

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	No. 78 C 1004
	)	
OUTBOARD MARINE CORPORATION	)	
AND MONSANTO COMPANY,	)	
	)	
Defendants.	)	

The continued deposition of WILLIAM B. PAPAGEORGE, called by the Defendant Outboard Marine Corporation for examination, pursuant to adjournment and pursuant to the Rules of Civil Procedure for the United States District Courts pertaining to the taking of depositions, taken before Thea L. Urban, a Notary Public in and for the County of Cook, State of Illinois, and a Certified Shorthand Reporter of said State, at the offices of Kirkland & Ellis, 200 East Randolph Drive, 58th Floor Conference Room, Chicago, Illinois 60601, on the 28th day of August, A.D. 1981, commencing at 9:00 o'clock a.m.

PRESENT:

MR. JAMES T. HYNES,
Deputy Chief, Civil Division,
(United States Attorney's Office
219 South Dearborn Street, Room 1486
Chicago, Illinois 60604);

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

PRESENT: (Continued)

MS. ELIZABETH STEIN,
(Pollution Control Section
Land & Natural Resources Division
Department of Justice
Washington, D.C. 20530);

MS. M. KAYE JACOBS,
(Water Enforcement Division
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604),

appeared for the United States of America;

MR. MICHAEL A. POPE,
MS. ROSEANN OLIVER,
(Phelan, Pope & John, Ltd.
30 North LaSalle Street
Chicago, Illinois 60602),

and

MR. JEFFREY C. FORT,
(Martin, Craig, Chester & Sonnenschein
115 South LaSalle Street
Chicago, Illinois 60603),

appeared for Outboard Marine Corporation;

MR. JAMES H. SCHINK,
(Kirkland & Ellis
200 East Randolph Drive
Chicago, Illinois 60601),

appeared for Monsanto Company.

ALSO PRESENT:

MR. HUGH THOMAS.

- - -

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

I N D E XWITNESS:Direct Cross Redirect Recross

WILLIAM B. PAPAGEORGE

By Mr. Pope

247

E X H I B I T SPapageorge-OMC Deposition
ExhibitMarked for ID

No. 6	252
No. 7	272
No. 8	273
No. 9	273
No. 10	275
No. 11	276
No. 12	277
No. 13	278
No. 14	282
No. 15	285
No. 16	321
No. 17	324
No. 18	338
No. 19 and 20	363
No. 21 Group	371

Thea L. Urban
 Certified Shorthand Reporter
 134 South La Salle Street
 Chicago, Illinois 60603
 312 - 782-3332

E X H I B I T S (Cont'd.)Papageorge-OMC Deposition
ExhibitMarked for ID

No. 22	384
No. 23	404
No. 24	407
No. 25	418
No. 26	424
No. 27	429
No. 28	431
No. 29	449
No. 30	453

- - -

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WILLIAM B. PAPAGEORGE,
called as a witness herein, having been previously
duly sworn, was examined and testified further as
follows:

DIRECT EXAMINATION (Resumed)

BY MR. POPE:

Q Mr. Papageorge, before we begin, the first
thing I want to point out is you realize you are still
under oath?

A Yes.

Q Secondly, upon thinking over your testimony
from yesterday, do you wish to supplement your testimony
on any particular questions or change any answers you
gave?

A No, not at the moment.

Q Yesterday you told us about certain cases
you had testified in and certain depositions you had
given.

Can you think of any additional ones
other than the ones you told us about yesterday?

A If I can summarize out loud here, we talked
about two court trials?

Q Yes, sir.

A And as I recall --

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q One in Tennessee and one in New Hampshire,
is that right?

A Yes.

And we talked about five depositions.

Q One in New Hampshire, one in Tennessee, is
that right?

A Yes.

Q One in Ohio?

A Ohio, Indiana.

Q New York?

A And New York.

Q Are there any others that you have testified
in with regard to PCBs?

A The only one that comes close and this was
one of the 4000 series of Aroclor. I was involved in
a deposition with Aroclor 4000 series, I forget which
one it was, the 4465.

Q What kind of a substance is that?

A I'm sorry?

Q What substance is that?

A What substance is it?

Q Is it not a PCB?

A It has terphenyls and as I understand it is
a blend of terphenyls and PCBs.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038849

Q What case was that?

A It involved the use of Aroclor 4465 was the best I recall. It was used as a hot bath of the fluid and a denture laboratory used this hot bath in their process for making dentures. I don't know just how now.

Q Was the claim that the Monsanto product came in contact with the dentures and the customer's use of it?

A No, the claim, as I recall, was that the laboratory personnel alleged respiratory problems resulted from the fumes from this bath.

Q Did you testify at trial or was that a deposition?

A That was a deposition.

Q Where was that case?

A St. Louis.

Q Are there any other cases involving PCB or a PCB blended material that you have testified in on behalf of Monsanto other than the ones you told us about yesterday?

A I don't recall any other.

Q How about North Carolina, Mr. Papageorge? Have you ever given testimony in a deposition case in Holly Farms, North Carolina?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A That was -- how did I miss that with the first?

That was the first.

Q What product was involved in that case?

MR. SCHINK: Holly Farms, North Carolina?

MR. POPE: Yes.

BY THE WITNESS:

A One of the heat transfer fluids which contained the Aroclor 1248 type of PCB.

BY MR. POPE:

Q What was the claim, in brief?

A The claim was that the PCBs used in the system got into feed ingredient which in turn was blended into poultry feed, fed to poultry and it affected the birds and their reproduction.

Q Did that case go to trial?

A No.

Q Was it disposed of by way of settlement?

A Yes.

Q Are there any other cases that come to mind that you have testified on behalf of Monsanto and that involve PCBs?

A I don't remember any.

Q If any more come to you during the deposition,

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

feel free to volunteer.

A Yes.

Q We established yesterday that in January 1970, your position was Manager, Environmental Control.

A Yes.

Q Is that what Mr. Stratmeyer told you your title was going to be when he talked to you in November of 1969?

A No, not Mr. Stratmeyer.

Q Did he tell you what the title was going to be?

A No.

Q When did you first learn your title was going to be Manager of Environmental Control?

A Mr. Bergen was the one who told me. This was a proposed title.

Q And it was implemented?

A And it became, yes.

Q Mr. Papageorge, isn't it true that your original title was Aroclor Toxicity Project Manager?

A That's the first I heard of that.

Q It is?

A Yes.

MR. POPE: I would ask the reporter to mark

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Papageorge Deposition Exhibit No. 6, a two-page document bearing the Monsanto name on the top followed by the title Aroclor Toxicity Project Manager.

Will you take a look at that two-page document and tell me if you have ever seen that before, please.

(Papageorge-OMC Deposition

Exhibit No. 6 marked for

identification, 8/28/81, TLU.)

BY THE WITNESS:

A No, I've never seen it.

BY MR. POPE:

Q Would you take a look at it and tell me if that accurately summarizes what your duties were upon assuming the job in January 1970?

A I don't believe it accurately summarizes the job.

Q In what way is it inaccurate?

A It was not my understanding that I had overall responsibility, total management as described under duties, Item No. 1.

Item No. 2 is all right.

I did not supervise the items listed under Item No. 3.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038853

Q What are those?

A It refers to supervising the budgeting, objective setting, assignment of priorities and implementing programs.

Q You did not supervise those in this job?

A No, sir.

Q Did you supervise any of them?

A No.

Item No. 4 refers to participating directly in visits with customers, plants, other international producers and with Government testing agencies and collaborators.

I did participate in some visits to some of these.

Q Customers?

A Yes.

Q With plants?

A Monsanto plants, yes, and some customer plants.

Q Other international producers?

A Yes.

Q And Government testing agencies and collaborators?

A Yes.

Item 5, I tried to do that.

Q Did you act as the central point of liaison

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

in communications?

A Yes, and Item No. 6, and particularly with the Public Relations Department, I did do that.

Q You handled all outside matters of concern?

A Not all, I am sorry, not all.

Q Did you work with the Public Relations Department to maintain Monsanto's image in the most favorable manner in connection with PCBs?

A I tried, yes.

And No. 7, Report to the Functional Fluids Business Director, which I did do and it further reports, "with a dotted line responsibility to the Plasticizers Business Director," which I did not do.

Q It refers to the supervision, no direct supervision?

A No direct and there was Functional direction.

Q Is that an accurate summary of the way you operated?

A Yes.

Q But until this morning, you had never heard of the term Aroclor Toxicity Manager, is that correct?

A No, sir.

Q In New Hampshire, Mr. Papageorge, you testified in United States District Court, did you not, in 1974?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Yes.

Q October 23, 1974, you were asked about your job duties, were you not?

A Yes.

Q I am going to read some questions and your answers and I'm going to ask you if you were asked these questions on Page 5 of Volume 2 of your testimony:

"Question: Your job description, would you be kind enough to give us this. You act as the central point of liaison, is that right?

"Answer: Yes, sir.

"Question: And you work with the Public Relations Department to handle all 'outside' matters of concern and maintain Monsanto's image in a most favorable manner?

"Answer: That's correct, sir.

"Question: That is part of your job description and you participate directly with business, with customer plants and others, is that correct?

"Answer: That's correct.

"Question: And that position title was originally Aroclor Toxicity Project Manager, is that right?

"Answer: That was the title at the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

time, yes, sir.

"Question: Has it since been changed?

"Answer: Yes, sir."

Were those questions asked of you and did you give those answers in the United States District Court in the trial of Bethlehem Mink Farm?

A I don't remember.

Q As of January 1970 when you assumed your job, you understood one of your functions to be to acquire what information was available within Monsanto regarding PCBs, their effect on the environment, their effect on people or animals?

MR. SCHINK: I object to the question, asked and answered twice yesterday.

You may answer for the third time, Mr. Papageorge.

BY THE WITNESS:

A Yes.

BY MR. POPE:

Q How did you go about that particular aspect of your function?

MR. SCHINK: Objection, asked and answered yesterday twice.

BY MR. POPE:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Mr. Papageorge?

MR. SCHINK: Do you have something new this morning, Mr. Pope, or are you going to go over the same ground again?

You may answer again.

BY THE WITNESS:

A I did it in several ways. One was to read anything available in the Monsanto files. Another was to talk to individuals who had been closely involved and were knowledgeable. These individuals were both within Monsanto and without, with Government or universities.

Those were the two principal sources of information.

BY MR. POPE:

Q What was your purpose in acquiring this knowledge?

A To better prepare myself to take on the assignment I was given.

Q What material did you read in the Monsanto files in the first three months of 1969?

A Oh, I don't remember; much, much.

Q Did Mr. Bergen give you a file and say this is a file we have accumulated to date on our meetings in

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

1969, for example?

A He referred to the presence of a file and I had access to it, yes.

Q What was the title of that file?

A I don't remember.

Q Who had put materials in there? Were there memoranda in there?

A Yes.

Q From what you understand of the system, a memorandum such as we saw yesterday from Dr. Richard that just said Memorandum to File, would that go in the file that you are talking about in the regular course of affairs?

A The file I am talking about there was Mr. Bergen's file on this subject. If Mr. Bergen got a copy of that memo used as an example, it may have been in that file or he may have discarded it. It is an option of the recipient of the memorandum.

Q Who in the company knew that Mr. Bergen was maintaining a file?

A Nobody.

Q How thick was this file that he gave you?

A I would say it occupied six to eight inches of depth in a file drawer.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q And you sat down and read that before going on to other matters, or would it be fair to say you read that in the first couple of months?

A Yes.

Q Did any of that file contain reports of tests that had been done on PCBs in the past that was available to Monsanto?

A I don't remember the details of the file.

Q You do not remember whether it involved past tests?

A No, I don't.

Q Did it involve minutes of meetings that were held at Monsanto prior to your being in your new job in 1970?

A I don't remember the contents of the file.

Q Was it your view or Mr. Bergen's expressed view to you that it was important for you to acquire as much information about PCBs as possible in order that you might be an effective spokesman for the company?

A I don't recall that being expressed openly in that fashion, no.

Q Was it your understanding that that was all the more reason why it was important that you acquire as much information as possible?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A That was my personal determination, that to do a better job, I must get knowledgeable.

Q Did you acquire during those first several months any information with respect to what had been communicated by Monsanto to its customers on this subject matter?

MR. SCHINK: You are now referring to what has been communicated prior to the time he assumed the job, Mr. Pope?

MR. POPE: Yes, sir.

BY THE WITNESS:

A No.

BY MR. POPE:

Q No, you did not?

A I did not acquire, I understand the question, did I acquire copies of memoranda sent to customers in the past before I arrived and the answer is no, I did not.

Q Did you ask for that information?

A No.

Q Was one of your jobs as you perceived it to coordinate education of customers as referred to yesterday in the minutes with respect to PCBs?

A Yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038861

Q Did you make any attempt to determine what information had been communicated, either orally or in writing, to customers prior to January 1970 regarding PCBs?

A In my discussions with the individuals who had been involved and especially those in Marketing, the question of what has transpired, what had been communicated, who has talked to whom was discussed, yes.

Q Who did you talk to to get that information?

A I talked to each of the Directors in Marketing in the two business groups and also the individuals that reported to them who were involved with PCB products.

Q Who would those people be?

A The two Directors of Marketing at the time in early 1970 was Mr. Olson for Functional Fluids and Walter Schalk for Plasticizers.

Q Who were the other people in the departments that you talked to on this subject?

A I will try to recall all of them.

There was a Norman Johnson, a John Fallon, Paul Benignus and a Cuming Paton, P-a-t-o-n.

Q C-u-m-i-n-g?

A I think it is a single m, -i-n-g.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Those would be the six people you talked to.
Are there more?

A As best I recall, yes.

Q Did you talk to them together or separately?

A Separately.

Q This was within the first month or so that
you were there?

A Yes.

Q And you discussed with them the subject of
what had the customers been told so far about the problem,
is that right?

A Along with any other related PCB matter.

Q What would those matters be, what to tell them
in the future?

A Well, at that time I was also trying to find
out a little of the background as they knew it to
reconfirm other pieces of information I had, such as
when were PCBs first started, when were applications
that you represent first introduced; I don't remember
in detail, but the general background, as much as I
could get.

Q Including the uses that their customers were
putting the product to?

A Yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Did you also discuss with them at these initial meetings the ways in which their customers' uses would permit the PCB products to get into the environment?

MR. SCHINK: I object to the question. It assumes that was the case and I don't think there is evidence that that was the case.

BY THE WITNESS:

A That was part of the discussions, yes.

BY MR. POPE:

Q On the basis of those discussions, what was your understanding as to what had been told by Monsanto to its customers prior to your assuming the job in January of 1970, if anything?

A I don't know quite how to answer --

MR. SCHINK: Told as to what? That is vague. I object to the form of the question.

BY THE WITNESS:

A They had been told many, many things about the product, its properties, its fire-resistance, its durability, its resistance to chemical reactions, how to design systems, what kind of gaskets to use.

It is such a broad field, I really don't remember all the details.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

BY MR. POPE:

Q As of January 1970, what had been told the customers with respect to PCBs, their presence in the environment and any potential adverse effects on man or animal?

MR. SCHINK: I object to that question. Do you want him to answer -- why don't you break it down, Mr. Pope?

BY THE WITNESS:

A I sense three parts to the question. What had they been told about PCBs?

BY MR. POPE:

Q All right.

A What had they been told about PCB's presence in the environment?

Q That is really part of the same first question, but any way you want to answer it, Mr. Papageorge, is fine with me.

What had they been told about PCBs?

MR. SCHINK: He has already told you in general what they had been told about PCBs.

MR. POPE: I just broke the question down, Mr. Schink, and now you are telling me the question has already been asked and answered?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

MR. SCHINK: No, the question as posed is what had been told about PCBs. I am going to object to the form of the question.

MR. POPE: On what grounds?

MR. SCHINK: Overbroad and vague.

If you want to break it down and ask something specific, he has already answered the first question in the general way.

MR. POPE: He didn't answer anything in the first question about PCBs. The question was at that time. He gave me a nice long answer about the fluids, how they work and so on.

MR. SCHINK: That is PCBs.

BY MR. POPE:

Q I am asking you as of January 1970, what had Monsanto told its customers with respect to PCBs in their products that they were using?

MR. SCHINK: He has already answered the question in a general way.

BY MR. POPE:

Q Have you answered the question, Mr. Papageorge, as well as you can?

A I believe I have.

Q We will go to the next question; that is as of

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

January 1970, what was your understanding of what Monsanto had told its customers with respect to PCBs being found in the environment?

A As of January 1970, I am not aware of any message regarding the presence of PCBs in the environment being discussed with customers.

Q And you learned that after talking to Olson, Schalk, Johnson, Fallon, Benignus and Paton, is that right?

A Yes.

Q The third question: As of January 1970, what had been told the Monsanto customers by Monsanto representatives with respect to the subject of possible adverse effects of PCBs on either animals or humans as far as you had learned?

A They were told about the effect on skin, which we have discussed previously.

Q Previously, you mean in the brochure, the general warnings?

MR. SCHINK: No, in this deposition, I think, Mr. Pope. We have talked about it several times. If you would like him to repeat it again, he certainly can do so.

BY MR. POPE:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q When you refer to effects on skin, you are referring to the subject matter we discussed yesterday which appears in brochures and has been on the labeling for 10 or 20 years prior to this 1970, is that correct?

A That is correct, and also they were made aware of the need to avoid inhaling vapors, and they were also aware or told that it is an eye irritant.

Q Both of these had been part of the traditional warnings that had been issued with the products for some time, is that right?

A That is right, yes.

Q Anything further?

A I don't know of anything further.

Q Did you inquire of these six gentlemen on the specific subject of what they had told their customers with respect to PCBs in the environment and PCBs as a possible adverse effect on animals and humans?

A Yes.

Q In any of those discussions, did those people tell you that they had been requested by management not to go into discussions, not to discuss those subjects with customers?

A No, the reverse is true.

Q The reverse is true?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A They were encouraged to discuss.

Q They just hadn't done it?

A I wouldn't say that, no.

Q What would you say?

A I would say that it was done. That was part of the job.

MR. POPE: The minutes we referred to yesterday of the meeting on November 17, 1969, Mr. Schink, I am certainly pleased if he wants to read the whole exhibit, but I have specific reference to No. 4 on the minutes regarding education of customers.

BY MR. POPE:

Q Do you remember that, Mr. Papageorge?

A Yes, sir.

Q What had been done between the time of that meeting and the time you assumed your position in January of 1970 with respect to educating the customers on that subject?

A Between the date of this document?

MR. SCHINK: That is in that six-week period, he wants to know if you have specific recollection of what was done.

MR. POPE: I didn't say specific recollection. You are amending the question, Mr. Schink.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

MR. SCHINK: I am not amending the question. Go ahead, Mr. Pope.

BY MR. POPE:

Q Do you know what was done during that six-week period?

A That period of time was used to accumulate the available information and develop it so that it could be in some way effectively communicated. It was not in a form that could be easily translated to hundreds, maybe thousands of customers.

Q Was there a policy in the Marketing area with respect to discussing with customers the question of PCBs in the environment prior to January 1970?

A No.

Q Was there a policy with respect to discussing what information was available to Monsanto regarding possible health effects of PCBs, discussing that with customers prior to January 1970?

A Yes.

Q What was that policy?

A The policy is the broad one which applies to PCBs, sharing with the customer any health effects known to Monsanto.

Q Had any customer prior to 1970 been advised of

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

the possibility of reversible liver damage from possible contact with PCB?

A Not to my knowledge.

Q Prior to January 1970, to your knowledge, no customer had been advised of Dr. Jensen's work, is that correct?

A Not to my knowledge.

Q And to your knowledge, prior to January 1970 no customer of Monsanto had been advised by a Monsanto representative of Dr. Risebrough's work?

A Not to my knowledge.

Q Upon assuming the job, you read this file from Mr. Bergen. Did you read anything else in the Monsanto files on the subject in the first one or two months?

A Yes. I remember yesterday I referred to a collection that Mr. Wheeler had put together for me.

Q This is a collection of what?

A A collection of articles, newspaper clippings, information that Mr. Wheeler thought might be a good starting point for my education in the matter.

Q Was the earliest publication within that group Jensen's report?

MR. SCHINK: You are now asking publication with

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

respect to presence or publication with respect to something else?

MR. POPE: I don't know what is in the file, Mr. Schink.

BY THE WITNESS:

A It seems to me I recall articles referring to DDT, because at that time DDT and PCBs were mentioned jointly in many articles and the DDT, the articles related the Jensen article.

BY MR. POPE:

Q Mr. Wheeler was including those in the file he gave to you?

A Yes.

Q What was the purpose of that?

A In his opinion many of the analytical situations, presence situations, alleged effects, all attributed to PCBs were similar to the DDTs. There were many similarities. He felt this was in his opinion a good way for me to understand how we got from DDT to PCBs, and then eggshells and the like.

Q What was the volume of the articles, approximately?

A A couple of inches in a 3-ring notebook.

Q Would it be fair to say that those articles

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

were all roughly contemporaneous or published contemporaneous with the time you received them, '69, '70 period, or did they go back into the '60s and '50s and '40s and '30s?

A Some went back, but I don't remember how far back, some that also, as I remember, were a summary of the older reports that Mr. Wheeler had put together.

Q And you read those?

A Yes.

Q Did they tell you anything about what the state of knowledge was with respect to the effect of PCBs prior to 1970?

A Yes.

MR. POPE: Miss Reporter, if you would mark this document which is a copy of an article in The Journal of Industrial Hygiene and Toxicology, February 1939, as Exhibit No. 7 for identification.

(Papageorge-OMC Deposition
Exhibit No. 7 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Q Is that one of the articles that was in that notebook, sir?

A I don't recognize the article.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Do you recall ever having seen it?

A No.

Q I show you a document which I will have the court reporter mark as Papageorge Exhibit No. 8 for identification, being an article from The Journal of Toxicology and Applied Pharmacology, dated 1961, entitled The Reversible Nephrotoxic Effects of Biphenyl.

(Papageorge-OMC Deposition

Exhibit No. 8 marked for

identification, 8/28/81, TLU.)

BY MR. POPE:

Q Is that one of the articles, sir, that was in the set that Mr. Wheeler gave you?

A No, sir. That is not a PCB article.

Q Have you ever seen that article before?

A No.

MR. POPE: Miss Reporter, I would ask you to mark as Papageorge Exhibit No. 9 for identification an article from the Journal of American Medical Association, 1954 entitled Chloracne From An Unusual Exposure to Aroclor.

(Papageorge-OMC Deposition

Exhibit No. 9 marked for

identification, 8/28/81, TLU.)

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

BY MR. POPE:

Q Is that one of the documents that was in the set of materials Mr. Wheeler gave you as far as you recall?

A No.

Q Have you ever seen that article before?

A I don't recall it, but I am aware of the subject matter.

Q The subject matter being the effect of Aroclors referred to in the article?

A It is the observation of chloracne due to exposure to Aroclor, yes.

Q Are you familiar with the substance known as chlorinated diphenyl?

A Yes.

Q How does that substance compare to polychlorinated biphenyl?

A It is the same material. That is an older chemical term.

Q I show you an article that I will ask the court reporter to mark as Papageorge Deposition Exhibit No. 10 for identification from Public Health Reports, August 18, 1944 entitled Pathologic Changes in Animals Exposed to a Commercial Chlorinated Diphenyl.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

(Papageorge-OMC Deposition

Exhibit No. 10 marked for

identification, 8/28/81, TLU.)

BY MR. POPE:

Q Is that one of the articles that Mr. Wheeler gave you in his notebook?

A No, sir.

Q Have you ever seen the article before?

A No.

Q At the time you had this discussion with Mr. Wheeler and he was presenting you -- I take it you had a discussion with him when he gave you these materials?

A Yes.

Q Were you also aware that Aroclors had been used to extend the life of pesticides?

A I was eventually made aware of that, yes. I don't know just when; early 1970.

Q That was an additional use that was found in the product, is that right?

I don't think we discussed that too specifically yesterday.

A Yes, that was a use.

Q What Aroclor was used?

A It was such a small -- I don't remember.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038876

MR. POPE: I will ask the court reporter to mark as Papageorge Deposition Exhibit No. 11 a document being an article in the New York State Journal of Medicine, 1943, entitled Occupational Acne.

(Papageorge-OMC Deposition
Exhibit No. 11 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Q Was that one of the articles that was given to you by Mr. Wheeler?

A No.

Q Have you ever read that article or seen it before?

A No.

Q Has the subject matter of that article been discussed with you before?

A Yes.

Q By whom?

A Mr. Wheeler, Emmett Kelly, Dr. Kelly. This is part of a reference to the potential for chloracne if overexposed to chlorinated hydrocarbons.

Q But as part of your work beginning in January of 1970, you did not get into those articles that dealt with that subject in the '30s and '40s and '50s, is that

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

right?

A Not to the articles but the information was conveyed to me person-to-person.

MR. POPE: Miss Reporter, if you will mark as Exhibit 12 for identification a document being an article from Nature, dated December 14, 1968 entitled Polychlorinated Biphenyls in the Global Ecosystem.

(Papageorge-OMC Deposition
Exhibit No. 12 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, was that one of the articles that was given to you by Mr. Wheeler in his notebook?

A I believe so, yes. This is a familiar article.

Q Did you study that article?

A Yes.

Q Did Monsanto subscribe to Nature Magazine in 1968?

A I don't know.

Q Was this the article that summarized the work that Dr. Risebrough was doing in Berkeley that you referred to yesterday?

A Yes, that was, yes.

Q Is this article what you were referring to

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

yesterday as newspaper accounts of Dr. Risebrough's work?

A No, sir.

Q So in addition to newspaper accounts, you also had that article, Exhibit No. 12, is that right?

MR. SCHINK: When he assumed his job in 1970?

MR. POPE: Yes, correct.

BY THE WITNESS:

A Yes.

MR. POPE: Miss Reporter, if you would mark this 3-page document as Papageorge Deposition Exhibit 13 for identification, being an article from the December 30, 1967 issue of Nature entitled Organochlorine Pesticides in Seals and Porpoises.

(Papageorge-OMC Deposition
Exhibit No. 13 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I ask you the same question. Was that one of the documents that was given to you, one of the articles, by Dr. Wheeler?

A Yes.

Q And you studied that article?

A Yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Was your purpose in reviewing articles that dealt with pesticides to focus on the methodology of measurements that scientists were using to determine the presence of pesticides?

A Yes, but it was broader than that. I read those articles, not to become an analytical chemist or a toxicologist or a medical doctor, but to gain some broad general knowledge of what was happening. So it was never the intent that I would eventually replace Mr. Wheeler as the person to read the articles and evaluate their value.

Q What do you mean when you say what was happening with respect to pesticides?

A What the Government agencies, the university laboratories, industrial laboratories were doing in the field of pesticides in terms of how they analyze, what effects are observed.

Q At that point in time were there restrictions on the sale of pesticides such as DDT, as far as you know?

A Not such as DDT, no.

Q DDT was still sold?

A There are restrictions on pesticides at all times. They must be registered, they must be used for

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

the purpose intended, they must be packaged and labeled and so on and so on. So pesticides are well regulated and restricted.

Q Was it the thinking of you and Mr. Wheeler that as far as you know the accumulation of pesticides in tissue of animals would also be occurring with respect to PCBs?

MR. SCHINK: When?

MR. POPE: Was it his thinking when, is that the question?

MR. SCHINK: Right.

BY MR. POPE:

Q Was it your thinking after talking to the people in the first three months in 1970?

A At that point in time, we were aware of a contention made by some that this was happening. We did not have enough information to be certain, but depending on individuals, some had suspicions and some did not.

Q In any event it seemed to be a good possibility?

A That what?

Q That it would be shown --

MR. SCHINK: It seemed to him to be a good

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038881

possibility in the beginning of 1970?

BY THE WITNESS:

A I was not qualified to even have a judgment.

BY MR. POPE:

Q Who in Monsanto had expressed an opinion that it would ultimately show that PCBs would accumulate in tissue?

MR. SCHINK: Who expressed that opinion to him in early 1970?

MR. POPE: Mr. Schink, he just testified some expressed it. I am trying to determine if that was somebody within Monsanto.

BY THE WITNESS:

A I don't recall any specific individual. This is part of a discussion in a room of people and the possibility of accumulation was brought up and some in the room questioned it and some said, "Well, let's study it. It might be there," this kind of discussion.

BY MR. POPE:

Q That was one of the reasons why you were also interested in reports that were coming out with respect to pesticides, is that correct?

A Yes.

MR. POPE: Miss Reporter, if you would mark as

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Papageorge Exhibit 14 for identification, an article in Nature, October 18, 1969, entitled DDT and PCB in Marine Animals from Swedish Waters.

(Papageorge-OMC Deposition

Exhibit No. 14 marked for

identification, 8/28/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I show you Exhibit No. 14 for identification. Is that one of the articles that was in the notebook Mr. Wheeler gave you sometime in early 1970?

A No.

Q I take it you ultimately had seen that article someplace?

A I've seen it since, yes.

Q Can you tell me the first time you saw it?

A I don't recall the specific date, but it seems to me I would have first seen it about late Summer '70, early Fall; third quarter 1970, in that period of time.

Q The third quarter of 1970?

A Yes.

Q Was that the first time that document was available to Monsanto or had it already been in-house someplace and you just hadn't seen it yourself personally?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A That is the first I saw it. I don't know who had it prior to that, if anyone.

Q You did give instructions, didn't you, upon assuming your position in January of 1970 that relevant articles such as that one should be sent to you when they were observed by people, either in the Medical Department or the Research Department?

A Yes.

Q So you did not have that with you when you went to see Dr. Jensen?

A I never did see Dr. Jensen.

Q But you went to see Dr. Jensen?

MR. SCHINK: He did not testify to that.

BY MR. POPE:

Q You knew before you got there he was not going to be available?

A That's true.

Q You did not have this document, the article, when you went to Sweden?

A No.

Q Is this a different article from the one that you testified yesterday you had seen a draft?

A Yes.

Q Was it a totally different study or just

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

important changes in his conclusion, the differences as you recall?

A It is my impression that some parts of the study are totally different.

Q Which parts?

A I don't remember the details. Some parts were repetitions of what was presented in that initial paper, and in addition to what was presented, there may have been further reports.

Q New information?

A New information, yes. That was obtained between 1966 and the date of this publication.

Q As far as you know, is that exhibit you have there, Exhibit No. 14, the first Jensen article that was published for the general populace on that subject matter, extent of PCB in --

MR. SCHINK: I object to the characterization of this magazine or publication for the general population.

MR. POPE: I don't know what he meant yesterday by having a draft copy of a paper or speech.

The question is was this the first --

MR. SCHINK: You can ask him about that.

BY MR. POPE:

Q Was that the first article by Jensen as far

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603

312 - 782-3332

WATER_PCB-SD0000038885

as you know about the subject of PCB's presence in the environment that was published?

A To my knowledge, yes.

Q Now, let us answer Mr. Schink's question.

Is this an esoteric journal that was not available to Monsanto --

MR. SCHINK: That has nothing to do with the form of the question which was objectionable.

BY MR. POPE:

Q Your answer, Mr. Papageorge?

A No, no.

Q It was?

A It was.

MR. POPE: I would like the court reporter to mark as Papageorge Exhibit No. 15 for identification, a copy of an article from Volume 5 of the Toxicology and Applied Pharmacology Journal, 1963, entitled The Injection of Chemicals into the Yolk Sac of Fertile Eggs Prior to Incubation as a Toxicity Test.

(Papageorge-OMC Deposition

Exhibit No. 15 marked for

identification, 8/28/81, TLU.)

BY MR. POPE:

Q Was that one of the articles that was in the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

folder that Mr. Wheeler presented to you?

A No.

Q Have you ever seen that article before?

A No.

Q Had the subject matter ever been discussed with you by anybody from Monsanto?

MR. SCHINK: What subject matter?

MR. POPE: The subject matter of the article that is reported.

MR. SCHINK: Do you want him to read the article?

MR. POPE: Sure.

(The document was tendered
to the witness.)

BY THE WITNESS:

A I have forgotten the question.

BY MR. POPE:

Q The question was whether anyone from Monsanto discussed with you the test that Dr. McLaughlin did or refers to in the article.

A I recall a discussion of the methodology in which chemicals are injected into egg yolks and which Monsanto's professionals felt that this was not an appropriate test because it does not represent the real life situation in terms of potential exposure.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Who expressed that opinion?

A I think it was a consensus within all members of the Medical Department.

Q Who expressed it to you?

A Dr. Kelly, Elmer Wheeler.

Q That research team was using Aroclor 1242, is that right?

A I read that. It is listed in the table in this article.

Q Do you know if Dr. Kelly or Mr. Wheeler had ever communicated in writing that view outside the company that the test methodology was not appropriate, at least as applied to 1242?

A I do not.

Q Were you advised of any further work that was done by Dr. McLaughlin with respect to use of 1242, tests similar to that?

A No.

Q Was there anything else as an additional matter that you read in the files at Monsanto, in Mr. Bergen's file and the file from Mr. Wheeler in the early couple of months that you started the job?

A I'm sure there were. There were many documents I read, but I don't recall specifically which.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q All right.

A Unless I see them again.

Q You also testified that the other means you employed to acquaint yourself with what was known was to talk to anyone involved who was knowledgeable within Monsanto and outside, is that right?

A Yes.

Q When we made reference to the Marketing people: Mr. Olson, Mr. Schalk, Mr. Johnson, Mr. Fallon, Mr. Benignus and Mr. Paton, who else did you talk to to acquire specific information about presence of PCBs and their effect on the environment, effect on animals and humans?

A We have also mentioned Monsanto's department, the Medical Department, Dr. Kelly, Mr. Wheeler, Mr. Garrett.

Q Jack Garrett?

A Yes.

Q What was his position?

A I don't know his title, but he and Mr. Wheeler shared the duties in that department.

Q Is he a hygienist as well as Mr. Wheeler?

A Yes.

And I talked to the Research personnel,

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038889

Dr. Richard, Dr. Farrar.

Q Dr. Farrar is on staff?

A I'm sorry?

Q Dr. Farrar is on Dr. Richard's staff?

A No, Dr. Farrar was Dr. Richard's counterpart in the Plasticizer Group.

Q Are there separate research facilities for each?

A Yes.

Q Were they both in St. Louis?

A At that time, yes.

I talked with members of Dr. Richard's staff, Dr. John Herber.

Q Is that somebody on Dr. Richard's staff?

A Yes.

Q Herber?

A H-e-r-b-e-r and Mr. Lou Stark, Dr. Ralph Muench.

Q Also on the staff of --

A Yes, these are all on Dr. Richard's staff and Dr. David Miller.

Q Dr. Miller?

A M-i-l-l-e-r and I discussed this with another research group headed by Dr. Robert Keller.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038890

Q What was his group focusing on in early 1970?

A In 1970 this was the group that was assigned the task of developing analytical methodology for PCBs.

Q I don't mean to interrupt you. Were the other people on the Research staff focusing the bulk of their efforts on replacement fluids at this point in time?

A Yes.

Q Who was working with Dr. Keller on developing the analytical methodology?

A Dr. Scott Tucker.

Q Was there anyone else?

A There were other chemists in the group, but Drs. Keller and Tucker were the principal people involved.

Q Were they advised to keep you current at all times on their efforts in developing the analytical methodology?

A Yes.

Q I take it that is the method by which you would grow increasingly confident that you were able to analyze PCBs in the environment, is that right?

A Yes, plus anywhere else.

Q Detecting the presence and perfecting your

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

ability to know what type of Aroclor or what type of PCB it was?

A Correct.

Q You talked to Dr. Tucker as well?

A Yes.

Q These early months?

A Yes.

Q Who else?

A Of course, I talked to the Manufacturing people at the two, at the three plants that were involved with either making the PCBs or the third plant that blended the PCBs.

Q That would be Anniston?

A Anniston and Krummrich and the J. F. Queeny Plants.

Q As part of the educational process to learn what you thought you needed to learn, who did you talk to in Anniston?

A Well, as having come from Anniston, it was not so much educational on my part as conveying to the plant what I was hearing because I knew the plant didn't have some of the information I had.

At the same time I was trying to learn from them if they had heard anything in their locality.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q In what area were you conveying the information to the plant? What was the purpose of that, what were they to do with this information?

A I felt that they should know the PCBs were being found in the environment; that other methodology was being developed; that their chemists might want to talk to Scott Tucker. They ought to consider placing an instrument on order.

Q Which instrument?

A Gas chromatograph.

Q So in early 1970, Anniston did not have one?

A That is correct.

Q Was this part of the portion of the minutes, referring to No. 3, reducing and effectively controlling PCB effluent from the Monsanto plant?

A Yes, yes.

Q And that task fell to you to coordinate the efforts of the entire company in that regard, is that right?

A Yes, to serve as a catalyst to get things going, mention people that I think they should be contacting.

Q What stage was Anniston in, if any, at that time with respect to that subject?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A In terms of controlling losses to the environment, very good position, very good, but in terms of analytical capability, they had none.

Q I take it in early 1970 things hadn't really changed in terms of practices at Anniston since you were there?

A That is correct.

Q Basically those practices were not changed between 1969 and 1975, is that correct?

A That is right.

Q So among other things, you also advised them to get a gas chromatograph for Anniston?

A Yes, yes.

Q Any other expansion or modernizing of Anniston's lab that you suggested?

A No, there was no need.

Q Did they increase their staff?

A No.

Q Did you actually visit the plant or did you deal on the telephone?

A At what point in time?

Q This is early in the educational process, conveying information back to Anniston.

A In early 1970, I conducted this over the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603

312 - 782-3332
WATER_PCB-SD0000038894

telephone, or when the representatives to the plant were in the St. Louis area, they would come by the office or actually that was in some cases the purpose of the trip.

Q Was a gas chromatograph ordered for Krummrich at the same time?

A I don't recall when they were ordered. Both plants eventually got the instrument. I don't know when they ordered them.

I don't remember when they ordered them.

Q At that point in time, Krummrich did not have one early in 1970, did they?

A It didn't have one for PCBs. I do know they had one for other chemicals manufactured in the plant.

Q The methodology was available for the detection of other chemicals earlier than it was for PCBs, is that it?

A Oh, yes.

Q Had been for some time?

A Yes.

Q Ten years?

A Gas chromatography, as I recall, was introduced in the early '50s, so by the middle '60s, it was well established for many chemicals.

Q This ordering process was a matter of ordering

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

one for PCB detection, is that right, a separate unit?

A Yes.

Q How about Queeny, was it necessary to order one for the Queeny Plant?

A We decided at the Queeny Plant that it could use either Scott Tucker's unit or the Krummrich Plant unit.

Q Was the home office research laboratory on contiguous premises with the Queeny Plant?

A No.

Q How far apart are they?

A About 10 miles.

Q As of 1970 whatever terminology seems appropriate to you, could you describe for us the size, the sophistication, the number of people in the home office Research Department in St. Louis?

A I don't know that I am qualified. You are talking now about the Functional Research, Plasticizer Research? They engage obviously in other businesses as well.

Q Why don't we talk about how it breaks down.

Was there in early 1970 a separate physical laboratory for Functional Fluids as opposed to the other division, the Research Lab?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Yes.

Q Is that located in the same building that the laboratory is for the other units?

A Yes. The Research complex there in St. Louis is a multi-building unit and the various parts of Monsanto are allocated space within these buildings to conduct their research studies.

Q In 1970 someone was in overall charge for all research for the company?

A No. The research responsibilities for each business group was the responsibility of the Business Director.

Q How big was the Research facility in 1970 for all of these divisions, the home office?

A About a half a dozen multi-story buildings, three-level structures. I don't know the square footage involved, and in terms of personnel, I believe it is about 2,000.

Q Professionals, 2,000 scientists?

A 2,000 individuals, and I would say half of them are people with scientific degrees and the others are technicians.

Q Technicians as opposed to clerical or --

A That's right.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332
WATER_PCB-SD0000038897

Q I take it it is bigger today, it has grown since then?

A Yes.

Q I interrupted you, you were talking about the people.

This initial period, you sought information from who, the Manufacturing people, starting with Anniston. What about the other Manufacturing people you talked to to acquire basic knowledge in this area?

A Yes, I talked with the General Superintendent of the Krummrich Plant who had responsibility for the producing unit there.

Q Who was that, did you mention his name?

A Mr. Heisler at that time.

Q What was the nature of your discussions with Mr. Heisler in this preliminary phase?

A Again, sharing with him what I had learned to date and instructing him to drop by and we'd sit down with the Scott Tuckers and Elmer Wheelers and conduct further tutorials, the broad subject, so he got the background, and also reviewed with him their programs at the plant.

Q With respect to him producing and effectively controlling PCB effluent from the Monsanto plants?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038898

A Yes, yes, how we could make certain that we do even better.

Q You referred just a second ago to the broad plan.

In your discussion with Mr. Heisler, what was it that you were telling him, for example, that you were doing, that the company was doing on the PCB matter?

A I don't recall the exact words, but the gist of the conversation was that we've got Dr. Tucker who is developing analytical methodology. He is fairly confident with his methodology at this time. He would like to further quantify it and he would like to find other laboratories that he might conduct some studies to see how he is doing in comparing to other laboratories; he is in the midst of that at the time and he is also seeking some samples and he may call you up for some samples, so you know what he is talking about.

Q I take it Dr. Tucker was working full time on this project at that time?

A Yes, sir.

Q What else --

A Or I would say there are allegations that birds and sea animals are being affected and try to share

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

with him what I knew.

Q Go ahead, I am sorry.

A I don't recall anything really specific and unique. It was the whole broad subject, helping him play catch-up, if I can use that word, just as I was.

Q Catch up with who?

A With the information.

Q Did you advise Mr. Heisler that any inquiries from outside sources regarding PCBs should be sent to you?

A Yes. That was a general advice I gave others, that unless they had already established a relationship and knew the subject being discussed, if it was a new inquiry, I suggested that let me place the call or let me get involved.

Q Why was that?

A I felt that this was the best way to help me stay right at the front edge of any new information that might be coming up.

Q Coming in?

A Coming in or developing somewhere.

Q Was it the policy of the company at that time that you would be the principal spokesman on the subject?

A The principal spokesman on the general subject.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

I was never expected to be the principal spokesman on medical matters or principal spokesman on research matters and the like, but the broad PCB issue, yes.

Q Was the plan that when there was a medical question, the plan called for you to consult with Dr. Kelly before he spoke on the subject, the medical effects of PCB, for example?

A No, I could not overrule the Medical Director in medical matters.

Q I didn't say overrule. I said consult with him before he spoke.

A That implies that he had to get my blessing or clearance and that was not the way we worked.

Q As a matter of practice did Dr. Kelly advise you he was about to send a response to an inquiry regarding medical matters?

A Not in every case. Sometimes it would be after the fact or he'd send me a copy after he had already done it, and sometimes he would come ahead of time and say that he proposed to send that.

Q And ask you what you thought about it?

A Yes.

Q The same with Dr. Richard in the Research area?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Yes.

Q Sometimes he would send you a copy after he made a response and other times he would seek your views on a proposal or his response, is that correct?

A Yes, and other times he'd ask me to handle the whole thing if it was out of his specific area.

Q This was both with inquiry regarding Functional Fluids as well as Plasticizers, is that right?

A You're talking about Dr. Richard now?

Q No, I am talking about this general methodology that was evolved.

A Yes, yes, yes.

Q Once again I interrupted you as you were discussing the Manufacturing people you talked to in this period of acquiring more information.

A Over at the Queeny Plant I talked with -- I don't recall who was the General Superintendent in place in 1970. I know eventually it was Paul Gatans. I don't recall if he was in place then.

Q Was your discussion with the General Superintendent of Manufacturing at Queeny, whether it was Mr. Gatans or whoever it was --

A He was General Superintendent of the Warehousing, Distribution and Utilities Group.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q I've heard that title somewhere else.

A I didn't clarify. I think it is appropriate.

In that group there was a blending facility as part of Warehousing in which --

Q Always had been?

A No.

Q When did it start?

A The unit was started up in 1961 or '62 when I was there.

Q And it was a blending unit that blended among other things PCBs into final products?

A Yes.

Q Then Anniston would prepare or manufacture Aroclors, would send them to the blending facility at Queeny for blending into Pydrauls or any of the other products manufactured, is that right, for ultimate sale to customers of Monsanto?

A Except for electrical fluids.

Q Where did they go?

A Anniston would blend its own.

Q We talked about that yesterday?

A Yes.

Q When you were the General Superintendent, Warehousing, Distribution and Utilities --

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Yes.

Q -- you were already in charge of the blending of PCB products at that time?

A Yes.

Q Can you describe briefly for us the process of blending as you described yesterday the process of manufacture of Aroclors, just a matter of dumping several materials together and shaking them up?

A Yes, it is very simple. There's a procedure which you might compare to a recipe. You add so many gallons of one ingredient, so many pounds of another and stir for so many minutes and put it in the drum; very straightforward.

Q When you were at Queeny in that position, then it was your responsibility to see the finished product met specifications?

A Yes.

Q It was also your responsibility to see there were no leaks or spillage of product while it was being blended?

A Yes.

Q Steps were taken during the period of time that you were General Superintendent, Warehousing, Distribution and Utilities at Queeny to avoid any PCB

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603

312 - 782-3332

WATER_PCB-SD0000038904

products from escaping into the environment, is that correct?

A These are the steps that were followed as we discussed yesterday in the manufacturing units, maintaining that high level of good maintenance such that the number of leaks are minimized.

If there are leaks, they are captured, contained, absorbent materials used to soak up and make it more easy to sweep up and shovel into disposal containers.

And as we said yesterday, the material was sent to the Monsanto operated landfill by the W. G. Krummrich Plant.

Q In the same fashion as you discussed yesterday with respect to any chemical wastes?

A Yes.

Q Was this particular blending facility located away from sewers or sources of water?

A No, it had sewers and it had water because the other products blended in addition to the PCB-type products, some of them did require water.

Q Was it the practice of Monsanto from 1960 on in the blending of this material to advise the maintenance people not to use water in connection with the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

cleaning up of any PCB?

MR. SCHINK: Now, this is different. You are not talking about it away from the water but to not use water?

MR. POPE: In the cleaning process.

BY THE WITNESS:

A That's right. The use of water for materials that are insoluble in water is discouraged. It doesn't make sense.

BY MR. POPE:

Q What procedure was employed to alert the maintenance people as to which chemicals were insoluble in water and which were not?

A It was part of their overall training. They were told when we are making this product, no water; when we are making another product, yes, at times you can use water. Other times you still cannot use water.

Q As to the instructions to the maintenance people at Queeny in connection with the blending of PCB products, they were instructed not to use water in the clean-up process of any spills, is that right?

A Yes.

Q Was that reduced to writing for them or for anyone else?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A I personally have not seen that in writing.

Q You have never seen it in writing?

A No, that doesn't mean a foreman did not put it in writing.

Q Where did he put it in writing?

A He could post a little bulletin board or he could have had it in writing and read it off to his group at a meeting when he conducted a meeting with them.

Q Are there any warnings on or near the blending facility?

A Not as of that time, no.

Q You never saw any warning on or near the facility?

A No.

Q This early 1970 period, you advised either Mr. Gatans or whoever was General Superintendent, Warehousing, Distribution and Utilities, that he should redouble his efforts to make sure there were not any PCB effluents getting out from the plant, is that right?

A Yes.

Q And you advised him that you were going to be the basic coordinator for the PCB effort for Monsanto?

A Yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Did these people know already --

A I believe they knew it. I just confirmed it.

Q Was there a written document that went out from the home office to advise various plant managers or other people that might be concerned that you were now going to be general coordinator on the PCB matters?

A Usually the company posts an announcement of that type, but I personally don't remember seeing one for me. That doesn't specifically mean it didn't happen.

Q Did someone call you up and say, "I just got a flyer in the mail and congratulations. It sounds like a great job or a horrible job," anything like that that would lead you to believe somebody had seen or received such a notice in the mail?

A I got some comments, but I don't know if they knew because they read it or heard it somewhere.

Q You know of no circulation of such a written document?

A I don't personally, no.

Q Anything further you recall of your discussions with Mr. Gatans or whoever was General Superintendent at Queeny?

A No.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332
WATER_PCB-SD0000038908

Q Were there any further people that you contacted in Monsanto's organization as part of your educational process to learn in the early months of 1970 about PCBs generally or specifically?

A I talked with the Public Relations representative.

Q Who is that?

A Ed Johns, J-o-h-n-s.

Q Is he a Monsanto employee?

A Yes.

Q He works in St. Louis?

A Yes.

Q Did you meet personally with Mr. Johns?

A Yes.

Q What was the nature of your discussion with him?

A It was twofold. One was to find out how much he knew of the situation and what if any plans he had developed or suggestions he might have to offer, and also to reestablish that I was now available and wanted to be helpful and if I didn't have the answers to his questions, we could get it somewhere for him. I believe that was the gist of that discussion.

Q Had he been, prior to your coming on to this

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038909

position, in charge of Public Relations in that particular area?

A Yes, yes.

Q Had he attended the various meetings of representatives of the company in 1969 dealing with Defense of Aroclors or whatever subject matters dealt with PCBs?

A As I recall he attended some of these meetings, yes.

Q What ideas did he have that he shared with you?

A I don't remember the detail.

Q He didn't have a technical background, did he, in science?

A No.

Q Did he tell you what had been done to date in the public relations area?

A Yes.

Q What had been done?

A I don't remember now specifically.

Q Had there been any press releases that had been issued on the subject?

A I don't remember any at the moment.

Q Had there been any interviews granted to

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

journalists on this subject?

A I don't know. I don't remember.

Q You never received a copy early in 1970 of articles published quoting people of Monsanto?

A I don't recall any.

Q You do not remember what he had done nor what his ideas were for the future, is that right?

A That's right.

Q Who else did you meet with in this preliminary period?

A The attorney assigned to environmental matters.

Q Who is that?

A Phocian Park, P-h-o-c-i-a-n, P-a-r-k.

Q What was the nature of that discussion?

MR. SCHINK: I object and direct the witness not to answer.

BY MR. POPE:

Q Are you going to comply with your counsel's request, Mr. Papageorge?

MR. SCHINK: This is with respect to conversations you had with the Monsanto attorney at that time.

THE WITNESS: You said should I?

MR. SCHINK: I directed you not to answer the question. The question is are you going to follow that

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

direction.

BY THE WITNESS:

A Yes.

MR. POPE: Your objection is attorney-client privilege?

MR. SCHINK: Yes.

BY MR. POPE:

Q Is there anybody else you talked to, Mr. Papageorge, in this preliminary period to acquaint yourself with what was known about PCBs?

A I cannot recall any others at the moment.

Q Did any of these people tell you that there had been requests from various outside sources for information regarding the amount of PCBs manufactured by Monsanto, manufactured and sold in the past?

A Not at that point in time.

Q When was the first time you heard of such an inquiry?

A I don't recall the first time.

Q Was it in 1970?

A It is coming back to me. As best I can recall, the first time I was requested a list of customers.

MR. SCHINK: Production figures, he is asking, I believe.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

BY THE WITNESS:

A Production figures? I am confused. Production figures, the first time I was asked for that personally was at the meeting in Duluth, Minnesota in March of 1970.

BY MR. POPE:

Q What was the meeting, who called the meeting, what was the purpose of the meeting?

A The meeting was called by the Director of the Aquatic Laboratory located at Duluth, Donald Mount, Director of the Laboratory.

Q You went to that meeting and at the meeting you, Monsanto was asked for information regarding how many PCBs had been produced and sold?

A Yes, yes.

Q That question was in connection with efforts under way to try to determine how much PCB might be in the environment, is that right?

A I don't know the intended purpose of the data.

Q What was the context in which the request was made?

A This meeting was called by the Director to familiarize his laboratory staff and other interested

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

governmental people with the PCB products, with the state of the art of methodology, the knowledge on effect on the environment.

That was the intent of this discussion.

Q PCB products?

A PCB products, the state of the art and the analytical methodology, evidence of presence in the environment and effect on the environment.

Q I presume by PCB products you mean characteristics?

A Where are they used.

Q Uses, misuses, that kind of knowledge?

A Yes.

Q During this -- I take it it was a public meeting?

A I don't know. I think it was a meeting by invitation.

Q And at that meeting, you were asked, do you remember by whom, by Mr. Mount himself, Dr. Mount?

A I don't remember specifically.

Q You were asked what, how much PCB had been manufactured since 1929?

A Yes, and how much had been used where.

Q What was your response to the question?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038914

A It was somewhat along the lines of, well, I am not permitted to divulge that information, Monsanto considers that sensitive information, information important to its business.

Q Before you went up to Duluth, did you know that the divulging of that information was not permitted?

A That was a company policy for all its products, not related to PCBs.

Q Company policy not to release information as to how much product it manufactured and sold?

A That is right.

Q That was a long-time policy of the company?

A Yes.

Q And applied to all products?

A Yes.

Q Before you went up to Duluth, had you talked with other people at the company on this subject of releasing information regarding production figures?

A I don't know about a discussion, no.

Q You yourself had access to these figures, did you not?

A I could have obtained them if I had asked for them, but I did not have them.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q In analyzing the various reports on the presence of PCBs being detected in various places in the environment, it was useful for you to know whether there was a Monsanto customer in the vicinity, wasn't it?

A Yes, but that is not related to the topic we are talking about, how many pounds produced and what uses were those, what uses were made of those pounds.

Q Were you asked about specific customers in Duluth?

A No.

Q Were you asked about specific plants, whether you had knowledge of specific plants where your products that contained PCBs were being used?

A No.

Q You had access to that information, did you not?

A Yes.

Q The question I asked you a moment ago, when you were analyzing, reviewing any of these reports, whether it was newspaper reports, technical journals where some researcher had supposedly found PCB in the environment, under those circumstances it was important

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

for you in evaluating that report to know that there was a Monsanto customer of PCB fluids in this vicinity where the report was taking place, wasn't it?

A Yes.

Q In evaluating such reports, would you customarily go and find that information as to whether there was a Monsanto customer in that vicinity?

A Yes.

Q Where would you go?

A To the Marketing Manager.

Q The Marketing Manager of what?

A Of the whole product line. I would have to go to the Norm Johnsons, the Paul Benignuses, the Jack Fallons, Cuming Patons and ask them this question: This is being reports, what do you know about our activity in this geographic area?

Q It would be necessary to go to each one of them?

A Yes.

Q Would that do it, those four?

A It should, yes.

Q They would know not only whether they had any customers in the area but also whether Monsanto had any plants in that area, is that right?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Oh, I would know that. I would know the Monsanto plants.

Q For example, the Pensacola situation, would you know there was a Monsanto plant there?

A Yes.

Q Prior to going up to Duluth, did you discuss with anyone at the company the possibility of releasing any information with regard to production figures?

A No.

Q Upon returning from Duluth, at this request that you had told the people it was too sensitive, did you conduct any discussion?

MR. SCHINK: I don't think he testified it was too sensitive. I think he testified it was simply company policy that he is not permitted to divulge it.

BY MR. POPE:

Q It was sensitive information, is that right?

A That was my word to describe data that we were not permitted to release.

Q When you returned from that meeting, did you again discuss with anyone at Monsanto the possibility of complying with that request or releasing production figures?

MR. SCHINK: I object to the form of the question.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

I don't know there has been any evidence that he discussed on any previous occasion with Monsanto the release of that particular information. You said "again."

Are you going to restate the question?

MR. POPE: No, I am not going to restate the question.

MR. SCHINK: I object to the question on the basis of form, misleading characterization of the witness' prior testimony.

You may answer.

BY THE WITNESS:

A I didn't hear the last --

MR. SCHINK: My objection is it is a mischaracterization of your testimony for the reason I indicated, namely, that you had not testified earlier that you had had discussions with people prior to going to the Duluth meeting about release of this confidential information.

The question now is when you came back did you discuss that issue.

BY THE WITNESS:

A I reported the results.

BY MR. POPE:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038919

Q To whom?

A To among others, the Business Group Director, Howard Bergen. I don't recall we had a discussion on the topic, other than my reporting the request was made and my response, the response that I made and it fit with our corporate policy, and I don't recall any further discussion.

Q Was this a written report or oral report?

A Oral.

Q You never gave a recommendation one way or the other on the release of information at that time?

A No.

Q Did you have a personal view on the matter?

A Yes.

Q What was that view?

A I didn't think that the knowledge of pounds produced would be helpful in determining why the material was found in the environment.

Q Did you later change that view?

A No.

Q Did you think that pounds produced and sold would be useful to someone trying to determine the magnitude of the problem or problems?

A It would only be helpful if more information

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

regarding the handling and final disposal was also known because a thousand pounds produced badly handled can create a situation, whereas, billions of pounds properly handled would create no situation. So the pounds, per se, doesn't tell the whole story.

Q Did you discuss at the Duluth meeting any of Monsanto's users in the Minnesota area or the Great Lakes area?

A No.

Q Did you discuss any locations where you knew that PCB products had been used in that area?

A No.

Q That was a question that was also asked of you at the time, was it?

A I don't recall the question being asked.

Q Either as to a specific customer or as to general areas where their plants might be located?

A That is true.

Q At the time of the Duluth meeting, had there been reports of findings of PCB in the Great Lakes area?

A Yes, that was what prompted Dr. Mount to call the meeting.

Q How many such reports do you recall had there

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332.

been by that time?

A I don't recall.

MR. POPE: Miss Reporter, I would ask you to mark as Papageorge Deposition Exhibit No. 16 for identification, a 5-page memorandum presumably from the files of Monsanto, some deletions by its attorneys. The document is dated March 23, 1970 and the first stamped number is 0001430.

(Papageorge-OMC Deposition
Exhibit No. 16 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, if you will take a look at that memorandum and tell me if you received a copy of it shortly after you returned from Duluth.

A I did receive a copy of this memorandum.

Q Does that accurately summarize what took place at that meeting?

A May I read it?

Q Certainly.

MR. SCHINK: I think you also, Mr. Pope, mischaracterized the fact about deletion from the document. I do not believe there have been any deletions from the document.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

MR. POPE: I really cannot tell, Mr. Schink. So many of your Monsanto documents have big holes in them and others don't. That document on Page 2 or 3 has information deleted. Whether it was done by its attorney or whether it was done by somebody in-house, I cannot tell.

I call your attention, Mr. Schink, to the bottom of Page 2 and ask you if there is something that has been deleted with respect to Massena, New York.

You are not going to respond?

MR. SCHINK: There is a pending question.

BY THE WITNESS:

A The report appears to reflect --

MR. SCHINK: That is not the pending question. The pending question is did he receive the report?
BY MR. POPE:

Q The pending question is does it accurately reflect --

A It captures the highlights of the report and it seems to be accurate in those areas.

Q Does it leave out other areas of importance?

A Not that I recall.

Q Does it report on the request that was made

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

for further information?

A No.

Q Is there a reason that you know of why it doesn't include that request?

A No.

Q At the meeting in Duluth, were you or were Monsanto representatives asked about the uses that PCB products were put to by customers in the Great Lakes area as opposed to questions to specific customers or specific plants?

A No.

Q Pardon me?

A No.

Q Did you speak at all at the meeting?

A Yes.

Q On what subject?

A On the general subject of what are PCBs, how are they manufactured, what are the more common uses.

Q How they get into the environment, did you speak on that subject?

A No, I couldn't because I don't know.

Q At that stage were you aware of the occurrence in the Pensacola Bay involving the Monsanto plant down there?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038924

A I believe I was at that point in time, yes.
I was aware of the situation.

Q In your mind, was that a fair example of how
PCB fluids could get into the environment?

A Yes.

Q Is there anything else you recall mentioning
yourself at the meeting?

A No.

Q In the contribution that was made to the
meeting by Dr. Keller, or who else attended?

A Mr. Garrett.

Q Anything they added?

A Yes. Dr. Keller spoke on analytical method-
ology, samples and handling. That was his area of
expertise.

MR. POPE: I will ask the reporter to mark as
Papageorge Exhibit 17 for identification, a memorandum
from Mr. Wheeler to which is attached a Garrett report.
I think it is the same as one we have just been dis-
cussing. The memorandum is dated March 24, 1970.

(Papageorge-OMC Deposition
Exhibit No. 17 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038925

Q The first question, Mr. Papageorge, have I correctly characterized that document?

Is that a copy of a memorandum from Mr. Wheeler which is attached to the basic same report we have just been discussing as Exhibit No. 17?

A The attached report appears to be the same, yes.

Q Exhibit No. 17, is that a document you received, a copy of which you received on or about March 24, 1970?

A Yes.

Q In that document, Mr. Wheeler makes several comments, does he not?

A Yes.

Q Did you tell Mr. Wheeler there had been a request for information regarding production figures at the Duluth meeting?

A I don't recall specifically mentioning that, no.

Q What is the significance in No. 2 of his comments that Dr. Tucker's work had been duplicated by the Bureau of Sports Fisheries?

MR. SCHINK: What is the significance to him?

MR. POPE: Yes.

BY THE WITNESS:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038926

A This tells me that the personnel at this Bureau of Sports Fisheries, Fish Pesticide Research Laboratory at Columbia, Missouri, had developed a capability in analyzing PCBs practically analogous to the capability that Monsanto had developed.

BY MR. POPE:

Q Prior to that meeting was it the view of Monsanto that you had the most developed system in the United States?

MR. SCHINK: For what?

BY MR. POPE:

Q (Continuing.) -- for analyzing the presence of PCBs in the environment?

A Yes.

Q Was that Bureau of Sport Fisheries, Fish Pesticide Research Laboratory a laboratory that Monsanto had done work with in the past?

A No.

Q Item No. 3 states, "The above laboratory feels that 1248 is incriminated as much as 1242, 1254 and 1260."

I assume that is reference to Aroclor 1248, is it not?

A Yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Was that statement made at the Duluth meeting?

A I don't recall.

Q Do you know where Mr. Wheeler got that information?

A I could only guess.

MR. SCHINK: You don't have to guess.

BY THE WITNESS:

A I don't want to guess.

BY MR. POPE:

Q He wasn't there, was he?

A No.

Q His only source of information of that meeting was from you and Mr. Garrett and Dr. Keller?

A Dr. Keller, yes.

MR. SCHINK: You don't have to guess.

BY MR. POPE:

Q There is a reference in Mr. Garrett's memo, Item 6 on Page 3, is that right?

A Yes.

Q Mr. Garrett's memo at that No. 6 I just pointed out says that, "Dr. Stalling," and he is the Research Chemist from the Columbia, Missouri Laboratory, is that right?

A Yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q He suggested that, "Aroclor 1248 should be included with any group of Aroclors that are studied in depth. We suggested 1242, 1254 and 1260," but he insisted that "1248 be included."

Do you recall that discussion?

A No, I don't.

Q Do you recall any discussion with Dr. Stalling?

A Yes.

Q At that meeting?

A Yes.

Q Was there a policy with Monsanto to try and limit the number of Aroclors that were being studied in depth?

A No.

Q Did you propose to Mr. Garrett or Dr. Keller the suggestion that 1248 not be included in such study?

A It was suggested that including Aroclor 1248 was not appropriate because the amount of Aroclor 1248 in commerce was so much less than the three we were suggesting.

Q So that it would be somewhat of a waste of time to study the 1248, is that your theory?

A In our opinion with the amount that we had sold being so low, the resources involved in analytical

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

efforts would be better devoted to those products that had the higher sales volumes.

Q Did you tell people at the Duluth meeting that the sales volumes for 1248 were small and that they should devote their attention to 1242, 1254 and 1260?

A I don't remember specifically at Duluth, but that was the message we conveyed many times. It fits our understanding.

Q That was consistent with company policy, to be able to make generalized statements with respect to what types of products had heavy sales and what type of products did not, is that it?

A Yes.

Q Mr. Garrett makes mention there about a professor of Utah State University, is that right?

A I see that, yes.

Q And Mr. Wheeler I think also comments on that, Dr. J. C. Street, is that right?

A Yes.

Q Did you discuss anything with Dr. Street at the Duluth meeting?

A I personally did not.

Q If I understand correctly what was being reported there, Dr. Street was of the opinion that the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

findings of Aroclor 1254 were in fact findings of Aroclor 1242 that had degraded somewhat, is that correct?

A Yes.

Q Was that finding of significance to Monsanto at this point in time?

A Yes.

Q In what way?

A Well, it confirmed the suspicions that some individuals in Monsanto had that the lower chlorinated PCBs were not being detected because they might have been degrading.

Q Were Dr. Street's remarks or findings considered good news or bad news from Monsanto's point of view?

A Good, helpful news in trying to understand the situation.

Q Was that the first time that Monsanto was aware that 1242 was degrading in the environment or might be degrading in the environment?

A Yes.

Q At that point in time?

A Let me think -- yes, I believe so, yes.

Q At that point in time had the biodegradation study been undertaken by Monsanto with regard to its

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Aroclors?

A They had started and were under way as best I recall.

Q Who was doing that?

A Scott Tucker's laboratory.

Q Was there any outside laboratory that was retained to do that study as well?

A Not to my knowledge.

Q As far as you recall, you did not have any discussions with Dr. Street at that meeting yourself?

A No. Dr. Street made a presentation from a podium and the discussion was from the audience to the speaker.

Q The first point that Mr. Wheeler raises relates to a concern about the establishment or setting of tolerance levels for PCBs in food and fish principally, is that correct?

A Yes.

Q Was that something that was discussed at the Duluth meeting?

A Yes. It was brought up as a potential outcome, but no one as I recall could be specific in that, yes, this was eventually going to happen.

Q Was it expected that this would be a result

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

of State regulation or Federal regulation?

A That distinction was not made, but it was discussed as a possibility or a probability with respect to outside legislation of some form as opposed to industry self-regulation. I remember discussing the possibility or probability.

Q You don't know what the nature of the discussion was, was it discussed as a probability?

A No.

Q Was it discussed as a possibility?

A Yes.

Q That was the greater concern shown by the participants, is that correct?

A Yes, correct.

Q Was that viewed as the possibility of legislation setting standards as opposed to some kind of self-governing from industry itself?

A I don't think I understand your question.

Q Was this possibility that was of the greatest concern at that meeting that there would be legislation made setting that standard, whether that was legislation that was to be established by State or Federal authorities?

A As I remember the discussion, it was not a

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

case of new legislation being required as the promulgation of rule under the existing legislation by several authorities, State or Federal or both, and the concern was that the level might be inappropriate and many in the group felt that the clarification between PCBs and DDT and other materials had not yet been made.

Q Was this possibility of concern to Monsanto as well?

A Yes, yes.

Q Sales would suffer if such standards were set?

A Not necessarily if the material is properly controlled.

Q So Monsanto's concern with the possibility of this restriction was not based on expected loss of sales, is that true?

A Not to my knowledge.

Q What was it based upon?

A At that point in time, our concern was that PCBs would be accused or be confused with some other material, principally DDT-type.

Q Confused by whom, sir?

A Analytical laboratories, regulatory agencies. The potential at that time was great.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038934

Q That was the basis on which there was concern about the possibility of the establishment of tolerance levels for PCB in food, is that right?

A That's right.

Q At the Duluth meeting, was the request made of Monsanto for the chemical makeup of the PCB fluids it was selling?

MR. SCHINK: Excuse me, I object to the form of the question. It is redundant to ask whether PCB is a chemical, Mike. It is a chemical. The question makes no sense.

MR. POPE: It may well be that PCB fluids it sells are also chemicals.

MR. SCHINK: PCB is the chemical, so the chemical composition of PCB is PCB. The question is redundant.

MR. POPE: That is why I asked about the PCB fluids they were selling.

BY MR. POPE:

Q Was Monsanto asked the chemical composition of the PCB fluids they were selling?

MR. SCHINK: Same objection. I object to the form: Redundant, a PCB fluid contains PCB.

MR. POPE: Mr. Papageorge has heard your objection.

BY THE WITNESS:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A My presentation, I described the various PCBs and I described, I got down to elementary chemistry and had a blackboard and showed them the benzene ring and biphenyl ring and the position of the chlorine. I then talked about the Aroclors and what the numbers meant and indicated that within each measure there were different isomers and referred to Dr. Keller who would describe the gas chromatogram that is made when the analysis is made and where the expression, the fingerprint for that mixture comes from.

So at that meeting, they in my opinion got a good understanding of the PCB fluids that Monsanto made.

BY MR. POPE:

Q In that area, there were no questions of a technical nature that you were unable to answer because it was considered to be sensitive information or any other reason, were there?

A Well, I don't quite understand your question. I recall a question, "Well, can they be chemically neutralized?" or some such remarks. That was a technical question we could not answer in terms of how to do it.

Our answer was we don't know of any

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038936

chemical way to neutralize PCBs, so we were not able to handle all questions.

Q Were there any questions in that area that you declined to answer because of company policy?

A No, no.

Q Was there any discussion of other chemical compounds that make up the actual fluids that were sold by Monsanto with PCBs in them?

A There was no interest in any other chemicals.

Q Was there any response at the Duluth meeting either from Government representatives or anyone else present to your refusal to turn over production figures or make them available?

A As I remember the response was, "Well, we expected that answer. We'll try again some other time," a very good-natured one.

Q Mr. Papageorge, was one of the initial matters that had been decided by the time you took over this job in January of 1970, the decision to meet with PCB manufacturers in Europe?

A Would you repeat that early part?

Q Sure. When you took over this job in January of 1970, had a decision already been made by Monsanto to conduct a meeting with PCB manufacturers in Europe

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

on the overall PCB problem?

A Yes.

Q Who was selected to attend those meetings or that meeting?

A I don't recall names, but as I recall, they were Monsanto representatives working in Europe.

Q With whom did they meet?

A They met with representatives of the German producers.

Q Who is that?

A Bayer. I don't know the official name.

Q B-a-y-e-r?

A B-a-y-e-r; the two French producers and, again, I don't know the full official company names, but I know them as Prodelac and Progil, and a representative of the Italian, Caffaro, C-a-f-f-a-r-o.

Q What was the purpose of these meetings insofar as you understood?

A To establish their understanding of the evolving PCB situation and it was our intent to find out what their plans were, what they were doing in the way of analytical methods and animal studies and so on.

Q Were meetings held with each one of these manufacturers?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038938

A I don't know of individual meetings. This was a group meeting that I am aware of.

Q I show you a memorandum, Mr. Papageorge, that we will mark as Papageorge Deposition Exhibit 18 for identification, being a copy of a 3-page document dated January 15, with the identifying number on the first page of 0010073.

(Papageorge-OMC Deposition
Exhibit No. 18 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I show you that exhibit and ask you if you have ever seen it before.

A Yes.

Q Was a copy sent to you in the regular course of business sometime shortly thereafter, sometime in January 1970?

A I read a copy that was circulated to several individuals and it shows I signed off on the 27th of January 1970.

Q Can you tell me who the other people were that that was circulated to at St. Louis?

A Don Olson, the Director of Marketing - Functional Fluids Group, Paul Benignus --

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

MR. SCHINK: I think he wants you to read the names.

BY MR. POPE:

Q We have already identified them in the past: Paul Benignus, Dr. Richard and back to Howard Bergen?

A Yes.

Q So Mr. Bergen had ordered that circulated to those four people and then returned to him, is that right?

A Yes.

Q Are those in his handwriting on the side of that page?

A This is Howard Bergen's writing, yes.

Q What about over on the left side?

A This looks like Mr. Bergen's instructions to his secretary.

Q Do you interpret that as an instruction to the secretary to put that document in an Aroclor toxicity file?

A Yes.

Q Is that the same file that was given to you at the beginning of January when you assumed your task?

A It was a folder in the file that I saw.

Q Did you understand that to be the way Mr.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Bergen had maintained the file until you had come on to that job?

A Yes.

Q And apparently thereafter?

A Yes.

Q Are these your underlinings or inter-delineations?

A No.

Q Is that Mr. Bergen's style, to do that on a memo?

A Yes.

Q I note there is a reference to Mr. Wheeler visiting Europe last May, presumably May of 1969.

Did you notice that?

A Yes, I noticed that.

Q Is it your understanding that Mr. Wheeler traveled to these manufacturers in 1969 to discuss PCB matters with them?

A Yes.

Q One of the things so far as you know that Mr. Wheeler suggested was that those companies prepare clinical examinations on various operators at their various PCB plants?

MR. SCHINK: The question is does he know if Mr.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038941

Wheeler requested that the preceding May?

MR. POPE: Yes.

BY THE WITNESS:

A I don't know that.

BY MR. POPE:

Q Did you ever talk to Mr. Wheeler about that?

A We talked about his visit. We talked about his understanding of what was developing there and as I recall, it was his analysis that this was excessive exposure that created the observed effects.

Q This was in his opinion in 1969?

A In 1970, when I talked to him.

Q Had Mr. Wheeler as far as you know suggested any kind of epidemiological study be done by these European manufacturers?

A I don't know.

Q The next paragraph refers to an employee with some liver disorder, is that right?

MR. SCHINK: The paragraph speaks for itself. It is not exactly what it says, Mr. Pope.

What is the question?

(Question read.)

MR. SCHINK: I object to the form of the question. That is not exactly what the paragraph says and the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

document speaks for itself.

If you want to ask this man if he has any information about that, certainly I have no problem.

MR. POPE: This is foundational, Mr. Schink. I just want to call his attention to this paragraph.

BY MR. POPE:

Q Is that right?

A I see the reference to the slight indication of some liver disorder.

Q Did you read that paragraph when you got this memorandum in January of 1970?

A Yes.

Q Was that a matter of concern to you?

MR. SCHINK: You are now referring to "and this need not be connected with exposure to PCBs," that entire sentence?

MR. POPE: That entire paragraph.

MR. SCHINK: All right.

BY THE WITNESS:

A It raises some questions in my mind which were later resolved when I talked to Mr. Wheeler and he assured me that medically speaking, statistically speaking, this does not mean the problem is associated with PCBs.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038943

BY MR. POPE:

Q I see.

Would it be fair to say that, yes, you were concerned when you read that and you went and talked to Mr. Wheeler about that?

A Yes.

Q And he told you that one employee out of 13 was not a statistical indication of anything, is that fair?

A Yes, as well as medically speaking, there are many exposures, many diseases that could cause that liver problem.

Q At that time did Mr. Wheeler tell you of any other reports of the liver as a target organ for PCBs?

MR. SCHINK: I object to the characterization. That is not what the document says, Mr. Pope, at all. It is a gross mischaracterization of that paragraph.

MR. POPE: It doesn't say that at all. I certainly agree with you.

The question is having raised the question, did Mr. Wheeler talk about any other information he had with respect to liver damage as it being a chargeative cause of PCBs?

MR. SCHINK: I object to that question. That is

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

not an informational question with respect to liver damage and I think your characterization of it as such is improper.

Don't answer the question.

BY MR. POPE:

Q Are you going to follow your attorney's suggestion, Mr. Papageorge?

A Yes, yes.

Q At the same time you were talking about this subject matter --

MR. SCHINK: Let me make a statement for the record.

If you want to ask the witness a proper question regarding that, I have no objection, but where you grossly mischaracterize something as you just did, I think it is absolutely improper for an attorney to do that.

BY MR. POPE:

Q Mr. Papageorge, what was it you were concerned about when you saw that indication there on the two paragraphs numbered 5 when you talked to Mr. Wheeler?

(Mr. Robert E. Shapiro entered the deposition room.)

BY THE WITNESS:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A We talked about a disorder in a human being and it is included in there with a discussion of PCBs and I had to clear it up in my own mind, what he was trying to tell me.

BY MR. POPE:

Q At the time you had that discussion, did you ask him or did he volunteer any information about any other reports where PCBs and liver problems were associated?

MR. SCHINK: I object to the characterization of the January document as an association of liver situation with PCBs. This is a mischaracterization of that document.

You may answer the question, Mr.

Papageorge.

BY THE WITNESS:

A Mr. Wheeler did not mention any other reference to liver problems of any kind.

BY MR. POPE:

Q Did you ask him?

A I don't recall asking, no.

Q At the time you had that discussion with him, had you ever heard of an instance where anyone had suggested that PCB contact could produce liver problems?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

MR. SCHINK: You are talking now about contact?

BY THE WITNESS:

A I have to assume from your question you are talking about human beings and contact with PCBs?

BY MR. POPE:

Q Right.

A No such subject has ever been discussed in my presence.

Q How about with animals and liver problems?

A As I recall, the animal studies that Monsanto was sponsoring and ongoing in early 1970, there was some indication that the higher feeding levels, and I believe it was the higher chlorinated types of PCBs, were causing some increase in liver size.

Q Where did you get that information?

A From Mr. Wheeler when we discussed the status of Monsanto's animal studies.

Q Did you have that discussion at the same time you talked about Paragraph 5 of Exhibit 18?

A I believe -- no, I had the other discussion earlier.

Q I see.

A Earlier that month, a few weeks before.

Q You had already had that discussion about the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

preliminary results of those animal tests at the time you reviewed this European memorandum, is that right?

A That is right, yes.

Q At this point in time in January of 1980 --

MR. SCHINK: 1970, Mr. Pope.

BY MR. POPE:

Q (Continuing.) -- 1970, were you aware of any tests which purportedly would show a relationship between the contact or inhalation of PCB and any problems in the reproductive tracts of either animals or men?

A In January 1970, no.

Q As far as you know, was anyone at Monsanto aware of any such reports?

A I do not know.

Q I think we have covered, and correct me if I am wrong, people you talked to in order to acquire your initial information about what was known at Monsanto and the documents you read were internal Monsanto documents, the preliminary stages of doing your job?

A I don't think I have forgotten anyone.
I think we got them all.

Q Did you talk to anybody about sales figures?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A No.

Q Did you talk to anybody about what effect it would have on Monsanto's profit picture if PCBs were taken off the market?

A No.

Q It did not come up in your discussion with Mr. Bergen?

A No.

Q When was the first time, if ever, that you participated in a discussion on that subject matter?

A I don't recall ever being present where that topic came up as a subject for discussion. Later when we withdrew from the marketplace, it was obvious we were going to lose it, but that was not a factor in the decision. The decision had already been made.

Q Were you as of January 1970 already aware because of your past experience with the company what the effect on the company's overall profit picture would be if PCBs were taken off the market?

MR. SCHINK: I object to the form of the question. It assumes that they would not be replaced with some other product and I think you have to give the question that kind of assumption.

MR. POPE: I am sorry. I mean to include that

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

assumption.

It would not be replaced by another Monsanto product having a comparable effect on the profit picture.

BY MR. POPE:

Q Now, with that question clarified or scrambled, can you answer it?

A I personally never gave it any thought, frankly. It was out of my bailiwick. It was none of my concern.

There were others in Monsanto who had that responsibility and I didn't have the facts at hand to make that determination, personally.

Q When yesterday you described your job as including making recommendations as to what the company should do, did you mean to exclude any reference to the effect on profits for sales of PCB products?

A Yes, that was not as I understood my job for me to consider the economics of my recommendations. That was for others.

Q Is it your testimony that at no point in the process did you consider the economics?

A Absolutely right.

Q All your recommendations that you made were

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

made without regard to the economics as it might affect the company?

A Correct.

Q Let us talk about the people during this preliminary period that you acquired knowledge from outside Monsanto. I believe you said you talked to some people outside of the company, is that right, the first couple of months of 1970?

A Yes. The first few months, I have forgotten, let us say the first six-month period.

Q Who were those people? Let us ask for a cut-off point prior to the time you went to Stockholm.

A I don't know if my memory is that good. Some were in that period and I don't know if it was before Stockholm, after Stockholm. I met representatives of Industrial Bio-Test Laboratories accompanied by Mr. Wheeler.

Q Who did you meet with?

A I believe that was where I first met Dr. Calandra and Dr. Keplinger.

Q At the different laboratories or the same laboratory?

A Same laboratory.

As I remember, there is a Dr. Gordon.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038951

It was either at that early meeting or shortly thereafter that I met some or all of those people at which we reviewed the status of the studies.

Q Status of the studies that were undergoing at that time?

A Yes, and also some thoughts as to where do we go next, what other studies would be appropriate and so on.

Q Did you review with them any study they had done in the past 1960s or 1950s?

A No, no.

Q What was the nature of the discussion?

A As I recall, the work was progressing without any serious delays. It repeated, really it was redundant because Mr. Wheeler had already told me very much the same thing in terms of the results observable to date at that point in time.

I am trying to recall -- I think there was some discussion about fish studies.

Q They were doing a fish study for you, were they not?

A They had started a fish study and I recall going there and seeing the equipment which had been procured to expand the studies, but the equipment had

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

not yet been interconnected and installed for use, so we talked about that upcoming part of the program.

Q Where was their laboratory?

A The laboratory was in Northbrook, Illinois.

Q Anything else you discussed with them?

A I don't recall anything else.

Q Did they have knowledge with respect to PCBs in the environment or the analytical methods of detecting that?

A Their knowledge really was based on what Monsanto was telling them to a great degree and they were able to communicate very closely with Scott Tucker's laboratory and were kept informed by Mr. Wheeler.

Q Had they done a number of projects for Monsanto in the past?

A Yes.

Q Was this fish study you were just referring to one yesterday that you said was aborted because you said they were incompetent to do a fish study?

A Yes.

Q So basically you stopped in Chicago and checked on what was going on in the test they were doing for you, is that a fair and accurate statement?

A Yes, yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Who else did you meet with at that early period of time that was outside Monsanto?

A Again, I am not certain of the timing, but I do recall some trips in Washington, D.C., again, with Mr. Wheeler and/or Dr. Keller.

Q To visit with whom?

A We visited with the representatives of the Food and Drug Administration, representatives of the Department of Agriculture.

Q Anybody else?

A That's all I remember at that early part of the year.

Q What was the purpose of those meetings?

A It was twofold. One was to see if they were conducting any studies of their own and what they had heard of any studies elsewhere, and secondly, to share with them the status of our animal studies.

Q Would it be fair to say, Mr. Papageorge, that in 1970 Monsanto knew more than the United States Government, including the Food and Drug Administration and Environmental Protection Agency, the problems with PCBs in the environment?

MR. SCHINK: What aspect of problems are you alluding to, the presence?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038954

MR. POPE: Sure.

MR. SCHINK: Or the effect?

MR. POPE: Either or both.

MR. SCHINK: Well, if it is both, your question is ambiguous.

BY MR. POPE:

Q Is that a fair statement?

A No, I can't say that is fair. Monsanto knew more about the product. It knew how to analyze for it, how it was used, knew generally more about the product.

In terms of the product in the environment, we knew very little and relied a lot on what little was being published at the time or alleged at the time. It was still at a point of a situation in which the information really was not crystal clear.

Q That is not exactly what my question is.
The question is --

MR. SCHINK: He is trying to answer your question, Mr. Pope, the best way he can. I think the problem is with your question.

BY MR. POPE:

Q The question is whether you knew more than the governmental agencies with respect to the problem of PCBs in the environment.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

MR. SCHINK: He is trying to explain to you, Mr. Pope, the question cannot be answered just yes or no.

MR. POPE: I understand that perfectly.

MR. SCHINK: He has answered the question with respect to information Monsanto had at that time on various subjects. I think he has answered the question.

Do you want him to repeat the answer?
I'm sure the reporter can just read it back.

Is there anything you can add?

MR. POPE: He hasn't answered the question.

BY MR. POPE:

Q Mr. Papageorge, you told me your information was incomplete. That was not my question.

The question was whether you had more information than the Government had.

MR. SCHINK: He is trying to distinguish between several different aspects of PCBs in the situation.

MR. POPE: He obviously did it to your satisfaction, not to mine.

MR. SCHINK: He has answered the question, Mr. Pope.

BY MR. POPE:

Q On which areas did the Government have more information than you had, Mr. Papageorge?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038956

A Insofar as the presence of PCBs in the environment, the Government through its agencies knew everything Monsanto knew, so I cannot say that Monsanto knew more about PCBs in the environment.

Q Have you changed your mind since 1974 on that subject?

A On that subject?

Q Yes.

A No.

Q With respect to testimony in the lawsuit in New Hampshire, you testified under oath in the United States District Court on October 22, 1974, did you not?

A Yes.

Q Were you asked this question and did you give this answer at Page 143 and 144:

"Question: Monsanto in 1970 knew more than the U.S. Government, more than the Federal Drug Administration and more than the Environmental Protection Agency about the problems of PCB in the environment. Do you agree with that statement?

"Answer: Yes, sir."

THE WITNESS: All right.

BY MR. POPE:

Q Did you give that answer to that question?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Yes, although the reference is to the individual agencies collectively. Somewhere in the Government, somebody knew something.

Q Is that why they formed the Interdepartmental Task Force?

A No, there is another reason why it was formed.

Q In any event, when you went to visit the FDA in early 1970, were you going to find out what they had to tell you or were you going to find out what they were doing?

A Both.

Q You had more information than the FDA, didn't you, at that point in time with respect to PCB in the environment?

MR. SCHINK: With respect to what? You are now talking presence, not the problem? You keep jumping. You cite presence, you cite some other problems, now you are going back to presence?

MR. POPE: Good speech, Mr. Schink.

BY MR. POPE:

Q Do you want the question again?

MR. SCHINK: Also factual. If you want to try to mislead the witness, at least try to do it properly.

MR. POPE: I am not trying to mislead the witness.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

I wouldn't do that. He has been in more courtrooms than I have.

Please read the question.

(Question read.)

MR. SCHINK: I object to the form. It is ambiguous. You are talking about presence in the environment or what you have otherwise termed the problem in the environment, effect?

MR. POPE: The question stands on its own.

MR. SCHINK: I ask you to clarify the question.

MR. POPE: Mr. Papageorge has heard your objection, Mr. Schink.

MR. SCHINK: If you can answer the question, if you understand the question with its ambiguities, please answer it.

BY THE WITNESS:

A My answer is no.

BY MR. POPE:

Q No, Monsanto did not have more information, is that it?

A More information than FDA about PCBs in the environment.

May I clarify my answer?

Q You certainly may, if you wish to, Mr.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Papageorge.

A When I speak of more information, I am talking about the broad understanding of the situation. If your question is referring to specific numbers --

Q Of what?

A Analytical results obtained by a sample by our laboratory, yes, we had that kind of information that FDA didn't have. So specifically, yes, we had more pages of information, but the broad understanding of the problem, I think, is about equal.

Q Did you go to share that information that you had and the analytical information?

A Not with FDA.

Q At that point in time, did you have more information than the people at FDA with respect to the potential hazardous effects of PCBs in the environment?

A No, we didn't have any.

Q Who else did you meet with in Washington besides representatives of the FDA?

A There were some individuals with the Department of Agriculture who I understood were involved with pesticide registration.

Q How much information were you able to determine that they had with regard to PCBs in the environment

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038960

or the effect of PCBs?

A They had no information on effect. They were aware of the presence. They were aware of the complications with DDT analyses, DDT effects.

They had no programs for studies or studies of their own, and as best I recall, they had no plans for the future. That's all I remember.

Q Did the FDA have plans for future tests or tests already entered into?

A Not at that time, no.

MR. POPE: Would you read his answer?

(Answer read as requested.)

BY MR. POPE:

Q This problem with DDT, the analytical method, it was clear at that point in time, was it not, that DDT really has no connection with PCBs other than as it interferes with or makes more difficult the detection of PCBs in the environment. Isn't that true?

MR. SCHINK: Clear to whom, Mr. Papageorge?

MR. POPE: Clear to Mr. Papageorge, clear to people he talked to in early 1970.

MR. SCHINK: Well, that is several questions.

First of all, was it clear to you?

BY THE WITNESS:

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Yes, it was clear to me.

BY MR. POPE:

Q So when you refer to the DDT problem, you are just talking in terms of analytical methods used to detect for PCBs, is that right?

A And vice versa, the analytical methods used to determine the amount of DDTs in samples.

Q Detection?

A It would have been affected by this interference.

Q The so-called fingerprints are similar for the two types of substances, is that true?

A No, they are not similar, but they are superimposed which makes the picture more difficult to interpret.

Q That is the methodology that had to be developed to screen out the one as opposed to the other?

A Correct.

Q As you said, the Department of Agriculture people you talked with were aware of that problem?

A Yes.

Q Anything else you discussed with them that you recall?

A No.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q Was there any discussion of the use of Aroclors as a pesticide extender during the meeting in Washington, either with the FDA or with the Department of Agriculture?

A Yes. We did review with them knowledge of the Department of Agriculture's recommendation that PCBs be used as extenders in pesticide applications. As I recall, they were aware of the studies the Department had done. They were aware of the publication that resulted.

They were also aware that it was not a widely accepted practice. I think that was the discussion, the gist of that discussion.

Q You mentioned publication. Was that a publication of the Department of Agriculture?

A There was a publication in a scientific journal and the authors were Department of Agricultural Sciences used to describe the study.

Q Are you referring to a study involving Lindane?

A I have forgotten what the active pesticide was. This is one of them, yes. These appear to be.

Q For the record, let us mark a document we have as Papageorge Exhibit 19 for identification, a 2-page document, copy of which appears to be a report

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

in the Journal of Economic Entomology, Volume 46, No. 1, Page 158, with a date February 19, 1957, and Papageorge Exhibit 20 for identification, an article from the same journal, Volume 5 of that year, entitled A Comparison of Evaporation Rates and Toxicity to House Flies of Lindane and Lindane-Chlorinated Polyphenyl Deposits.

(Papageorge-OMC Deposition

Exhibits Nos. 19 and 20

marked for identification,

8/28/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, two of the reports you were referring to earlier published accounts of the use of PCBs to extend the life of pesticides, is that correct?

A Yes.

Q You were aware of those studies, whether you had specifically read them or not, at the time you went to Washington and met with the Department of Agriculture?

A I was made aware of them.

Q Can you just tell me briefly how the process worked whereby the PCBs were used as pesticide extenders?

A It is my understanding that the active

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

ingredient in the presence of a material like a PCB will evaporate or disappear from the surface or be washed off a surface at a much slower rate. Therefore, it remains active for the job it is intended to do.

Q Is my understanding correct that Monsanto did not sell a finished product that was a pesticide?

A That is correct.

Q How did the PCBs get purchased by someone else, what was the process?

A In the '50s and certainly the early '60s, the company that manufactured the pesticide formulation if interested in a PCB would place his order with Monsanto and it would be delivered to his factory. I have forgotten just when, but sometime in the '60s, some small orders of this type were handled through distributors, so his order would go to the distributor and Monsanto would not be aware of that sale.

Q What type of Aroclor was used for this purpose, do you know?

A No, I don't.

Q But the subject matter was one that was discussed with the FDA on your visit to Washington in early 1970?

A Yes.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

Q To what effect? Was the Department of Agriculture concerned about its use?

A No, because we were concerned initially as possibly the route to explain the presence of PCBs in non-industry areas and our intent at that time was to establish the extent of this application, this use.

It turns out from the discussion that it was very limited, a very limited application and we later confirmed that the amounts of PCBs for this purpose was miniscule. It was not a popular application.

Q When you say it was earlier thought that that use might explain the non-industrial presence being for --

A The presence of PCBs in the forest and agricultural areas.

Q Places far removed from manufacturing?

A Places far removed from manufacturing or an industrial setting.

Q Was there any investigation done before you went to the Department of Agriculture on that subject to either prove or disprove whether that was a likely source for those findings?

A No. The investigation that we intended would

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

start with the Department of Agriculture as the beginning and depending on what they told us, we would have taken it even further.

Q What did they tell you in that regard?

A They told us that to their knowledge, the number of products registered with them that showed PCB as an ingredient were very small, and to their knowledge, the manufacture of those products was extremely small.

Q They had already records through their registration process that told them which products contained PCBs and in this specified area, is that right?

A Yes, yes.

Q Did you subsequently confirm through Monsanto's records sales of that area were small?

A Yes.

Q How did you do that?

A I went to the Marketing people and they came back as I remember with the report that said that in a given year they were able to establish that -- I have forgotten, it was so small, less than a couple of thousand pounds or so to a pesticide formulator which we assume went into this pesticide or insecticide.

Q Did that number exclude any formulators who

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

had purchased through a distributor?

A No, we went to our distributors and asked them, do you have any customers who are in the insecticide business?

Q In your meeting with the FDA, was the subject of food packaging raised in early 1970?

A No.

Q Did you meet with anybody else in Washington during that visit?

A Not that early visit that I remember.

Q Were there any other people outside of Monsanto that you met with in this educational process during the first few months of 1970 on the subject of PCBs generally?

A I recall meeting with Dr. David Stalling at the laboratory in Columbia, Missouri.

Q That was following the Duluth meeting or before?

A No, it was before.

Q What prompted that meeting?

A Dr. Stalling, as I recall, had contacted Monsanto for some samples of Aroclors to use in his study as laboratory standards and from that initial contact and subsequent discussions with Scott Tucker

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

on the analytical methodology, they are both analytical chemists, this is their expertise and his, a great interest at that time in PCBs and the nearness of that laboratory to St. Louis, we had a dialog that was started. We were most interested in his intended fish studies.

I believe that was the extent of our discussion for that early, during that early discussion.

Q As far as you were concerned, you basically found out what he was doing?

A Yes, and what he was planning to do, what his thoughts might be.

Q What kind of fish study did he have under way at that time?

A At that time they were very preliminary, crude studies in which he added PCBs to an area, static waters, and it was exposing different species of fish, as I recall, and trying to determine the effects.

Q You say static area, you mean just putting PCB in the water rather than just specifically feeding it to fish?

A That is correct, and also to clarify, in an aquatic testing, there are two situations regarding the water itself. By static, it means the water is fixed,

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

it doesn't flow through.

Then there are other studies in which the water is continually replaced and flows through a trough and the fish being studied live in that moving water.

Q I take it you view him as an expert in the testing of fish?

A He was an analytical chemist. He was not a fish biologist. He had others available in that laboratory to help him in the fish studies.

Q The laboratory itself was well capable of performing that study as he told you he was performing?

A It had the potential for doing that study.

Q Did he ever complete the study you are referring to?

A Yes, they have since been published in many reports. I don't remember all of them.

Q Do they do any work for Monsanto?

A No.

Q Have they in the past?

A It is a Government laboratory. They don't do contract work.

Q Is there anybody else you can recall meeting with or seeking out outside of Monsanto to acquire more

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038970

information during this preliminary period with respect to the general subject of PCBs?

A Again, I don't recall the exact timing, but I recall a visit in Potomac, Maryland at the Wildlife-Bird Sanctuary. It is a Government laboratory concerned with wild birds, as best I recall, and we met with two doctors, Drs. Stockinger, I think that is the name -- no, what is the name? There were two scientists that we met with in Potomac.

Q Dr. Dustman?

A Dustman? That doesn't -- as I remember, the names start with an S, a husband and wife team at the laboratory.

There were others that joined us, and I don't remember who they were, but the purpose of that discussion was to determine what if anything they knew about PCBs and wildlife.

Q Where did their name come from?

A Mr. Wheeler was the one that had made the contact. I don't know how he got their name or how that contact was initiated.

Q Were they participants in the Duluth meeting?

A I don't remember them being at Duluth.

Q Did you go out and meet with them before or

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

after the Duluth meeting?

A As I said earlier, I am not really certain of the timing. It was early in 1970, but I am not certain if it was before or after Duluth.

MR. POPE: Let me mark as Papageorge Deposition Group Exhibit No. 21, a document consisting of a letter from Dr. Robert E. Keller to Dr. E. H. Dustman, dated April 27, 1970. Attached to that is an enclosure with a list of isomers. Attached to that is a letter from Dr. Dustman responding to Dr. Keller, dated April 23, 1970.

(Papageorge-OMC Deposition Group
Exhibit No. 21 marked for
identification, 8/28/81, TLU.)

BY MR. POPE:

Q Does that series of correspondence refresh your recollection as to whether you went and visited the laboratory after the Duluth meeting, Mr. Papageorge?

A No.

Q Is there anyone else that you can recall during this period of time you have contacted outside of Monsanto to familiarize yourself with the general subject of PCBs?

A I visited, again, I am not certain of the

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

timing, I visited the WARF Laboratory in Madison, Wisconsin.

Q Where did you come across their name?

A It was either Dr. Keller or Dr. Tucker who informed me that WARF Laboratories were active in PCB analyses, DDT analyses and the two laboratories, Monsanto and WARF, had started a dialog; were comparing methodologies, exchanged samples and I went up and visited with the Directors of the laboratory.

Q Who was that?

A I believe it was John Birdsall, B-i-r-d-s-a-l-l, and Dr. Frank Coon, C-o-o-n, who were directly involved with their PCB activities.

Q Did you go alone?

A I believe I was alone, yes.

Q What was the purpose of your visit?

A To get acquainted and to hear from them what they knew about PCBs.

As I remember, Dr. Birdsall had met Mr. Wheeler and had indicated an interest in meeting me, and I took advantage of that and made it a point to go to his laboratory.

Q You were not going there to discuss analytical chemistry, were you?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A No, I didn't want to go into the details. I wanted the broader picture of where they were headed, what they were finding, and as I remember, they were quite satisfied with the results of their work and delighted that they were agreeing with Monsanto's approach.

Q What do you recall was their work at that time, or what were their findings at that time?

A I don't remember the numbers, but they were finding PCBs in water samples and fish samples. They were trying to distinguish between DDT and PCBs.

At that time it was kind of a shotgun approach as to where the samples were coming from.

Q They were delighted with their work because they were finding PCBs?

A No, they were delighted with the fact that they were able to separate DDT from PCBs and they were pleased that what they were doing was very close to what Monsanto was doing.

They felt they might be headed down the wrong track.

Q Were they using the same type of technology that Monsanto was?

A Very close.

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038974

Q Similar methodology?

A As I understood it, yes.

Q Where were they getting their samples?

A Monsanto.

I'm sorry, you're talking with the
environmental samples?

Q Where were they locating PCBs?

A Great Lakes area is all I can recall.

Q Were these people participants in the Duluth
meeting?

A I don't vividly recall, no.

Q Dr. Lee was not associated with that lab,
was he?

A No.

Q I don't see any reference to him on Exhibit
16, do you?

A I don't recall seeing it either.

Q You do not recall whether you went before or
after that Duluth meeting?

A That is correct.

Q Is there anything else you recall about
discussions with those people at WARF?

A No.

Q Anybody else during this preliminary period

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

that you contacted outside Monsanto to assist you in your education in the general subject of PCBs?

A I made a trip with Drs. Keller and Wheeler to the University of California, Berkeley, but again, I don't remember if it was before or after Duluth. This was to visit Dr. Olcutt and Dr. Risebrough.

Q What was the purpose of that visit?

A Again, on a more personal basis, to review what they were finding, what their thoughts might be regarding what their observations were telling them, and to share with them our analytical methods and the status of our toxicity studies and give me a chance to review with the two doctors the general story of what PCBs were, where they were made and where they were used.

Q You do not exactly remember when that meeting took place?

A I don't recall the exact date, no.

Q What did Dr. Risebrough have under way at the time of your meeting?

A He had nothing active under way. He at that time was planning a study to be made on the Antarctic Ice Cap. He had planned to conduct core drillings and to analyze for PCBs and try to indicate the level

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038976

at which the ice was formed and try to determine how many years back PCBs might have been deposited in that area.

And when we talked to him, we were talking about funding.

(Mr. Roseann Oliver entered the deposition room.)

BY MR. POPE:

Q Funding?

A For that expedition, yes.

Q Did he talk with you about that subject, about the question of funding?

A He talked about his need for funds and his hopes to get them, but he did not solicit any from Monsanto.

Q Did you offer any?

A No.

Q Did he ultimately test or study --

A I do not believe so. I have not heard anything regarding that plan.

Q Does that exhaust your recollection of that meeting with Dr. Risebrough?

A Yes.

Q At that stage you had read his paper?

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

A Yes.

Q Just the one paper he had published?

A That is the only one I knew of.

Q Were there any other people you can recall consulting outside Monsanto during the first few preliminary months in 1970 with respect to the general subject matter of PCBs?

A I don't recall any other.

MR. POPE: I suggest we break for lunch.

(At 12:30 o'clock p.m., a luncheon recess was taken to 1:00 o'clock p.m. this same day.)

Thea L. Urban
Certified Shorthand Reporter
134 South La Salle Street
Chicago, Illinois 60603
312 - 782-3332

WATER_PCB-SD0000038978