

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

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

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Nevada corporation, )  
Plaintiffs, )  
-vs- ) # CV-5-89-555-LDG  
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. is Defendant,  
pursuant to Notice, under the provisions of Rule 26 of the  
Rules of Civil Procedure, taken on March 29, 1993, at the  
law offices of Messrs. Husch & Eppenberger, 100 North  
Broadway, St. Louis, Missouri, before Sharon M. Watson, a  
Notary Public within and for the State of Missouri.

A P P E A R A N C E S

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

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

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

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

10 A. That's correct.

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

15 A. Yes.

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

18 A. I've been deposed before.

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

21 A. I think so.

22 Q. All right. Well, let me go over some of the  
23 purposes that I have in taking your deposition. One, I  
24 want to know the information you have regarding the  
25 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-1015 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 Biotest 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 1426?

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.E. 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?

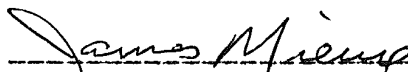
2 A. Do I recall specifically, no, I don't.

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 10<sup>th</sup> day of

12 May

13 \_\_\_\_\_, A.D., 1993.

14 MY COMMISSION EXPIRES \_\_\_\_\_

JOANI M. MADDEN  
NOTARY PUBLIC, STATE OF MISSOURI  
MY COMMISSION EXPIRES JUNE 29, 1996  
ST. CHARLES COUNTY

15   
16 Notary Public within and  
17 for the State of Missouri  
18  
19  
20  
21  
22  
23  
24  
25

1 STATE OF MISSOURI )  
 ) SS  
2 COUNTY OF ST. LOUIS )

3 I, Sharon M. Watson, a Notary Public within and for  
4 the State of Missouri, duly commissioned, qualified and  
5 authorized to administer oaths and to take and certify to  
6 depositions, do hereby certify that pursuant to Notice in  
7 the civil cause now pending and undetermined in the  
8 District Court of the United States, within and for the  
9 District of Nevada entitled NEVADA POWER COMPANY,  
10 Plaintiff, -vs- MONSANTO COMPANY, et. al., Defendant, to be  
11 used in the trial of said cause in said Court, I was  
12 attended at the law offices of Messrs. Husch & Eppenberger,  
13 100 North Broadway, in the City of St. Louis, State of  
14 Missouri, by Ralph A. Bradley, attorney for the Plaintiff;  
15 by Bruce Featherstone, attorney for Defendant Monsanto; by  
16 Laurie Basch, attorney for Defendant GE; and by JAMES  
17 MIEURE, the witness, in said office on March 29, 1993.

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

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  
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