COPY

IN THE MATTER OF:

Tennessee Gas Pipeline Company
vs.
Monsanto Company

Cause No. CI90145

Deposition of Cumming Paton
October 25, 1995

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COMMONWEALTH OF KENTUCKY

ROWAN CIRCUIT COURT

CIVIL BRANCH

TENNESSEE GAS PIPELINE COMPANY,

Plaintiff,

vs. NO. 94-CI90145

MONSANTO COMPANY,

Defendant.

Deposition of CUMMING PATON, Volume I, taken on behalf of the Plaintiff, at the offices of Thompson & Mitchell, One Mercantile Center, in the City of St. Louis, State of Missouri, on the 25th day of October, 1995, before Dawn L. McTeer, Registered Professional Reporter and Notary Public.

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APPEARANCES OF COUNSEL:

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INDEX

	PAGE
Examination by Mr. Roeder	5

EXHIBITS

Plaintiff's Deposition Exhibit 197	25
Plaintiff's Deposition Exhibit 198	30
Plaintiff's Deposition Exhibit 199	32
Plaintiff's Deposition Exhibit 200	37
Plaintiff's Deposition Exhibit 201	42
Plaintiff's Deposition Exhibit 201A	46
Plaintiff's Deposition Exhibit 202	52
Plaintiff's Deposition Exhibit 203	58
Plaintiff's Deposition Exhibit 204	64
Plaintiff's Deposition Exhibit 205	67
Plaintiff's Deposition Exhibit 206	70
Plaintiff's Deposition Exhibit 207	77
Plaintiff's Deposition Exhibit 208	79
Plaintiff's Deposition Exhibit 209	92
Plaintiff's Deposition Exhibit 210	100
Plaintiff's Deposition Exhibit 211	114
Plaintiff's Deposition Exhibit 212	180
Plaintiff's Deposition Exhibit 213	198
Plaintiff's Deposition Exhibit 214	201

WATER_PCB-SD0000076158

CUMMING PATON,

of lawful age, having been first duly sworn to testify the truth, the whole truth, and nothing but the truth in the case aforesaid, deposes and says in reply to oral interrogatories propounded as follows, to-wit:

EXAMINATION

QUESTIONS BY MR. ROEDER:

Q: Can you state your name for the record, sir?

A: Cumming Paton.

Q: Mr. Paton, you recognize that you're called here to testify today; is that correct?

A: Yes.

Q: Have you testified before, sir?

A: Yes.

Q: Have you testified at depositions?

A: Yes.

Q: Have you testified in trial?

A: No.

Q: You understand that your testimony is also being recorded on the videotape?

A: Yes.

Q: You indicated earlier that you objected to that. I just want to make sure that your statements or objections are on the record.

MR. CHAMBERS: Object to the form. That's not a fair characterization of anything that took place off the record. I suggest we move forward with the video deposition.

MR. ROEDER: Well, if there are -- I just want to be clear that there are no objections to the use of the video.

MR. CHAMBERS: That's fair enough. We're ready to proceed.

MR. ROEDER: Can I hear that from the witness, though?

THE WITNESS: Yes, I'm ready to proceed.

Q: (By Mr. Roeder) Where do you live, sir?

A: 13300 Fairfield Circle Drive, Chesterfield, Missouri.

Q: Are you from Missouri originally, sir?

A: No.

Q: Where are you from? Where were you born?

A: Scotland.

Q: Did you attend school in Scotland?

A: Yes.

Q: You attended the university in Scotland?

A: Yes.

Q: What university did you attend?

A: University of Aberdeen.

Q: Aberdeen?

A: Yes.

Q: And what degree did you obtain from the University of Aberdeen?

A: A Bachelor of Science and a Ph.D.

Q: A Bachelor of Science Degree from the University of Aberdeen. In what concentration or discipline was that?

A: Chemistry.

Q: And a Ph.D from the University of Aberdeen?

A: Yes.

Q: Same thing in chemistry?

A: Yes.

Q: Any particular branch of chemistry?

A: The Ph.D would have been in polymer science.

Q: Can you spell that for the court reporter, please?

A: P-O-L-Y-M-E-R.

Q: In polymer science?

A: Yes.

Q: And your Bachelor's Degree?

A: Was in chemistry.

Q: But I mean is it biochemistry, straight chemistry?

A: Straight chemistry.

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Q: What do you do for a living, sir?
A: I'm part retired, part consulting.
Q: Part retired and part consultant?
A: Yes.
Q: I think I understand the retired part. The part that you do consulting, can you explain what consulting you do?
A: I do business consulting.
Q: Is there a company that you are affiliated with with respect to consulting?
A: I have my own company, and I've just formed a partnership with another person.
Q: All right. The company that you have by yourself, can you tell us the name of that, please?
A: Paton Associates Limited.
Q: Where is that located?
A: It's located here in Chesterfield, Missouri.
Q: The partnership that you just formed, what is the name of that partnership?
A: PatonWood, which is one word, Associates International.
Q: Who is your partner in PatonWood Associates International?
A: A man called Wood.
Q: Does the man called Wood have a first name?

A: David Wood.

Q: David Wood. What is the business of PatonWood Associates International?

A: Consulting and training.

Q: Do you concentrate in any particular consulting area?

A: Well, mainly in business consulting.

Q: That seems to encompass a lot. I'm just trying to find out if there's a particular focus of PatonWood Associates International that you do?

A: We probably tend more towards international.

Q: You consult with international businesses?

A: Yes, that's the intent, because it's just getting started.

Q: Are the international businesses that you consult the chemical businesses?

A: They might be. We don't have any clients at the moment.

Q: The consulting that you had done before PatonWood Associates International, what type of consulting has that been?

A: It's been primarily with chemical companies.

Q: Just in general, sir, what type of chemical consulting did you do? I'm not looking for particulars relating to what you may have done for

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an individual client. But just as a general matter, when you do chemical consulting at Paton and Associates, Paton and Associates Limited, what would you do?

A: Well, it's nothing technically. It would be in the management, business management area.

Q: Have you ever done any consulting with Monsanto?

A: Yes.

Q: Do you continue to consult with Monsanto?

A: I have not consulted with them for some time now.

Q: Are you represented by counsel here today?

A: Yes.

Q: Who is representing you?

A: Mr. Chambers.

Q: Mr. Chambers?

A: Yes.

Q: Did you retain Mr. Chambers to represent you in this testimony today?

A: Not really directly. Monsanto asked me to make myself available for this deposition and said that Mr. Chambers would represent me.

Q: So Monsanto arranged for Mr. Chambers' representation of you?

A: Yes.

Q: Do you know who at Monsanto arranged for Mr. Chambers' representation of you?

A: Not really.

Q: You've not agreed to pay him for his time today?

A: No.

Q: Have you had any additional training or schooling after the University of Aberdeen?

A: Some courses in there. I started to do an MBA here in the States, but I transferred from one city to another and didn't finish it.

Q: Is that at Wayne State?

A: No.

Q: Where was that?

A: It was at Case Western.

Q: Case Western. I'm sorry. In Detroit, correct?

A: It was in Cleveland last time I heard.

Q: Okay. Maybe I should have just asked the question directly. At Case Western in Cleveland and you started an MBA, but did not complete it?

A: That's right.

Q: How far along in your MBA did you get?

A: I can't remember now. Maybe a year and a

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bit. I don't know.

Q: Approximately halfway through your MBA?

A: I honestly can't recall now. I was doing it in the evening so I don't know how long it was going to take. I can't remember.

Q: Sir, did you work at some point directly as an employee for the Monsanto Company?

A: Yes.

Q: How long after you received your Ph.D did you begin to work at Monsanto?

A: I worked for Monsanto in the UK directly after leaving the university.

Q: What was the Monsanto entity you worked for in the United Kingdom after you received your Ph.D?

A: As I recall, Monsanto Chemicals Limited.

Q: And what was your position at Monsanto Chemicals Limited?

A: I was a research chemist.

Q: How long did you hold that position?

A: I was with them just maybe three, three and a half years.

Q: After you were with Monsanto Chemicals Limited for three and a half years, where did you go?

A: I went to work for a Swiss company, but a

Swiss company's English operations called the Geigy Company, G-E-I-G-Y.

Q: When did you begin to work for the Geigy Company? I'm looking for approximate years, sir.

A: Probably late '62.

Q: And what was your position at the Geigy Company?

A: I was head of a laboratory that did product testing and also was responsible for the technical support to give customers.

Q: What type of products did you test at the Geigy Company?

A: They would have been additives and products that would have been added to plastics, plastics to improve or modify the properties.

Q: You testified earlier that your Ph.D was in polymer chemistry. Can you tell us what you mean by that term?

A: Polymer is -- polymer science is really the basics of plastics.

Q: So when we discuss or talk about polymer chemistry, it is the chemistry involved in producing various forms of plastics?

A: That's right.

Q: When you say "plastics," can you tell us

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what that term includes as far as you understand it?

A: They are products that often have structural or metal-like properties, but they're made of organic materials as opposed to the inorganic materials that metals come from.

Q: So the work you were doing at Monsanto Chemicals Limited was in the polymer chemistry area?

A: Yes, more or less, yes.

Q: And it was consistent at the Geigy Company?

A: Well, yes, it was modifying them, as I say, by additives and so on. So there was, I guess, a progression.

Q: How long did you stay with the Geigy Company?

A: Until late 1964.

Q: And where did you go then?

A: I came to the United States.

Q: Who did you work for?

A: I came and joined a company called Diamond -- I think it was called Diamond Alkali at the time. I think it now may be known as Diamond Shamrock.

Q: What was your position at Diamond Alkali?

A: I was a technical service representative for a new line of products that they were trying to

commercialize.

Q: What does a technical service representative do, or what did one do at Diamond Alkali?

A: Well, my job was to have a lab that found applications for the product and then go to customers with the sales force or the development manager, whoever it was at that time, and talk from kind of a commercial technical aspect of how the products could be used and so on and so forth.

Q: Did you continue to be a technical service representative throughout your employment at Diamond Alkali?

A: Yes.

Q: How long did you work for Diamond Alkali?

A: Two years.

Q: Were you -- at that point, were you -- where were you in the United States?

A: Yes, I was in a place called Painesville, Ohio, P-A-I-N-E-S-V-I-L-L-E.

Q: Now, in 1966 did you obtain different employment?

A: Yes, I responded to -- I saw an advertisement that Monsanto had for somebody in a kind of a -- it seemed to be in the marketing area of plasticizers, which was an area that I was

familiar with from my days in the Geigy Company, and I applied and I got the job.

Q: Did you continue to stay in Ohio?

A: No, I moved to St. Louis.

Q: To the general offices of Monsanto?

A: Yes, I think -- yes. Yes. Let me think. Yes. Yes.

Q: The position that you obtained at Monsanto in 1966, just so the record is clear, was a -- was what?

A: I think the title was product specialist.

Q: And what were the duties of a product specialist? What were your duties as product specialist?

A: You had two duties. One, you were involved in the marketing plans for a group of products and, secondly, you were the person that communicated those to the sales force and responded to their questions and, depending on how much of a technical background you had, you would be involved in maybe going out to support them with customers on both a commercial and a technical basis.

And you were the avenue by which customer inquiries or problems that couldn't be handled, you know, just by from your basic knowledge got

transferred into our technical service laboratory, who would then possibly have to do work or get more involved and deeper into it technically. In general, the same communication chain followed in flowing information back into the -- into the sales force and into the -- into the customer.

Q: What products did you serve as product specialist for?

A: Initially they would have been plasticizers for polyvinyl chloride which is a plastic.

Q: When you say the term "plasticizer," what does that mean?

A: It, generally, will make the plastic more flexible. That's a very general term, but that's essentially what it does. It can do some other things, but that's the main ones.

Q: For polyvinyl chloride did you say?

A: Yes.

Q: And did you change the products, or the products for which you served as product specialist change?

A: In -- let's see. At the beginning of 1968, I then was promoted to the position of market manager, and I was in charge of what they called specialty plasticizers.

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Q: So, as I understand it, from 1966 through 1968, you were involved with polyvinyl chloride plasticizers?

A: That's right.

Q: Were you involved with any PCB products at that time?

A: In the first two years with Monsanto, I can't recollect being involved in that.

Q: When I said the term "PCB," what did you understand that to be?

A: Polychlorinated biphenyl.

Q: Polychlorinated biphenyl?

A: Yes.

Q: Now, the specialty products to which you were promoted to serve as market manager, what were they?

A: Well, they would have been a whole range of things. Products called sulfonamides.

Q: Can you spell that for the court reporter?

A: Yes. Sure. S-U-L-F-E, sulfonamides, S-U-L-F-E-N-A-I-A-M-I-D-E-S. I'm sorry. Have I got it -- I haven't confused you. Okay. That would have been one. The products by the trade name Aroclor, A-R-O-C-L-O-R, would have been another. A product called Modaflow, I believe,

M-O-D-A-F-L-O-W. There were others, and I cannot really now totally recollect all of them.

Q: Well, the Aroclors are the products that contain PCBs, correct?

A: That's right. Some do.

Q: Some do. And as I understand the way Monsanto had it structured at the time, please tell me if I don't understand it. But would it be fair to say that, when you were involved with the products under the trade name Aroclor, that your responsibility would have only extended to those products with the trade name Aroclor?

A: I'm sorry.

Q: Let me see if I can rephrase it. There are other products that contain PCBs that were not trade named Aroclor, correct, that Monsanto produced at that time?

A: Yes, there were some called Aroclor that belonged in what later was dielectric fluids. I didn't have responsibility for them. I had responsibility for Aroclors to the extent they were used in plastics applications. I guess one exception -- there were some odd exceptions. One being the use of Aroclor in carbonless carbon paper, carbonless copy paper, I believe, is the right

terminology.

Q: That was a product that was manufactured by NCR?

A: That's right.

Q: National Cash Register.

A: It was a solvent. So there were some applications like that that fell in my area of responsibility, because they didn't really fit into the other areas.

Q: What I was concerned with -- and perhaps you've answered it, but I want to be sure that I understand your testimony.

A: Sure.

Q: For example, there was a product that you mentioned that Monsanto produced for dielectric uses? You have to answer yes so the court reporter can take it down.

A: Sorry. I'm sorry.

Q: You have to answer that yes so she can take that down. You were nodding your head.

A: Yes.

MR. CHAMBERS: The video -- the video gets the nod, but not the court reporter.

THE WITNESS: I'm totally confused already.

MR. CHAMBERS: You're doing fine.

Q: (By Mr. Roeder) But the dielectric products were not products that were under -- for which you served as a marketing manager at that time?

A: Not at that time, right.

Q: When you became a marketing manager, what did you do to familiarize yourself with the nature and characteristics of the products under your responsibility?

A: I would have spent time with my supervisor. I would have spent time with the head of the department. I would have spent -- I'm saying would I. I did, I know, sit down with our technical people in the laboratory to understand, you know, the applications to become a little bit familiar with the sort of technical information they had on file. I would have looked at market plans.

I would have looked at literature, looked in the file and, you know, some of it was learning on the job. When a salesman called with an issue, sometimes I would be able to give a direct answer. Sometimes it would take some, you know, me finding out the facts. In that way I built up, you know, an understanding as I went along. So it was all these factors went into it.

Q: Now, was part of the technical information

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in the file that you looked at -- did that technical information include research Monsanto had done concerning the toxicity of PCBs?

A: I cannot recall now whether it did or didn't.

Q: Do you recall whether Monsanto had any such research in its files at the time you became marketing manager?

A: I cannot recall that.

Q: When you became marketing manager, you did learn, did you not, that PCBs were toxic as a general matter?

MR. CHAMBERS: Object to the form.

A: I cannot -- I cannot recall that specific issue coming up. I'm not saying it didn't. I just cannot actually recall it.

Q: (By Mr. Roeder) So you can't recall if anyone ever said that any of the Aroclors could be toxic if ingested, for example?

A: I cannot recall. But as a general rule, chemicals, in general, you don't think of things that you just, you know, digest.

Q: At the time you became marketing manager, was Dr. Wheeler an employee of Monsanto?

A: Dr. Wheeler?

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Q: Is there a Wheeler? I'm sorry. Dr. Kelly was employed, correct?

A: Dr. Kelly, yes.

Q: Okay. Mr. Wheeler, what was his position?

A: Mr. Wheeler was in Emmett Kelly's department. And as I recall, he had to do with industrial, possibly industrial hygiene, but I -- I cannot totally recall now. As I know him and got to know him.

Q: What was Dr. Kelly's department?

A: He was director of medicine and, you know, matters pertaining -- medical type matters, including industrial hygiene as I recall.

Q: Was there a Dr. Richard who was employed by Monsanto at that time?

A: If you mean Dr. Bill Richard, yes.

Q: And what was his position?

A: I wouldn't have known him very well at the beginning of 1968, but he was in the research department.

Q: Was he head of the research department?

A: I don't think so. I think he had, you know, a section of it.

Q: Part of a section?

A: Yes.

Q: The David Wood with whom you are now in partnership, was he associated or employed by Monsanto in 1968?

A: That I don't know. My association with David Wood came later.

Q: How long have you known Mr. Wood?

A: Since sometime in the early to mid 1970s.

Q: For approximately 20 years?

A: Yes, probably a little over 20 years.

Q: Mr. Wood has never told you how long he's been associated or employed by Monsanto?

A: I'm sure he has. I just -- I know it's -- it's over 20 years. I don't know exactly how long.

Q: Was Mr. Wood stationed, at some point, in Belgium on behalf of Monsanto?

A: Yes.

Q: Sir, at what point did you -- strike that. I think you said in 1968 you were appointed marketing manager?

A: Yes.

Q: Was that early in 1968?

A: Yes.

MR. ROEDER: Let's go off the record for just a minute.

(Discussion off the record.)

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(Plaintiff's Deposition Exhibit No. 197 marked for identification.)

Q: (By Mr. Roeder) Mr. Paton, I'd like to show you what has been marked as Plaintiff's Exhibit 197. And for the record, is a memorandum dated January 18th, 1968, from W. R. Richard to C. E. Anagnostopoulos. It has a production number of TRAN 9731. And you are listed as a carbon copy recipient on that memorandum, are you not, sir?

A: Yes.

Q: Okay. That's you up at the top right-hand corner C. Paton?

A: Yes.

Q: Now, you received this memorandum when you were marketing manager, did you not?

A: I had been marketing manager for maybe approximately two weeks, I guess.

Q: New into the job?

A: That's exactly right.

Q: W. R. Richard at the research center, that was a Dr. Richard you testified earlier, correct?

A: Yes.

Q: C. E. Anagnostopoulos?

A: Yes.

Q: Who is that?

A: He was an employee of Monsanto's in the organic division. I can't recall now what title he had at that time.

Q: Is he somebody that you would interact with in your duties as marketing manager?

A: Possibly infrequently. As I recall, he would not -- at that time, he would not have been someone that I would have interacted a lot with.

Q: The other individuals include R. E. Kelly. That's Dr. Kelly that we discussed earlier here?

A: Let's see here. R. E. Keller.

Q: Kelly. There's an R. Kelly. Who is that?

A: Oh, I see. Okay. Sorry. That would have been Dr. Emmett Kelly that we talked about.

Q: Now, the memorandum that you received refers to a Dr. Francis Coon at the Wisconsin Alumni Research Foundation and discusses further the work reported by Jensen and Widmark at U.S. Stockholm. Are you familiar with that work that was reported by Jensen and Widmark?

A: At that time, at -- I would not have been -- in fact, I cannot recall being familiar with their work before this memo and, in fact, I can't recall -- until I saw this memo, I would have forgotten about it.

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Q: Well, my question was simpler than that, sir. Are you familiar with that work?

A: Am I familiar with that work? If you mean in great detail, no. In general terms, later I became more familiar in general terms.

Q: The answer is yes?

MR. CHAMBERS: Object to the form.

A: I'm trying to say that, you know, there are different levels. I've been familiar with some of them.

Q: (By Mr. Roeder) So you've read it. You've read some of the reports, have you not, by Jensen and Widmark?

A: Later I read one article they published. I cannot recall if I read more.

Q: You've read articles discussing that research, correct?

A: I've seen articles discussing their research, yes, later.

Q: Now, is it your best recollection that you began your new position as marketing manager in January of 1968?

A: Yes.

Q: Was this a concern of yours, the reporting of potential trace quantities of PCBs chlorinated

biphenyls or chlorinated terphenyls when you became a marketing manager?

A: It wasn't a concern of mine when I became a marketing manager, as I recall, because I was entering into this area and becoming associated with, you know, these products for the first time.

Q: Did it become a concern early on in your tenure as marketing manager?

A: I'm not sure quite what you have in mind by concern, but I became aware of the -- the situation that was developing with some people saying they were finding these in the environment and that there was some, at that time, inconclusive results about that.

Q: But as marketing manager as part of your responsibility, wasn't it, to keep abreast of information concerning the products that fell within your jurisdiction?

A: The products that fell within my jurisdiction, yes.

Q: And one of those products was the Aroclor product which contained PCBs, correct?

A: Yes, but this doesn't say Aroclor.

Q: But you know that chlorinated biphenyls are included in the products that you were responsible

for at that time, correct?

A: Yes.

Q: And chlorinated biphenyls are referenced in this memorandum?

A: Pardon.

Q: And chlorinated biphenyls are referenced in this memorandum, correct?

A: Yes.

Q: The third paragraph of the memorandum reads "Mr. Coon, who was the person from Wisconsin, said he was also working for other customers on this same subject, but declined to name who they were. He also said we should expect a publication on this same subject emanating from California. He had read this unpublished report." Do you see that?

A: Yes.

Q: Do you know what the publication that would be coming from California was, or did you subsequently learn that?

A: I can't recall if I even learned later. I certainly can't recall anything, you know, now about this.

Q: As you read this, you don't conclude yourself that this would relate to the report by Dr. Riseborough?

MR. CHAMBERS: You may need to answer no out loud.

A: No. Sorry. No.

MR. ROEDER: Can you mark this as the next exhibit, please?

(Plaintiff's Deposition Exhibit No. 198 marked for identification.)

Q: (By Mr. Roeder) Now, the exhibit you had before you, Plaintiff's Exhibit 197, that was an exhibit or memorandum that was prepared at Monsanto during the ordinary course of its business, correct?

A: This?

Q: Yes.

A: I have no reason to say no.

Q: I'd like to show you Exhibit 198. It's a memorandum from you to Dr. Richard and a carbon copy to Dr. R. Emmett Kelly. It's dated June 18th, 1968, and has a production number TRAN 7597.

MR. CHAMBERS: Let me ask if you have a copy for me? If not, I can just look on with the witness on this one.

MR. ROEDER: There should be, but I don't really see an additional copy. There should have been two. Would you like a minute? We could -- we can get another copy for you.

MR. CHAMBERS: That would be convenient if you don't mind.

MR. ROEDER: Sure.

(Discussion off the record.)

Q: (By Mr. Roeder) Sir, we'll start over. Exhibit 198 is a memorandum that you prepared to W. R. Richard, dated June 18, 1968. It bears production number TRAN 7597. This is a memorandum you sent to Dr. Richard, isn't it?

A: I have no reason to think I didn't. My name is on it.

Q: The memorandum references a call from a Miss Caroline Chandler from the U.S. Bureau of Commercial Fisheries in Ann Arbor, Michigan. Tell me if I'm reading this correctly. You wrote "They are studying pollutants in Lake Michigan and believe they have found PCBs. They have also read Jensen's and Widmark's paper." Did I read that correctly?

A: Yes.

Q: Okay. Now, a couple of minutes ago you couldn't recall whether you would have read this study by Jensen and Widmark as of January 1968 when you took over your position as marketing manager. Does this help refresh your recollection as to whether you would have read the study by this time?

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A: I probably read a paper. I may have read the paper that's referenced in here. I guess -- I'm not sure. Given this memo --

MR. CHAMBERS: That's Plaintiff's Exhibit 197.

A: 197. I was informed and from here -- although, I don't have a recollection. I probably, you know, did learn a little bit more about what Jensen and Widmark's paper said.

MR. ROEDER: Let's mark this as the next exhibit.

(Plaintiff's Deposition Exhibit No. 199 marked for identification.)

MR. CHAMBERS: Thank you.

Q: (By Mr. Roeder) There should be a couple of copies. Probably the same memorandum, sir. Exhibit No. -- did I mark that as 199?

MR. CHAMBERS: 199.

Q: (By Mr. Roeder) Plaintiff's Exhibit 199 is a memorandum from D. V. N. Hardy, 23rd of February, 1968, to Dr. Richard, and you were listed as a carbon copy recipient on this as well, correct?

A: Yes.

MR. CHAMBERS: Let me interpose an objection at this point. My copy is marked company

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confidential. Is this a document that will be handled in keeping with the provisions in the protective order for confidential documents?

MR. ROEDER: If you want it so, that's fine. I think I've got the same document also marked and identified as TRAN 57268. It's just pretty illegible in that form. I don't think a confidentiality designation ought to pertain unless you want me to have the witness squint and strain his eyes to read that copy. But I believe it's the same copy.

MR. CHAMBERS: Okay.

MR. ROEDER: Is that fair enough?

MR. CHAMBERS: Yes, on that one it is. You know, for future exhibits we'll just look at them as they come up and decide. Thank you.

Q: (By Mr. Roeder) Now, actually the two copies of the exhibit, sir, are the same memorandum, but it's dated the 23rd of February, 1968, production numbers TRAN 86029 and TRAN 86030. You would have received this memorandum in the ordinary course in St. Louis, correct?

A: Yes.

Q: And this was a memorandum that was prepared by Mr. Hardy in London?

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A: So it says.

Q: Okay. Who is D. V. N. Hardy?

A: He was a Monsanto employee. I cannot recall what his title was.

Q: Okay. Did he work for Monsanto in London? This memorandum refers again to the Jensen and Widmark study, does it not?

A: Yes.

Q: And it refers to a paper entitled "Chlorinated Hydrocarbons in British Wildlife" by Holmes, Simmons and Tatton, T-A-T-T-O-N, that was reported in nature, correct?

A: That's what the memo says.

Q: Okay. And this also related or dealt with the presence of PCBs, did it not?

A: Well, it says close similarity between liver oil from kestrels and also a commercial PCB.

Q: Okay. So close similarities meaning that the procedures and tests they were performing would show that they were very similar if not the same thing as the PCB?

MR. CHAMBERS: Object. Object to the form.

A: You know, I can't speak to that.

Q: (By Mr. Roeder) All right. Well, when you see the term "close similarity," what does that mean

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to you as it relates to gas chromatograms?

A: I'm just -- I'm just looking at the words "close similarity." I don't know if that was a conclusion somebody drew or whether that was because of the actual results they got. I don't know. I'm reading this memo along with you.

Q: Okay. Let me ask you a question related to that, sir. Did you meet with Mr. Chambers in preparation for your testimony today?

A: I met with him yesterday.

Q: Okay. When did you meet with him yesterday? What time in the morning?

A: I think we got together just before ten, I think, yes, just before ten.

Q: And how long did you meet with Mr. Chambers?

A: I was there until sometime in the afternoon.

Q: Okay. Early afternoon or late afternoon?

A: Probably late afternoon.

Q: Was anyone else with you when you met with Mr. Chambers?

A: No. No.

Q: Where did you meet with Mr. Chambers in preparation for your testimony?

A: At Monsanto's offices.

Q: In the legal department?

A: Yes.

Q: Did you review documents in preparation for your testimony today?

A: Some documents, yes.

Q: Okay. Did you review Plaintiff's Exhibit 197 in preparation for your testimony? That was the first exhibit I showed you.

A: Yes, I think I did see this yesterday.

Q: All right. How about Plaintiff's Exhibit 198? Is that a document that you reviewed yesterday?

A: Yes, I remember it, because it was short.

Q: Exhibit 199, did you review that yesterday?

A: I'm not sure. I may have done.

Q: Well, the reference in Mr. Hardy's memorandum in February 1968 to the Tatton article, T-A-T-T-O-N, says "This paper confirms the work of Jensen." Do you see that?

A: Yes.

Q: What was the work of Jensen as you understood it?

A: I'm not totally sure what the work of Jensen was.

Q: Well, in general, as it related to PCBs, what do you understand his work to have been?

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A: He found some initially, I believe, unidentified materials in the residues of birds or in the eggshells of birds or something in Sweden.

Q: The residues of materials that he found he concluded were PCBs, correct?

A: I'm not sure if he actually concluded that. My recollection is that initially he wasn't entirely sure what they were.

Q: Well, at some point, sir, he reported these residues in his own hair. He found them in his own hair and his wife's hair and his baby's hair, his five-year old infant, correct?

A: That I can't remember. I may have known at the time, but I've forgotten the details.

MR. ROEDER: Let's mark this as the next exhibit, please.

(Plaintiff's Deposition Exhibit No. 200 marked for identification.)

Q: (By Mr. Roeder) I've handed you what has been marked as Plaintiff's Exhibit 200, which is a letter to David Wood, dated November 28th, 1966, and Monsanto Europe under the letterhead of Rising and Strand, R-I-S-I-N-G and S-T-R-A-N-D. Is this one of the documents that you reviewed in preparation for your testimony today?

A: This is the first time I've seen this document.

Q: This Wood that's the David Wood with whom you are a partner now; is that correct?

MR. CHAMBERS: Let me -- let me interpose another objection. This document is also marked company confidential. I would just ask, if you -- if you offer documents that have been marked confidential as exhibits, that we follow what's been set out in the protective order which, I think, calls for counsel to identify a document as confidential when he's introducing it.

MR. ROEDER: Well, fine. Fair enough.

MR. CHAMBERS: And that's a separate transcript that can be prepared with respect to those matters.

MR. ROEDER: If there's any question as to whether -- if the court reporter, when she has copies of exhibits, sees that a document has been marked confidential, the understanding is that the confidential portions will be written up separately. Fair enough. So if I did not say it, it's my fault. I apologize. But it does say company confidential.

MR. CHAMBERS: Thank you.

MR. ROEDER: But anyway, would you like the question read back?

THE WITNESS: I'm sorry.

MR. ROEDER: Would you like the question read back? There was a question that was pending that was interrupted by Mr. Chambers' objection.

THE WITNESS: What is your question, please?

MR. ROEDER: I'll have the court reporter read it back.

(The requested portion of the record read by the reporter.)

A: I don't know.

Q: (By Mr. Roeder) Do you know of any other David Wood who worked for Monsanto in Brussels?

A: I don't. But that doesn't mean there wasn't one. I mean this memo was written -- I had been with Monsanto probably barely three weeks.

Q: Well, if you look at Exhibit 199, there's a D. Wood in Brussels who was carboned on the same memorandum that you were carboned on the 23rd of February, 1968.

A: And I'm not saying they're not the same one. I don't know. This memo, you know, was written from someone in Monsanto Europe ME, I think,

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to someone in Brussels. I see no carbonees in the U.S. And I had been with the company three weeks. At that point, I wouldn't have known -- you know, I barely knew anyone in Monsanto.

Q: Did you ever learn that there was another David Wood at Monsanto, other than your partner who was stationed in --

A: I can't recall I did.

Q: Okay. You can't recall?

A: No.

Q: Okay.

A: It doesn't say that there wouldn't be another one. I cannot recall.

Q: Okay. Did Mr. Wood ever tell you that he had received such a letter in November 1966 with respect to PCBs?

A: I can't remember him telling me that.

Q: Have you ever discussed the issue of PCBs with Mr. Wood?

A: Yes.

Q: Do you recall if Mr. Wood ever discussed with you his receiving a letter that would indicate that Mr. Jensen had also examined the hair of his family and himself and found PCBs on all of the samples?

A: I can't remember David Wood telling me that.

Q: Can you remember Mr. Wood telling you that most of the PCB was found in the hair of Jensen's wife, but most sensational was that his infant daughter, age five months old, had more PCB in her hair than her brothers?

A: I can't recall that. I can't recall him discussing that with me.

Q: Okay. Do you recall Mr. Wood discussing his receiving notice in November 1968 that there was "No doubt that what has been termed polychlorinated biphenyls is equal to Aroclor"?

A: No.

Q: Were you concerned about any adverse publicity with respect to the Aroclors that were under your responsibility in 1968?

A: In 1968, as I got further into the job, I realized that this was an issue that needed -- that I needed to become more familiar with. It was an issue that was occupying other people in the technical area who were trying, at that time, to determine the accuracy of the data, not necessarily disputing it, but to just determine the accuracy, because this was a new development. The technology, as I recall, that was used was new. It was now

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talking about areas and parts per million which, as I recall now, was not a universal type of technology, a proven technology at that time. That's my recollection.

Q: The technology you're referring to is the technology used to determine the existence of these?

A: It's a technology known in general terms known, I believe, as chromatography.

Q: Gas chromatography?

A: Gas is one form, I believe.

Q: And what is chromatography in a general term so that the jury could understand what you mean by that?

A: Well, I'm not the right person to explain that to a jury.

Q: All right. Did you believe this was a legitimate concern, though, this issue with respect to PCBs when you began your market manager position?

MR. CHAMBERS: Object to the form.

A: When I became market manager in PCBs, I had no opinion, you know, one way or the other on the subject.

(Plaintiff's Deposition Exhibit No. 201 marked for identification.)

WATER_PCB-SD0000076196

Q: (By Mr. Roeder) Sir, you've just received a document marked as Plaintiff's Exhibit 201?

A: Yes.

Q: It's a memorandum that you wrote to Dr. Richard, Dr. Kelly and Dr. Keller at Monsanto, correct?

A: Yes.

Q: Okay. And it's dated July 31, 1968, and it bears production number TRAN 57288. Your memorandum, sir, was intended to inform the recipients of the memorandum of an article in the "New Scientist," correct?

A: Yes.

Q: What is the "New Scientist"?

A: My memory is that that was an English periodical that I had seen when I lived in the UK.

Q: You write to Drs. Kelly, Keller, Richard, and Mr. Wheeler was another recipient, that "I thought that this was given over more to sensation than to strict regard for scientific accuracy. I am sorry to see that it has not changed over the years." And you're referring to the "New Scientist," correct?

A: Yes, the publication, yes.

Q: Was that your opinion?

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A: That was my opinion then.

Q: You go on to say that "Their article on PCB is the most opinionated we have seen so far on Aroclor toxicity, and I am sure their omission of the word Aroclor has prevented even greater repercussions." Did I read that correctly?

A: Correct.

Q: Okay. What did you mean by that?

A: By then I had seen other articles. I had not seen this. I had not read this article, as I recall, on the 15th of December, 1966, because I didn't subscribe to it. In fact, I don't think I ever subscribed to it. But I would not have seen it after I came to the United States. So this article had to come to me from some source, you know, and I don't know how somebody in the company -- you know, I don't know how I saw -- got the article, but it crossed my desk. When it did, I would have read it, sent it on to them, because they were in a much better position than me to comment on its accuracy.

My only -- my only comment to them was that, based on my previous knowledge of the magazine from my days in the UK, it was not one that I thought of as a very serious scientific journal in spite of its name. And that, as this issue of are these PCBs, is

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it a problem or not, there were articles that were scientific in their nature and others which, you know, were I would say rather sensational.

You know, you tried to -- in my position, I wanted to be sure, okay, what is fact and what is somebody's conjecture and supposition. It went to them, because they are three -- they are the people in Monsanto who were in the best position to tell me how accurate or inaccurate or so on this kind of information was.

Q: The three you're referring to are Drs. Richard, Kelly and Keller?

A: And Keller, yes.

Q: Now, you conclude your short memorandum by saying "I only hope Rachel Carson never subscribed to the 'New Scientist'." What did you mean by that?

A: Well, that was my attempt at humor. Rachel Carson and Ralph Nader were -- you know, I had become aware since I had come to the States, you know, were somewhat, you know, fairly activists. And I had thought I had left some of that on the other side of the Atlantic. I was just facetiously saying "Gee, if they get together, you know, who knows," because some of these, in my view in my own personal opinion, their writings and statements

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weren't always scientifically correct.

Q: Well, Rachel Carson, who is she?

A: Well, she was someone who wrote a book, I believe, about the environment.

Q: Is it "Silent Spring"?

A: Yes. I think I read it, but it's a long time ago so I've forgotten what it said.

Q: There was concern with whether or not pollution will affect certain species?

A: I think so. You know, it's so long since I've read it that I can't remember.

MR. ROEDER: Can we mark this as 201A.

(Plaintiff's Deposition Exhibit No. 201A marked for identification.)

Q: (By Mr. Roeder) By the way, sir, Exhibit 201, your July 31, 1968, memorandum, is that a document you reviewed in preparation for your testimony today?

A: I think I saw it, but I didn't read it yesterday as I recall. In fact, I know I didn't read it yesterday.

Q: Now, Plaintiff's Exhibit 201A is a copy of what appears to be a magazine. It says the "New Scientist" in handwriting up at the top. It bears production number TRAN 56625. This is the "New

WATER_PCB-SD0000076200

Scientist" article you were referring to in your July 31 memorandum; isn't that correct?

MR. CHAMBERS: Object to the form.

A: It could be.

Q: (By Mr. Roeder) Well, in fact, your memorandum says a "New chemical hazard" and the title of the article?

A: Then, you know, I wouldn't dispute it is.

Q: The article is entitled "Report of a New Chemical Hazard," correct?

A: Let me see. Do I mention that in my memo here? Yes. Okay. Yes, I see the title. I doubt it's the same one.

Q: The handwriting on "New Scientist" is 15 December, 1966?

A: So I'm not -- that doesn't look like my writing, you know. In fact, I don't think that's my writing.

Q: Why don't you -- did you examine this in preparation for your testimony today?

A: I just said, no, I didn't.

Q: My question was related to the memorandum.

A: Oh, I'm sorry. Okay. Well, then could you repeat the question?

Q: Sure. I'll ask it again so it's clear. The

WATER_PCB-SD0000076201

memorandum, Exhibit 201.

A: Yes.

Q: Did you review that in preparation for your testimony today?

A: I think I saw it, but I can't recollect reading it.

Q: But you don't recall reading the short article?

A: I know I didn't read the short article.

Q: Would you take a moment to read it, sir?

A: Sure.

Q: And if there's any difficulty in reading it, I have a copy that Monsanto also produced typed out. Would you prefer to look at that?

A: No, this will be fine.

Q: All right. Did you have a chance to look at it?

A: Yes.

Q: Knowing what you know now about PCBs, is there anything -- any statement in that article which is incorrect?

MR. CHAMBERS: Object to the form.

A: I don't know if there's any -- I don't know for sure if there's any correct or incorrect. That was the reason this was passed on to these three

people.

Q: (By Mr. Roeder) My question is knowing what you know now?

MR. CHAMBERS: Object to the form.

A: I cannot say now and then put myself back into what I thought 27 --

Q: (By Mr. Roeder) I'm not asking you to put yourself back. Let me ask the question this way: You are aware of continuing research that was done on PCBs, correct?

A: Yes.

Q: And in your position at Monsanto, you had access to and read various reports or studies relating to PCBs, correct?

A: Yes.

Q: As a Ph.D you had the ability to understand the scientific validity of those studies, correct?

A: Some of it, yes.

Q: Okay. Knowing what you know now about PCBs and looking back at what was reported in the "New Scientist" in 1966, can you tell me what, if anything, there was incorrect?

MR. CHAMBERS: Object to the form.

A: I don't know if there's anything incorrect. I don't know how they test it. I don't know how

WATER_PCB-SD0000076203

they did their studies. I don't know the conditions. There's assumptions being made in this article, and I don't know how correct these are.

Q: (By Mr. Roeder) Okay. Well, the article says "A Swedish research worker has expressed concern over the increased amounts of polychlorinated biphenyls entering the air presumably from industrial smoke and rubbish dump smoke being absorbed by water and taken in by fish and later humans." Do you know if that's true or not true?

MR. CHAMBERS: Object to the form.

A: That's an assumption on their part.

Q: (By Mr. Roeder) Do you know whether or not what is suggested in there is true or not true?

A: I don't know if it's true.

Q: All right. Let's go down to the next paragraph. "It is not known at present how much of this substance is dangerous or even fatal." Would you agree or disagree with that statement?

MR. CHAMBERS: Object to the form.

A: You know, "It is not known at present how much of this substance is dangerous or even fatal." I would agree with that.

Q: (By Mr. Roeder) "If it is comparable with

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DDT, then the limit would be .5 milligrams per cubic meter of air. And for consumption, the dead eagle had at least ten times as high a concentration in its body." Do you see that?

A: Yes.

Q: And that relates to an earlier statement that PCBs are found in feathers of dead eagles, correct?

MR. CHAMBERS: Object to the form. Go ahead.

A: You know, I can't comment if that's accurate or not.

Q: (By Mr. Roeder) All right. You can't comment if it's inaccurate either, right?

A: But I see assumptions. Therefore, when you see assumptions, you question how correct they are.

Q: Well, I guess what I'm trying to determine, sir, is how you concluded that this article was the most opinionated that you had seen so far on Aroclor toxicity?

A: I can't recall now exactly why. When I read this at the time, there must have been something that caused me to say what I said.

Q: Okay. As you look through this article now, you don't know what it is that caused you to

WATER_PCB-SD0000076205

determine that this article was opinionated?

A: Not almost 30 years later.

Q: Well, let me ask the question this way: Isn't it true, when you look at this article, the suggestions of a report of a new chemical hazard that it reflects were true?

MR. CHAMBERS: Object to the form.

A: I'm not going to say that, because I don't know. This article has got assumptions in it. It jumps from one to another, and I don't know anything about how they did their testing. I don't know how accurate the work was, you know.

MR. ROEDER: 202.

(Plaintiff's Deposition Exhibit No. 202 marked for identification.)

Q: (By Mr. Roeder) Exhibit 202, sir, is a memorandum dated October 21, 1968, to Dr. Richard and there's a C. Paton, P-A-Y-T. Is that a misspelling of your name?

A: I think, yes. Probably, yes.

Q: And it bears production number TRAN 58197. Now, this is a document you had received -- you would have received in the ordinary course, correct?

A: Yes.

Q: The memorandum references a technical paper

that Scott Tucker and Mr. Wheeler had picked up in Washington recently, and it relates to a Riseborough presentation. Do you see that?

A: Yes.

Q: Who was Dr. Riseborough?

A: At the time, it would have been almost a new name to me.

Q: Well, I'm just asking now based upon your knowledge.

A: I believe at the time -- I believe at the time he followed up -- well, I'm not even sure if he followed up. But I know that he wrote or had done some work along the lines of Jensen or Widmark or whoever in looking at birds somewhere on the coast of California.

Q: If you look toward the fourth paragraph, that reads "In a few words, Riseborough has found PCBs along with chlorinated pesticides in a number of species of fish and birds along the California coast as well as in waters off Baja, California, and Central America." That's consistent with what you just testified to, correct?

A: Yes.

MR. CHAMBERS: Object to the form. Go ahead.

WATER_PCB-SD0000076207

A: This refreshes my memory.

Q: (By Mr. Roeder) Okay. Does it refresh your memory with respect to anything else?

A: Not really.

Q: Why would you have received a copy of this memorandum as you understand it?

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) You can answer over the objection.

MR. CHAMBERS: Yes, you can answer if you're able to.

A: Well, I think, in general, being in the division I was, people would tend to copy me in so that I was aware of what was going on. It didn't necessarily mean that I had to take action on it. I would become aware of what was happening in the department.

Q: (By Mr. Roeder) Because it was an important -- something important for you to keep track of?

A: You know, sometimes it was considered important. Sometimes it was just given, you know, more or less on a routine basis.

Q: The carbon copy recipients here were Dr. Kelly, there's one we can't see and a Dr. Keller and you, correct?

WATER_PCB-SD0000076208

A: Yes.

Q: All of you were scientists, right?

A: Yes. But I'm not sure -- I don't think from that you can infer that it was given to me in my position as a scientist. I was not acting as a scientist at Monsanto.

Q: And certainly Mr. Bergen was not, right?

A: I don't know. I can't recall what his technical background was. Mr. Bergen, at the time, would have been head of some department or other.

Q: Okay. We're referring to Mr. Bergen as also a copyee and Mr. Johnson, correct? They're listed under your name in the upper right-hand corner, correct?

A: Yes.

Q: Mr. Bergen was your boss, correct?

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) Do you understand what a boss is?

A: Yes.

MR. CHAMBERS: You're assuming -- no, you're assuming facts not in evidence.

A: I -- I don't think I did report directly to Mr. Bergen.

Q: (By Mr. Roeder) All right. Well, let me

WATER_PCB-SD0000076209

rephrase the question. Wasn't Mr. Bergen a superior to you at Monsanto as of October 21, 1968?

A: I don't think he was even in -- I think he was in another department of Monsanto. He had a position higher than I was, but I can't recall that he was in the area where I was.

Q: Okay. He wasn't in your chain of command?

A: No, not that I recall.

Q: All right. Who was Mr. Johnson?

A: What he was doing then, I'm not really sure. I knew him, got to know him much better later but he was -- you know, it doesn't ring any bells what he was doing back then.

Q: All right. So as of toward the end of 1968, just so I can determine where we are now in light of the documents that you've looked at, you certainly would have read the Jensen and Widmark study, correct?

A: I -- when you say the study itself.

Q: Or a translation or a summary of it.

A: I would have seen papers on it, yes. I would have seen several of these things. I cannot recall how closely I read them. As I indicated in the other one, when I saw things like that that came my way, I passed them on to the people that had the

responsibility and the technical capability to investigate and decide were they accurate and so on and so forth.

Q: Did Dr. Kelly ever mention to you by this time that he had accepted the conclusions of Jensen and Widmark?

A: I can't recall, you know, a conversation where he specifically said that.

Q: Did you form any conclusions as to whether he had?

MR. CHAMBERS: Object to the form.

A: I can't recall that either.

Q: (By Mr. Roeder) How about Dr. Richard?

A: I think that -- well, I'm going on -- I cannot, at the time, recollect Dr. Richard specifically saying anything to me along those lines. Dr. Richard actually was not in the plasticizer research department. He was in another area where there were -- was responsibility for other areas of PCBs and -- but he -- since the area that he had responsibility for their manufacture, he would have got involved in this as a general topic.

I don't know if I'm making myself clear, but I would not -- except for this area I would not have normally gone to Dr. Richard in the course of my

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business. I would have gone through other people who dealt strictly with the applications of these products in, you know, in the group known as plasticizers. He had responsibility in other areas, but he was given the task of looking at this for all the places where Monsanto, you know, was involved commercially in PCBs.

Q: At or about this time, sir, in October 1968, were you involved in any way with any ongoing research?

A: Not directly.

Q: Okay. Were you involved indirectly?

A: Indirectly from, as I've said, from passing information that came my way to them and reading what they were saying.

Q: Did you ever make any suggestions or comments with respect to those research?

A: Not in the way of -- in any way telling them what experiments there are and what they should be doing or what they shouldn't be doing or critiquing the results. I would have done none of that

(Plaintiff's Deposition Exhibit No. 203 marked for identification.)

Q: (By Mr. Roeder) Exhibit 202, is that a document you looked at in preparation for your

testimony?

A: I think I saw that yesterday, yes.

Q: All right. Look at Exhibit 203, sir. Is this a document that you looked at in preparation for your testimony?

A: I saw that yesterday, yes.

Q: All right. For the record, Exhibit 203 is a memorandum from C. Paton to Dr. W. Richard, dated November 27, 1968, production number TRAN 86098. This is a memorandum you sent to Dr. Richard, correct?

A: Yes.

Q: It is a memorandum you sent directly to Dr. Richard, right?

A: Yes.

Q: And in this memorandum you made suggestions concerning a program on metabolic studies with various Aroclors; isn't that correct?

MR. CHAMBERS: Object to the form.

A: I didn't make proposals on the metabolic studies.

MR. ROEDER: Can you read back the question?

(The requested portion of the record read by the reporter.)

MR. CHAMBERS: Same objection.

Q: (By Mr. Roeder) Doesn't your memorandum read "Re our proposed program on metabolic studies with various Aroclors. Can we make sure that any Aroclors that are tested either within Monsanto or elsewhere are completely characterized with regard to physical properties and production records?" Isn't that what that says?

A: That's what it says.

Q: You make your request to Dr. Richard "Because of the 'local' difficulties we are having with our petition to FDA on A-5460 approval." Do you see that?

A: Yes.

Q: And that refers to Aroclor 5460, right?

A: Yes.

Q: And you wanted to include Aroclor 5460 in the studies that Dr. Richard was going to perform or cause to be performed, correct?

A: Yes.

Q: What were the local difficulties you were referring to?

A: At this point in time, I cannot remember. And to avoid any feeling that I've misled you on what I answered you on the previous memo, I didn't

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make any comment on the metabolic studies. I was saying, if you are going to do studies, be sure that you can -- that materials you test you know where they come from from a record keeping standpoint so we can trace back what lots they were and also what the characteristics of that particular, you know, batch was so that you could tie the study to a particular sample.

Q: So in your testimony previously was that you didn't make any comments with respect to the metabolic studies?

A: That's right. I didn't get into that.

Q: You didn't get into that.

A: Because I was not confident.

Q: And you didn't get into it in your answer the first time either?

A: That's correct. And I would also add, if I may, that the reason I was -- wanted to be sure, from my position as a market manager, that these records from kept properly is that Monsanto was not the only producer of PCBs. Therefore, it was important that, you know, when PCB came up, it wasn't assumed that Monsanto was necessarily responsible for what may or may not have occurred in the environment.

Q: Monsanto was the only producer of PCBs in North America, correct?

A: It was the only producer of PCBs in North America. That did not mean that the only PCBs used in North America came from Monsanto.

Q: Now, the PCBs Monsanto sold outside of North America, where were they produced?

A: Some were produced, as I recall, in the United Kingdom, and we had a joint venture with the Mitsubishi Company in Japan. I know we produced some them. I cannot recall if they were being produced in '68 or, you know, when. I know we -- at one point, we were producing and it may well be they were being produced there in '68. I just cannot remember.

Q: Well, you're only referencing in your memorandum your suggestion that you keep samples relating to Anniston, right?

A: Well, I say within Monsanto or elsewhere, but meaning within the Monsanto organization is what I mean.

Q: Well, let's read the sentence in so it's very clear what we're referring to. "Regarding our proposed program on metabolic studies with various Aroclors, can we make sure that any Aroclors that

are tested either within Monsanto or elsewhere are completely characterized with respect to physical properties and production records?" That only refers to whether the testing is going to be done in-house or outside, right?

A: It referred, I think that the Aroclor -- if it was Aroclor that we sent to somebody outside, that at least we keep track of what they would and, hopefully, they would also keep track of what they were testing.

Q: Well, then the next sentence reads "We also should make sure that all parties testing these materials retain samples and that Anniston also retains samples even though this may mean keeping samples longer than normal." The Anniston there refers to Monsanto's Anniston, Alabama, plant?

A: Yes.

Q: So it doesn't refer to samples Monsanto produced in the UK or Europe or in Japan, right?

A: As I read this next sentence, no. And I can't remember whether or not -- it may well be that -- that we had decided that samples from Anniston would be the ones used. I don't -- you know, that I'm getting into total speculation. But I was only trying to be accurate in terms of record keeping.

WATER_PCB-SD0000076217

(Plaintiff's Deposition Exhibit No. 204 marked for identification.)

Q: (By Mr. Roeder) Sir, you have received a copy from the court reporter of Plaintiff's Exhibit 204, which is a memorandum from E. P. Wheeler to W. R. Richard and you are listed as a copy; isn't that correct?

A: Yes.

Q: It's dated December 9th, 1968. It bears production numbers TRAN 57343 to TRAN 57344. This is a memorandum you would have received in the ordinary course; isn't that correct?

A: Yes.

Q: Now, this was just approximately a week and a half to two weeks after your memorandum to Dr. Richard, correct?

A: Yes.

Q: That would be Exhibit 203. And it relates to "Minutes of our discussion with Dr. Calandra." Who is Dr. Calandra?

A: As I recall, he was associated with a company called Industrial Biotest. He may have been the president. I can't recall.

Q: He was somebody that Monsanto was retaining to conduct tests with respect to PCBs?

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A: That's right.

Q: Were these called toxicity tests?

A: I'm not sure what terminology was used.

Q: But they're tests to determine how much different types of rats, dogs --

A: That's probably -- you know, that's -- I wouldn't dispute that.

Q: Well, let's make sure we get -- I want to get the question clear. Those are tests to determine how much rats, dogs, other types of forms of life could accept of different PCB related compounds, right?

A: That's one of the tests, yes.

Q: Now, at this point, you were kept in the loop concerning continuing research regarding Aroclors and PCBs; isn't that correct?

A: Yes.

Q: Now, there is some references here to no action. Do you see that?

A: Yes.

Q: Do you understand that to suggest that there would be no action with respect to these particular discussions or conclusions?

MR. CHAMBERS: Object to the form.

A: Not necessarily.

Q: (By Mr. Roeder) What would it refer to?

A: It might be that whoever put the information in saw it as no action necessary on that particular individual's part.

Q: No action on that individual's part. Do you recall taking any action with respect to this memorandum?

A: I don't. I don't recall. There would be no reason for me to do this. These are areas that I would not have taken action on.

Q: You did take action with respect as reflected in your Exhibit 203, correct? You wanted to be sure that you kept samples of what was being tested?

A: That was strictly for record keeping that later on we would be able to track back what had actually been tested.

Q: So you were concerned yourself with the record keeping in that respect, but not with respect to what type of testing would actually be done?

A: I relied on people that were expert and who had responsibilities in those areas.

Q: Did you meet with Dr. Calandra on or about this time?

A: I can't recall having actually ever met him,

but I may have. If it was, I would have been sitting in a meeting listening to what was being said as opposed to being a direct participant.

(Plaintiff's Deposition Exhibit No. 205 marked for identification.)

Q: (By Mr. Roeder) For the record, you've been handed Exhibit 205 which is a memorandum from E. P. Wheeler to W. R. Richard, production number TRAN 86119. Is this a document you looked at in preparation for your testimony today?

A: I can't recall it.

Q: Okay. How about Exhibit 204, the one that you just put down?

A: Yes, I did see that yesterday.

Q: All right. Exhibit 205 lists you as a carbon copy recipient, does it not?

A: Yes.

Q: You would have received this in the ordinary course, wouldn't you?

A: Yes.

Q: Now, Mr. Wheeler references his belief that "It was agreed, when we meet with Dr. Calandra in December, that the group would schedule a monthly meeting." Do you see that?

A: Huh-huh.

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Q: That was a monthly meeting to discuss PCB research and developments, wasn't it?

MR. CHAMBERS: Object to the form.

A: I don't know what group he's really talking about.

Q: (By Mr. Roeder) Was there a group that would regularly meet to discuss developments with respect to PCBs?

A: Was there a group? I don't know if there was a group in a formal sense. The people involved in doing the various parts of the testing, I'm sure, would have met from time to time.

Q: Okay. You would have met with them, too, from time to time, wouldn't you?

A: Yes, but much less -- much, much less frequently. Less frequently than -- I wouldn't have had a regular plan to be in all these meetings, no.

Q: So your understanding is that there were meetings that were held and you attended from time to time?

A: I might have attended some. You know, I cannot now recall specifically how many or when. I'm not saying I didn't.

Q: Did the group have a name?

A: I cannot recall.

Q: PCB working group task force informal working group, nothing like that?

A: There might have been terms like that used by people that were looking at different aspects of it. It was not something that I remember being something that I recall being -- embracing a big large group if you like.

Q: I'm not suggesting it embraces a big large group. What I'm wondering, sir, is that the memorandum references a group that would schedule a monthly meeting. And it seems to carbon copy pretty much the same people that the previous memorandum we looked at, Dr. Kelly, Dr. Keller, you, Dr. Tucker. These are all people who had a scientific background at Monsanto, correct?

A: Well, they might have had science degrees or technical degrees of some sort. I, at that point, would not have classified myself as a scientist at that time, nor would Ken Wells, who reported to me. And Mr. Bergen was in some sort of a management position. I know that I did not -- I didn't consider myself part of a group that would schedule a monthly meeting on this particular issue. So, I think, in here you may have a combination of people who are copied in for information purposes and, you

know, some that were copied in, because they were involved in actually doing work on the studies that are associated with the studies that Dr. Calandra were doing -- was doing.

(Plaintiff's Deposition Exhibit No. 206 marked for identification.)

Q: (By Mr. Roeder) Exhibit 206, sir, is another memorandum two days later from Dr. -- from Mr. Wheeler to Dr. Richard bearing production number TRAN 86120. This references the agreement to meet next week at a conference room in T building. Do you see that?

A: Yes.

Q: And you also are listed again as a carbon copy recipient, right?

A: Yes.

Q: Where was T building?

A: T is -- let me think now. Well, that's here in St. Louis at Monsanto's headquarters on North Lindbergh.

Q: Wheeler suggests that "He has asked Paul Hodges to join us in earlier session in the same conference room at two P.M." Do you see that?

A: Yes.

Q: Why would you have an earlier session?

MR. CHAMBERS: Object to the form.

A: I have no idea, but it wouldn't strike me as unusual.

Q: (By Mr. Roeder) So someone would come for part of the meeting, but then would be excluded for the second half?

A: Well, there might be areas that were of interest to -- you know, involving a specialty of only a small group of people and if time was needed later, fine, or if it was no need -- you know, it could be lots of reasons why you'd have different sessions for different people.

Q: But in the course of your career at Monsanto, you've sat in on a number of different meetings where people would be called in for a portion of the meeting and then excused for the remainder, correct?

A: Yes.

Q: At Monsanto let's -- let's continue and complete your background. You -- I think we've gotten to about 1968 when you were marketing manager.

A: Yes.

Q: You were promoted from that position, weren't you?

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A: From the position of marketing manager?

Q: Right.

A: Let's see. Sometime in 1970 I moved out of this job, moved into the international division and was the marketing manager for Latin America responsible for Monsanto's line of organic, you know, organic division line of chemicals.

Q: From 1970 you had responsibility for Latin America, but you stayed here in St. Louis?

A: Yes.

Q: How long did you keep that job?

A: For almost two years.

Q: So approximately late 1971, May 1972?

A: I think sometime towards the end of 1971 I was offered a position -- you know, I was offered a position which was a promotion again earlier than I had expected.

Q: Okay. What was that position?

A: That was a -- I'm trying to think. Was that market manager or product manager or something like that in an area of fluids, a group of product called fluids.

Q: Pydrauls?

A: No, initially not Pydrauls. It was heat transfer fluids.

WATER_PCB-SD0000076226

Q: Therminols?

A: Yeah, Therminols. That's right. Dielectric fluids and let's see. There was something called process chemicals, and process chemicals then was the group of products -- the group of Aroclor products that I had been associated in my plasticizer days. There might have been some other "process chemicals" as well. I cannot quite recall.

Q: And how long did you attain that position as product manager?

A: I think that's the title. Then at some point -- and I can't recall if that was '72 or so, maybe middle of '72, towards the end of '72. I can't remember now. There was -- I was then given responsibility for Pydrauls and Skydrol and a miscellaneous range of small volume specialty type fluids as well.

Q: Does your position change at any point after that?

A: Then -- let me see. Then was a period around the mid '70s when I then was given responsibility for several product groups. As I recall, one of them was still the fluids area that I had other products totally unrelated to fluids as

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well. Then --

Q: You were promoted?

A: Yes.

Q: What was the title that you were promoted to?

A: We got into one of these funny things, as I recall, where rather than being a product manager, you were a manager of marketing products. Depending on where the comma was, that was a higher grade. Then after that I then became director of development for the plasticizer division. Then after that I went to Brazil, and that would have been early 1979 as the commercial director for Monsanto's chemical business in Brazil. I was in Brazil for about close to six years.

Q: So that would bring you to about 1985?

A: That's right.

Q: Did you return to the United States then?

A: I came back to the United States, and I was then appointed director of administration and development for Monsanto's international division so that my job then was sort of on a worldwide basis reporting in to the managing director of international.

Q: Who was that?

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A: That was Tom Gossage.
Q: How long did you report to Mr. Gossage?
A: I reported to him for probably about a couple of years.
Q: So that would bring you to about 1988?
A: No, let's see. '85 to maybe late '86, early '87. And I was then -- in the latter part of '87, I went to Korea as the executive vice-president joint representative director was the title, but representing Monsanto's interests in a joint venture in Korea that I had been involved in the negotiations and, you know, getting that set up.
Q: So what was the name of that joint venture?
A: Kumho Monsanto. Kumho Monsanto, Inc., I believe.
Q: Okay. Can you spell that for the court reporter?
A: Yes, sorry. K-U. It's two words. K-U-M-H-O then Monsanto, Inc., I believe.
Q: How long were you executive vice-president for that venture?
A: I was until the end of 1990.
Q: Then what happened?
A: Then I came back to St. Louis, and I was the director of business development for Monsanto's

WATER_PCB-SD0000076229

chemical company in Asia for all of Asia Pacific.

Q: So you were promoted upon your return?

A: Yes.

Q: How long did you remain director of business development for Monsanto for all of Asia?

A: I remained until September of 1991 when I decided to take early retirement, because they offered a package which I found financially very attractive. It was maybe three years earlier than my plans for retiring were. When I looked at it, I decided it was a good time to take -- you know, to retire as any.

Q: Okay. So you retired in 1991?

A: Yes, sir.

Q: Semi-retired?

A: Semi-retired.

Q: And that's when you began Paton Associates Limited?

A: Yes. And I consulted for Monsanto because, at the time of my retirement, I was actively involved in a large three-way joint venture in Thailand. And they asked if I would, you know, continue to either delay my retirement or become a consultant to help them get to that -- to get board of director approval for that project. I decided

that I would do it on a consulting basis.

Q: You were --- at least toward the end of your career at Monsanto, would you agree with me that you were a member of senior management?

A: Yes.

Q: Were you a member of any committees at Monsanto?

A: I think I was probably the senior manager, senior committee within the chemical company, but my work took me out of the country so much that I probably was never around for a meeting so I caught up with that, you know, by mail or something later when I got back.

Q: Okay. But you were an officer of the company?

A: No, I wasn't an officer of the company.

MR. ROEDER: Let's take about a two-minute break if we could.

(Discussion off the record.)

MR. ROEDER: All right. Mark that as the next exhibit, please.

(Plaintiff's Deposition Exhibit No. 207 marked for identification.)

Q: (By Mr. Roeder) Exhibit 207, sir, is a memorandum from E. P. Wheeler to Scott Tucker then

with you as a carbon copy recipient, right?

A: Yes.

Q: And it references a meeting again on July -- yesterday which would be January 15th, 1969, right?

A: A meeting on January 16th.

Q: Well, it's dated January 16th, and it says "Yesterday we mentioned again that the Swedish work by Widmark had not been published. I find that in the bibliography for the paper, which Riseborough is to publish shortly, this comment." And then it references "Considerable effort was made to identify the unknown peaks present in the chromatograms, but these attempts were unsuccessful until the reports appeared from Sweden (22, 23) and Great Britain (24) identifying polychlorinated biphenyls in European wildlife." And then it references what that bibliography has regarding those, correct?

A: Yes.

Q: Okay. Now, the "New Scientist" article about Jensen, that's the same thing we just looked at, isn't it, earlier, Exhibit 201A?

A: I'm not sure if it is or it isn't.

Q: Could you take a look at it, though?

A: Which one was it again?

Q: 201A.

WATER_PCB-SD0000076232

A: 201A. Okay. To me S. Jensen would have indicated that S. Jensen was the author of an actual article in the "New Scientist." Whereas, I see this article as being the "New Scientist" contributed to the "New Scientist," you know, describing or reviewing what Jensen had done. So I'm not sure if we are talking about the same one.

Q: At least if you compare the numbers on the article, both of them were printed in 1966 and both of them have a page 612, correct?

A: True. But, you know --

Q: You can't tell whether that refers to this one?

A: Could or could not. I don't know.

(Plaintiff's Deposition Exhibit No. 208 marked for identification.)

Q: (By Mr. Roeder) For the record, sir, Exhibit 208 is a memorandum from you to Dr. Richard again, dated March 5, 1969. That's your signature at the bottom, isn't it?

A: Yes.

Q: And the production numbers are TRAN 86293 through TRAN 86295. In your memorandum to Dr. Richard, you refer to a "Wall Street Journal" on March 4th, 1969, regarding a DDT "trial" in

WATER_PCB-SD0000076233

Wisconsin; isn't that correct?

A: Yes.

Q: What did you mean by a DDT "trial"?

A: I can't remember exactly what I meant by "trial" unless the word "trial" was in the article. And I have not read the article.

Q: Well, the "Wall Street Journal" attached to your memorandum --

A: Well, I have not -- I have not read it, you know, since -- for a lot of years.

Q: Well, let me -- let me just ask the question. The "Wall Street Journal" article refers to a hearing on a bid to ban DDT, doesn't it?

A: Yes.

Q: And that would be held in Wisconsin?

A: Yes.

Q: Okay. The trial is your description of what was going on?

A: The trial is entirely my personal description.

Q: All right. So with respect to DDT being on trial, you note that Dr. Riseborough seems to figure prominently in the proceedings. That's what you reported to Dr. Richard, right?

A: Yes.

WATER_PCB-SD0000076234

Q: By the way, did you review this document?

A: I saw it yesterday. I did not read the article.

Q: All right. You further note "It could bode ill for Aroclors if the quotation attributed to him is true." And then you say -- the quotation you quote is "No responsible person could now get up here and say that this constant nibbling away at our steroids is without any psychological effect. It would be irresponsible."

MR. CHAMBERS: Object to the form. I think you said psychological instead of physiological.

Q: (By Mr. Roeder) All right. Let me rephrase it. Let's make sure the record is clear. You wrote quoting Dr. Riseborough "No responsible person could now get up here and say that this constant nibbling away at our steroids is without any physiological effect. It would be irresponsible." That's what you wrote, right?

A: I wrote that. And I would have taken that -- that, since I put it in indented commas, must mean something that I got from the article itself.

Q: The question just asks that's what you wrote, right?

A: That's what I wrote, yes.

WATER_PCB-SD0000076235

Q: Right. You then indicate that he seems to be equating any effect with a bad effect, and then you note "This attitude has unpleasant implications." Did I read that correctly?

A: Yes.

Q: What did you mean by that?

A: Well, I think that, as I say it here, the reason for me saying this will bode ill for Aroclor or any product where somebody takes that position to say, you know, it's irresponsible for somebody to disagree and, number two, that he was equating, as I interpret the article, that any effect was a bad effect. And that isn't true either.

Q: Well, in fact, PCBs are now completely banned, are they not?

A: They are. I believe they are completely banned. I'm not sure what the position is entirely throughout the world. Certainly in the U.S. they're banned.

Q: Now, you referenced or advised Dr. Richard that the DDT "task force" did not retain an attorney to represent it at the hearings until less than a week before they opened. Do you see that?

A: I see that.

Q: Okay. What was your purpose in pointing

this fact out to Dr. Richard?

A: Well, because -- it appeared to me that, if there was going to be this antagonistic attitude towards a group of products, that we be properly -- be properly prepared particularly if it's going to get widespread publicity.

Q: So if there's going to be any suggestion or "trial" of Aroclor, you wanted to be properly represented and prepared for it?

MR. CHAMBERS: Object to the form.

A: I wanted it to be a situation where the facts could be presented honestly and fairly.

Q: (By Mr. Roeder) At this point, sir, were you aware of any discussion of a "Defense of Aroclor"?

A: Not defense of Aroclor, no.

Q: You never heard Dr. Richard use that term?

A: I cannot recall. He may well have done. I can't recall.

Q: You can't recall. You then advised Dr. Richard "Have we taken steps to obtain the transcript of the proceedings as discussed at our meeting in January?" That would have been the January 16th, January 15th, 1969, meeting, correct?

MR. CHAMBERS: Object to the form.

A: Not necessarily. I might have met separately from that meeting. I wouldn't -- I wouldn't deny it. I'd obviously -- I don't know if I alone had met with Richard or I met with Richard at some other time. It might have been during this one. It might have been separately.

Q: (By Mr. Roeder) All right. But in any event --

A: I'm not denying that I did meet with him, but I wouldn't tie the two necessarily together.

Q: In your memorandum to Dr. Richard about DDT on trial as the subject of it, at least it's clear in your mind that if you met -- you met with Dr. Richard in January either with the group or singularly, and you discussed this hearing or proceeding that was going on with respect to DDT in Wisconsin?

A: Well, it's unlikely I would have discussed the --

Q: Well, let me rephrase the question.

A: I can't -- you know, here there's not enough for me to -- given the length of time, it's hard for me to pin all the stages that took place. All I can -- I'm not disputing that, if I wrote it down, I must have had a discussion with Dr. Richard in

January, and maybe at that point I had some idea that this Wisconsin thing was going to take place. Then after it was published, then I sent it to him and some others for informational purposes and followed up on saying, you know, can we get a transcript of it rather than just relying strictly on what the "Wall Street Journal" was saying.

Q: First of all, your memory about what you discussed with Dr. Richard in 1969 in March -- strike that. Your memory of what you talked about with Dr. Richard in January of 1969 would be fresher in March of 1969 than it is today, correct?

A: Sure.

Q: All right. And what you report here is "Have we taken steps to obtain the transcript of the proceedings as discussed at our meeting in January?" That's what you wrote there, right?

A: Yes.

Q: So apparently there was some meeting in January with Dr. Richards where there was a discussion to get the transcripts of the proceedings relating to the Wisconsin hearings on DDT?

A: Well, as I read this now, I'm not sure if the proceedings refer to the Wisconsin one or to this DDT task force that was going on. Apparently

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there was some meeting there, and I don't know --

Q: Well, let's go back, because paragraph two refers to the DDT task force "Did not retain an attorney to represent it at the hearings until less than a week before they opened and apparently had almost no idea of what it would face." That's what you wrote there, right?

A: Huh-huh.

Q: You have to say yes or no.

A: Oh, sorry. Yes.

Q: Okay. And then you say that that is "a sobering thought," right?

A: Yes.

Q: So that -- the hearings and the proceedings related to the hearings regarding DDT on trial in Wisconsin, right?

A: Yes. Okay. I see. DDT was on trial in Wisconsin, not necessarily PCBs. Okay. I now see it.

Q: All right. Now, you discuss with Dr. Richard the suggestion of "Should we alert our legal people to the possibility of Aroclor proceedings, excuse me, Aroclor hearings in the future so that we are fully prepared." That's what you wrote there, correct?

A: That's right.

Q: Did you do that?

A: I don't know if we did or didn't. Do I see anybody copied in here? At some point, our legal people were made -- you know, became aware of the issue.

Q: At your instance and suggestion?

A: I can't recall now if I -- if it was at my instigation or somebody else following up. You know, I'm not disputing. I may well have been the one. I don't know. I can't remember.

Q: Certainly did not disagree with that strategy?

A: No, wouldn't disagree, and it was because I -- thinking ahead I saw, if this was going to happen to one product, you know, and DDT and PCBs had been intertwined some earlier.

Q: They had been linked together?

A: It wouldn't be a big leap of the imagination to say "Well, maybe somebody says well why don't we address PCBs as well." And, therefore, we should be ready, and that's not to say we were going to go out to do battle. We were out to what are the facts, because PCBs were used for -- for their flame resistance for the safety aspects in many

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applications in plants and all sorts of things. So there were, you know, very valid reasons why they were used in industry, and that had to be weighed against whatever might have been going on.

(Discussion off the record.)

Q: (By Mr. Roeder) Now, you describe in paragraph three that there were several witnesses for the prosecution. What did you mean by that?

A: I think that's just a term of phrase.

Q: Did you believe that people with respect who produced DDT were being prosecuted?

A: Well, you know, I'd have to read all this article again. But at the time, I obviously thought they were.

Q: Do you think so today?

A: I think there's still an element of that particularly in terms of PCBs. Yes, I do.

Q: But you understand, as we discussed earlier, that pursuant to federal law PCBs are banned in the United States?

A: Yes, but that doesn't mean -- because the federal government does something, it isn't necessarily logical or reasonable or based on any real scientific evidence.

Q: The answer to my question is yes; isn't that

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right?

A: Pardon.

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) The answer to my question is yes?

A: Well, could you repeat the question, please?

(The requested portion of the record read by the reporter.)

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) The answer to that question is yes?

MR. CHAMBERS: Object to the form.

A: Yes, but, as I say, I think it needs to be taken in context.

MR. ROEDER: Well, I'll move to strike the responses to that same question to the extent they exceed the question.

THE WITNESS: Can I object to that?

MR. CHAMBERS: He's just marking a point in the record where he thinks your answer has not been responsive, but it will be for the Judge or somebody else to decide whether he's right or not.

THE WITNESS: Fine. That's okay.

MR. ROEDER: So you understand, what I'm

WATER_PCB-SD0000076243

doing is moving to strike your answer to the extent that it volunteers information that's not responsive to the question.

MR. CHAMBERS: What he really means is you told him something he didn't want to hear. Let's move on.

THE WITNESS: I find that -- you know that -- you know, I find that an odd thing to understand that I'm asked a question. I should be allowed an opportunity to elaborate. Fine. I'm not disputing.

MR. ROEDER: If you -- if you want any opportunity to elaborate, sir, that's why you have an attorney. And when I'm done asking my questions, he is able to redirect any issues that he thinks ought to be clarified. That's the purpose of this.

THE WITNESS: Thank you for that clarification.

MR. CHAMBERS: But, nevertheless, your responses should give what you consider to be a full and fair response to the question.

THE WITNESS: Okay. Okay. Okay.

Q: (By Mr. Roeder) Now, you indicate in your memorandum of DDT on trial, sir, that "Several of the witnesses for the prosecution have also been

WATER_PCB-SD0000076244

asking for Aroclor samples. In the worst light, this could mean future trouble for us." What did you mean by that?

A: It's hard for me to right now to think back as to what exactly I thought 30 years ago. But it could be that some of these groups were going, you know, were going to do work of their own, and I had no problem with that. But on the other hand, they might be going to use it in a way that wasn't correct. You know, it's a case of being --

Q: What would be an incorrect way for them to use it?

A: Well, I don't know if they were actually -- you know, looking at the titles of some of them, I'm not necessarily sure how, you know, technically capable some of these groups were.

Q: So if they were not technically capable, they would be incorrectly using some of the samples you had provided?

A: Well, they might be incorrectly testing them. I don't know. You know, again, that's a comment I made to these people. They would have the ability, Richard and so on, to -- to follow up on that. I'm just alerting them to that possibility from my position as a -- in a business commercial

context.

Q: In a business and commercial context, people who had asked for samples of your Aroclor products could mean future trouble for you?

MR. CHAMBERS: Object to the form.

A: If it was misinterpreted.

Q: (By Mr. Roeder) If it were misinterpreted.

(Plaintiff's Deposition Exhibit No. 209 marked for identification.)

Q: (By Mr. Roeder) Exhibit 209, sir, is a memorandum from R. E. Keller, dated March 13th, 1969, subject Aroclors Federal Water Pollution Control Administration to Elmer Wheeler, general offices, and you are a carbon copy recipient?

A: Yes.

Q: Okay. It bears production number TRAN 58754 through 58755. This is a document that you have received in the ordinary course, correct?

A: Yes.

Q: In the first paragraph of this memorandum references a memo from C. Paton. That's you, right?

A: Yes.

Q: It relates to Mr. Robert Rock of the Federal Water Pollution Control Administration in Alameda, California, right?

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A: Yes.

Q: All right. Now, in this memorandum Mr. Keller is telling you and all the others who received copies of this memorandum of his discussions with Robert Rock of the Federal Water Pollution Control Administration, correct?

A: Yes.

Q: Now, as related by Mr. Keller -- is it Dr. Keller or Mr. Keller?

A: Doctor, I believe.

Q: Dr. Keller. Mr. Rock from the Federal Water Pollution Control Administration asked if we were, we being Monsanto, were familiar with work done by Riseborough at the University of California, and Dr. Keller responded "I said we knew about this work," correct?

A: Yes.

Q: So you certainly were aware of it at this point, right?

A: Yes. I'm sorry.

Q: "Upon questioning, he writes, Rock on this point, he thought there would be a release of this information in the not too distant future from another laboratory, and that would relate to actually identifying chlorinated biphenyls by mass

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spectroscopy or a similar technique," right? That's what it relates to there in that memorandum. Let me rephrase the question. The memorandum says "I explained that we felt that no one in the U.S. has actually identified chlorinated biphenyls by a mass spectroscopy or a similar technique." That's what Dr. Keller wrote, right?

A: Yes.

Q: And then he also wrote "Upon questioning Rock on this point, he thought there would be a release of this information in the not too distant future from another laboratory." That's what Mr. Rock told Dr. Keller as reflected in this memorandum to you?

A: Yes.

Q: In fact, that happened, wasn't it, that there was a release of information that actually identified chlorinated biphenyls?

A: Yes, I mean I can't recall specifically when, but I know because we were trying to do the same thing. You know, we were trying to get a method of analysis that could assure ourselves that whatever we looked at that we could identify as being a PCB.

Q: Well, so what we had at least until this

point, as you're testifying and recalling, is that you would be able to determine that the product or the compound had characteristics very similar to PCBs. You weren't sure in your mind scientifically that it actually was PCBs?

A: When these -- the information that Jensen seemed to be one of the first that brought it forward, because this was, I believe, new technology and was something that people hadn't had experience with before that the levels being claimed were so minutely small, which was a leap from what previous abilities to detect had been, there was a period in which Monsanto and, I think, others were trying to determine "Okay, how accurate is this?" And we were as interested in that as anyone else just for the sake of accuracy. So there was a learning period going on for sometime in the -- in the late '60s, and it continued on beyond that.

Q: But what Jensen and others were doing were getting sort of graphs that had peaks and valleys that were extraordinarily similar to the same graphs that you would get by doing the same test on a product which was known to be an Aroclor?

MR. CHAMBERS: Object to the form.

A: They were the ones that were saying that at

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the time, but their technology wasn't universally available. I don't think the techniques -- the specifics of the techniques may have been published later. I'm not too sure it was available right then. But it was an area where Keller and his analytical capability, you know, understood that and was doing work to try to be able to, you know, if necessary, duplicate what Kellers, what others were saying. We were not working on a basis of saying we don't believe it will go away. We were trying to find out if this technology is correct and how can it be used so that we could then make decisions based on facts as opposed to, you know, conjecture.

Q: (By Mr. Roeder) Well, when Dr. Keller says "This means we should move even faster to get ourselves in a comparable knowledge position analytically," do you recall being not in a comparable knowledge position analytically with other testing sources and laboratories at the time?

A: I'm not sure whether he just meant that, you know, we need to put more resources on it, you know, to get there faster. That I'm not sure, but I know that Keller was working on this very issue and -- and he's certainly a very, you know, from my experience with him, a very reputable, you know,

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scientist and capable man. So I see this as just a -- you know, I don't read anything else into it other than, if there's others available, then we should be able to get ourselves in a position to be able to do the same thing and the sooner the better. And I wouldn't dispute that.

Q: There's a reference on the last paragraph of this document where it says "At this point, Rock had specific application and toxicity questions about Aroclors where he needs answers to prepare himself for questions from others. I explained that the answers to these must come jointly from the business group and/or the medical department." Did I read that correctly?

A: Yes.

Q: Why was that?

A: Why was what?

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) Why did answers to questions regarding specific applications and toxicity about Aroclors have to come jointly from the business group and/or the medical department?

A: Because the business group could talk about the applications, how were Aroclors used. The medical department would be the ones that would

WATER_PCB-SD0000076251

answer any questions that the gentleman had on toxicity. So, you know, the answers would come from two places. If, indeed, it's easier, we would -- if he called or sent a letter or something, then we would write back and myself or my group would have put together here's where Aroclors or polychlorinated biphenyls are used, the type of applications they are, maybe something about the reasons why they're used. You know, I don't know. And then the medical department would have said what information they had on the toxicity of those products.

Q: It wasn't necessarily an attempt to be sure that the information that was disclosed by Monsanto was carefully controlled?

MR. CHAMBERS: Object to the form.

A: No, control wouldn't have been -- there would have been a responsibility for people putting together the different parts of that, you know, to be as accurate as we could make it knowing what we did at the time. I mean this would have been normal practice. You know, this would have been the way that answers to any questions would go back to people who asked questions. If I knew the answer, I'd give it or one of my people would. If we

didn't, we would go to the people who had the information.

Q: So as you sit here today, it's your recollection that Monsanto would not try to control the flow of information that it dispensed with respect to PCBs?

MR. CHAMBERS: Object to the form. Mischaracterizes what he's just testified to, which concerns the reference in this document.

MR. ROEDER: Object to coaching. The witness is a very intelligent man, and he can answer the question.

MR. CHAMBERS: Well, if he's asked an appropriate question.

A: I cannot -- you know, what you've asked me is a very broad thing. In general, you know -- so I think, if we can be more specific, I can give a better answer.

MR. ROEDER: Can you read the question back?

(The requested portion of the record read by the reporter.)

MR. CHAMBERS: Same objection.

A: I don't -- I don't see this as a corporation controlling information. It's a practice that, if

WATER_PCB-SD0000076253

someone else has a question, you try to give the best answer you can. It's a normal part of everyday business life. And as I said earlier, if I -- if it's an area in which the business department has some information and can answer that question, they give it. If they don't have the answer, they get it from another department, or have the other department prepare the information for them. But in order to be consistent, if you can be consistent, as best you can, you try to coordinate this sort of thing, not control it.

Q: (By Mr. Roeder) So is it your testimony that, as regards information to be given to Monsanto -- to Monsanto's customers or others, that Monsanto did not attempt to control the information that was dispensed by its employees?

MR. CHAMBERS: Object to the form. It's argumentative.

A: I find this question of control to have with it, you know, the connotation that somehow someone in Monsanto was saying "You can't do this. You can't do that. You can't do something else." And that's not the atmosphere in which I operated and can recall being part of Monsanto.

(Plaintiff's Deposition Exhibit No.

210 marked for identification.)

MR. ROEDER: This is a document, Mr. Chambers, which is marked company confidential.

MR. CHAMBERS: Thank you.

MR. ROEDER: I don't know if it's been produced in any other another fashion or not.

Q: (By Mr. Roeder) It is a memorandum from C. Paton to file. It bears production number TRAN 9723 through TRAN 9727. Sir, this is a memorandum that you wrote to the file regarding a plasticizer sales call report; isn't that correct?

A: Yes.

Q: And your signature is on the fourth page?

A: Yes.

Q: Now, this document is April 18th, 1969, approximately a month after the last exhibit we looked at?

A: Yes.

Q: Regarding the Federal Water Pollution Control Administration discussion with Dr. Keller, correct?

A: Yes.

Q: Okay. Now, this is a meeting that refers to a meeting that you had you attended with employees of NCR; isn't that correct?

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A: Yes.

Q: And that's NCR is National Cash Register, which was the carbonless use, carbonless paper use of Aroclors that you testified to earlier, correct?

A: Yes.

Q: Okay. You wrote on April 18th, 1969, that "The meeting began by referring to previous publicity on Aroclors being identified in birds (Jensen and Widmark's worker of two to three years ago). At that time, a Dr." -- I think it's Tanner. I can't read that. Do you know who that is?

A: I'm not sure. I can't remember now.

Q: All right. "A doctor, not a medical doctor, of NCR had contacted E. Wheeler. Lauer did not know what had been said between those two, but it evidently allayed NCR's fears." Then it says "We presented a copy of the 'SFO Chronicle' article and gave Monsanto's position on the article." What was the "SFO Chronicle" article?

A: I recall that it's the "San Francisco Chronicle," I believe. And I recall that just prior to my going to Dayton I have a hazy recollection that I had been on the west coast on business, and had happened to be there when an article in the "San Francisco Chronicle" came out. And my recollection

WATER_PCB-SD0000076256

was it was referring to PCBs having been found in the environment, and I think it was related to birds or wildlife or something.

Q: This is relating to the study that Dr. Riseborough had done in the San Francisco Bay, correct?

A: It possibly -- it conceivably could have been that. But in any event, I was interested since I was a product manager in that group of products, and I took it back to St. Louis. And then when I went to -- knowing I was going to NCR, I took it with me and showed them a copy.

Q: Okay. Now, when you came back to St. Louis, did you distribute a copy of that article?

A: I can't recall, but I think the chances are I obviously did.

Q: All right. Now, there was a -- you write in your memorandum "They, being NCR in Dayton, Ohio, agreed that nothing would be gained by Monsanto's entering into a public controversy with the reporter on some of his statements." Is that what was agreed to at that meeting?

MR. CHAMBERS: Object to the form.

A: That was an opinion that they had -- they had, you know, they stated.

Q: (By Mr. Roeder) All right.
A: And I -- you know, I agreed with it.
Q: Okay. Now, there's a -- later on in your memorandum you wrote that "They, again, being NCR, want to be kept informed of future developments;" is that correct?
A: Yes.
Q: Is that an unreasonable request in your mind?
A: No.
Q: Did you do that?
A: I can't recall specific actions on my part.
Q: But you understood that National Cash Register having been given a copy of the "San Francisco Chronicle" article wanted to be informed of any future developments as they related to PCBs, right?
A: Yes.
Q: Did you discuss PCBs directly with any other customer?
A: At this time you mean?
Q: Well, at any time, and then we'll see if we can narrow down the time frames.
A: I have discussed PCBs with some customers, yes.

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Q: Okay. What customers can you recall discussing PCBs?

A: I can recollect the dielectric area. I can recollect the Therminol area, certainly NCR. Less so in the Pydraul area, because I did not get involved in the Pydraul area until, you know, quite a bit later.

MR. ROEDER: So NCR -- have the court reporter read back the answer.

(The requested portion of the record read by the reporter.)

MR. ROEDER: I think it's Pydraul, P-Y-D-R-A-U-L.

THE WITNESS: Oh, sorry. I should have spelled that for you.

Q: (By Mr. Roeder) What customers did you discuss it with in the dielectric area, General Electric?

A: General Electric, Westinghouse.

Q: Any others?

A: I think -- I think so. I cannot now recall all the names.

Q: How about NCR? NCR would be the only one for that particular use, correct?

A: For this use, yes, for the carbonless paper.

Q: Carbonless paper use?

A: Yes. Well, there might have been some others that were looking at it. But they were -- they had -- as I recall, they had patents or something at the time.

Q: The Therminol area, who would you have discussed it with?

A: Oh, it's harder to pin that down, because there were, you know, a large number of Therminol customers. I'm trying to think. I can't think of some of the names so much, because they were in that area of people that maybe bought an initial fill, and then, you know, they filled the system and then you didn't hear from them for a while. There must be some. Let me think. I have a feeling Lubrizol was one.

Q: Can you spell that for the court reporter?

A: L-U-B-R-I-Z-O-L. Goodyear was another.

Q: Goodyear?

A: Goodyear, yes. Let me think. Well, there certainly were others. I'm having a mental block at the moment.

Q: How about in the Pydraul area?

A: Pydraul, as I say, not so many, because a lot of the -- you know, there had been

reformulations and things done before I got involved. I think I recall visiting a General Motors plant, I believe, at one time. Again, there are others. General Motors. Laclede Steel, I believe, was one. Well, there certainly would have been others but, you know, I'm having a hard time just recalling them all now.

Q: Did you ever visit Tennessee Gas to discuss Pydrauls?

A: Not that I can recall, no.

Q: Did you ever discuss Pydrauls with anyone at Tennessee Gas?

A: I cannot recall personally having done that.

MR. ROEDER: It's a good time to take a break for lunch.

(Recess.)

Q: (By Mr. Roeder) Before the break, sir, we were talking about exhibit -- we left off at Exhibit 210.

A: That's right exactly.

Q: Okay. I'd like to show you copies of exhibits that have been marked in previous cases in previous depositions, specifically Plaintiff's Exhibit 173.

WATER_PCB-SD0000076261

MR. ROEDER: This is my only copy. Did we have copies of these? These were marked in the last deposition, I believe, of Mr. Olson. You didn't bring any additional copies? You didn't bring any additional copies of these. They were sent to my office yesterday. Do you have a copy for the witness?

MR. CHAMBERS: I may have my copy.

Q: (By Mr. Roeder) Sir, you've been shown what's been marked as Plaintiff's Exhibit 173, and it is a memorandum from Dr. Richard to the file regarding a visit to professor G. Widmark, Stockholm, on May 5, 1969. The date of the memorandum was May 13th, 1969. And you are carbon copied toward the end of that exhibit, are you not?

A: Yes.

Q: With a host of others, Keller, Wheeler, Tucker, Bergen, Olson, and it continues, correct?

A: Yes.

MR. ROEDER: Now, at Mr. Olson's deposition, Mr. Chambers, you were going to confirm whether or not this was a redacted portion or if anything was redacted. Do you know if that is the case?

MR. CHAMBERS: I do not know. I don't think it is. I don't think it has been redacted at all in

WATER_PCB-SD0000076262

that portion you were inquiring about during Mr. Olson's deposition.

Q: (By Mr. Roeder) All right. Sir, this is a memorandum regarding Aroclor toxicity and pesticide residues. In this document Dr. Richard was reporting upon his visit with Dr. Widmark, correct?

A: Yes, that's what the -- that's what the title says.

Q: All right. This would have been sent to you in the ordinary course?

A: Yes.

Q: Did you comment regarding this memorandum or any discussions with Dr. Widmark regarding his research?

A: With?

Q: With anyone at Monsanto.

A: I can't recall if I did or not.

Q: Okay. This was part of -- did you understand this to be part of Monsanto's effort to research the potential -- strike that. Did you understand this to be part of Monsanto's effort to determine what other researchers were finding regarding chlorinated biphenyls?

A: I would say so, but until I had seen this memo -- this is the first time I've seen this memo

for obviously probably many years. I had forgotten that Richards had, in fact, visited Professor Widmark, but it wouldn't surprise me.

Q: Well, take a moment to review it. Have you had a chance to review that, sir?

A: Yes.

Q: Well, having reviewed this memorandum, do you now have a recollection that not only did Dr. Richard go visit Professor Widmark, but Drs. Keller and Mr. Wheeler also went to visit him, Keller and Wheeler?

A: It's clear they did. I cannot recall now that, but it would be entirely compatible with what we were trying to do to find out what the situation really was.

Q: Dr. Richard reports that Professor Widmark said he had not isolated or found much chlorinated biphenyl with one through four chloride added. Do you see that at the top?

A: Yes. Yes.

Q: What does that mean in layman's terms?

A: Well, there are, I believe, ten possible chlorine atoms that can go in a biphenyl ring. I don't know if that's ever been described.

Q: Sure. Benzene ring?

WATER_PCB-SD0000076264

A: Two benzene rings make up the biphenyl.

Q: Biphenyl ring.

A: And they're linked together so that takes away -- each benzene ring has six sites that you can put something onto, be it chlorine or anything else. They're linked in one so that reduces the number of possible sites to ten. So there are -- can I take a piece of paper and scratch this out? One, two, three, four, five, six, seven, eight, nine, ten. Okay. As I look at it here, and I may stand corrected, because with the passage of time my knowledge of chemistry gets a little bit less easy. But as I would have said it, and that's why you shouldn't take my answer as being scientifically the best, because there are other people who know better science than I do. But I would have said there are ten sites that you can put chlorine onto in a biphenyl ring. And so what you're saying is that you can actually put chlorine in each one so you'd have a C10, or you could actually have chlorine only in one, two, three and four. And in some cases, if they're not showing up, then that one possibility is that they're not showing up, because in nature over time they do, in fact, degrade. Chlorine gets separated away from the organic material.

Q: And another possibility is that the analytical isolation separation methods that Professor Widmark was doing may have been destroying some of the other chlorine?

A: That's -- that's a possibility. You know, I wouldn't -- I wouldn't dispute that. That's where -- that's where there can be a genuine, you know, disagreement or need for more research to accurately interpret somebody says is "the facts." Then you find that, when you poke into it, you know, there are things that would qualify that. So I see nothing in here that I would -- that surprises me.

Q: In fact, Dr. Richard reports toward the end of this memorandum that Scott Tucker reported that Aroclor 1242 could be destroyed by HN03/H2S treatment. That's nitric acid and sulfuric acid, right?

A: Yes.

Q: And then Dr. Richards writes "Widmark may or may not have been destroying Aroclor 1242 before his analysis," correct? You have to answer yes.

A: Sorry. Yes.

Q: So, in fact, Professor Widmark, without knowing it, may actually have been destroying the Aroclor he was trying to find, based upon the

WATER_PCB-SD0000076266

methods he was using?

A: That's correct.

Q: Do you know if anyone ever suggested this to Dr. Widmark?

A: I don't know.

Q: Now, it references Dr. Keller or, excuse me, again, Keller and Wheeler should have a more complete report. Do you see that?

A: Yes.

Q: Did you ever get a report from Keller or Wheeler regarding this meeting?

A: I can't recall, because I couldn't recall this one so I -- and I can't recall the others.

MR. ROEDER: Mr. Chambers, I've never seen any such reports.

MR. CHAMBERS: Well, in the hundreds of thousands of pages that have been produced by everybody in this case, I'm really going to be surprised if you don't have it. I would suggest maybe you go look a little harder.

MR. ROEDER: I will look harder. I will look harder. But I don't know if any of these have been withheld on the basis of privilege.

MR. CHAMBERS: Not to my awareness. I can't think that -- that would have been done.

A: Do you want this back, or do you still want --

Q: (By Mr. Roeder) That's his. Well, you would expected, would you not, sir, that, if Dr. Richard writes that Keller and Wheeler should have a more complete report, that such a report would be written and forthcoming?

A: You know, I can't answer that.

MR. ROEDER: Do you have Exhibit 182? I'm missing -- not missing. I have two other ones that I don't with me right now.

MR. CHAMBERS: Is it this one?

MR. ROEDER: Yes.

Q: (By Mr. Roeder) Sir, you've been shown what's been marked as Exhibit 182, and it is a rough draft of a plan for managing the PCB problem. Actually look -- why don't I suggest we use a different exhibit before we get to that. I'm trying to keep it more in time sequence so this makes more sense in terms of reviewing documents.

MR. ROEDER: Could you mark this as the next exhibit, Miss Court Reporter?

(Plaintiff's Deposition Exhibit No. 211 marked for identification.)

Q: (By Mr. Roeder) Sir, Exhibit 211 is a

WATER_PCB-SD0000076268

memorandum from H. S. Bergen to many individuals including yourself, dated October 27, 1969, and it bears production number TRAN 58986. It regards PCB pollution problem CDC presentation. This is a memorandum you would have received, would you not, sir?

A: It shows me as a recipient, yes.

Q: Okay. What's the CDC?

A: I haven't the foggiest. I cannot remember now what that was.

Q: You can't remember if it's the committee on --

A: Washington D.C. Goodness knows, after this length of time, I honestly cannot remember.

Q: All right. Let's see if we can refresh your recollection.

MR. CHAMBERS: Would you like to go off the record for just a minute and save some videotape?

(Discussion off the record.)

Q: (By Mr. Roeder) Sir, I'd like to show you Exhibit 132. And Plaintiff's Exhibit 132 is minutes of the meeting of the Corporate Development Committee, October 20, 1969. Does that refresh your recollection as to what the CDC was?

A: That would explain it. There was a

WATER_PCB-SD0000076269

committee called Corporate Development Committee so it would be logical that would be their initials.

Q: Well, what was it as you understood the corporate development?

A: It was a -- it was a corporate meeting at the board of directors level.

Q: This is pretty senior?

A: Yes.

Q: Okay. Now, the memorandum we've been looking at, Exhibit 211, references "The CDC has asked for a status report and plan of action on subject problem." If you look again at Exhibit 132, that references "The organic division in conjunction with the medical and law departments as requested to prepare a report to the CDC on the status of this matter and prospects concerning it." Do you see that?

A: Yes.

Q: So this is the request at the board level, Plaintiff's Exhibit 132, to Mr. Bergen and through Mr. Bergen to you, among others, to assist in a status report and plan of action regarding the PCB pollution problem, correct?

A: Yes, sir.

Q: By this time it's a pretty serious problem,

isn't it?

MR. CHAMBERS: Object to the form.

A: I would -- I would have characterized it at that time as an -- as an issue, an important issue. To what extent it was a problem, I'm not sure at that time I would know. But an issue, undoubtedly an issue.

Q: Well, it was an issue --

A: Mr. Bergen used the word "problem." I cannot -- you know, I don't know in what way he was using the word "problem."

Q: Well, it was an issue that had obtained the -- the attention of the board of directors?

A: Yes. Yes. An issue, yes, no doubt about it.

Q: All right. So it now had an immediacy that it may not have had before?

A: Well, you know, I'm not sure I would agree with that.

Q: Well, if you weren't sure it were an issue before this --

A: I said it -- I characterized it as an issue.

Q: All right. Well, let me -- let me rephrase the question. If you didn't think it was a problem before the memorandum from Mr. Bergen, you knew that

it was something that had to be addressed quickly after this memorandum; isn't that correct?

A: No doubt about that. But that doesn't mean that I wasn't addressing an issue before that. This may be semantics on words.

Q: Sure. But up to this point, what do you recall you were doing with respect to the PCB issue?

A: I was -- I was passing on to people who were in a position to be able to investigate and see what the situation was. Anything that came my way I was keeping abreast of it, because I realized that it had an impact on our product line and potentially on the business and that had to be faced. If it turned out that the issue was not maybe as serious as some would allege if that really was what the facts proved, that was one thing. If it proved that they were, indeed, right, then that was, you know, obviously a more serious issue and would be addressed. From my position in the marketing department and in the commercial business area, I was trying to see where it was, because I didn't want to go off and set in motion a chain of events that weren't substantiated by the facts. But I was not in a position to really know the technical facts on the issue.

WATER_PCB-SD0000076272

Q: Well, had you formed your own conclusion at this point whether or not the research that was done by Widmark and Jensen was valid?

A: I -- I hadn't formed any definite conclusion. I think the memo that I just saw that Richard wrote after visiting them, I would think that was -- to me that was a fair statement of what I would have felt at that point. Yes, they found something. There was certainly something in what they found. There were some other questions that needed to be addressed to clarify that, and that was what we were trying to do.

Q: And you would refer to Dr. Richards' review of the problem at this point. Would that be fair to say?

A: Yes. I would look at him as having -- him and people like him had the best command of what the real situation was and I defer to them.

Q: Well, did you do anything, sir, with respect to -- other than what's reflected in these memoranda, do you recall doing anything with respect to this issue or problem prior to October 1969?

A: Well, I've said that, when I came across references in literature or things that cross my desk or people that called me asking for

information, I would pass that on to the research, the medical committee, occasionally the analytical. Primarily my contacts would have been -- my first point of contact would have been research and medical.

MR. ROEDER: Do you have, Mr. Chambers, Exhibit 172? I do not have it.

THE WITNESS: Would you like this back now, or do you want me to keep it?

MR. ROEDER: You can give me that back.

MR. CHAMBERS: Is this the one?

MR. ROEDER: Exactly.

Q: (By Mr. Roeder) Exhibit 172, sir, is a memorandum from Dr. Richard to Mr. Wheeler. And if you look at the second page of the document, it's dated March 6th, 1969. Dr. Richard writes "Riseborough has taken known Aroclor samples and claims to have evidence of enzyme and hormone change. Here there is no question of identification. Either his position is attacked and discounted or we will eventually have to withdraw products from end uses which have exposure problems." And he continues "Since Riseborough's paper in nature, December of 1968, has just been published, it is timely, perhaps imperative, that

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this paper and its implications be discussed with certain customers. This is a rough one, because it could mean loss of business on empty and false claims by Riseborough."

MR. CHAMBERS: Note an objection on the record that there's nothing indicating that Dr. Paton was even ever sent this particular memo. He certainly doesn't appear among the CCs or addressees.

MR. ROEDER: The objection is noted.

Q: (By Mr. Roeder) Did you see that in the memorandum, sir?

A: I saw it in the memorandum. But as I say, I was looking and I saw that I didn't get a copy.

Q: Well, do you recall anyone suggesting on or about March 1969 that it's timely, perhaps imperative, that Riseborough's paper and its implications be discussed with certain customers?

A: I can't recollect that.

Q: Well, if you look at Exhibit 210 that we marked this morning right there, that relates, does it not, to a meeting that you had with NCR, well, actually three weeks after the memorandum of Dr. Richard to Mr. Wheeler, correct?

A: Yes.

WATER_PCB-SD0000076275

Q: Okay. In April of 196 -- excuse me, March 27, 1969, when you visited NCR, you had discussed Dr. Riseborough's research as reported in the "San Francisco Chronicle" article, correct?

A: Yes.

Q: Now, when you were meeting with NCR in March 1969, three weeks after Dr. Richard's memorandum, were you meeting in response to a suggestion that it was timely or perhaps imperative that you discuss this paper and its implications with certain customers?

A: No. No. To the best of my recollection, this is the first time I've seen this memo. My calling on NCR would have been routine because of my job at that particular time, which was this specific area of PCBs. And as I indicated, I think, in my earlier -- when we talked about this before lunch, I said that I had either received or been on the west coast and seen the "San Francisco Chronicle" article, and I took it along with me, because I thought there were -- you know, we had talked about this. There had been some questions come in from NCR. My purpose in visiting NCR was primarily to visit in my ongoing business relationship with them.

Q: Did you have a bigger customer in your area

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of responsibility at that time than NCR?

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) In terms of sales of product they purchased from Monsanto?

A: I cannot recall. They were certainly a large customer. Were they the biggest? I'm not sure.

Q: And you can't recall, at this time period, seeing directly any other customers regarding the research Dr. Riseborough had done, can you?

A: I can't think about this. But I had -- there were a lot -- although it was a specialty area, there were a lot of products, some which had nothing to do with PCBs.

MR. ROEDER: When we had taken Mr. Olson's deposition, I had asked if you could confirm whether or not this one redaction -- what the basis of a redaction was on page two of that exhibit.

MR. CHAMBERS: I haven't heard back on that, but I'll continue to pursue that.

MR. ROEDER: With great zeal one might hope.

MR. CHAMBERS: It may help, Steve, if I -- to go ahead and follow up with some correspondence to just get all this documented so it doesn't get

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lost or overlooked by me or somebody else and direct that to Carol Rudder or Greg Madge.

MR. ROEDER: I understand. But I guess it's my position that, if I make a request on the record, that ought to be just the same as a letter. But if you want me to additionally follow up with a letter, I will.

MR. CHAMBERS: I think it provides something to fall back on so that it helps folks keep track of it to be sure they get it.

MR. ROEDER: Okay. I understand your point, but I hope you understand mine. I don't think it's necessary to get the answer that I have to put it in a letter.

MR. CHAMBERS: Well, that's not what I'm saying. What I'm suggesting is that, given the number of lawyers involved, the number of depositions going on in the case, all that's transpiring back and forth, a good way and a good step to take, to be sure that these kind of things don't slip through the cracks, is just to direct a letter to Carol Rudder or Greg Madge so that it's in the works and in the file. I'm not --

MR. ROEDER: I hear you.

MR. CHAMBERS: I'm not implying that it's

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unnecessary or don't mean to. I don't know where you get that, frankly. I'm certainly not saying that.

MR. ROEDER: Okay. What I don't want is a situation where someone says "I don't have to do it unless it's in a letter." That's all. There have been people who have taken that position in different cases.

MR. CHAMBERS: It hasn't been me yet, I hope.

MR. ROEDER: Not that I know of. Enough of this banter. Let's go back to asking --

MR. CHAMBERS: We should have gone off the record.

MR. ROEDER: -- questions of the witness.

MR. CHAMBERS: We should have gone off the record.

Q: (By Mr. Roeder) Now, at some point, sir, you became aware that there was a decision at the board level to alter the availability and sale of products that contained PCBs; isn't that correct?

MR. CHAMBERS: Object to the form.

A: I mean what do you mean alter? I think you've got to be more specific.

Q: (By Mr. Roeder) All right. I'll try to be

WATER_PCB-SD0000076279

more specific.

A: We're talking about things that took place almost 30 years ago, 25 years ago.

Q: But they were important things in the context of your position at Monsanto?

A: At the time, yes, but I mean time has moved on. I mean I cannot remember everything. I've got a lot of gray hair now.

Q: And you're doing very well I might add. But at some point, the board at Monsanto decided that it would no longer sell products that contained PCBs except for dielectric uses, correct?

A: I think the board took that decision. I'm not sure if it was a board decision. I can't recall. You know, It could well have been a board decision.

Q: Well, if it had been the CDC, that would have been at the board level, correct?

A: Well, it would have been the internal management level. We have a lot of outside directors.

Q: Management committee of the board?

A: Yes, I think so. I can't recall all the members, but I'm not disagreeing with that. It was our senior management committee, senior corporate

management council, this CDC.

Q: You became aware, did you not, sir, that there was a change in the availability of the products that Monsanto would sell that contained PCBs?

A: Yes.

Q: How did you become aware of that?

A: In some cases I became aware of it, because I was part of the group that decided that that was maybe the right way to go.

Q: Did you make any presentations that were to the CDC with respect to PCBs?

A: Not that I recall.

Q: What did you understand was the decision of the Corporate Development Committee with respect to PCBs the first time that it passed on the problem?

A: I can't recall what happened at this presentation that Mr. Bergen referred to. I can't recall that at all.

Q: Do you recall, sir, sending out any correspondence or letters to customers relating to PCBs?

A: I think I did probably when I was in the -- had responsibility for the Therminol fluids. I can't remember if they went over, out over my

signature or not, but I was a -- I think I probably communicated to our sales force that letters were going out, and the letters might have gone out over other people's signature.

Q: Why were they going out? What was the purpose?

A: Well, I think we've got to be specific about what letters.

Q: Well, just in general as a foundational question.

A: Well, I don't think there was anything in general. There was usually a -- you know, the letter was trying to convey some information, and there were several of them at different times. So to say, well, what, in general, did they say, you know, that I find very broad, because each letter said something, you know, somewhat different depending where we were in the process of trying to find out what the issues were.

MR. ROEDER: Could you read back just the question, Miss Court Reporter?

MR. CHAMBERS: Note an objection. Note an objection to the form of that question, also, please.

(The requested portion of the

record read by the reporter.)

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) Okay. Do you have no understanding, in general, of what the purpose of sending letters out to the customers regarding PCBs was?

MR. CHAMBERS: Object to the form. It's argumentative.

A: Well, if you could show me an example of the letter you have in mind, that would be helpful. But, you know, in general, that's so broad I find it -- I just cannot frame a response not because I don't want to, because that I find that very broad. With the passage of time, I find it very difficult to recollect properly.

Q: (By Mr. Roeder) Let me show you what has been marked as Exhibit 135 in, excuse me, in Mr. Throdahl's deposition. And for the record, these are minutes of a meeting of the Corporate Development Committee, November 17th, 1969. And let me see if this helps refresh your recollection. On the second page of it, there is a legal aspects D. W. Miller. Who is Mr. Miller?

A: I don't know.

Q: Okay.

WATER_PCB-SD0000076283

MR. CHAMBERS: Excuse me. Let me note an objection on the record that there's nothing that indicates Dr. Paton has ever seen this document or was even present at this meeting. But subject to that.

MR. ROEDER: Well, but it's also an admission of a party opponent, and I'm seeing if this helps refresh his recollection.

THE WITNESS: I'm sorry. I didn't catch it.

Q: (By Mr. Roeder) But in any event, Mr. Miller apparently has reported to the board "The law in the field of manufacturer's liability is changing rapidly. Although the law is unsettled, the present general rule is that, if a manufacturer knows or should know that a product of its manufacture may cause damage if not properly used, he has a duty to give adequate warning to customers and users." Does that refresh your recollection as to why, in general, any letters may have been sent out to customers?

A: No, it does not.

Q: Okay. Do you know if, in fact, this issue was discussed in any of the meetings that you attended regarding the PCB pollution problem?

A: This issue that I see in front of me, no, I

WATER_PCB-SD0000076284

can't recall this being discussed.

Q: Were any issues, with respect to your interpretation of liability, ever discussed in memoranda or meetings that you attended regarding PCB --

A: No, because I--

Q: -- pollution problems?

A: I would not have taken a position on liability, because I was not sufficiently knowledgeable in that area to take an opinion.

Q: To take a position?

A: To take a position. That's correct.

Q: Well, one of the recommendations from a legal standpoint reported to the board is "Provide adequate warnings to customers and users including advice as to disposal methods." Reading that, that doesn't help refresh your recollection on any of this?

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) Okay. Let me rephrase the question. Does reading that recommendation number two "To provide adequate warnings to customers and users including advice as to disposal methods" -- I just want the record to be clear. That doesn't refresh your recollection as to why any letters may

have been sent for the purpose of sending any letters to customers regarding PCBs?

A: I can't recollect a link between letters going out and this. I can recall now that we did at one time go out in the Therminol area and say that we were discontinuing or closed -- I forget. And that there would be disposal made available. Yes, I -- I recall that. I cannot recall if it, you know, came as a direct result of this minute, because I was not part of this at all. I would normally not see the minutes of this kind of --

Q: No, I was just asking if reading that refreshed your recollection.

A: It refreshed my recollection that there was, as I recall, at least one letter went out in the Therminol area which I was -- you know, that I remember on this particular area.

Q: So the letter that went out with respect to Therminol was a letter that you believe was sent out in part to -- in an effort to provide adequate warnings to customers and users concerning products that a manufacturer know or should know may cause damages?

A: I can't --

MR. CHAMBERS: Object. Object to the form

WATER_PCB-SD0000076286

of that question.

A: I can't say that. You know, I would have to see what letter you're talking about to be able to properly answer it.

Q: (By Mr. Roeder) I'm just saying but the best recollection you have without looking at the letter, and we'll get to that later, is that the letter regarding Therminol was written for the legal aspects and purposes that are reflected in here?

MR. CHAMBERS: Object to the form.

A: No, I wouldn't -- I wouldn't agree with that necessarily. It might have been, but I can't recall that it was.

Q: (By Mr. Roeder) Okay. But -- but you would be in a better position to recall when you see the letter?

A: Maybe.

MR. CHAMBERS: Object to the form.

A: Maybe. I don't know.

Q: (By Mr. Roeder) There's a Mr. Schalk. Who is Mr. Schalk?

A: Mr. Schalk.

Q: William Schalk. Sound right?

A: Yes, he was a director of sales.

Q: In the plasticizer group?

A: Yes, I think when I joined, I think, he might have had that position when I joined Monsanto.

Q: Was he someone that you reported to?

A: I can't recall if I ever reported to him directly or not. I recall initially I would have been one level below him, but would have had someone between me and him. But I really can't recall now.

Q: But he would have been above you in the corporate ladder?

A: Yes.

Q: At Monsanto?

A: Yes.

Q: And he was in sales, and you were in marketing?

A: I think so, but he also might have been in marketing. I'm a bit hazy now on titles.

MR. ROEDER: All right. There was a -- let me show you -- again, I apologize. I'm missing two three-ring binders that have the exhibits. There's Exhibit 159 if you could show the witness.

MR. CHAMBERS: Could we go off the record just a second?

MR. ROEDER: Sure.

(Discussion off the record.)

Q: (By Mr. Roeder) Sir, you've been shown

WATER_PCB-SD0000076288

what's been marked as Plaintiff's Exhibit 159. It is a letter signed by W. E. Schalk, S-C-H-A-L-K, director of sales plasticizers, and it bears bates numbers TNGS 4288 through TNGS 4295. Have you seen this document before?

A: I can't recall, but I'm sure I did.

Q: If you look at the top, there is some handwriting that says "Direct customer Feb 27, 1970, plasticizers." You're nodding your head yes?

A: Yes. Yes.

Q: Do you know whose handwriting that is?

A: No, I don't.

Q: Okay. It's not your handwriting?

A: It's not mine.

Q: But as of February 27, 1970, you were marketing manager of the plasticizers, correct?

A: Yes. Yes.

Q: Did you review this letter before it was sent out?

A: I can't recall. That's not to say I didn't, but I just can't recall.

Q: I'd like you to look, sir, also at Exhibit 193.

MR. ROEDER: That's another one I need from you. Keep that out for the witness.

MR. CHAMBERS: Okay.

Q: (By Mr. Roeder) While you're looking at it, sir, Exhibit 193, that I'll identify for the record, is a memorandum from Cumming Paton to P. C. Park and W. B. Papageorge, dated March 2, 1970, subject customer notification letter on PCBs. It bear bates numbers 5248 to 52 5285. Is that a memorandum that you prepared, sir?

A: Given that is my signature there, yes.

Q: All right. Now, did you review the Plaintiff's Exhibit 159 yesterday in preparation for your testimony today, the letter?

A: This you mean?

Q: The plasticizer letter.

A: This one?

Q: Yes.

A: No.

Q: Okay. Now, the customer notification letter on PCBs that you reference in Plaintiff's Exhibit 193, 193, that is the letter that is contained in Plaintiff's Exhibit 159, isn't it?

A: I'm not sure, because I don't see a copy of it here.

Q: Well, if you look, sir, after it says "confidential" it says "The plasticizer group

WATER_PCB-SD0000076290

mailed a PCB notification letter to our direct Aroclor customers. 660 were mailed on February 27, 1970, and one was mailed on March 2nd, 1970," correct? That's what that says?

A: Yes.

Q: And the date on Plaintiff's Exhibit 159 direct customers February 27, 1970, plasticizers is consistent with the information contained in your memorandum, correct?

A: It's consistent. Whether that was actually the, you know, the final draft or not, I don't know. You know, there's certainly -- there is a possible link there, yes.

Q: But you have no reason, as you sit here today, to deny that?

A: No, I have no reason to deny it.

MR. CHAMBERS: Let me just for the record, Exhibit 193 is also marked confidential.

MR. ROEDER: Sure. Fair enough.

MR. CHAMBERS: It will need to be handled as provided by the protective order.

MR. ROEDER: Fair enough. And the court reporter is aware of that.

Q: (By Mr. Roeder) Now, sir, with respect to Exhibit 193, the PCB notification letter that was

mailed to your "direct Aroclor customers," how did you define direct Aroclor customers? Who would that include?

A: Again, I -- I can't remember how we arrived at that mail list. But to me direct means where Monsanto sells directly to that customer as opposed to going through a distributor, for example. No, that's -- whether that was exactly what I followed back then, I don't know. But that's looking at this today I would say that's what my intent would have been.

Q: And if you look at Exhibit 159, sir.

A: 159.

Q: Right. That's the earlier exhibit you have in front of you?

A: This thing here.

Q: Right. These would be -- the customers on Exhibit 193 would be the customers who received the products referenced on Plaintiff's Exhibit 159, correct?

A: The customers on Exhibit 193 where I got the letter 159, is that what you're saying?

Q: The customers that are attached to 193 would be the customers who bought the products referenced on Plaintiff's 159?

WATER_PCB-SD0000076292

A: I think so.

MR. ROEDER: Do you have Exhibit 160?

MR. CHAMBERS: Yes.

Q: (By Mr. Roeder) Exhibit 160, sir, is a document entitled "Pollution Letter." I will acknowledge that you are not listed as a carbon copy recipient. What I want you to notice, sir, is the first paragraph says "Attached is a list of questions and answers which may be asked of you by customers receiving our Aroclor PCB letter. You can give verbal answers. No answers should be given in writing. If the customer asks a question you can't answer or if he wants an answer in writing, then send his questions to me and we will answer from here." Do you see that?

A: Yes.

Q: Okay. Now, was this the policy that you had in the plasticizer group while you were marketing manager?

A: I cannot recall. I cannot recall ever having a policy like that. I may have had, but I cannot recall.

Q: Can't recall if you had? Can't recall if you hadn't?

A: That's right.

WATER_PCB-SD0000076293

Q: You know Mr. Norm Johnson, don't you?
A: Yes.
Q: Okay. He was involved with respect to marketing of Pydrauls and other functional fluids in that area, correct?
A: Yes.
Q: Okay. Was he your counterpart in that area?
A: I'm not sure. He might have been a sales director or a sales manager. I'm not really sure what his title would have been back in 1970. I didn't really know him that well then.
Q: All right. Does this refresh your recollection as to whether there was any policies at Monsanto concerning the control of information that could be given to customers regarding PCBs?
A: It doesn't. I cannot recall any general policy on this at all.
Q: Or any specific policies?
A: No.
Q: As manager of marketing for the plasticizers, who did you report to directly?
A: I think it was a man called Gene Wilde and it was Walt Waychoff. I know a Gene Wilde went to Akron at one stage to be a sales manager, and I don't know whether I then reported directly in to

WATER_PCB-SD0000076294

Walter Waychoff or not. I worked closely with Waychoff, well, closely with Wilde and closely with Waychoff.

Q: Now, Exhibit 193 that we looked at, that was a document you directed to P. C. Park as well as to W. B. Papageorge. Who is P. C. Park?

A: P. C. Park, I think, was the legal person that had responsibility for any legal record keeping, these kind of matters pertaining to the plasticizer group. I think the legal function, you know, had responsibilities for different, you know, business areas, and Phocian, I think, might have been -- that might have been his role. I remember -- I know he was a lawyer, and I think that was his relationship with our group, but I -- again, passage of time, I'm not totally sure.

Q: Do you know the spelling of Phocian?

A: It's P-H-O-C-I-O-N.

Q: I-A-N?

A: I-A-N.

MR. CHAMBERS: I was going to say O-N instead of A-N.

MR. ROEDER: Your recollection there will be better than mine.

MR. CHAMBERS: We will see it somewhere, I'm

WATER_PCB-SD0000076295

sure.

Q: (By Mr. Roeder) Why did you spend this to Mr. Park?

A: Because, as I recall, in general, records, you know, were to be kept that was a way where they would go. Then they would go off into wherever they kept -- Monsanto kept its reports. So it was a means of, you know, keeping something that went out like this to a lot of people. Then you would have wanted to know who got them. There was a group, I think, in the general legal area that, you know, took care of record keeping. So there were other things that I would have sent over there from time to time.

Q: Well, did you believe that, when you sent this memorandum to Mr. Hatton, you were doing it for a matter of legal significance?

A: No, other than record keeping. I wasn't -- as best I can recall, when I was in any position I had, I was not motivated by doing things because of legal or liability situations. I might have been told at one time "Well, there's a legal implication," but I can't recall that in this case at least not at this particular time. I would have done things what I felt was recommended, what I

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thought was the best thing to do given whatever the situation was.

Q: It would be extraordinary that you would send documents directly to Mr. Park, correct?

MR. CHAMBERS: Object to the form.

A: No, I don't think so.

Q: (By Mr. Roeder) Well, the carbon copy recipients here, they're all people who were senior to you, weren't they?

A: Yes, because I was letting them know that this letter had gone out. Here's who it went to. It had gone to the people that had a, you know, a record keeping kind of responsibility.

Q: Well, all these people -- I mean who was Mr. Farrar?

A: It was Dr. Farrar, and he actually was a director of research in the plasticizer group.

Q: Okay. And Don Olson was?

A: Something in sales if I recall.

Q: Director of sales for functional fluids. W. E. Schalk was the man who just signed the letter that we looked at?

A: That's right.

Q: Director of sales for plasticizers, right.

A: Yes.

WATER_PCB-SD0000076297

Q: Springgate?

A: I think he might have been the general -- I'm not sure what the title, but he might have been the equivalent of the general manager of a group of products including plasticizers. And Waychoff would have either reported to him or maybe directly to Springgate.

Q: He is a man you just discussed a couple of minutes ago that you thought you reported to at that time?

A: Yes, I may have reported to. If I didn't, I was one step.

Q: He was in your chain of command higher up the chain?

A: Yes. That's right.

Q: So was it your view that all these people, who were higher up in the corporate hierarchy, were interested to know that the customer notification letter had been sent out?

A: Yes, because when letters go out, customers may call to say what's this about or so on. It's important, therefore, that management, if they should hear about it directly or indirectly, know what had happened.

Q: This is your way of letting them know that

WATER_PCB-SD0000076298

it had happened?

A: Yes.

Q: What else were you involved with with respect to PCBs at this time, sir?

A: I can't recall what other things I would have been involved in in PCBs at this time.

Q: Labeling?

A: I had involvement in an indirect maybe indirect way, but I thought that came later when I -- after my spell in Latin America, but I may be wrong. I mean I may have had some involvement. I don't think a lot in 1969, 1970, but I may be wrong on that.

MR. ROEDER: Would you have Exhibit 184, Mr. Chambers?

MR. CHAMBERS: Is that Mr. Olson's deposition?

MR. ROEDER: Yes, it is.

Q: (By Mr. Roeder) Exhibit 184 sir is a memorandum from W. B. Papageorge to you, among others, regarding modifying the labels on Aroclor packages. Do you see that memorandum?

A: This, you know -- this refreshes my memory seeing this thing. I haven't seen it for a long time.

Q: Sure. But for the record, it's a memorandum dated April 13th, 1970?

A: Yes.

Q: It's to you, among others, including Bergen, Farrar, Springgate, Olson and a carbon copy J. Mason and P. S. Park. For the record, they spell Phocian here with an A.

A: I don't know. I'll stand corrected. I'll defer to Bill, because I think he's my senior. So I'll defer to Bill.

Q: It refers to an April 3rd meeting where the subject of modifying the labels on Aroclor packages was reviewed, and where Phocian Park offered to work on the appropriate wording. Do you recall any such meeting?

A: I don't. I'm certainly not denying that there was a meeting.

Q: But it would be something that you would have been involved with?

A: Absolutely.

Q: What was the concern about modifying the labels? Why was there a concern about modifying the labels?

A: Well, again, this refreshes my memory some. Seeing this side by side with this, if you put out a

WATER_PCB-SD0000076300

letter here, one thing that might have happened is that someone in the chain maybe in our distribution department or in our order and billing or even in our plant saw the letter and said "Well, look you know our label isn't saying this. Maybe the label should be changed to say it."

Q: Or maybe Mr. Park was suggesting the label ought to say it?

A: I don't know whether he was or wasn't.

Q: Anyway, Mr. Park drafted the proposed language for the label, correct?

A: Yes.

(Discussion off the record.)

Q: (By Mr. Roeder) Okay. Do you recall, sir, the intent of changing the Aroclor labeling, the intent behind it?

A: This would be one interpretation that I would see going back, and strictly because I'm looking at these two things side by side, because they follow within, you know, about five, six weeks of each other. If you send out a letter saying "Be careful. These have been found in the environment, and they're alleged to do some damage," that you would put something on your label and so on that would say somewhat the same thing. I see it as a

logical, you know, business step to take.

Q: So the people who got the letters relating to the Aroclor products, those are the products that said Aroclor on them, right, the Aroclor label?

A: Yes.

Q: And the people who would get the Aroclor labeling were, as it says here, "This wording is intended for packages containing Aroclors 1242, 1248, 1254, 1260, 1262 and a couple of others." That would only relate to those packages of this proposed change in labeling, correct?

A: Yes, because, you know, these products were more or less specific to the plasticizer group, and that was the group, you know, that was the area that I was involved in.

Q: All right. Do you recall, sir, whether this proposed change in the labeling was made for the Pydraul line?

A: I honestly can't remember, because I wasn't involved in that at that time. I wouldn't have.

Q: Well, if you would look at Exhibit 183.

A: 183.

Q: It should be another one that --

A: I'm not sure I've got that one, have I? Which one is that one? I don't have a 183.

Q: 183 and 190.

MR. CHAMBERS: And 190?

MR. ROEDER: And 190.

MR. CHAMBERS: Does that look right to you?

MR. ROEDER: Yes.

Q: (By Mr. Roeder) 183, sir, is a memorandum from D. A. Olson to W. B. Papageorge, dated April 20th, 1970, production number TNGS 8678 regarding Aroclor labeling. Do you see in paragraph one where Mr. Olson writes "We would not like to see this label adapted to the Pydraul line." I think this is a reasonable approach, since we are going through a reformulation of all of our products, which over a period of time will eliminate the necessity for this paragraph. Do you see that?

A: I see that.

Q: Now, would you look as well on Plaintiff's Exhibit 190?

A: Yes.

Q: It's a memorandum from Mr. Papageorge to G. R. Sido, S-I-D-O, dated May 27, 1970, production number TRAN 88210. Do you see where it says "Pydraul labels will not be altered since reformulations will be made." That's Mr. Papageorge writing to Mr. Sido, correct?

WATER_PCB-SD0000076303

A: I see that.

Q: Now, does this refresh your recollection as to whether the Pydraul labels were or were not related?

A: It doesn't because, A, I'm not copied in on these and, B, I didn't have any responsibility for Pydraul in my job.

Q: Who is Mr. Sido?

A: My recollection is that Mr. Sido was in the distribution department and labels and, you know, things came under his jurisdiction.

Q: So he would be -- if there's a change in label, you've got to talk to Sido at some point?

A: Exactly. And you'd be guided by what he would suggest.

Q: We're done with those.

A: We're done with all of these?

Q: You can give them back to Mr. Chambers.

A: That's a relief.

Q: These I do have additional copies of. Those have been previously marked. This has been previously marked, sir, as Exhibit 185. I have another copy for you if you like. It is a memorandum from you to a number of people regarding Aroclor insecticides. Is this a document you looked

at in preparation for your testimony?

A: I saw it yesterday, yes.

Q: Okay. For the record, the date is April 23rd, 1970?

MR. CHAMBERS: I'm sorry. I missed the exhibit number for this one.

MR. ROEDER: 185.

MR. CHAMBERS: Thank you.

Q: (By Mr. Roeder) What was involved and why did you write this memorandum, sir?

A: My recollection is that, in going through customers and applications for products, I or somebody reporting to me found that, indeed, there were these customers using products which seemed to be using them because of -- as a pesticide. What is it? A pesticide carrier. It occurred to me that this was not -- given publicity going on, that this was not an area that -- that we should be promoting. But at the same time, we had really never promoted it. We had supplied to people who came to us, because it was USDA who had come up with the formulation and had recommended it to people as a possible formulation. So we -- refresh my memory. I don't know if it would have been Papageorge possibly or myself. Probably more likely

Papageorge got in touch with the USDA and said "Look, you know, given this publicity that we're seeing on Aroclors as a potential environmental contaminant, are you aware of that? Your department is recommending its use in certain areas." And said that, you know, we were going to, you know, consider discontinuing it and that was done.

Q: Well, how is its use as an insecticide or pesticide carrier different than say a dielectric use?

A: A dielectric is put in a capacitor or a transformer, which are sealed containers. The reason for the article being used was because of its flame resistance and, therefore, the safety factor that would be involved. If there was a rupture, you wouldn't have a fire. Whereas, here you were actually putting insecticide and pesticide on the ground so you were actually -- you know, if it was used -- my recollection is there were, you know, very small quantities. In fact, I think we only really indicated that one person might have bought about 2,400 pounds so it was very small. We felt that that was something that, you know, we shouldn't be doing.

Q: So I understand it, make sure that I

understand it. The potential use here was in effect as a sticker, right, that it would help whatever was the insecticide or pesticide to stick to the plant for a longer period of time than without its use?

A: I guess so. You know, I didn't even -- I can't remember exactly, but what you say is a reasonable interpretation.

Q: Okay. Now, your memorandum says "Effective immediately Monsanto will discontinue the sale of PCBs to any customer using or intending to use PCB as an insecticide pesticide carrier." Now, on the second page you write "This action should be implemented immediately, and your cooperation is respectfully requested. Please be alert in avoiding any new customers for PCBs in insecticide formulations." That's what you wrote in your memorandum, and that's your signature on page two?

A: Yes.

Q: Why was this under your jurisdiction?

A: It was really because -- it really isn't -- you might stretch a point to make it a plasticizer, but it isn't a dielectric fluid. It isn't a hydraulic fluid. It isn't a heat transfer fluid. So the plasticizer group tended to get these miscellaneous applications that often evolved

WATER_PCB-SD0000076307

customers bought the stuff, used it. You didn't necessarily know what they were using it for until you, you know, you had an opportunity to -- the salesman went to see them and see a report. But anything that -- you know, you can define hydraulic fluid. You can define heat transfer. You can define dielectric fairly specifically. Those others, you know, it's hard. They've got to put them somewhere so they came -- they were in my area.

Q: You had the catchall?

A: I had the catchall.

Q: Do you have Exhibit 192? Exhibit 192, sir, is a memorandum dated June 11th, 1970, from Don Olson, director of sales for functional fluids, but it relates to a letter mailed on February 27, 1970. Do you see that?

A: Yes.

Q: What I'm curious, sir, is Mr. Olson testified that this related to plasticizers and the plasticizer industry. Could you confirm that by looking at the products referenced in that memorandum, excuse me, in that letter?

A: In that February to June 1970 time frame, I cannot recall anything in the plasticizer area that

had occurred differently.

Q: Well, the only memorandum or the only letter we've seen --

A: The only one might be this thing that we've just gone over on the pesticide. But I can't recall anything. No, I cannot recall any incident or anything that stands out as being a reason for a letter.

Q: Let me ask the question this way: In 1970 then for a short time you were in charge of Latin American operations, correct?

A: Yes.

Q: When in 1970 did you change positions?

A: I think it was fairly early on, because I came back sometime towards the end of -- it wasn't quite the end. It might have been the third quarter or beginning of the fourth quarter, I think, of 1971. And so I was certainly there in that position for more than a year. The indication being it would be longer. And so it flashed through my mind, as I was looking at this April thing, this might have been my last -- I can't swear it. But close to the last thing I did in the plasticizer department. By June there's a good chance that I wasn't in plasticizer at all, because I can't -- I can't

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recall anything in plasticizers that I was involved in that, you know, would have led to this other than this thing.

Q: Well, at some point, sir, in the -- strike that. In the Latin American responsibility that you had, were you also involved with PCBs in that capacity?

A: I was involved to the extent that we were selling PCBs in that area and, therefore, my job was the marketing of them, giving guidance to our salesmen our agents and everything in all those countries. Then I would have been on the receiving end of some of the things that I would have been sending out as a market manager. So to the extent that I got communications on PCBs, I would have paid attention to what they were and would have done whatever, you know, was indicated I should be doing. My recollection, again, is that, when I was in Latin America, our sales would have been primarily in the dielectric area not exclusively, but that would have been the biggest application.

Q: So to be sure I understand the function you had at that point, it was still with the same types of products, but only as it related to Latin America?

A: No. It was all Monsanto's organic chemical line with relation related to Mexico, Central America, Latin America, South America and the Caribbean. That was my geographic territory. And so Aroclors and PCB containing products was one part. And in some cases, you know, we had negligible, if any, sales. Dielectrics was a reasonably large one, because there were capacitors and transformer manufacturers in those countries in some of those countries. Do you need this back?

Q: I'm looking for Exhibit 89, which I think I have. Is it in there?

A: I'll let you take a look and see.

Q: Exhibit 89, sir.

A: Yes.

Q: Is a memorandum that you assisted in preparing, isn't it?

A: Yes.

Q: Who was F. J. Kimargo?

A: Kimargo was my replacement in the Latin American position for organic marketing and organic chemicals.

Q: Did you request to leave the organic marketing position?

A: No.

Q: Why did you leave?

A: I was offered an opportunity that was a promotion and decided that -- you know, one more step up the ladder and accepted.

Q: Whose position -- who held the position that you held prior to the time you came back to the specialty chemicals division?

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) Whose job did you replace?

A: It was a man called Mr. Fallon, I believe, that was in the job.

Q: J. R. Fallon?

A: J. R. Fallon.

Q: F-A-L-L-O-N. And what happened to Mr. Fallon?

A: I really don't -- I can't recall. I don't know. I didn't know him very well before, and I'm not sure what happened, whether he went somewhere else in the company or left. I cannot remember now.

Q: All right. What was the position? You were a product specialist, product manager?

A: When I came back, I believe, I was a product manager for certain areas of fluids specifically, I believe, dielectric fluids, dielectric fields, heat transfer fluids and something process chemicals.

Process chemicals was essentially the PCB part of what I had had in plasticizers. So it followed me back.

Q: Continuing in the same general area, though?

A: What?

Q: Continuing in the same general area, the same -- they dealt with Aroclors?

A: Except it was broader, because now it had the responsibility for the dielectrics and the -- and the heat transfer.

Q: All right. As product manager, what were your responsibilities?

A: My responsibilities were to supervise, directly supervise three people, a market manager of dielectrics, a market -- a market manager of process -- process chemicals or process fluids. I forget what that title was. Process fluids maybe. And the heat transfer area, which was divided, as I recall, somewhat differently. I think there was a combination of several people there might have reported to me, but I cannot recall totally now.

Q: Who was the market manager for dielectrics?

A: Paul Benignus, B-E-N-I-G-N-U-S.

Q: Who was the market manager for heat transfer?

A: Well, I can't recall if there was somebody with that title. The two people that I recall in my group in heat transfer was a Jim Roder, R-O-D-E-R and a Roush, Don, Don Roush, R-O-U-S-H, I believe.

Q: And the last area?

A: Initially, when I first went in the position, I think, initially it was a man called Don Pogue, P-O-G-U-E, I think.

Q: Just so I've got it straight, this is the industrial fluids?

A: No, this was the -- no, that would have been the -- what they call process fluids, which would have been the PCBs that were part of the plasticizer group.

Q: Anyway, in October 1, 1971, Plaintiff's Exhibit 89, by this time you had become product manager?

A: Yes.

Q: And you were assisting Mr. Kimargo in preparing this memorandum regarding polychlorinated biphenyl products?

A: That's right.

Q: You reference in your October 1, 1971, memorandum that "The public and governmental agencies are becoming increasingly concerned with

the levels of PCB found in fish, eggs and poultry. In fact, there have been several seizures of eggs and turkeys made by the USDA in the past seven months," correct?

A: Yes.

Q: What were those seizures of eggs and turkeys? What do you recall about them?

A: I recall that before I moved into the position of product manager there was an incident somewhere in the Carolinas, I believe it was, where there had been a heat transfer system involving the use of one of the Therminol products which contained or was PCB, and there had been some leak or something in the system and fluid got into, I think, it was chicken feed or fish meal. I think it might have been chicken feed, I believe. As a result -- I cannot recollect so much the cases based on USDA, because that was one level downstream from where our product went. But I think I heard thirdhand that, you know, the USDA had moved in and tried to see where this fish meal had gone and had confiscated or ordered the destruction of eggs and turkeys.

Q: You were concerned, were you not, that somebody would criticize Monsanto since it was the original producer of the PCB?

A: No. No, I wouldn't have thought of them criticizing Monsanto.

Q: Holding Monsanto liable?

A: No, that wouldn't have been the first thing that occurred to me. These heat transfer systems are supposed to be closed operations. And leaks into the -- into the product that's being anything, you know, heated should not occur. Anything leaking into fish meal or, you know, chicken meal would be bad whether it was a PCB or anything else. If you're heating something up, you don't want the thing that's -- the fluid that's heating it leaking into the product that you're heating.

Q: Were you aware at this time, sir, of the incident in Japan dealing with the rice bran?

A: I'm not sure. I heard about it. I don't know. I can't recall at what time I did hear about it.

Q: Did you ever discuss it with Mr. Benignus?

A: The Japanese issue?

Q: Right.

A: I cannot recall. There's every possibility I did, but I cannot -- you know, I cannot recall specifics today.

Q: You don't recall whether or not he had

commented regarding that Japanese incident, or certainly you don't recall reviewing any documents at Monsanto regarding that incident?

A: No, I can't recall.

Q: Now, the status report you were giving -- you were giving to all these individuals on a distribution list?

A: Well, as I recall, Frank Kimargo had just replaced me. I think he asked to be updated on what was happening regarding polychlorinated biphenyls. And I was coming from the job. I was making a transition. And I can't recall exactly how it came about, but we worked on this together. He had a document that said here's the status. Here's what's going on, which he could then use and share with the various -- in some cases employees of Monsanto's sales offices or agents and at least brief them at what was happening, because there was a fair amount of publicity being given to this situation in the U.S. and I don't know where else. So as I recall, this originated at Frank's request, and I helped him do it.

Q: Who are all the individuals on the first page of the distribution list?

A: Argentina would have been direct Monsanto

employees or employees of Monsanto Argentina. Barbados, Bolivia would have been agents. Brazil would have been employees of Monsanto Brazil. Chili at the time I can't remember if that was Monsanto Brazil, sorry, Monsanto Chili or an agent. But anyway, they were either Columbia was Monsanto Columbia. Central -- most of the Central American countries would have been agents. I'm certain of that. Dominican Republic agent. Ecuador agent. El Salvador, Guatemala agent. Jamaica agent. Mexico City in those days it was hundred percent Monsanto. So it would have been Monsanto or whatever. Paraguay an agent. Peru, I can't recall Peru. Puerto Rico almost certainly an agent. Suriname, Trinidad agent. Uruguay agent. Venezuela would have been Monsanto Venezuela. And Mary McGinness in New York would have been, because traders and so on often based in New York would buy things and then export, you know.

Q: So she handled export?

A: Well, she would have handled any trader on the east coast that wanted to buy and then ship or, you know, supply through their own channels.

Q: Now, was this accurate as of the date that you had written it, October 1, 1971?

A: I would hope it was.

Q: At least you thought it was, and you investigated the issue at the time it was written?

A: I would have done the best job I could to be accurate.

Q: All right. On page two, number two, it says under hydraulic fluids "None of the Pydraul hydraulic fluid series contains PCB any longer." That was correct as of that date, wasn't it?

A: As far as I knew, it was

(Discussion off the record.)

Q: (By Mr. Roeder) In that same book, sir, look at Exhibit 94.

A: 94.

Q: 94. It's a memorandum from you regarding status of PCBs to Ford, Garcia, Hansen and Slayton?

A: Yes.

Q: Dated October 14th, 1971. Confidential it says at the top. "The following are the notes I used in the PCB presentation that must have held you enthralled at midnight after a 17-hour day." Is that a long meeting with respect to PCBs that was held?

A: I don't think it was devoted solely to PCBs. It was a meeting, as I recall, on a sales

meeting primarily, but with the product managers and things there to go over things like budgets or, you know, it would have been these kind of meetings held several times a year. And at that I would have been asked or suggested that maybe I give a presentation more or less akin to what I had drafted on the one that went to Kimargo, and it would have been done at the end of whatever the meeting was so it was late. We decided to get it done.

Q: Well, this is a much more detailed presentation than the notes that you had or the memorandum you had prepared with Mr. Kimargo, isn't it?

A: Yes, because the business in some of these countries was nil so it was more an overview. And Kimargo, if he had needed more detail, would have come to me for it anyhow.

Q: Okay. Now, but who were Ford, Garcia, Hansen and Slayton?

A: They were regional sales managers.

Q: So were they reported who reported to you?

A: No, they would have reported, I think -- would they have reported to Johnson? No, maybe not. Directly to Gossage. They might have reported, I think, directly to Gossage. That would

be my guess. And I reported to Gossage.

Q: So did you report to Gossage at two points in your career?

A: I reported several times in my career to Gossage.

Q: Because I think we talked about the international.

A: Yes, I think I probably reported to him about three times.

Q: Had you reported to him at this point? Had you reported to him directly prior to this point?

A: I mean I had -- I got to know him for the first time in this position.

Q: Mr. Gossage took over for Mr. Olson, right?

A: It could well be. I can't recall that, but that's -- that's probably right.

Q: Okay. And what other functions did you report to Mr. Gossage other than as product manager and in the international arena that you talked about?

A: What other positions? I reported to him, I think -- I think I reported maybe initially when I was in Korea just before he left to go to Hercules. Oh, I know the other one. The other one was in the plasticizer division before I went to Brazil, I

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believe, because he became general manager of the plasticizer division when I -- and I was the director of commercial development, and then I think I went from there to Brazil.

Q: Okay. So you reported to him in that capacity as well?

A: Yes.

Q: Now, as to dielectric customers, you had indicated that any orders must be approved prior to their entry by either Mr. Benignus and yourself or Mr. Papageorge or Mr. Gossage? 2A.

A: 2A. Okay. 2A. Okay.

Q: As I understand the policy as of October 14th, 1971, as reflected in this memorandum, two people had to approve every dielectric fluid order effective October 4th, correct?

A: Yes.

Q: And one of them could be you or Mr. Benignus and the other could be Mr. Papageorge or Mr. Gossage?

A: That's right.

Q: Okay. Why was that put in place?

A: It was put in place because we had -- we had begun restrictions on the sale of the heat transfer fluids containing PCBs. And as I indicate in the

margin here, there had been some plasticizer, you know, users tried to circumvent that. And we were concerned that, unless there were means put in place to police, if you will, the dielectric sales, that that was a way in which our policy could be circumvented. Heat transfer fluids sales would take place on an irregular basis. If the system was new, there would be a large initial fill. Then you might go for a long period of time and never ever sell any more fluid. If you sold more fluid, it could be because there had been some degradation of the fluid that was in the system and, therefore, it had to be -- you know, some had to be usually topped up.

Q: Or a leak?

A: A leak. Although, you know, my experience was that these things would degrade and need some make-up because of things. So we wouldn't necessarily know if there had been a leak unless the customer told us there had been a leak. There would be no way of getting on to his premises to know if it had leaked or not.

Q: I think we earlier with your memorandum regarding pesticides?

A: That's right.

Q: There was one sale of potentially 2,400

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pounds here, and you thought that was a small amount, correct?

A: Yes.

Q: Would that be indicative of a leak? Would a leak be bigger, smaller than that in your estimation?

A: It could be any leak. It could be as small as, you know, 20 gallons, 55 gallons, or it could be, you know, several gallons. It would depend how serious. You know, it was just a slow leak through a pump or something. That could vary a great deal.

Q: And you couldn't tell because it either may be degrading inside its use or else it could be a leak. You can't just tell by the amount that you sell?

A: No. No.

Q: Now, you relate in your memorandum that customer notification, "That a letter on the pollution aspects of PCBs will be sent to customers. This is being cleared with the legal department." Now, in reference to that, sir, is it fair to say that all letters that were sent to customers regarding the pollution aspects of PCBs were cleared with the legal department first?

A: I think, in general, that was the case.

WATER_PCB-SD0000076324

Q: And as to the intent, again, just confirming your earlier testimony, you don't have any knowledge regarding the intent of why that was. You just know that it was something you had to do?

A: It would be something that I would do. It would be -- I would do it, because of the need to be as accurate as I possibly could particularly if we were quoting, as we sometimes did, the Federal Register and so on.

Q: Now, the customer notification referenced on page one here relates only to dielectrics, correct?

A: Yes.

Q: By the way, is this one of the documents you looked at in preparation for your testimony?

A: No.

Q: The heat transfer fluids referenced on page two, those are the Therminols, correct?

A: Yes, the Therminol and there were several Therminols. There was a Therminol FR meant fire resistant and that meant PCB. There were others that were non -- that did not have PCBs, should have never had PCBs in them.

Q: Okay. They were not fire resistant?

A: They were not fire resistant.

Q: So they could catch fire?

A: They could catch fire.

Q: Again, it required -- FR stands for fire resistant, correct?

A: Pardon.

Q: Therminol FR was fire resistant?

A: Yes.

Q: Right. Okay. So again, two people had to approve every order of any FR sales?

A: Huh-huh.

Q: Then it says "A list of approved FR users is being prepared and will be circulated." Did I read that correctly on 3B?

A: Yes.

Q: What were the determinations of the criterion used to determine who was an approved FR user?

A: I cannot remember what that was now.

Q: Do you remember any of the considerations at all, though, that went into approving sales to any Therminol FR customers after this date? What would you look to -- strike that. Let me rephrase the question. You would be one of the people who would approve FR Therminol sales after this date, wouldn't you?

A: It didn't say specifically here. It might

WATER_PCB-SD0000076326

be. It would be probably two people out of Roush, Roder, myself, possibly Gossage. I can't recall how we decided to do that.

Q: It would be within your authority to have been one of those two people to approve?

A: Yes, absolutely.

Q: Okay. Do you recall ever doing that?

A: I cannot. But that's not to say I didn't, but I certainly was keeping a very close eye on what was going on. If I didn't directly decide, I would have been scrutinizing to be sure there were no violations.

Q: Okay. Do you recall any of the customers who purchased Therminol FR?

A: Oh, there was an enormous number of them. I mean you could name virtually every -- almost any chemical company in the U.S. would have probably been a customer or potential customer. You would have many customers. You could see the type of applications listed here. So we had a large, large number of customers.

Q: Well, was it a requirement that before you would sell Therminol FR that the customers would be required to indemnify Monsanto for any liability arising out of their use of Therminol FR products?

A: I don't -- I think there was a policy put in place on dielectrics. I think that was later than this, but I can't swear to it. At this point in time, I don't recall that there was ever an indemnification that encompassed the fire resistant applications we were still selling to at this point in time. I think there was some consideration later than that as a follow-on from the dielectrics. My memory is a little fuzzy on the timetable of events.

Q: But you're clear and you do recall that there was a policy that any sale of dielectric fluids to, for example, General Electric or Westinghouse would only be done if either of those customers agreed to indemnify Monsanto for any claims or causes of action arising out of the use of their product?

A: Yes.

Q: Okay. And was that ever implemented with respect to Therminol?

A: I think there was a discussion in maybe one or two cases in the case of Therminol, and I cannot now recall what happened. The -- one of the area -- one of the things that happened was that -- as I see now, it refreshes my memory pollution control came later. One of the issues that were in dielectrics

WATER_PCB-SD0000076328

that there were a relatively small number of transformer manufacturers and capacitor manufacturers in the United States. But associated with the transformer industry there was a fairly large number of people who would do maintenance, repair and so on and so forth. If a transformer went to a repair shop, often at that time they replaced the fluid. So that was a difficult area to police and so, at one point, I think -- jump ahead. This pollution control thing led to a policy that we would sell only to the original equipment manufacturers.

Q: Because of the difficulty of policing it?

A: That's right. And that they then would have to be -- and the other reason for having a letter go to the dielectric customers and seeking the indemnification was that because of the unique fire resistant characteristics of PCBs that the government, EPA and various bodies that were involved in looking at this issue took the position that, indeed, the dielectric industry could continue to use the products. So the dilemma that that put Monsanto and the people in my particular group specifically in was how do we police that and prevent this fluid then being used by people who

claim "Gee, you've discontinued selling to us for fire resistant applications," and so how can we be sure that some of this product that we are selling, to the best of our knowledge, is a dielectric fluid doesn't get bypassed and land up being used in a heat transfer application? And we needed a means to put some teeth into that. From a practical position, my role was how do I put some teeth into that.

Q: How did you put some teeth in that?

A: Well, I think, one way was a letter saying, you know, "We're proceeding. We'll continue based on, you know, the federal government situation but, you know, we cannot be held liable for anything that may happen. And that there has to be -- you know, this is the conditions under which we will sell."

Q: You mean the letter to the dielectric purchasers that they couldn't turn around and sell it to someone else for use by that third party. It had to be used by them as an original equipment manufacturer?

A: Or to someone that they had approved as a repair shop.

Q: All right. So they were responsible for what happened to the product you gave them?

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A: That's right.

Q: All right. Now, you had asked on the heat transfer fluids your regional managers to report on unapproved fluid sales as per dielectrics. That's what you're talking about there, correct?

A: Yes.

Q: Were there approved fluid sales and uses for Therminol FR at this time?

A: At this time, I think there were still some that would have continued on where there didn't appear -- the application didn't appear to be food related or food packaging type related. As I recall, we were saying "No, we're not going to supply fluid for either new fill or top up in areas such as are indicated on heat transfer fluids." In others we would, and that we would not take on any new systems.

Q: Okay. So let me break it down a little bit. New fill means a brand-new system where you have to provide a lot of fluid at once?

A: That's right. Exactly.

Q: So you decided you weren't going to do any new systems that would require any of that?

A: Yes. But there was a complication there, because we normally -- the customers normally

contracted with an engineering company to design a heat transfer fluid, or an equipment manufacturer made all the heat equipment. And so we were kind of at the end of a chain. You know, there were several people that were decision makers in deciding what fluid to use, the customer, the engineering company and the equipment manufacturer. So we would get brought in anywhere along the chain, and sometimes we were in early on that decision process, design process. Other times it was a case, you know, pick up the phone and "Gee, we want you to deliver two tank trucks or whatever of fluid Monday morning." So there was -- you know, there was obviously a process of education and explaining to be done before you could just, you know, bring the boom down.

Q: But the idea was you weren't going to make large sales, large volume sales of the product?

A: That's right.

Q: But you might make small volume sales for people to top up an existing system? You have to answer verbally.

A: Yes. And I cannot recall now specifically what the conditions were that had to be met for that.

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Q: All right. Now, 3E refers to field sales help and completing surveys on the applications of FR customers. Did you complete surveys or have surveys completed?

A: We -- we tried to have surveys done, because again we were saying we won't, you know, knowingly sell to people that are using this to heat food or things like that. But again, you know, we weren't -- sometimes we weren't involved in even calling. You know, they would order the product, fill up their system. If they had no problems with the fluid, you know, we would never have a cause to be in direct contact with them. So we could maybe guess or by hearsay or occasionally maybe, when the fill was made, it was supposed to be, you know, being used in this application. But we had gaps in our knowledge. So we were trying to fill that in.

Q: Did you find that some customers did not accurately report to Monsanto the uses they had for PCB products?

A: I don't know. You know, I cannot think of specific examples. I cannot say whether they were always accurate or not. It's hard, sometimes very hard to pin that down.

Q: All right. Now, I notice in your memorandum

here regarding the status of PCBs in October 1971.

A: Are you back on the first page?

Q: Well, I'm just using it as a reference. There's no discussion of Pydrauls.

A: And that's because at that time I was not -- I had no responsibility for Pydrauls.

Q: It's also true, isn't it, that as of that point that none of the Pydrauls contained PCBs?

A: Based on what I had said in Kimargo's letter, that was my understanding, and I would have got that information from someone. I mean I was not -- you know, if somebody would have said "Look, there's no PCBs in Pydraul," then I would have used that.

Q: So that would have been -- based upon your understanding, that would be why you wouldn't have discussed it here?

A: Exactly.

Q: Because you were discussing the products that you understood had PCBs?

A: And I was also discussing the products for which I had responsibility as a product manager.

MR. ROEDER: All right. This comes in two forms. Have the court reporter mark that, please.

(Plaintiff's Deposition Exhibit No.

212 marked for identification.)

Q: (By Mr. Roeder) Sir, Exhibit -- what are we 212?

A: 212. Yes, that's what I've got.

Q: You've got the exhibit. You've got the real McCoy there. Exhibit 212 is a trip report to you from James Roder, R-O-D-E-R, dated October 18th, 1971. It bears bates number TNGS 6211 through TNGS 6218. Is this a document you looked at in preparation for your testimony today?

A: I think I did see this yesterday, yes. I believe I did. I glanced at it least.

Q: Would this be a document that you would receive in the ordinary course in your capacity as product manager?

A: Yes.

Q: Mr. Roder was one of the people that you indicated reported to you?

A: Yes, and he was more in the sales area, and Don Roush was more in the technical support area. So he would go on a, you know, a trip to a particular region of the country and call on customers, so on and so forth.

Q: Was he a sales manager who supervised other salesmen?

A: He would have been an account representative or a sales representative of some type.

Q: All right. Now, the first reference is to Shell Oil Company in New Orleans, Louisiana, and he indicates that Shell is quite concerned about the unavailability of Therminol FR for their new platforms and design. This is what you discussed just a minute ago, isn't it, sir?

A: Yes.

Q: That people were designing products or projects with the capabilities of Therminol FR in mind?

A: Yes.

Q: The next page, sir, deals with Pedco, Petroleum Distributing Company, in New Orleans, Louisiana?

A: Yes.

Q: Who were they?

A: I really can't remember very much about them, other than what I see here.

Q: Now, it indicates here that in the second page "Pedco has some potential for us that they're the largest network of warehousing and dock facilities in the gulf coast area." This would be for the Therminol products that Mr. Roder is --

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A: Yes, exactly.

Q: Do you know if, in fact -- and it says "Pedco is presently our distributor for Pydraul AC." Do you see that?

A: Yes.

Q: Do you know if you ever used Pedco for Therminol distribution?

A: I can't remember, but I would rather doubt it. I'm almost certain that we wouldn't have used them for FR at least since we were trying to discontinue and restrict that. Whether we did in the non-FR products, I cannot recall. But I do recall that servicing that offshore industry, which was, you know, booming at that particular point in time, was difficult because, you know, if something went wrong, they wanted to get product out in a hurry or they had supply vessels that went out to the rigs on a regular basis. So they wanted to be able to get all the products they needed, you know, close at hand so there was no delay by having to have it shipped from a long way away. So this was -- you know, as I read this and refresh my memory, this was a logical way of approaching it.

Q: Well, how was Therminol FR used out on these rigs?

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A: You know, I -- I knew at one time, and I've plain forgotten.

Q: But it was obviously in heat transfer?

A: Yes.

Q: Would it be the heat up oil that was being attempted to be taken out of underneath the ocean?

A: Possibly to be -- to be more -- you know, less viscous. I cannot really -- I cannot really recall. It's a logical question and I cannot remember.

Q: All right. There is a reference on page TNGS 6215 regarding Tenneco in Lafayette, Louisiana. This is Tenneco Chemical, correct?

A: Yes.

Q: Did you review this in preparation for your testimony today?

A: I saw it and I glanced at it.

Q: Okay. There is a reference on the fourth paragraph of this entry regarding Tenneco, which says "My suggestion at Tenneco is to locate a VP at home headquarters who could be impressed with the PCB problem sufficiently to shut them down internally." Do you see that?

A: Yes.

Q: Did you ever discuss with the VP at home

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headquarters at Tenneco -- strike that. Did you ever attempt to contact a VP at home headquarters at Tenneco to impress them of the PCB problem sufficiently to shut them down internally?

A: I can't recall having done that.

Q: Well, if you had written them a letter, the letter would have been in the file in the ordinary course; isn't that correct?

MR. CHAMBERS: Object to the form.

A: You mean in Monsanto's file?

Q: (By Mr. Roeder) Right.

A: There would have been -- I don't know about the letter itself. There might have been a record of a letter being sent to their headquarters somewhere.

Q: Well, you understand Mr. Roder to be suggesting that someone was not particularly cooperative in hearing what he had to say about PCB problems, correct, at the Tenneco Chemical?

A: At the time, that appears to have been Mr. Roder's opinion.

Q: Okay. Would this concern you at the time?

A: I can't recall now whether it did or it didn't.

Q: Well, would it have been your practice to

contact someone at the home office if you had reached the opinion that someone at one of the sites was not following what you consider to be a good practice regarding PCBs?

A: One way that this might have happened would have been to have had someone who called on or whose territory that headquarters was to have followed up on it.

Q: No. I'm sorry. Are you done?

A: Yes.

Q: Could you answer my question? I don't think you did directly.

MR. ROEDER: Could you read it back, please?

(The requested portion of the record read by the reporter.)

A: I cannot recall if it was my practice to have done that or to have somebody else do it for me.

Q: (By Mr. Roeder) So it was your practice to do one or the other or you can't recall?

A: I can't recall. And another method was that if -- you know, that they would have possibly have been a recipient of the letter on Therminol fluids.

Q: So the Therminol fluid letter in your mind

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would have been sufficient to counteract?

A: I would have hoped so.

Q: At that time, you would have hoped so?

A: At that time, I would hope so, yes.

Q: Okay. Well, do you recall making the decision that this would be taken care of by any correspondence?

A: I cannot -- I cannot recall this particular situation so I cannot answer the specifics of this.

Q: Sir, I've shown you what's been marked as Plaintiff's Exhibit No. 95.

A: Yes.

Q: Which is a memorandum from P. G. Benignus to H. R. Ford, dated October 22nd, 1971. And you're listed as a carbon copy recipient, aren't you?

A: Yes.

Q: Okay. This is how many days after Plaintiff's Exhibit 212 that this is written?

A: Four days.

Q: Mr. Benignus in his memorandum notes that your memorandum which indicates a distressing amount of indecision on the part of several dielectric fluid accounts regarding the proper disposal of scrap askarel. Do you see that?

A: Yes.

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Q: Scrap askarel, A-S-K-A-R-E-L.

MR. CHAMBERS: Let me object to the form, and ask for that question to be read back, please.

MR. ROEDER: I think I know what your objection is. Do you want me just to rephrase it?

MR. CHAMBERS: I think what I heard you say was a reference to Dr. Paton's memo and that's not consistent with this.

MR. ROEDER: Let me rephrase it.

MR. CHAMBERS: Okay. Very good. Thank you.

Q: (By Mr. Roeder) Paragraph one of Mr. Benignus' memorandum refers to a memo Mr. John Frederiksen wrote to you.

A: Yes.

Q: Noting a distressing amount of indecision on the part of several dielectric fluid accounts, correct?

A: Yes.

Q: Do you recall that being the case that several dielectric fluid accounts were indecisive concerning how to properly dispose scrap askarel?

A: I can't recall that.

Q: Okay. And looking at this document doesn't refresh your recollection?

A: Not really.

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Q: Do you recall at or about this time that there was uncertainty that was reported back to you concerning what customers should or should not do regarding PCBs?

A: Sorry. Can you restate that?

MR. ROEDER: Read it back.

(The requested portion of the record read by the reporter.)

A: No, I don't think so.

Q: (By Mr. Roeder) Okay. Was there any confusion that was reported to you by customers as to what they should or shouldn't do?

A: I cannot recall.

Q: Well, this is a complicated issue to get across to customers, wasn't it, the environmental problem relating to PCBs just as one portion of it?

A: You know, possibly. It's hard for me to -- it's hard for me to say now. I cannot -- you know, I cannot recall. I cannot recall, you know, this particular incident that we're referring to in this particular memo.

Q: I'm not -- I'm not asking specifically with this memo right now. What I'm thinking about is more generally. As a manager, it was no -- you had been thrust into the situation of dealing with PCBs

and environmental problems and now, as of October 1971, you are rethrust back into it, correct?

A: Yes.

Q: And wasn't this a difficult managerial or a challenging managerial position with respect to the product that has environmental concerns, may not be allowed to be used? You don't know at this point whether it will or will not be outlawed, correct? You have to indicate.

A: Sorry. Yes.

Q: You have some customers who want to use it, correct?

A: Yes.

Q: Other customers who may not want to use it, and want you to confirm that whatever they're using doesn't have PCBs, correct?

A: Yes.

Q: You have to attempt to police certain of your customers to find out whether or not they're using it in the way that you want them to use it, correct?

A: Yes.

Q: Isn't this a challenging position?

A: It was challenging. I find it challenging, but not impossible.

Q: I didn't say it was impossible.

A: I said it was challenging, yes.

Q: And it's also a difficult message to get across to customers, wasn't it, the particular facts you wanted them to know about the use of PCBs?

MR. CHAMBERS: Object to the form.

A: The reaction varied. There was a varied reaction. I recall getting phone calls from people who were irate that we would, you know, have stopped supplying them. I fielded many of those. There were others that had questions as to -- you know, they were aware there was a disposal method. They wanted to be refreshed. That was probably -- the second part was the easier one to cope with, because it was a case of them sending out instructions to whoever really should get it, who was going to be dealing with sending it back to us. That was usually somewhere in the chain within the customer the message hadn't got across. We would just send out another notification saying "Here's where to send it." And the -- and I would deal with that through our order processing. There was an internal order processing group, and they would, you know, would either send the letter out or have -- give the customer the name of somebody to call so that they

could get together on the phone or whatever and arrange it. So that was fairly straightforward. That's why I can't recall this. I'm a bit surprised that this was an issue. If it came to me and the way I normally handled these things, I'd have given it to Benignus and say "Since it's dielectric, Paul, find out what's all this about and straighten it out."

Q: At this point, Paul was reporting to you directly?

A: I would have given it to him. "You please handle this."

Q: At this point, Mr. Benignus had been at Monsanto for a long time, correct?

A: Yes.

Q: Would it be fair to describe him as almost reaching an emeritus stage?

A: No.

Q: Well, Mr. Gossage indicated that even though -- I'm using this as a reference. Even though Mr. Benignus reported to him, that he had been around Monsanto for such a long time and was so respected that in effect it wasn't your typical superior subordinate relationship. Would you agree with that?

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A: I would agree with that.

MR. CHAMBERS: I'll object to the form of the question.

A: I would agree with that, but that didn't mean that it was a difficult relationship.

Q: (By Mr. Roeder) Oh, I didn't say it was difficult, but I'm just saying it was --

A: It was different, and I could see sides of that. I also had to manage that fellow. I did and to this day regard Paul as a good personal friend of mine.

Q: Now, Mr. Benignus writes in this memorandum regarding disposal of scrap askarel fluid in the fifth paragraph "However, notwithstanding all our efforts, I suppose that communication remains the world's number one problem." Do you see that?

A: Yes.

Q: Do you agree with that?

MR. CHAMBERS: Object to the form.

A: Paul may have felt that. I don't know. Reading this I can see, you know, just Paul's style of writing and responding. He might be right. I mean you do find, as I mentioned, the people that are doing repairs on transformers, and they may be anywhere. So to me it wouldn't be uninspected that

some of them would crop up somewhere, and Frederiksen would say "I found this. You know, what do I do?" They could -- they could conceivably have been missed out on a letter, because we went back through our IBM files as far as we could and did the best job we could. But you could never be sure that somewhere hadn't in the distant past used some and set it aside.

Q: Well, internally at Monsanto you took steps to ensure that you were able to at least attempt to overcome the world's number one problem of communication, didn't you?

A: Yes.

MR. CHAMBERS: Object to the form.

A: I think we did. We -- we also in the case of PCBs tried to enlist the original equipment manufacturers as a means of getting that message out, because they knew who were, in this case, the people who were dealing with repair, replacement of transformers on the dielectric equipment.

Q: Well, I mean even more simple than that, for example, Plaintiff's Exhibit 95 it's carboned to Mr. Frederiksen, to you and to Mr. Johnson, correct?

A: Yes.

Q: And it was the -- it was the practice, was

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it not, at Monsanto that documents that had any potential relevance to someone else's job responsibilities were routinely carbon copied for that person to review?

MR. CHAMBERS: Object to the form.

A: Can you please repeat that back to me again?

(The requested portion of the record read by the reporter.)

A: In my area of responsibility, I tried to do that, but I couldn't really direct a salesman or a sales manager to necessarily follow that, because they didn't report to me directly.

Q: (By Mr. Roeder) Well, for example, the trip report we just looked at from Mr. Roder to you, he's also carboned Ford, Frederiksen, Gossage, Johnson, Roush and Stegen, correct? You have to answer yes or no.

A: Yes.

Q: I guess what I'm getting at is there was a very liberal policy of sending carbon copies to people in the division which you worked. Would that be fair to say?

MR. CHAMBERS: Object to the form.

A: I don't know if it was liberal. You know,

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some people decide that they want to copy more than others. And that is something that goes on and, you know, the answer is, if it's not relevant, that person would throw it away or if they felt -- they would pass it on to however in their department handled it and say "Take a look at this. Do I need to see it?" So I don't read anything into this at all.

Q: But would you agree with me that by sending a copy, as Mr. Roder did, of the trip report to you and to Ford and Frederiksen and Gossage and Johnson and Roush and Stegen that he increased the probability that any of these other individuals would read the memorandum and would learn what he had to say about his trip?

MR. CHAMBERS: Object to the form.

A: They could conceivably. I don't know. I don't know why he copied any of these other people in all cases.

Q: (By Mr. Roeder) Go back to Exhibit 211. That's Mr. Bergen's letter or memorandum regarding the PCB pollution problem to Mr. Hosmer, H-O-S-M-E-R, Mr. Koenig, K-O-E-N-I-G, Mr. Kountz, K-O-U-N-T-Z, Mr. Coon, Mr. Olson, Mr. Park, you, Dr. Richard, Mr. Smith, Mr. Springgate -- Springgate,

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Mr. Stratmeyer and Wheeler and Garrett. Those are all the people who received that one, correct?

A: Yes.

Q: Okay. And on the very same memorandum he carbon copied Benignus, Mr. Dahlstrom in Brussels, Mr. Fallon, Mr. Ford, Mr. Hodges, Mr. John, Mr. Johnson, Mr. Mason and Mr. Waychoff, right?

A: Yes.

Q: W-A-Y-C-H-O-F-F. And by sending this memorandum to all these people, wouldn't you agree that Mr. Bergen increased the probability that these other people would get the message contained on the memorandum?

MR. CHAMBERS: Object to the form.

A: I don't know why Mr. -- you know, I have no knowledge of why Mr. Bergen chose to copy all these people in. I assume he had some reason, but I don't know what it was.

Q: (By Mr. Roeder) Well, can't you -- when you sent out memoranda that had carbon copy recipients, you wanted the people who received the memorandum, whether directly or on a carbon copy, to get the message on the document you prepared; isn't that correct?

A: Yes.

Q: If you look at Plaintiff's Exhibit 210 of the plasticizer sales call report, you wanted to be sure Mr. Farrar, Mr. Maier, Mr. Waychoff, Mr. Wheeler, Mr. Wilde, Mr. Wright and Mr. Darby all had the opportunity to get the information that you had placed in this memorandum in the most effective way you could, which was writing it down and sending it to them so they could understand what it is you had to say, correct?

A: Yes.

(Plaintiff's Deposition Exhibit No. 213 marked for identification.)

Q: (By Mr. Roeder) Sir, you've been handed Exhibit 213, which is a memorandum from James J. Roder, R. C. E. Sprague, D. F. Smith and you are a carbon copy recipient, dated November 9, 1971. Therminol FR approval listed as the subject of the memorandum, and it bears production number, for the record, TNGS 4643 to TNGS 4692. This is a document that you would have received in the ordinary course at Monsanto, isn't it?

A: Yes.

Q: It references a Therminol FR approval list. This, I think, harkens back to what we just discussed a couple of minutes ago, sir. Take a

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minute to review it though, and tell me when you get a chance to do so.

A: Okay.

Q: Okay. The second paragraph reads "Based on the feedback supplied by the field salespeople, we categorize the systems as shown." Then it continues "Those systems which could not be located or the application needed additional clarification were either left 'open' or were put on the 'not approved status' so that any new order would be directed to the product group for contact." Did I read that correctly?

A: Yes.

Q: Was that, in fact, the criteria used to determine whether or not Therminol FR customers were approved or not approved for the purchase of Therminol FR?

A: It appears to be at least part of it. Whether that was the only set of criteria, only criteria or not, I cannot now remember.

Q: Okay. You can't remember any others?

A: I can't remember any others. But by the same token, I can't say there weren't any others.

Q: Okay. Have you reviewed any documents that would refresh your recollection with respect to

that?

A: No.

Q: Okay. Did you review this document in preparation for your testimony?

A: No, I don't recall seeing this particular one.

Q: It also notes that any orders for five or more drums of FR fluid had to be directed to the product group for review even though the customer was on the approved list. Do you see that in the third paragraph?

A: Yes.

Q: Is that your recollection of what the policy was as of this date in late 1971?

A: I wouldn't have remembered had I not seen it here.

Q: All right. But you have no reason to dispute it?

A: I have no reason to dispute it.

Q: Was that part of the policy or practice of Monsanto to carefully control the sale of Therminol FR?

A: I don't know if it was a -- I know Monsanto, you know, policy to control as it was a means of us being sure in the -- in the business and sales and

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marketing area that we were being consistent with the actions we had said we would take.

Q: Well, one of the actions you said you would take was going to be to limit the --

A: That's right.

Q: -- the use of PCBs in any application?

A: And as a result of that, then put in place this kind of way of trying to see what has happened.

(Plaintiff's Deposition Exhibit No. 214 marked for identification.)

Q: (By Mr. Roeder) For the record, sir, Exhibit No. 212 is a memorandum from Cumming Paton, dated November 17, 1971, to T. L. Gossage and W. B. Papageorge, subject future of FR fluids, production numbers TRAN 21800 to TRAN 21801. It's a memorandum you prepared, isn't it, sir?

A: Yes.

Q: Okay. Why did you prepare this memorandum?

MR. CHAMBERS: Let me object before we begin questioning about it. I think there are two things. I think you may have misspoken and said it was Exhibit 212 instead of 214.

MR. ROEDER: Is it 214? I did misspeak. Thank you.

MR. CHAMBERS: And, secondly, this is -- this is, again, a document that's been marked company confidential. So I hope, as we get to these, we'll point that out for the benefit of the court reporter.

MR. ROEDER: So it isn't a objection to the question as such just its designation, right? I read the wrong number and we didn't say it was confidential.

MR. CHAMBERS: Having said all that, I'm ready to proceed.

Q: (By Mr. Roeder) Good. Okay. This is a -- let me rephrase the question. This is a memorandum you prepared concerning your views on the future of FR fluids; isn't that correct?

A: Yes.

Q: Did you prepare this at Mr. Gossage's request?

A: I cannot recall. I don't think so. Knowing how I write, it appeared that John Haggart had written me regarding our policy or requesting approval to proceed in a new nonfood system, and I had thought through the situation and was giving my recommendation to see whether or not management agreed with it.

Q: Sir, do you know whether at or about this time Mr. Gossage was considering whether Monsanto should completely get out of the business of making polychlorinated biphenyls and polychlorinated terphenyls?

A: I cannot recall.

Q: Have you completed your answer?

A: Yes, I think so.

Q: Could you check, sir, if you have Exhibit 115 in that book? I believe you do. Do you have it?

A: Yes.

Q: It's a memorandum to T. L. Gossage from C. L. Bradford and N. T. Johnson also dated November 17, 1971, the same date of your memorandum to Mr. Gossage, isn't it?

A: Yes.

Q: Okay. Mr. Bradford and Mr. Johnson write Mr. Gossage "We have given considerable thought to your posed question of what would happen should we completely remove polychlorinated biphenyls, polychlorinated terphenyls from our industrial fluids following our observation." Do you see that?

A: Yes.

Q: Okay. Now, does this refresh your

recollection as to whether or not there was discussion instigated by Mr. Gossage at this time as to whether Monsanto should completely remove from the PCB arena?

A: I cannot recall. I had been in the job, I guess, about two months maybe most, I guess. But I cannot recall. I cannot recall if this happened to be a coincidence that I responded on the 17th on this issue regarding Europe, which had been brought to my attention by Haggart. Haggart might well have copied in Gossage on it. You know, I don't -- the memo isn't here so I don't know whether Haggart just wrote to me, called me. Well, he wrote to me, because of the memo. Maybe he called Gossage. So I don't know what's the chicken and what's the egg.

Q: So Haggart was -- Haggart was your subordinate in Europe?

A: He was not exactly my subordinate. He was in Europe with responsibilities for certain marketing areas, including heat transfer fluids. So we had a -- he didn't report directly to me. But it was an unwritten situation whereby, you know, the headquarters, product group tended to have a global type of responsibility, but you did it through a manner of maybe not directly telling them what to

do. You said "Look, this is what I would like to do," and then you would discuss and listen to arguments. And then you'd reach a consensus, and they would proceed and work in that area. So you know -- I can't -- you know, it might be coincidence, or he might have seen it. There's various interpretations. But at any rate, I was in no doubt as to what my position was.

Q: All right. What was your position?

A: My position was as I stated here.

Q: And that was what?

A: That we do not -- we do not intend to supply any new heat transfer systems in any part of the world. That if I was to go out and make that stick, I needed to know that my management was behind me.

Q: Well, was -- were FR fluids used in any other uses other than heat transfer systems?

A: I cannot say that they absolutely weren't, but they weren't intended to be. I mean our literature about them was clearly, you know, directed to its use in heat transfer, and it's unlikely that customers would have thought of using it in some other way. But again, if they were facing the fact that they couldn't get it, they might have, you know, used some other reason. But,

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you know, I cannot recall anybody ever using it that I was aware of for something other than heat transfer.

Q: All right. Well, let's look at page two, sir, of this memorandum, your memorandum, Exhibit 214. You talked about Dr. Richards' monthly research report that Anniston is using a different Therminol which is "a chlorinated terphenyl," T-E-R-P-H-E-N-Y-L?

A: Yes.

Q: What was that?

A: Terphenyl is, instead of biphenyl, is two chlorine rings joined together. Terphenyl you have, I think, three, ter three, tertiary. Does that mean three? My Latin is getting rusty. A lot of things are getting rusty, and Latin is one of them. I think it means three chlorines are joined together.

Q: All right. You write "We do not envisage promoting this product outside Monsanto as the fluid until we are 200 percent certain that chlorinated terphenyls won't go the same way as PCBs. At this stage, I wouldn't bet on it (this is confidential)." Do you see that?

A: Yes.

Q: Why wouldn't you bet on it at that stage?

A: Because by then I was beginning to detect that terminology wasn't very exact. That as more publicity occurred in the media about PCBs, there was a lot of inaccurate things being said. And anything chlorinated, you know, there was a confusion about what a PCB was versus a DDT versus something else that was chlorinated. Even the, God bless them, some of our own agencies in the government had begun to use the term "polychlorinated biphenyl," which included monochloro. And I don't know if that had happened yet, you know, but it did happen at some point. And mono -- I mean poly by its very nature is not mono. Poly is more than one. Mono is one. So that sort of confusion was beginning to creep in. And I -- my own personal doubts were you cannot expect Joe Q public or Mrs. Joe Q public to understand the difference between a terphenyl and a biphenyl --

Q: Well, isn't it --

A: Whether it was a problem or not.

Q: Well, isn't it true, sir, that the process of using chlorinated terphenyls as a replacement for chlorinated polychlorinated biphenyls didn't cure the problem of PCBs?

A: I'm sorry. Problem of?

Q: Isn't it true -- first of all, let me -- let me lay a better foundation for this. At some point prior to this, there was a reformulation of many of the products that had PCBs at Monsanto, correct?

A: Yes.

Q: And rather than make the products out of polychlorinated biphenyl, they were formulated with polychlorinated terphenyl, correct?

A: Yes.

Q: Okay. And wasn't there a representation and letter made to Monsanto's customers that these reformulated products have no PCBs?

MR. CHAMBERS: Object to the form.

A: I -- you know, I cannot say for sure when letters like that were sent or whether I saw letters like that. I don't know.

Q: (By Mr. Roeder) Well, didn't you have your own concern that the process --

A: Chlorinated to me I have no -- I have personally have no difficulty differentiating between a chlorinated biphenyl and a chlorinated terphenyl. As I was proceeding, I'm stating a personal feeling that possibly, not because of any environmental or because of any scientific reasons, there might be activity taken because chlorinated

terphenyl. That's -- that's all I'm stating in this memo was my own particular feeling.

Q: Were you able to go through the process in your own mind to at least have a question whether or not producing these products with chlorinated terphenyls would actually leave chlorinated biphenyls in the product? Do you understand my question?

A: Yes. No, I don't think that would have been a concern of mine. I think that was not, to my mind, an issue, and I could see that having chlorinated terphenyls didn't mean that you had the same situation as you had in chlorinated biphenyls.

Q: Well, did Mr. Gossage ever share with you his concern that the manufacturing process that would make these products with polychlorinated terphenyls would also result in polychlorinated biphenyls being included in the products as they were reformulated?

A: I can't recall having that kind of conversation with him.

Q: Okay. Do you know, sir, whether there was concern at Monsanto that, after the products were reformulated with the terphenyl polychlorinated terphenyl process, that, in fact, they still did

have PCBs?

MR. CHAMBERS: Object to the form.

A: I cannot -- you know, my recollection I cannot recall particularly now being privy to that. Certainly in this time frame I don't think I would have been, because I had -- you know, I had nothing to do with Pydrauls and I had plenty, you know, plenty to do without getting involved in that.

Q: (By Mr. Roeder) I wasn't talking about Pydraul. I was just talking about reformulated PCB products.

A: Well, this one here was a monthly research report certainly that I was referring to in this case terphenyl. I, you know, cannot -- at that point, I did not see that necessarily as being yet a commercial product for many reasons.

MR. ROEDER: Can you just read back my question, please?

(The requested portion of the record read by the reporter.)

Q: (By Mr. Roeder) No, let me clarify the question. With respect to any PCB products that were reformulated using polychlorinated terphenyls. That's what I'm discussing right now. Did you ever learn that the process of manufacturing those new

formulated products did not remove PCBs from the products that Monsanto sold?

A: I can't recall if I learned that or not.

Q: Do you recall if anyone ever said that was true?

A: I can't recall if anybody did or didn't.

Q: Mr. Gossage never told you that he had discussed his concern that the new formulated products would, in fact, result with PCBs in his discussions with Dr. Richard?

MR. CHAMBERS: Object to the form.

A: I can't recall a specific conversation on that with him.

Q: (By Mr. Roeder) Can you turn to Exhibit 119, sir? Once you get it, let me know. In your prior answer, sir, you can't recall any specific conversations. Do you recall this topic being discussed at all?

MR. CHAMBERS: Object to the form.

A: (Witness shakes.)

Q: (By Mr. Roeder) I mean what I'm trying -- I'm just trying to be sure I understand the question, because you said you can't recall any specific conversations. Do you recall that topic being a concern that the reformulated products

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weren't free of PCBs as people originally thought at Monsanto they would be?

A: This, you know, six months or so later this thing, number 119, when I see it, it obviously refreshes my memory that I brought that up. So as I had said earlier, I think it might be a matter of timing. You know, I've been thinking in terms of time frames, but even then I -- you know, although you can probably ask me have I seen this letter, yes, but I still would stand by my answer. I cannot recall the specifics of the discussion.

Q: Well, the question wasn't limited only to that particular time frame.

A: But I cannot -- I cannot recall having sat down and had the, you know -- I cannot specifically recall occasions when I sat down and had conversations about this, and that is probably a, you know, a memory lapse or a time lapse.

Q: Well, let's look at Exhibit 119. You said this helped refresh your recollection. Is that your testimony?

A: Yes.

Q: All right. For the record, that is a memorandum from you to Mr. Davidson, Mr. Gossage, Mr. Bergen, Mr. Stapleton, Mr. Papageorge and Mr.

Johnson with a carbon to Mr. Gann, correct?

A: Yes.

Q: All right. And it bears production number TNGS 6122 through TNGS 6132. The date on it is July 17th, 1972, and it's a memorandum you prepared and sent to those people, correct?

A: Yes.

Q: Your memorandum attaches a list of the food related customers who used PCB/PCT Pydrauls. That's what it says, right?

A: Yes.

Q: What's the difference between a PCB or a PCT Pydraul?

A: They would be Pydrauls that would have either PCBs or PCTs in them. And in this case I've used a shorthand PCB for polychlorinated biphenyl and PCB PCT for polychlorinated terphenyl.

Q: Terphenyl was the reformulated version of the PCB, right?

A: That's right.

Q: Okay. You also attach four letters that you say were sent out in 1971 and '72 to all Pydraul customers, and there are memoranda or there are letters that are attached to Exhibit 119, your July 17th, 1972, memorandum, correct?

A: Pardon.

Q: You've attached these letters to your memorandum, one signed by C. L. Bradford, second one signed by C. L. Bradford, third one signed by Howard Bergen, dated January 31, '72, and another one dated February 28th, 1972, signed by Mr. Bergen, right?

A: Yes. Yes.

Q: Now, you note to the people to whom you sent this memorandum that in the letters "We did not identify all PCB containing Pydrauls (Pydraul such as AC and F9 used by food related customer were not specifically mentioned in 2-1-71 letter.)" That's what you said, right?

A: Yes.

Q: Okay. What did you mean by that? What was the purpose of making that notation in your memorandum?

A: The purpose of these notations was that I had at about this time had just got involved with taking responsibility for the Pydraul group of products, and I was in the process of trying to understand what had happened in the past on this PCB issue.

Q: So as of about July 17th, 1972, you had also picked up Pydrauls?

A: That's right. And I had gone over what -- what had been done. In looking at the letters, I saw various things that -- that I had noted. I was going to them saying I've noted this and really in some ways wanting to know whether or not, you know, I was correct in what I was saying and, you know, so that I could better understand why their letters had been written as they had.

Q: All right.

A: So there was an element of me saying to them "Look, here I am. I'm new. This is -- I've done this, and here's some areas that I would like clarification on."

Q: Well, did you want to have clarification as to why Pydrauls such as AC and F9 were not specifically mentioned in the 2-1-71 letter?

A: That would have been one -- one area.

Q: What clarification did you receive with respect to that?

A: Now I cannot recall.

Q: Now, your second fact you want people to whom you addressed your memorandum to note is that "On April 15th, 1971, we stated 'no' PCBs in any of our Pydraul fluids." That's the second one, isn't it?

A: Yes.

Q: That was false, wasn't it?

MR. CHAMBERS: Object to the form.

A: False, no, I wouldn't say it's false. It gets into this situation which in my other areas in PCBs have found that, when you're talking about no, no can be correct. In this case there was no PCBs added deliberately per se. There were chlorinated terphenyls. But when you get into talking about parts per million or even in some cases people started talking about parts per billion, the absolute -- you know, then you realize that there be no such thing as an absolute zero or an absolute no. You can approach it, you know, get very close. But if you keep developing what we have developed -- at that time, we had developed measurements that could get us down to parts per million. Now we've moved on to parts per billion. You know, you can get closer and closer. So at what time, at what point you say no. Do you understand what I'm saying? And given the atmosphere that, you know, was beginning to develop with people, you know, trying to decide what is zero, that was what I was concerned about. Would somebody then really say "Yes, but, you know, there was one part per million

there"? Therefore, your phrase no is false. Whereas, no could also be correct. If you then say there were no PCBs as PCB products that we added there. So you know, it -- it may sound like a distinction, but it was one that, you know, I had become a little -- as I mentioned later in the memo, as I had gone through several years of this, I became more sensitive to nuances of how people could interpret data.

Q: (By Mr. Roeder) Are you finished?

A: Yes.

MR. ROEDER: Could you -- could you read back my question?

(The requested portion of the record read by the reporter.)

Q: (By Mr. Roeder) I appreciate your response, Mr. Paton, but my question only called for a yes or no answer so I'll move to strike it and I'll ask it again.

MR. CHAMBERS: Objection. The question has been asked and answered.

MR. ROEDER: Well, are you instructing him not to answer?

MR. CHAMBERS: No, I'm just objecting.

A: I find it impossible to answer that in a yes

or no manner.

Q: (By Mr. Roeder) Do you -- when the statement is in the April 15th, 1971, letter "No PCBs in any Pydraul fluids," you can't tell whether that statement was, in fact, true or false; is that your testimony?

MR. CHAMBERS: Object to the form. The question has been asked and answered.

A: I need to know what your definition of no is.

Q: (By Mr. Roeder) No means no, none.

A: Absolutely zero, zero.

Q: No emphasized underlined. That's what it means.

A: That's a very -- you know, given the measurements we're talking about today, that's a very difficult question to answer.

Q: Well, the memorandum we talked about, we looked at just a few minutes ago, discussed, did it not, customers who were very concerned with any PCBs at all in November 17th, 1971, letter, that they would ask you whether any existed at all. They didn't want to find out what kind it was and what degree of concentration. They wanted assurance that none existed. Isn't that what you wrote to Mr.

Gossage in your November 17th letter?

MR. CHAMBERS: Is that Exhibit 214?

MR. ROEDER: I believe that's right. Number three, paragraph number three of your letter.

A: That's true.

Q: (By Mr. Roeder) So for the customer the mere existence of any PCBs was an important factor as you reported to Mr. Gossage in November 17th, 1971, correct?

A: From some customers, yes, we were getting questions.

Q: And you thought or -- strike that. Did you believe it was reasonable for a customer to rely upon a statement that Monsanto made in the letters they sent out regarding PCBs?

MR. CHAMBERS: Object to the form.

A: Did you think I?

Q: (By Mr. Roeder) Did you think it would be reasonable for such a customer to rely upon the accuracy of a statement that you made in one of your letters?

MR. CHAMBERS: Object to the form.

A: I would feel that we should answer it as accurately as we could.

Q: (By Mr. Roeder) Did you ever discuss with

Mr. Johnson his belief that there should be a corrective letter sent out to customers letting them know that the statement on the April 15th, 1971, letter was inaccurate?

A: I cannot recollect if I did or didn't.

MR. CHAMBERS: I'll object to the form of that question, too. Thank you.

Q: (By Mr. Roeder) Did you ever discuss with Mr. Davidson his belief that a corrective letter should be sent out?

MR. CHAMBERS: Object to the form.

A: Again, I can't recall if I did.

Q: (By Mr. Roeder) That were discussed with Mr. Gossage?

A: Well, as you can see -- as you can see, I -- I raised the issue with them in this memo. I now cannot recall the conversations I had surrounding it either before or after.

Q: Have we exhausted your recollection concerning the point two that you raised in your memorandum dated July 17th, 1972?

A: Yes, I think you have.

Q: Okay. Is there anything that would refresh your recollection?

A: Nothing that I can think of.

Q: Point three says "On February 28, 1972, we stated 'no draining is necessary.' You need only to add the new products as make-up to your present systems." What concern did you have with respect to the statement in the February 28, 1972, letter?

A: I cannot now recall why it was that I thought that was a problem. Read the letter in its entirety, 28, 1972. Wait a minute. The letter didn't say that, did it?

Q: What you did is you eliminated.

A: Oh, I see, yes.

Q: For the record, the February 28th, 1972, letter signed by Howard Bergen says "The new Pydraul products will be compatible."

A: Yes, I see it now, yes.

Q: I just wanted to get it in the record. "With the present formulations and no draining, cleaning or changing of seals in your systems is necessary. You need only to add the new products as make-up to your present systems." Having reviewed the February 28th, 1972, letter from Mr. Bergen which you attached to your memorandum, does it refresh your recollection as to what you thought the concern was?

A: No, not really.

Q: Well, does it refresh your recollection to suggest that there was a concern that customers may not have known that they had to fully and completely drain and clean their systems to attempt to remove the PCBs?

MR. CHAMBERS: Object to the form.

A: This was an issue that was -- I think I was bringing with me some baggage, if you will, from my heat transfer experience where, in order to change over in the -- in the heat transfer system, we recommended that it be changed out particularly if you had food or food packaging related type applications. At the same time, and I don't know when it became established, but there was discussions, and I don't know when they started, that the EPA, OSHA, FDA, these organizations, agencies were discussing what were, you know, acceptable levels of PCBs in systems.

Q: (By Mr. Roeder) So did you believe that their -- that Monsanto should make clear to customers of Pydraul that they should clean and drain their systems?

A: I wasn't -- I wasn't necessarily -- no, I wasn't suggesting that. I was trying to understand a little bit, you know, why there would be no

draining in that, and I -- there are differences between how a hydraulic fluid is used and the nature of a hydraulic system compared to say a heat transfer system, and so this was me trying to understand why there had been differences in the letters used here from what I had done not because I, you know, was necessarily suspecting there was a problem. It was partly that, you know, there are -- you do things differently depending on what the application is. But these were -- these were the things that struck me as ones that I would have liked to have understood the reasons why.

Q: Well, based upon your experience in the heat transfer area, certain of Monsanto's customers tried to pin the cost of conversion on Monsanto, didn't they?

MR. CHAMBERS: Object to the form.

A: Well, what some of them wanted was that either they shouldn't have to pay for the cost of getting rid of the PCBs. They should get replacement fluid free or at a discount. These are the kind of questions I got.

Q: (By Mr. Roeder) Well, your memorandum says "Further, we know from heat transfer experience that certain PCB affected customers have tried to

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pin the cost of conversion and related problems on MICC." That's Monsanto Industrial Chemical Company?

A: Yes.

Q: "Because of alleged failure to properly warn them on need for system cleanout," et cetera. That's what you wrote there, right?

A: Yes.

Q: And then didn't you also write "Since we have not alerted food related users of PCB Pydrauls in a special way like we did Therminol FR users, we may be leaving ourselves open to future claims or worse yet renewed publicity ala fish meal incidents, excuse me, renewed publicity on PCBs ala fish meal incidents"? That's what you also wrote there, right?

A: Yes.

Q: And this is the fish meal incident you discussed earlier where there was Therminol FR that leaked out into the fish meal?

A: Yes. And so this was me kind of, you know, saying "Look, is this something that you've taken into consideration? You know, what are the reasons," and so on. So I was, as I say, within probably weeks or so of having added that on, and I

was trying to find out where I stood and where I should go in this situation.

Q: You were concerned as of July 1972 that Pydraul customers had not been adequately informed of the need for system cleanout; isn't that correct?

A: No, not to my -- sorry.

MR. CHAMBERS: Object to the form. It will help everybody, especially the court reporter, if you go ahead and wait for Mr. Roeder to finish his question and then -- and then respond. I'm sorry. Would you like to have the question read back?

MR. ROEDER: No, I'll ask it again.

MR. CHAMBERS: Okay.

Q: (By Mr. Roeder) Weren't you concerned, sir, that Monsanto had not properly warned the users of its Pydraul products to clean out or drain the systems through the previous letters it had sent them?

MR. CHAMBERS: Object to the form.

A: I was -- I had a concern regarding food related systems, food related Pydraul.

Q: (By Mr. Roeder) So you weren't even concerned about anything that was not food related?

A: I was -- to say I was not concerned isn't

true, but that was a different situation compared to the food related ones.

Q: You didn't suggest, in any event, that nonfood related users of Pydraul ought to be advised of the need for system cleanout, did you?

MR. CHAMBERS: Object to the form.

THE WITNESS: I'm sorry.

MR. ROEDER: Could you read it back?

(The requested portion of the record read by the reporter.)

A: And the answer to that is no.

Q: (By Mr. Roeder) Okay. And this memorandum, the July 17th, 1972, memorandum, indicates your concern of liability that Monsanto might face for failing to give what you consider to be proper notice; isn't that correct?

MR. CHAMBERS: Object to the form.

A: I did not think, in terms of quoting liability, as it's maybe construed today in terms of punitive damages, et cetera, et cetera. The costs that I had been faced with were those of, you know, not involving anything punitive, was dealing with the fact that they now had to -- we were telling them that they couldn't get any more, that they had to buy replacement product, and that they would have

to pay for the disposal of the -- of the -- of the used PCB that came out. But for a period of time, they had been told that we would allow them to send back their PCB for, I think, if I'm not mistaken, about six months and we would absorb the cost. Afterwards we said no. So those that were giving me complaints, you know, and I answered quite a number on the phone. I recall that in -- in most cases that, you know, that they had somewhere in the company they acknowledged that they had been told. It may not have got to, you know, the person who was faced with having to deal with the -- with the issue, but we had notified the company apparently, the customer.

MR. ROEDER: Can you read back the question, please?

(The requested portion of the record read by the reporter.)

MR. CHAMBERS: Object to the form.

MR. ROEDER: I think the answer far exceeds the question.

A: Well, then the answer under liability is no.

MR. ROEDER: Okay. I'll move to strike the previous answer.

Q: (By Mr. Roeder) Now, you had drafted a proposed letter that you attached to this memorandum, didn't you?

A: That's what it says.

Q: Okay. That begins on page TNGS 6130 of the exhibit.

MR. CHAMBERS: I'm sorry. Which page?

THE WITNESS: 6130.

MR. ROEDER: Right. TNGS 6130.

MR. CHAMBERS: Thank you.

Q: (By Mr. Roeder) This is the draft letter that you submitted to these gentlemen, isn't it, dated July 17th, 1972?

A: I have no reason to think it wasn't.

Q: In the second page of the draft letter you write "In view of the foregoing governmental actions, you may wish to evaluate their effects, if any, in light of past purchases of PCB containing fluids from Monsanto." That's your writing, correct?

A: I would guess so.

Q: Okay. "To assist you in carrying out any investigations you may care to make, you continue, we have attached a list of Pydraul purchases by your company each year from 1969 to the present. We've

also attached a list identifying all our Pydraul fluids as PCB or non-PCB containing products." You also put that in the draft letter, correct?

A: Yes.

Q: This letter ultimately went out to purchasers, but did not include your language about assisting the customer in carrying out any investigations they may care to make; isn't that correct?

A: I can't recall, but if you say so. You may have -- you must have seen the letter that did go out, and I can't recall what it did say.

Q: Did you recall participating in that decision?

MR. CHAMBERS: Object to the form.

Q: (By Mr. Roeder) To send the letter out without that language?

A: I can't recall, but there could be valid, good reasons -- I mean mine was a draft. Mine wasn't intended to be the absolute last word on the subject.

Q: Isn't it true that the letter that ultimately went out did not attach a list of Pydraul purchasers by the company from 1969 to the present?

MR. CHAMBERS: Object to the form. It would

be helpful to get that, whatever it is you're referring to, out in front of us.

A: I can't recall.

MR. ROEDER: This is a good time to stop.

(Whereupon, the deposition adjourned to be reconvened at 0930 a.m. on Thursday, October 26, 1995.)

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COMES NOW THE WITNESS, CUMMING PATON, and having read the foregoing transcript of the deposition taken on the 25th day of October, 1995, acknowledges by signature hereto that it is a true and accurate transcript of the testimony given on the date hereinabove mentioned.

_ _ _ _ _ _ _ _ _ _ _ _ _ _

CUMMING PATON

Subscribed and sworn to me before this

_ _ _ _ day of _ _ _ _ _ _ _ _ _ _ _ _ , 1995.

My Commission expires: _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Notary Public

State of Missouri

SS.

City of St. Louis

I, Dawn L. McTeer, and Registered Professional Reporter and Notary Public in and for the State of Missouri, duly commissioned, qualified and authorized to administer oaths and to certify to depositions, do hereby certify that pursuant to Notice in the civil cause now pending and undetermined in the Commonwealth of Kentucky, Rowan Circuit Court, Civil Branch, to be used in the trial of said cause in said court, I was attended at the offices of Thompson & Mitchell, One Mercantile Center, in the City of St. Louis, State of Missouri, by the aforesaid witness; and by the aforesaid attorneys; on the 25th day of October, 1995.

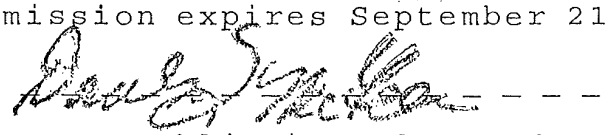
The said witness, being of sound mind and being by me first carefully examined and duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the case aforesaid, thereupon testified as is shown in the foregoing transcript, said testimony being by me reported in shorthand and caused to be transcribed into typewriting, and that the foregoing pages correctly set forth the testimony of the aforementioned

witness, together with the questions propounded by counsel and remarks and objections of counsel thereto, and is in all respects a full, true, correct and complete transcript of the questions propounded to and the answers given by said witness; that signature of the deponent was not waived by agreement of counsel.

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

Witness my hand and notarial seal at St. Louis, Missouri, this 29th day of October, 1995.

My Commission expires September 21, 1999.



Notary Public in and for the State of Missouri

Dawn L. McTeer
Notary Public-Notary Seal
State of Missouri
St. Louis County
My Commission Expires 09/21/99

ARR.

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