you recall speaking with W.B. Papageorge
20 on or before October 26, 1970, regarding your work
21 involving the presence of dibenzofuran in Santowax R used
22 in the manufacture of Aroclors?

23 A. I don't recall speaking with him, no.

24 Q. Do you recall writing to any -- any reports on
25 or before October 26, 1970, regarding the presence of

1 dibenzofuran in Santowax R used in the manufacture of
2 Aroclors?

3 A. I don't recall writing any reports, no.

4 Q. Do you recall anything at all about work you
5 may have done on or before October 26, 1970, regarding the
6 presence of dibenzofuran in Santowax R used in the
7 manufacture of Aroclors?

8 A. Well, I'm sure that I communicated with these
9 folks, but you're asking me to remember how I communicated
10 and I don't remember that.

11 Q. Do you recall whether you did communicate to
12 folks, however you communicated with them, on or about
13 October 26, 1970, regarding work you had done to determine
14 the presence of dibenzofuran in Santowax R used in the
15 manufacture of Aroclors?

16 A. It's obvious communication took place but, no,
17 I don't remember the specific communications.

18 Q. I don't recall if I asked you this before.
19 Had you seen this exhibit prior to today?

20 A. I don't recall seeing it.

21 MR. BRADLEY: That's all the questions that I
22 have.

23 CROSS EXAMINATION

24 QUESTIONS BY MR. FEATHERSTONE:

25 Q. I have a couple. With regard to Plaintiff's

1 Exhibit 419, in October of 1970 or thereabouts what was the
2 chief chemical constituent of Santowax R?

3 A. Terphenyl.

4 Q. Was Santowax R a biphenyl?

5 A. Was it, no.

6 Q. And where this document, Plaintiff's Exhibit
7 419, says Santowax R used in the manufacture of Aroclors,
8 was there an Aroclor line made up of terphenyls?

9 A. For a very brief period of time, yes.

10 Q. Now, in response to Mr. Bradley's questions
11 and again with respect to Plaintiff's Exhibit 419, I
12 believe you stated that the reference to dibenzofuran in
13 Santowax R was later found to be wrong?

14 A. That's correct.

15 Q. All right. What did you mean when you said
16 that?

17 A. Well, it was a preliminary finding at the time
18 that I reported it and we believed to the best of our
19 knowledge that it was correct but later we learned that
20 something else was interfering.

21 Q. All right. Something else was interfering
22 with what?

23 A. With the analysis. Something else that had
24 the same molecular weight was interfering with the analysis
25 when we thought we were finding the dibenzofuran.

1 Q. So, something else was interfering with the
2 analysis for dibenzofuran?

3 MR. BRADLEY: Object to the form. Go ahead
4 and answer.

5 A. Yes. Something else was interfering with the
6 determination, the supposed identification of dibenzofuran.

7 Q. (By Mr. Featherstone) And did you later
8 determine what the interfering substance was?

9 A. Yes.

10 Q. What was it?

11 A. Methylbiphenyl.

12 Q. And what does that mean then with regard to
13 how this statement in Plaintiff's Exhibit 419 was
14 incorrect?

15 MR. BRADLEY: Objection to the form.

16 A. Well, we later learned that what's indicated
17 in here after the words anthracene or phenanthrene, we
18 later learned that that was not dibenzofuran that was
19 present in the Santowax R. It was methylbiphenyl.

20 Q. (By Mr. Featherstone) Is methylbiphenyl
21 something different than dibenzofuran?

22 A. Yes.

23 Q. Is it different in its chemical structure?

24 A. Yes.

25 Q. Is it different in its physical and chemical

1 properties?

2 A. Somewhat different, yes.

3 Q. Let me show you what's been marked as Exhibit
4 A to your deposition and ask you to look at that document
5 and tell us whether this is a document that you helped
6 write.

7 A. I'm listed as coauthor, yes.

8 Q. Okay. And there is a reference to Orville
9 Hicks; is that correct?

10 A. Yes. That's correct. Orville Hicks.

11 Q. Dr. Kaley?

12 A. Correct.

13 Q. And Vic Saeger?

14 A. Dr. Saeger, yes.

15 Q. And did these gentlemen work with you at the
16 time of the drafting of Exhibit A, the writing of Exhibit
17 A?

18 MR. BRADLEY: Object to the form of the
19 question.

20 A. I assume they did. I'm looking for a date.
21 They certainly worked for me at a point in time when we
22 were doing a lot of work on PCBs.

23 MR. FEATHERSTONE: No further questions.

24 REDIRECT EXAMINATION

25 QUESTIONS BY MR. BRADLEY:

1 Q. How much later was it that you determined that
2 it was not dibenzofuran in Santowax R?

3 A. Probably just a few months. I don't recall
4 just how long.

5 Q. And what did you do differently to determine
6 it was not dibenzofuran in the Santowax R?

7 A. We just refined the analytical methods
8 further.

9 Q. Do you know whether anyone has ever found
10 dibenzofuran in Santowax R?

11 A. I don't know.

12 Q. You indicated that you were an author of
13 Exhibit A?

14 A. I appear to be, yes.

15 Q. On page five it says biodegradation represents
16 a mechanism for removing PCBs from the environment. Is
17 that a statement that you agree with?

18 A. Yes.

19 Q. Is that the sort of information you gave to
20 General Electric and Westinghouse during the meetings that
21 you described earlier in your deposition?

22 A. I suspect we gave them much more specific
23 information than that. That would just be a generality.

24 Q. Do you recall whether you informed GE and
25 Westinghouse during those meetings that PCBs get removed

1 from the environment through biodegradation?

2 A. Do I recall specifically, no, I don't.

3 Q. Do you recall whether you held that belief
4 before you had the meetings with GE and Westinghouse?

5 A. I believe I did.

6 MR. BRADLEY: I have nothing further. I do
7 want a copy of Exhibit A. That's it.

8 MR. FEATHERSTONE: Reserve signature.

9
10 _____
James Mieure

11 Subscribed and sworn to before me this _____ day of
12 _____, A.D., 1993.

13 MY COMMISSION EXPIRES _____
14

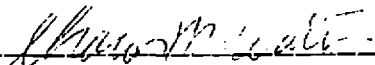
15
16 _____
Notary Public within and
17 for the State of Missouri
18
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24
25

1 MIEURE, together with the questions propounded by counsel
2 and the remarks and objections of counsel thereto, and is
3 in all respects a full, true and complete transcript of the
4 questions propounded to and the answers given by said
5 witness; and that said testimony, so transcribed, was
6 subscribed to by the witness on the _____ day of
7 _____, A. D., 1993.

8 I FURTHER CERTIFY that I am not of counsel nor
9 attorney for any of the parties to said suit, nor related,
10 nor interested in any of the parties or their attorneys.

11 WITNESS MY HAND and Notarial Seal, given this _____
12 day of _____, A. D., 1993, at St. Louis, Missouri.

13 MY COMMISSION EXPIRES MAY 2, 1996.

14
15
16 
17 SHARON M. WATSON,
18 Notary Public, within and
19 for the State of Missouri
20
21
22
23
24
25

1 Concannon and Jaeger
2 General Court Reporters
3 705 Olive Street
4 St. Louis, Missouri 63101

5 March 29, 1993

6 Mr. Bruce Featherstone
7 Kirkland & Ellis

8 Re: Nevada Power Vs. Monsanto

9 Dear Mr. Featherstone:

10 This letter, incorporated as the last page of Dr.
11 Mieure's deposition, taken on March 29, 1993, will serve as
12 notice to you that his testimony is now ready for his
13 reading and signing of same. You will recall you indicated
14 a preference for him reading his deposition, rather than
15 waiving signature.

16 Enclosed is your copy of the deposition, along with
17 errata sheets and a copy of the original signature page.
18 Please have Dr. Mieure read through the deposition, make
19 any necessary changes on the errata sheets, sign the
20 signature page and have his signature notarized. Then mail
21 the errata sheets and signature page back to me at the
22 above address.

23 Thank you for your cooperation in this regard.

24 Sincerely,

25 SHARON M. WATSON
Shorthand Reporter