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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, Room 5700, Chicago, Illinois 60601, on the 2nd day of September, 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),

appeared for the United
States of America;

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PRESENT: (Continued)

MR. MICHAEL A. POPE,
(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.

- - -

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I N D E X

WITNESS :

Direct Cross Redirect Recross

WILLIAM B. PAPAGEORGE

By Mr. Pope	960	1159
		1180

By Mr. Hynes 1123 1175

By Mr. Schink - 1178

E X H I B I T S

Papageorge-OMC Deposition

Exhibit

Marked for ID

No. 76 961

No. 77 964

No. 78 965

No. 79 968.

No. 80 970

No. 81 971

No. 82 981

No. 83 1013

No. 84 1015

No. 85 1055

No. 86 1059

No. 87 1064

No. 88 1065

No. 89 1066

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

No. 90	1071
No. 91	1075
No. 92	1080
No. 93	1082
No. 94	1103
No. 95	1104
No. 96	1105
No. 97	1107
No. 99	1169

Papageorge-USA Deposition
Exhibit

No. 98	1129
No. 100	1174

CERTIFIED QUESTIONS

<u>Page</u>	<u>Line</u>
1110	1

- - -

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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 You understand you are still under oath for
purposes of this proceeding, Mr. Papageorge?

A Yes.

Q We discussed probably several times during
this deposition, the new labels that were being pre-
pared in 1970 to go on certain Monsanto products
containing PCBs.

Do you recall that discussion?

A Yes.

Q Do you know whether those labels went on
any of the Pydraul products?

A Yes.

Q They did?

A Yes.

MR. POPE: Miss Reporter, please mark for identi-
fication a one-page document being a copy of a memo-
randum from Mr. Papageorge to Mr. G. R. Sido, dated
May 27, 1970.

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(Papageorge-OMC Deposition

Exhibit No. 76 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I will hand you Deposition Exhibit No. 76 and ask you to take a look at that and tell me if that is in fact a copy of a memorandum you sent on or about the date it bears.

A Yes.

Q That memorandum refers to the revised labels, does it not?

A Yes.

Q The sentence contained in that memorandum:

"Pydraul labels will not be altered since reformulations will be made," do you see that?

A Yes.

Q Is it your testimony that later on there were changes in labels made despite the sentence in that memorandum?

A No.

Q Can you explain to me what that sentence means?

A This means that the labels used with Pydraul products would remain unaltered, but the additional

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label would be applied to the containers.

Q As opposed to other products, what was the procedure?

A Other products had the same procedure until their labels were altered.

Q Are you talking about preparing totally new labels for other products?

A Yes.

Q Was that on the add-on, or was it a sticker you are talking about?

A Yes.

Q What was on that?

A It is that paragraph that we have seen in previous exhibits.

Q The one that includes reference to extreme care to be taken?

A Yes.

Q Were there any other labels which were not altered other than the Pydraul labels on a permanent basis?

A I do not recall any others that were not altered.

Q By altering, we are talking about a total reprinting process, is that right?

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A Yes.

Q Can we determine by reference to any particular documents when those stick-on Pydraul labels were first put on products and sent out for sale?

MR. SCHINK: You are asking him now with respect to documents? You said earlier, I think the first day of the deposition went to the best of his recollection, what language was added and he gave an answer mid-May 1970.

MR. POPE: Now the question was if you wanted to go back and determine in kind of an initial capacity by reviewing the documents in the safekeeping of Monsanto, what would you look at to determine the beginning point beyond which all such products contained a label or that stick-on, I guess you would call it.

BY THE WITNESS:

A I would go to Mr. Sido's files, records library.

BY MR. POPE:

Q He is the records custodian with regard to products that would include Pydraul?

A With regard to labels, yes.

MR. POPE: If the reporter would mark as Deposition

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Exhibit No. 77 for identification, another one-page document, being a memorandum from Mr. Sido to Mr. W. S. Clark, dated June 9, 1970.

(Papageorge-OMC Deposition

Exhibit No. 77 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I show you the document we have had marked as Papageorge Exhibit No. 77 for identification. It is a memorandum from Mr. Sido to Mr. Clark.

That memorandum does not indicate that you necessarily got a copy of it, but my question is there is a reference in the memorandum to PCB Environmental Labels No. 1020/53. Do you see where those are?

A No, I don't.

Q Do you know whether those are the same labels we have been referring to with the reference to extreme care?

A I do not know.

Q Is that a numbering system one you are familiar with respect to labels?

A No.

Q I believe you told me yesterday, part of your

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testimony, that you were not aware of any customer resistance in the Pydraul area to the change in fluid from the chlorinated terphenyl formulations to the next succeeding formulation. Do you recall that?

I would like to mark as Papageorge Deposition Exhibit No. 78 for identification, a one-page document which appears to be an edited copy of a memorandum from Mr. Davidson to Mr. Savage, dated July 6, 1972.

(Papageorge-OMC Deposition
Exhibit No. 78 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Would you refer to Exhibit No. 78, Mr. Papageorge, which the court reporter has marked and tell me if that is an exhibit, copy of which you received in the ordinary course of business on or about the date it bears.

A Yes.

Q And do you recall the matter being referred to in the first sentence of that memorandum?

A No, that doesn't refresh my memory.

Q In the second paragraph there is a reference by Mr. Davidson:

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"We would certainly have lost the Pontiac business and our entire," blank, "business would have been in danger."

Is that a reference to the GE business?

A I don't know.

Q You have no recollection of discussing with anyone at Monsanto any problem that involved the Pontiac business, is that correct, as it relates to hydraulic business?

A That is correct.

Q Was there any question raised as far as you were concerned or as far as you knew about, either directly or secondhand by a customer, with respect to whether or not there were PCBs in Pydraul 312C or Pydraul 50E?

A Not to my recollection.

Q If a customer had such a question of Monsanto during the period prior to July of 1972, it would have been in the ordinary course of business, something that would have come to your desk, would it not?

A Yes.

Q Is Pydraul 50E one of the 50E fluids?

A Yes.

Q I take it the 312C is one of the C series of

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fluids, is that right?

A Yes.

Q Can you tell me what generally the makeup of 50E is which replaced the chlorinated terphenyls?

A Very generally. I don't recall the formulation, but the principal fire-retardant ingredient there was phosphate esters.

Q To the best of your recollection, was that the same with regard to Pydraul 312C?

A I don't remember, I don't recall.

Q Mr. Davidson concludes the memorandum, Papageorge Deposition Exhibit No. 78, with the suggestion that:

"Additional tests be done," referring to tests of an early lot and a recent lot. Do you see that reference?

A Yes.

Q Do you know whether those tests were done?

A I don't remember.

Q I take it you don't remember what the results of the tests were, if they were done?

A That is correct.

MR. POPE: Miss Reporter, I would ask you to mark this multi-page document as Papageorge Deposition Exhibit

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No. 79 for identification, first page of which refers to Spectroscopy Method 70-1, Identification of Polychlorinated Biphenyls by Gas Chromatography/Mass Spectrometry.

(Papageorge-OMC Deposition

Exhibit No. 79 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, would you please take a look at Exhibit 79 for identification and tell me if that is something you have seen before.

A It appears to be familiar, yes. I believe I have seen it.

Q Can you tell me what it is?

A This is a report from Monsanto's Research Laboratory, specifically Dr. Keller's group.

Q Does that report describe the methodology that was used by Monsanto in early 1970 for the detection and identification of polychlorinated biphenyls by means of the gas chromatography/mass spectrometry method?

A Yes.

Q That was circulated in February of 1970, was it not?

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I suggest you look at the second page.

A I don't recall the date, but the report indicates a February '70 typing date.

Q And the method, 70-1, would that also support the notion that it was early 1970?

A Yes.

Q Was that methodology subsequently changed or improved, to your knowledge?

A It was improved, yes.

Q Can you tell me when?

A During the first half of 1970.

Q Can you give me some indication in what ways it was improved?

A I don't remember the specifics, but the reports issued in about July of '70 elaborated further on this method in more detail.

Q Was either that Exhibit No. 79 or the July expansion on that method circulated outside of Monsanto in 1971?

A Yes.

Q The actual documents were?

A Yes.

Q To whom?

A Anybody that requested it.

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MR. POPE: Miss Reporter, would you please mark as Papageorge Deposition Exhibit No. 80 for identification, a one-page exhibit being a copy of a letter to Monsanto Company dated May 8, 1970 from Mr. J. Gelberman, Deputy Supervisor of New York Harbor.

(Papageorge-OMC Deposition
Exhibit No. 80 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I hand you Exhibit 80 for identification and ask you if you received a copy of that letter in May of 1970.

A I don't recall this, but I do see my name written on the document.

Q Do you recall the incident that is described in the letter?

A No, I do not remember this.

Q Does Monsanto have a plant at Hudson Falls, New York?

A No.

Q Does General Electric have a plant at Hudson Falls?

A Yes.

Q Does Monsanto have any land or any storage

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facilities there?

A No.

Q Do you have any recollection of responding to this letter?

A I don't remember that at all.

Q Did you ever receive any information, let us just say during 1970, regarding the refusal of any State agency to permit PCBs to be disposed of in landfills?

A No.

MR. POPE: Miss Reporter, I would ask you to mark as Papageorge Deposition Exhibit No. 81 for identification, a one-page exhibit being a copy of a letter to Mr. Papageorge from F. R. Viland, Senior Buyer, Purchasing Department of Westinghouse Electric Corporation, dated August 17, 1970.

(Papageorge-OMC Deposition

Exhibit No. 81 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I hand you Exhibit No. 81 for identification and ask you to take a look at that and tell me if that is a letter you received on or about the date it bears.

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A This appears to be a letter that I received, yes.

Q Is that your handwriting on it?

A Yes, that is my writing.

Q Did I understand correctly, an agency of the State of Pennsylvania was objecting to the disposal of some PCB-bearing fluids in landfill. Is that correct?

A A sanitary landfill, yes.

Q Did you contact anyone in Pennsylvania with respect to this letter from Mr. Viland?

A I recall talking to someone, but I don't recall who.

Q Is it your recollection that was somebody in Pennsylvania you talked to about this subject?

A Yes, it was a State Government official of some sort, yes.

Q Do you remember the discussion, the gist of the discussion?

A As I remember, the main point that was raised had to do with geology as it related to this particular -- in Pennsylvania, it was the opinion of some person, either working for the State or consulting the State, that geology was such that they should not risk the use of sanitary landfills for chemical disposal.

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Q Were you not able to persuade them to the contrary?

A That is correct.

Q Can you tell me what these notes on the letter refer to? Are they telephone numbers?

A This is my way of finding the telephone directory and apparently I was given a number.

Q To the State Capitol?

A The main number of the State Capitol. Apparently I ended up with the bottom number being the number of contact.

Q Can you tell me what it says below those numbers?

A It says, "Test of reactivity industrial waste," and it looks like a "R" and I don't know what the rest of that word is.

Q Did there ever come a point in time when you received information that any State agencies were refusing to permit PCB-bearing materials to be disposed of in landfills?

MR. SCHINK: Are you limiting it to sanitary landfill as Mr. Viland referred to, or are you talking about the other kind of landfills that Mr. Papageorge referred to for chemical wastes?

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MR. POPE: I was trying to rephrase it as I tried the other question. I would be happy to distinguish between sanitary landfills and others if the witness will be more comfortable with that.

BY THE WITNESS:

A While I was involved with PCBs, I don't recall any State taking a position regarding the disposal of PCBs in approved chemical landfills.

BY MR. POPE:

Q Is an approved chemical landfill to be distinguished from a sanitary landfill?

A Yes.

Q What is the distinction?

A Primarily it is a matter of location and geology and a restriction as to the types of wastes that can be buried.

Q I take it the restriction as to the kinds of wastes comes from the geology of the earth?

A Yes, the geology determines the type of landfill. In turn, then you control the type of waste entering the landfill.

Q Is one of the factors that control how fast the material will degrade?

A No.

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Q Is one of the factors governing that distinction toxicity of the materials?

A No.

Q When you say as long as you were involved in the PCB area you don't know of any such action by a State, are you talking about up to 1976?

A That is correct. I don't recall any.

I would clarify -- I don't want to mislead.

When you ask me about the toxicity degradability as it relates to the factors, I interpret your question as defining whether the site is chemical or sanitary.

Q They are factors that go into a decision by the local authorities as to whether or not certain types of materials can be placed in a sanitary landfill as opposed to another type of landfill?

A Yes, that's right. That's what I meant by my answer.

Q I further understood you to mean that you are talking about there are certain types of landfills that are used for chemical wastes of all kinds, is that right?

A Yes.

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Q Those are to be distinguished from a sanitary landfill which are not used for other purposes?

A Yes.

Q For non-chemical waste purposes?

A Yes.

Q We have talked briefly about Monsanto's efforts with respect to incineration.

Can you tell me in summary form what became of the project, the feasibility study first commissioned and then ultimately the building of the incinerator?

A In summary, the feasibility studies showed that PCBs could be destroyed by incineration. The John Zink Company designed a unit to do this.

A unit was eventually constructed and installed at the W. G. Krummrich Plant and placed in service.

Q Approximately how long was it in service?

A Four, five years, six years -- about five years.

Q Have you ever seen any estimates of how much PCB that incinerator disposed of?

A At one time I did get a report, yes. I don't remember the numbers anymore.

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Q Can you give us an approximation?

A I cannot.

Q Can you give me a source where I could go to locate that number or where you would?

A I would look at the files of the W. G. Krummrich Plant with the PCB unit.

Q Somewhere there is a total, at least that you saw. Is that by pound?

A Yes.

Q Was this important service that Monsanto was able to provide, was that communicated to the customers?

A Yes.

Q When it was first set up, when would that have been, 1972?

A As best I recall, yes.

Q What conditions were in place with respect to what types of PCB and what condition materials could be separated for incineration?

A They had to be in liquid form. We could not, the unit was not designed to handle solids, and as I recall, we had a limit on the amount of water that was present.

I have forgotten that limit and it was

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intended to burn fluids containing PCBs.

Q Were there any other limits such as other chemicals?

A I don't recall any.

Q How exactly did this machine operate, what was its capacity in terms of time to incinerate PCB materials, do you know?

A I don't understand the question.

Q Would it incinerate 100,000 pounds of PCB a day or 10,000, or can you give me an estimate of how it was measured?

A I don't recall its capacity.

Q Did the incinerator operate in accordance with Monsanto's expectations for it?

A Yes.

Q It operated according to expectations in accordance with the design?

A Yes.

Q Do you have a recollection of the approximate cost to build that machine?

A I don't recall an exact number. I recall it was a 6-digit number, less than half a million.

Q Can you tell me over the period of time that it was in use, estimate for me what percentage of use

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was devoted to disposing of products for Monsanto as opposed to for Monsanto's customers?

A I don't remember that.

Q It was not used exclusively for Monsanto's customers, is that correct?

A That is correct.

Q Is it correct that Monsanto charged three cents a pound for incineration of PCBs?

A Initially that was the charge.

Q Did that increase?

A As I recall it did increase, yes.

Q To what?

A The last number, when I was involved, I believe it reached 6 cents a pound.

Q This would be early '76, late '75?

A Yes.

Q Was it still in place when you got out of the PCB business?

A Yes.

Q And it is still operating?

A No.

Q It ceased operation approximately when?

A After early '76.

Q Do you know why it ceased operating?

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A No.

Q Never heard anything one way or the other?

A No.

Q Who would be the people at Monsanto that would know the answer to that question?

A It would seem to me that I would start with the Marketing Department as a starting point. I don't know if they would have the answer.

Q Was the jurisdiction over this incinerator, did that lie in the Marketing Department?

A No, but it is offered to customers within their area of responsibility and they would know when it was available and when it was not.

Q Was it necessary to secure permits from the State of Illinois or the Federal EPA or both?

A There were permits obtained, yes.

Q Did they need to be annually renewed or renewed after a certain period of time?

A Not to my knowledge.

Q In terms of use by customers, was the majority of the customer use of this incinerator in the electrical and dielectric area?

A I do not know.

Q Were those statistics maintained at Sauget

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or in the home office?

A Yes.

Q Who would have access to those figures?

A It would either be Manufacturing people or Marketing people or both.

MR. POPE: I would ask the court reporter to mark as Papageorge Deposition Exhibit No. 82 for identification, a one-page document that appears to be a Monsanto label.

(Papageorge-OMC Deposition
Exhibit No. 82 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I will show you Exhibit 82 for identification and ask you if that is a copy of a label that was used with respect to PCBs that were sent to Sauget for incineration.

A This appears to be so, yes.

Q I note that while the copy we have is a little faint, it appears under the language saying Returned, appears to contain the same language that we discussed on the revised labels, is that right?

A Yes.

Q Is that your recollection that those labels

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were used for materials that were to be sent back for incineration?

A Yes.

Q Was there any other purpose other than incineration that Monsanto would use a label such as appears there as Exhibit 82 with regard to PCB materials?

A There is a possibility that some of the material was reclaimable.

Q Would a label such as that be used for those purposes as well?

A Yes, yes.

Q Were these labels distributed to the Marketing Department for eventual distribution to the customers?

A Yes.

Q Would such a label be used on hydraulic fluid being returned to Monsanto, either for reclamation or for incineration?

A It was highly recommended that it be used.

Q Were there conditions regarding the shipment of such goods to Monsanto for reclamation and incineration?

A I don't recall any conditions that were different than those that would apply to materials of

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this kind as regulated by the D.O.T.

Q Department of Transportation?

A Yes.

Q What regulations in general did they have in effect at the time?

A There's the usual regulations about placarding, types of containers.

Q With respect to PCB materials being returned for incineration, did they have to be in certain types of containers?

A Yes, yes.

Q What types were those?

A I forget the agency's designation, but it had to be a steel drum, steel container that would not leak, of course, and would withstand the trip.

Q Would a 55-gallon drum be required?

A It didn't have to be that size.

Q It could be virtually any size steel drum?

A As long as it was a sturdy container, not rusted, thin wall and the like.

Q With respect to reclamation, did Monsanto, to your recollection, successfully reclaim loads of hydraulic fluids that contained PCBs?

A I don't recall of any personally, no.

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Q As far as you recall, the feasibility of that project in general was studied but it never was implemented, is that correct, the reclamation of hydraulic fluids containing PCBs?

MR. SCHINK: By Monsanto?

MR. POPE: Right.

BY THE WITNESS:

A Not by Monsanto, that is right.

BY MR. POPE:

Q Are you aware of other companies that successfully reclaimed hydraulic fluids?

A Yes.

Q Containing PCBs?

A Yes.

Q Which companies are those?

A As we said the other day, all I could recall was the Findett Company, but I do recall two or three others that were in the business whose services were available.

Q Prior to the construction of the incinerator, Monsanto was disposing of its PCB materials in registered or approved landfills, is that correct?

A How much when you said prior, what period of time are we talking about?

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Q I am talking about the 10 years or so that we have been discussing, 1960s, early 1970s.

A Yes.

Q Before that period of time, was there another form of disposal that Monsanto employed?

A No, no.

Q I don't mean to --

A I don't want to confuse you either.

MR. SCHINK: Mr. Papageorge didn't work for the company in the '30s and '40s and so forth. I think that is just a general foundational question.

BY MR. POPE:

Q Yes, I'm trying to determine as much as you understand, as long as you knew before the building of this incinerator, all of the Monsanto waste, disposal of PCB-bearing fluids was in landfills?

A When you say all, I can't say yes to that because there was a period of time when we knew we were going to get the incinerator and we started to stockpile and in anticipation of availability of the incineration, so there were several months -- I have forgotten the period -- when we saved the liquids.

Q Was the decision to build the incinerator based on a feeling at Monsanto that disposal of PCBs

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by way of landfill was not a good practice?

A No.

Q Was it a feeling that there was too much volume of PCBs that were going to be disposed of in early 1970, that there was not sufficient landfill space?

A No.

Q Was it viewed that there would be any environmental problems caused by the disposal of PCB-bearing fluids in landfills?

MR. SCHINK: I assume in those questions you are talking about chemical landfills?

MR. POPE: Yes, right.

BY THE WITNESS:

A And may I add, properly operated, properly managed.

BY MR. POPE:

Q Certainly.

A Under those conditions, the answer is no.

Q Can you tell me why the decision was made to construct the incinerator?

A As I recall, there were many of our customers that indicated that they did not have access to approved chemical landfills and they desperately needed some,

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so we --

Q Were these customers principally in the dielectric use area?

A Not necessarily, no.

Q Was the only PCB incinerator that you know was built in this country, the one at Sauget?

MR. SCHINK: You are talking about during this time period from 1972 through 1976?

MR. POPE: We can start there, sure.

BY THE WITNESS:

A No.

BY MR. POPE:

Q Were there other incinerators that were built exclusively or principally for the disposal of PCBs?

A Not exclusively, no.

I misunderstood your previous question.

Q The incinerator we are talking about at Krummrich was built principally for the disposal of PCB products, is that right?

A Yes.

Q To your knowledge, were there any other such incinerators in operation in the early 1970s with its principal focus being the disposal of PCB-bearing

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products?

A No.

Q At any point in time, are you aware of any other incinerator which focused principally on the disposal of PCB-bearing products and in --

MR. SCHINK: You are now talking about other facilities that were capable of doing as he testified yesterday?

MR. POPE: Right.

BY THE WITNESS:

A I don't know of any.

BY MR. POPE:

Q I don't want to repeat the testimony from yesterday, but in summary as of early 1970, is it true that a customer wishing to dispose of PCB-bearing fluids by means of incineration had available to him your incinerator at Krummrich and there were two other facilities that were doing it at the time?

A Not in early 1970.

Q How is my statement in error?

A I am sorry?

Q In the early 1970s --

MR. SCHINK: I thought you said 1970.

MR. POPE: No, the incinerator wasn't built by

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then.

BY MR. POPE:

Q Is that right, Mr. Papageorge?

A That is true, so my response is yes.

Q Those customers that advised Monsanto that they didn't have access to approved landfills for the disposal of PCB products, how did they dispose of these materials prior to the construction of your incinerator, to your knowledge?

A I don't know.

Q Did you ever hear any discussion about this subject?

A No.

Q I realize you don't know or do not recall why the incinerator at Sauget was closed down, but is it generally your recollection that the program was viewed by Monsanto as a success?

A Yes.

Q Did you participate in discussions with the electrical users of Monsanto PCB products regarding indemnification agreements?

A No.

Q Did you come to know secondhand what was being proposed with respect to the continued supply to

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those users of products containing PCBs?

A Yes.

Q Can you outline for me what that program was?

A I don't profess to know all the details unless I don't recall them, but it was my understanding that a purchaser of PCB fluids for electrical use was asked to agree to certain conditions before Monsanto would continue to supply that material, and these conditions had to do with any adverse effects that the liquid might have in that use, and that's all I recall.

Q Any adverse effects the user would agree to indemnify or hold harmless Monsanto?

A Yes, that was my understanding.

Q When was that program put into effect?

A I believe it was late 1971.

Q Were the terms of that agreement negotiated between Monsanto and General Electric and Westinghouse?

A I don't know.

Q They were the two largest users of fluids for that purpose, were they not?

A Yes.

Q To the best of your knowledge, were the same terms made applicable to all purchasers for that use after this program went into effect?

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A To my knowledge, yes.

Q Was there any governmental agency that participated in or agreed to that program whereby Monsanto would continue to supply the electrical users and receive indemnification agreements?

A I don't recall any agency involved in that program.

Q The Government's agreement was not sought through any of its agencies, so far as you remember or know?

A That is correct.

Q And you never heard of such agreement with either the U.S. EPA or any of the other governmental agencies, is that right?

A That is correct.

Q How long would that agreement have been in effect, to the best of your knowledge?

A I don't know.

Q How long did Monsanto continue to supply PCB-bearing fluids after late 1971?

A Sometime in 1977.

Q As far as you know, all of the purchasers which had PCB fluids for electrical uses after this period, late 1971 when the program was started, were

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required to sign such an agreement, is that right?

A That was my understanding.

Q Did Monsanto refuse to sell those fluids to any user that did not sign such an agreement?

A I don't know if that situation ever arose.

Q That was the intent anyway?

A Yes.

Q Do you know how that program was communicated to the customer?

A It is my understanding at the time that it was communicated in the formal ways that were available and certainly word of mouth.

Q This was one way?

A Visits by Monsanto individuals to the customers.

Q Was there a mailing?

A I don't recall a mailing, but there was correspondence which referred to this approach.

Q To the best of your recollection, were those customers who were asked to sign indemnification agreements advised of all the information that Monsanto had available at the time with respect to any potential harm as a result of PCBs?

A I was aware only that they were made aware of

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everything we knew.

I don't recall any reference to anyone predicting potential harms.

Q I meant to include harm to animals as well as to man.

Were there amendments that would change your answer in any way?

A We reported the known information regarding the studies that we were sponsoring.

Q Including the hatchability studies?

A Yes, all of those.

Q Those, too, you would have made known to the customer before they signed that indemnification agreement?

A Yes, that was a total part of our program long before this point in time.

Q How would those laboratory studies, the results that were of concern to Monsanto, how was that information conveyed to customers?

A Again, the field salesman had the information and he was to go to the customer and share it with the customer. And all along, Mr. Wheeler and Dr. Kelly would prepare summary reports that were very readily available to anyone.

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Q Was it Monsanto's perception that its salesmen would pass on adverse information as well as positive information to its customers?

A Certainly, certainly.

Q Is it your testimony there were no indemnification agreements executed with respect to the sale of Monsanto products containing PCBs prior to this period in late 1971?

A I personally am not aware of any others.

Q Were there any other product uses where similar agreements were executed between Monsanto and its customers, to your knowledge?

A I am not aware of any.

Q It was never used in the heat transfer area, is that right?

A Not to my knowledge.

Q Following the contact that you and the other people at Monsanto had with the Department of Agriculture regarding the use of PCBs as a pesticide extender, a discussion we have already had in this deposition, was there any further contact with the Department of Agriculture that involved you on the subject of PCBs?

A Yes.

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Q What area did that fall under?

A This had to do with studies that representatives or personnel in the Department were involved with and relating to chickens and to cattle, dairy cattle.

Q What was the inquiry with respect to chickens?

A I have forgotten the details, but there was an individual at the Research Center working with chickens and I have forgotten the results of his studies.

Q Within the Department?

A Within the Department, yes.

Q The Department of Agriculture contact, did he share the results of that study with you?

A As I remember, they contacted me regarding samples of PCBs used in their studies which I sent to them and by then I made it a point whenever I could to drop by and have discussions and get a status report.

Q In order to keep yourself updated as to what the results of their studies were?

A Yes.

Q To the best of your recollection, what did the results of those studies ultimately show?

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A I don't remember details. The thought that remains with me is that they confirmed our leghorn chicken studies.

Q The long term effect on hatchability?

A Yes.

Q Did those result in any action to the Department of Agriculture on PCBs?

A Not to my knowledge.

Q What was their contact with you with regard to that?

A There again, they asked for material to conduct their tests and the individual was attempting to determine the effect or the amount of PCB that one might expect the milk from cattle that had eaten materials with PCBs in them, and as I remember, they were also attempting to determine how long after the exposure was terminated with the milk they would have no detectable PCB presence.

Q Was that in the 1971-'72 period?

A Yes.

Q They were doing studies, is that right?

A Yes.

Q The Department of Agriculture?

A Yes.

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Q Did those studies result in the implementation of the limits we have discussed previously on milk?

A I don't know.

Q After those studies were done, the Environmental Protection Agency adopted limits on amount of PCB in milk, did they not?

A No. The Food and Drug Administration was responsible for that and I don't know how they arrived at those numbers, other than the similarity to DDT.

Q Did you have contact with the Food and Drug Administration during this same period of time, '71 and '72?

A Yes.

Q What was the nature of your contact?

A It was primarily in the company of Mr. Wheeler to periodically review the status of our animal studies and there was eventual discussions relating to their thoughts or their intent to eventually establish levels of PCB that they would use as a guideline in terms of regulating food.

Q During those meetings, did you share with those representatives all of the information Monsanto had acquired with regard to its own studies and tests?

A Yes.

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Q Did you consult with the FDA with respect to their proposed limits on the amount of PCBs in food packaging?

A No, that is not within the province of the FDA.

Q I thought there was a reference in the letter that was shown to the customers advising them of the limits in reference to food packaging?

I might be mistaken. It wouldn't be the first time in this deposition.

Calling your attention to Papageorge Exhibit 57 for identification, is it your understanding that limits were set as to the amounts of PCBs in food itself rather than in the packaging materials?

A It is food itself as well as materials used in packaging, making the package, such as the adhesive, the printing ink or the plastic film itself.

Q The Food and Drug Administration at least claimed it had jurisdiction over that area as well?

A Yes.

Q And limits were ultimately adopted in that area?

A Yes.

Q Did you consult with the FDA regarding those

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limits for food packaging materials?

A Yes, we had discussions.

Q Was the nature of your discussions in opposition to those standards?

A No, no. Our discussion was as to FDA understanding what food packaging materials might contain PCBs.

Q Do you know where the FDA got its limits as it applies to food packaging materials?

A No.

Q That wouldn't be by way of analogy to DDT, would it?

A I wouldn't think so. I don't know.

Q Were there any other Federal Government agencies that you were in contact with in the period 1971, 1972?

A As I remember, we had an occasional contact with the Department of Commerce.

Q With respect to what subject?

A I was trying to get information regarding imports and thought they might be able to assist me.

Q Your concern was as Monsanto phased out of the production of PCBs that imported PCBs would come in from other countries?

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A That was one of the concerns, yes.

Q What was your other concern with respect to imports?

A We wanted to get an idea of what other commercial sources of PCB were available in the U.S.

Q Other domestic sources?

A Any domestic or ex U.S.A.

Q What information did those discussions produce?

A Eventually we got some numbers from the Tariff Department. I recall that the information was very sketchy because it was not accumulated in a way that would tell us whether or not imported material was PCB.

Q So basically didn't go anywhere in that area? You never did discover any hard and fast facts on that subject?

A We eventually found some for the latter years, but it was a limited success. It had limited success.

Q During 1970 and 1971, were there repeated requests by various agencies that Monsanto release its own information with respect to sales figures of PCBs?

A Yes.

Q Were those requests also that that information

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be released as to particular uses of PCB, sales by particular application?

A I don't recall that the requests were that specific. They were broad requests.

Q Did some of those requests come from Government agencies?

A Yes.

Q What was the express purpose of those agencies in wanting that information?

A They indicated that they needed this information to better understand the distribution of PCBs throughout the U.S. for them to better regulate, if appropriate.

Q Did Monsanto during 1971 reach a point where it agreed with those agencies?

MR. SCHINK: Are you saying agreed with their requests or agreed with their rationale?

MR. POPE: Let us first say agreed with their rationale.

BY THE WITNESS:

A I don't recall any discussion regarding our opinion regarding the agencies' rationale.

BY MR. POPE:

Q As to whether they really needed or not to

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regulate the area?

A That is correct.

Q I take it there came a point in time when Monsanto agreed to grant the requests or release the information?

A Yes.

Q When was that?

MR. SCHINK: Didn't we go over this the first day in considerable detail?

BY THE WITNESS:

A If I remember, it was 1971.

BY MR. POPE:

Q The figures were released for purposes of the use by the Interdepartmental Task Force, is that true?

A That was not the initial and only intent. It did end up in the report, but it was intended to comply with many requests for the data.

Q Who was in charge of distributing that data?

A I ended up sending it.

Q To whom did you send it first?

A As I remember, I sent it to a Dr. Edward Berger -- yes, Berger.

Q Who is Dr. Berger?

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A He was in the Office of Science and Technology, if I am right, in the Executive Office of the President, who was a member of that multi-Inter-departmental PCB Task Force.

Q And as Mr. Schink so aptly put, we went into those numbers in Table 1, probably the first day of the deposition. That is the kind of information we are talking about, is that right?

A Yes.

Q Was it broken down basically into this kind of format, both total sales and domestic sales by PCB grade?

A Yes.

Q Who else received that information roughly at the time you sent it to Dr. Berger?

A Well, this assumes Dr. Berger accepted it.

Q Let me ask you this:

Did you send that information to anyone else?

A Yes.

Q To whom?

A We sent it to the Department of Commerce.

Q For what purpose?

A Again, to satisfy this request. The mailing

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to Dr. Berger was returned to us.

Q I see, he did not accept it?

A That is right.

Q Do you know why?

A I don't.

Q Had he moved?

A No.

Q Was there a note?

A No.

Q No exaplantion was given to you as to why he didn't accept it?

A That is right.

Q Interesting footnote some day.

You sent it to the Department of Commerce. Was it your intent that the Department of Commerce would then in turn satisfy these various other agencies that had requested this information?

A Yes.

Q Did that in fact take place?

A Yes.

Q Were any other agencies the direct recipient of the information from you?

A Once we sent that initial mailing, there were many, many copies sent out to anyone that requested it.

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We did not keep a score sheet.

Q Again, roughly in the form that appears here on Table 1 of Exhibit 25?

A It appears to be the exact form.

Q Did you ultimately work with the Interdepartmental Task Force on PCBs, Washington, the group of agencies working on the problem?

A Well, I don't know what you mean by working. We appeared and made presentations before the group.

Q When was that, how often was that?

A It seems to me it was several times. I recall two specific instances.

Q When was the first?

A It seems to me sometime in 1971.

Q Prior to the publication of Exhibit No. 25?

A Yes.

Q What was the occasion for your presentation?

A As I recall, that was the session at which Monsanto representatives described the state of our knowledge of PCBs to the group.

Q Who else attended from Monsanto besides you?

A I believe it was Dr. Keller or Dr. Tucker, one of the two representing the analytical knowledge, and Mr. Wheeler to discuss the toxicity studies.

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Q Did your presentation, yours and those other members, the representatives of Monsanto, that presentation take place orally? Was there also a written report?

A We, of course, made oral presentations. I just don't remember if we had any written material that was distributed.

Q What was Monsanto's purpose in presenting the analytical methods, testimony as to the analytical methods?

A At that time, it was a very appropriate subject because of the governmental laboratories interested in acquiring this.

Q This information was not generally available to analytical chemists by this period, 1971, when you made your presentation?

A It was generally, it was available, but many laboratories were not aware of its availability. This was one way to publicize that availability.

Q Calling your attention to the Interdepartmental Task Force itself, which we previously marked as Exhibit 25, the section on hydraulic fluids, Page 53 makes reference to various characteristics of a good hydraulic fluid, is that right?

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A Yes.

Q In this paragraph, the bottom of Page 53, it says:

"Since most commercial hydraulic fluid mixtures are proprietary, it is difficult to obtain information with respect to their composition. The results from inquiries with respect to PCB content have been somewhat contradictory. No definite knowledge is available that PCBs are present in commercial hydraulic fluids."

In your presentation, the presentation of the Monsanto people of that group, did you advise them that the Pydraul fluids that Monsanto had been selling did definitely contain PCBs?

A Yes.

Q Did anything take place in those presentations that would lead you to think that inquiries with respect to PCB content in Monsanto's Pydrauls was contradictory?

A Not to my knowledge.

Q At the time you made the presentation, were there PCBs present in Pydraul hydraulic fluids?

A No. We had phased out by that time.

Q Were you at the time of that presentation,

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selling Pydraul A-200B, the chlorinated terphenyl?

A I don't recall the exact timing of all of these. These are all occurring at the same time.

Q I understand, just the best of your recollection.

A I don't recall.

Q Did the subject come up in your presence at this Interdepartmental Task Force meeting with respect to chlorinated terphenyls?

A I don't believe so, no.

Q Do you agree with the statement that:

"Since composition specifications of these fluids are usually not available to the public," --

MR. SCHINK: I object, no foundation.

You have not established that this witness knows what the authors of that report meant by composition specifications.

BY MR. POPE:

Q The question is whether you agree with it.

Your objection is recorded for all time, Mr. Schink.

MR. SCHINK: You asked if he agreed with that statement. I don't see how he can agree or disagree until you establish what that statement means, Mr. Pope.

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Also the subject of the paragraph is commercial hydraulic fluids generally, and you have not shown any foundation with respect to this witness' knowledge as to the sales practices of other manufacturers of commercial hydraulic fluids. I don't see any foundation for answering the question with respect to commercial fluids mixture information generally.

He has already answered the question with respect to Monsanto's practices on several other occasions in this deposition.

BY MR. POPE:

Q The question remains.

A I don't have any information to lead me to agree or disagree with that statement.

Q Were the specifications for Pydraul available to the public?

MR. SCHINK: What do you mean by the term specifications, Mr. Pope?

MR. POPE: Exactly what that terms mean in the English language, Mr. Schink.

MR. SCHINK: I don't know what the term means as you use it, Mr. Pope.

THE WITNESS: Would you define public for me?

BY MR. POPE:

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Q A person walking in off the street.

A No.

Q Do you know of any other manufacturers that manufactured and sold hydraulic fluids with PCBs in them other than Monsanto?

A No.

Q When this report, Exhibit 25, was published, I take it you received a copy?

A Yes.

Q Did you review it at that time?

A Certainly, yes.

Q Did you prepare any comments or criticisms or disagreements with the report?

A No.

Q Did you discuss with other people at Monsanto any comments on the report, criticisms or disagreements with them?

A No.

Q Did you ever communicate your disagreement with any parts of the report to any members of the Interdepartmental Task Force?

A No.

Q Do I understand correctly you had a second presentation before that group?

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A Yes.

Q When did that take place?

A In 1972, fairly early in '72. I would say April, May, before this report went out.

Q Had you had access to a draft of the report?

A No.

Q What was the occasion of the second presentation?

A This was an opportunity for Monsanto to share with the members of the task force the latest findings on biodegradability. That was the principal topic of our presentation.

Q This was a result of the various tests we discussed yesterday and perhaps others that you conducted on biodegradation?

A Yes, it was a summary of all we knew about biodegradation.

Q Who attended for Monsanto on that date?

A I was present, and Dr. Tucker and Dr. Ralph Munch made presentations. I can't recall anyone else being with us.

Q Dr. Munch's area within the company included the biodegradation studies, is that right?

A Not directly.

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Q Would you tell me why he was present?

A Well, Dr. Munch had many years of experience in the dielectric application. He was very knowledgeable of types of PCBs used, the relative quantities and he had a hypothesis to try to explain why Aroclor 1242 or Aroclor 1248 were not being reported by laboratories as often or anywhere near as often as the Aroclor 1254 and 1260.

And as I recall, he had prepared a paper, a short paper on this and he wanted an opportunity to discuss it.

Q That is the hypothesis we talked about yesterday?

A Along those lines, yes. And he had some calculations that he shared.

Q Did he present that paper?

A Yes.

Q Did you speak as well?

A As I remember, I introduced the general topics we were going to discuss, introduced the speakers and then I made some closing remarks. That was the extent of my role.

Q Were there questions asked at these two sessions?

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A Oh, yes.

Q The second session, were the questions asked only along the line of biodegradation?

A As best I recall, yes. They were limited to the subject on the agenda.

Q That was your last appearance before that group?

A Yes.

Q As far as you know, was that group disbanded after the publication of its report in May of 1972?

A As far as I know, yes.

MR. POPE: I would ask the reporter to mark as Papageorge Deposition Exhibit No. 83 for identification, a 6-page document, being a copy of a letter from Mr. Papageorge to Dr. Martha Sager, dated July 13, 1973.

(Papageorge-OMC Deposition
Exhibit No. 83 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I hand you Exhibit 83 and ask you if that is a copy of a letter you sent on or about the date it bears.

A Yes.

Q What was the purpose of sending this letter?

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A We were informed that this Advisory Committee chaired by Dr. Sager was studying the broad subject of chemicals and water effluent and had expressed an interest in PCBs. I had forgotten who, but the Monsanto Company was requested to help and that was our attempt to do so.

Q You submitted that letter as spokesman for Monsanto on that subject?

A Yes.

Q Did you prepare this letter yourself?

A Yes.

Q Do you know whether the agency established PCB standards for water effluent?

A To my knowledge, it has not.

MR. POPE: I would like the reporter to mark as Papageorge Deposition Exhibit 84 for identification, a multi-page document which basically is a report of the International Lake Erie Water Pollution Board, the International Lake Ontario-St. Lawrence River Water Pollution Board and the Interconnecting Channels Water Pollution Boards to the International Joint Commission, dated April 1972, entitled Polychlorinated Biphenyls in the Great Lakes Environment.

The cover letter appears to be dated

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March 24, 1972.

(Papageorge-OMC Deposition
Exhibit No. 84 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I am going to hand you Exhibit 84 for identification and ask you if you received a copy of that report shortly after it was issued.

A I don't remember this specific report and yet it is similar to so many that it doesn't stand out in my mind.

Q Whether you have reviewed the report itself, was it a subject matter of which you were familiar?

MR. SCHINK: Are you speaking of the fact that there was this group conducting a study?

MR. POPE: Sure.

MR. SCHINK: At that time?

MR. POPE: Yes.

BY THE WITNESS:

A Yes, I was aware of the activity in the Great Lakes area.

MR. SCHINK: But the question is specifically with respect to that group. Were you aware that that group

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at that time was making that kind of study?

BY THE WITNESS:

A Yes.

BY MR. POPE:

Q Whether or not you saw the actual result and the actual report, were you aware in general of the conclusions that they formed?

A In general, yes.

MR. SCHINK: Was the question was he aware that they had formed those conclusions, or was he aware of those conclusions generally, regardless of who formed them?

Were you aware that this entity in 1972 came to the conclusions stated in that report?

MR. POPE: In general.

BY THE WITNESS:

A In general, yes, from what little I see in this report in my hands right now. I have not read it thoroughly.

BY MR. POPE:

Q I call your attention back to Exhibit 83 for identification, Page 5 of your letter to Dr. Sager.

The statement is made:

"Pending the availability of the data

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which would contribute to the establishment of a realistic effluent standard, it is appropriate to consider that the restricted use and proper control of PCBs have and will continue to result in a diminished impact on the environment."

Do you see that statement?

A Yes.

Q What basis did Monsanto have in July of 1973 for the conclusion that the restricted use and proper control of PCBs have and will continue to result in a diminished impact on the environment?

A It is based on our understanding that when we stopped the sale of PCBs for many of the uses that the amount then available to be replaced in the environment is certainly diminished or that impact would be diminished.

Q Did you have any statistics available to you or any analytical results which indicated a reduction in the amount of PCBs in the environment?

A No.

MR. SCHINK: You are talking about with specific data, not general things such as the conclusions regarding a degradability in your former question? You are asking him if he had any data?

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MR. POPE: I thought it was a pretty clear question.

BY MR. POPE:

Q You understood it, didn't you?

A I understood your question to indicate where there are samples taken out in the environment and analyzed and statistics reviewed and arriving at the conclusion and so forth.

My answer is still no.

Q You testified yesterday, perhaps the prior session as well, regarding your discussions with Mr. Pogue on the subject of reclamation as it might be applicable to the Outboard Marine Corporation, do you recall?

A Yes.

Q And the review of samples taken at or near Outboard Marine's facility; do you recall that?

A Yes, I recall that.

Q Besides that indirect contact with Outboard Marine, did you have any further contact with Outboard Marine Corporation?

A Not to my recollection.

Q That would include before those discussions with Mr. Pogue as well as afterwards?

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A Yes.

Q Did you have any discussions with Mr. Johnson specifically dealing with Outboard Marine Corporation?

A Yes.

Q What were the nature of those discussions?

A In a general way, it involved all the work that Mr. Pogue was involved in, subsequent visits by Monsanto representatives with Johnson Motors and representatives and sampling and analytical efforts which were made for Johnson Motors.

I tried to get from him a status report on how are things going.

Q How are what things going?

A The overall reformulation program, the control of PCB from entering into the environment.

MR. SCHINK: This question is with respect to Johnson Motors specifically.

BY THE WITNESS:

A Yes, that's Johnson Motors.

BY MR. POPE:

Q What did he tell you in response to that inquiry?

A I don't recall the exact words, but he left

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me with the impression that dialog was continuing, programs were well in place, the waste effluents were under control, disposal is being made properly, that alternative materials were introduced to eventually -- this is a revolving situation. That's about it.

Q Did he leave you with the impression that the educational efforts with respect to control and disposal of PCB fluids had been successful at Johnson Motors?

A Yes.

Q Did he leave you with the impression that Johnson Motors was interested or motivated to do whatever it could to avoid any PCB contamination in the environment?

A Yes.

Q When were these discussions, do you remember over what period of time?

A Starting in 1970 on through several years, '72, '73.

Q Would it be true to say that he never passed on to you any contrary impressions with respect to Johnson Motors?

A That's true.

Q Did you discuss with him Johnson Motors' needs,

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specific needs as it might impact the reformulation of Pydraul fluids?

MR. SCHINK: What kind of needs are you referring to?

MR. POPE: Needs they might have at their plant that might be different from other customers.

MR. SCHINK: Volume or chemical characteristics or properties?

MR. POPE: Yes, absolutely.

MR. SCHINK: Which?

MR. POPE: Both.

BY THE WITNESS:

A I don't recall any discussions along those lines.

BY MR. POPE:

Q Did you discuss Johnson Motors with anybody else at Monsanto?

A Anybody else in addition to who?

Q In addition to Messrs. Pogue and Johnson?

A Yes, yes.

Q With whom?

A Dr. Tucker.

Q What was that discussion devoted to?

A This is as it relates to analytical support.

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Q Was that discussion limited to the areas we discussed yesterday in connection with those deposition exhibits relating to his analytical sampling of Johnson Motors' samples?

A Yes.

Q Who else at Monsanto?

A Dr. Keller.

Q Was that on the same subject matter that you discussed with Dr. Tucker?

A Yes.

Q Limited to that area?

A Yes.

Q Anybody else?

A Mr. Bergen.

Q This would be on multi-occasions, or was it once?

A On several occasions.

Q During this same time period that we were talking about with Mr. Johnson and kind of evolving discussions?

A Yes.

Q Could you give me the nature of the discussions you had with Mr. Bergen on the subject of Johnson Motors?

A Very much along the lines I described pre-

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viously with my discussions with Mr. Johnson.

Q Was Mr. Bergen telling you this information or were you telling it to him?

A Just comparing notes, my understanding of what he knew and to see that we were both aware of the same information.

Q As you recall, was his understanding with respect to Johnson Motors pretty much the same as you just testified that you acquired from Mr. Johnson?

A Yes.

Q They were cooperative, they were trying to do what they could to keep PCBs out of the environment, is that it?

A Yes.

Q Do you know where he got his information?

A No.

Q As far as you know, he had never gone out to Johnson Motors personally?

A Not to my knowledge.

Q Did you assume he was getting his knowledge from the Marketing Department?

A That was one assumption, yes.

Q Was that the assumption you had when you talked to him about Johnson Motors?

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A I assumed that he had access to everybody I had access to and he certainly could talk to the Dr. Kellers, Dr. Tuckers, as well as his own Marketing people.

Q As far as you know, did Dr. Keller or Dr. Tucker have any direct contact with anyone at Johnson Motors?

A I don't know, I don't know.

Q Do you know of any reason that they did?

A There might have been some telephone conversations, but I don't know, I really don't know.

(Brief recess had.)

BY MR. POPE:

Q Before the break, you were listing for me the people at Monsanto with whom you discussed Outboard Marine Corporation.

MR. SCHINK: This was during the 1970-'71 period?

MR. POPE: I don't think we ever really confined it to a period.

BY THE WITNESS:

A I thought your question had 1970, '71.

BY MR. POPE:

Q We could do it that way, but then we are going to go back into the same thing for 1971, '72, '73,

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'74, although there may not be many contacts then.
I would be happy to do it any way you want it.

I just want to know the people you
discussed with at Johnson Motors.

A And you want additional people?

Q Besides Norm Johnson, Mr. Pogue, Mr. Bergen,
Dr. Keller and Dr. Tucker.

A I believe somewhere in that period of time
we had some changes there where I was talking to
Larry Bradford.

Q What was his function, as far as you know?

A I don't know his title. He was responsible
for the hydraulic fluid products in Marketing, as I
remember.

Q Did he work for Norm Johnson, take his place?
Where did you feel he worked?

A No, let me think. He worked for Mr. Gossage.
He must have replaced Mr. Johnson before those products.

Q Could you tell us what the nature of your
discussions were with Mr. Bradford regarding Johnson
Motors?

A Again, in a general way, very similar to
previous items that I mentioned for Mr. Bergen, for
example.

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Q He left you with the same type of impression regarding Johnson?

A Yes.

Q Is there anybody else at Monsanto you discussed the subject of Johnson Motors with?

A Yes, Mr. Gossage, for sure.

Q What was the purpose of talking to Mr. Gossage, what was the discussion about?

A There again, we had a discussion on the status of the situation. It depends really on at what point in time I was talking to him.

Q What was the situation?

A As I remember it, it went through a series, really, of situations. One, where the Monsanto people were assisting the Johnson Motors individuals in understanding the PCB situation, and then we went through a period of developing some programs.

As I remember, we were assured the efforts were effective. I recall with Mr. Gossage later in that period of time when we were undergoing changes and reformulations and all, this must have been 1971, the latter part of 1972, Mr. Gossage was concerned that the control programs were not as effective as we had been initially led to believe.

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Q How did that information come to him, if you know?

A I believe it came from his Marketing organization.

Q Was Mr. Bradford part of that Marketing organization?

A Yes, yes.

Q When you say we were assured the efforts were effective, what do you mean by that?

A There was a point in time where I felt personally comfortable that our program with Johnson Motors was going down the right path.

Q In what way?

A In terms of controlling losses to the environment.

Q How did you acquire that confidence?

A That was from my previous description, previous discussions with other Monsanto people.

Q So when you say we were assured, you mean you had been assured by other Monsanto people that felt the efforts were successful?

A Yes, and my impression of these discussions were impressions that the Monsanto people felt these things were properly handled.

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Q During any of these discussions, did you form any perception at all about how sophisticated the people were at Johnson Motors in terms of dealing with discharge?

A I personally had the impression they were capable. I had no reason to believe otherwise at that time.

Q Did you form any other perception, the basis of these discussions, regarding the type of chemical analysis capability in-house at Johnson Motors?

A I had an impression that it was developing but they still needed Monsanto's help on PCBs.

Q I take it that you reached a point presumably in your discussion with Mr. Gossage where your perception of whether the efforts had been successful changed, is that right?

A Yes.

Q What was it that Mr. Gossage was focusing on as to indication that those efforts were not successful?

A It was his understanding that he meant to confirm and he meant to confirm this: That waste effluents were still containing PCBs, were still being discharged.

Q Was this understanding, as far as you knew,

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acquired by Mr. Gossage from a review of samples taken at Johnson Motors?

A I don't know.

Q To the best of your knowledge, how did he acquire that knowledge?

A I believe he acquired it from the salespeople, both in St. Louis and in the field.

Q Is this the type of thing that could be visually observed?

A I don't know.

Q We are talking about late 1971, are we not, your discussion with Mr. Gossage?

A Yes.

Let me think of it -- yes, late '71.

Q Did this discussion take place in the context of a discussion of phenols?

MR. SCHINK: You mean were phenols discussed in addition to the PCB problem that he mentioned before, Mr. Pope? Is that your question?

MR. POPE: If you want to change the question, Mr. Schink, I will be happy to go along with your change.

BY THE WITNESS:

A Phenols were part of the discussion, yes.

BY MR. POPE:

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Q Tell me what was discussed with respect to phenols?

A I don't recall the specifics. I do recall a phenol situation in the discharge effluent referred to as a phenolic problem. That is an expression I remember.

Q As far as you know, this problem which arose in late 1971 was the first time that Johnson Motors had reported any such phenolic problem?

A Yes.

Q Is it also true that it was your understanding they were asking Monsanto whether there was something in the hydraulic fluid that they were purchasing at that time that could bring about a phenolic problem?

A Yes.

Q Did you assist anyone in the determining of the answer to that question?

A I personally don't recall assisting anyone, no.

Q Did you consult to find out what the problem to the question was?

MR. SCHINK: Now you are using the term problem?

MR. POPE: Yes, what the answer to the question was.

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MR. SCHINK: Could you read back the question?
I thought you said problem.

(Question read.)

BY THE WITNESS:

A No, I didn't get involved with the phenolic problem in any detail.

BY MR. POPE:

Q Did you find out directly or secondhand whether Monsanto was able to determine whether there was something in the hydraulic fluid being sold to Johnson Motors to cause a phenolic problem?

A I don't recall.

Q Did you ever hear of any other inquiries coming from any other Pydraul users with respect to whether there was anything in the product they were purchasing from Monsanto that could cause a phenolic problem?

A I don't recall any.

Q This was the only incident you ever heard about with respect to phenols being attributed to Pydraul?

A As best I recall, yes.

Q Did you have any further discussions with Mr. Gossage regarding Outboard Marine or Johnson Motors

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other than what you just told us?

A There were several discussions. It seems to me we had a meeting on this subject which Mr. Gossage called on this subject.

Q What subject?

A On Johnson Motors and its discharge of effluent situation.

Q With respect to phenols?

A As I recall, it was primarily PCBs, but phenolics did come up in the discussion.

Q Who was present at this meeting?

A I don't recall specifically, but I recall the Marketing Group was represented and we also had the Research Group represented in the room.

Q Had they had an opportunity to analyze additional samples from Johnson Motors?

A I don't know about additional samples. I don't recall what data they had available to them at that time.

Q This meeting is in late 1971, is it not?

A Yes.

Q The data we reviewed yesterday regarding samples taken at Johnson Motors involved samples taken in 1970, is that correct?

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A Yes.

Q You do not recall whether the technical people at this meeting you are discussing now had any additional results or any additional samples that were being discussed or available to them, is that right?

A No, I don't recall.

Q I am right, my question is am I right, and you said no.

A I am sorry. The answer is yes.

Q Were the Marketing Department represented by Gossage and Mr. Bradford?

A Yes.

Q Is there anyone else that you can recall?

MR. SCHINK: From Marketing?

MR. POPE: No, besides the people he has already indicated.

BY THE WITNESS:

A I don't remember.

BY MR. POPE:

Q What was discussed, to the best of your recollection?

A The thought that remained with me is that the situation that I had earlier thought was being well managed apparently wasn't as well managed as I understood.

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And as I remember, Mr. Gossage decided that more needed to be done and he personally was going to get involved and he planned a trip to visit Johnson Motors as soon as he could do it. And I forget the timing here.

Q Is this an unusual matter for Mr. Gossage to visit a customer, to your knowledge?

A Mr. Gossage as part of his job visits customers for various reasons. He just felt that this was important enough that he should give it his personal attention.

Q What do you mean by more needed to be done, by Monsanto?

A Well, Monsanto had, as we perceived it, more education and more emphasis, more encouragement to offer, and of course, the work itself had to be done by Johnson Motors in this case.

Q Did you offer anything at this meeting?

A I don't remember specifics, but we reviewed again what are good practices regarding effluent control, PCB control, the availability of incinerating facilities, the availability of the reclamation facilities; sort of a review of the information we have been discussing here for several days.

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Q What was expressed at that meeting with respect to what means Johnson Motors was utilizing to treat its discharge?

A I don't recall any details other than that. I don't recall.

Q In late 1971 was Monsanto supplying hydraulic fluid with PCBs in it to Johnson Motors?

A I believe by late 1971 we had reformulated to remove chlorinated hydrocarbons.

Q Was there any discussion that you participated in or were in attendance at during that period of time at Monsanto with respect to how PCBs were getting into Johnson's discharge?

A Oh, yes. It is the fluid that existed in the systems.

Q Prior to the reformulation?

A Yes.

Q How was that fluid getting into the discharge, as best you understood?

A I understood it came from leaks and spills in the plant.

Q In use in the hydraulic equipment?

A Yes.

Q Did you have any understanding of how the

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leaks and spills made their way into the discharge?

A No. I don't recall ever hearing the complete description of them.

Q Were there other people at this meeting that appeared to be more knowledgeable on the subject than you?

A Yes.

Q Who were those, the Marketing people?

A Yes.

Q That is Mr. Bradford and Gossage?

A Yes.

Q Did anyone tell you either at this meeting or contemporaneous in point of time that a Monsanto representative had explained to Johnson Motors personnel that the mixing of the two fluids would keep PCBs in the system?

A No.

Q This trip that Mr. Gossage planned to Johnson Motors, was it your understanding one of the subjects to be discussed was to be the Johnson Motors questions about phenols?

A That was my understanding, yes.

Q Was one of the purposes of that meeting at Monsanto to run through an agenda or to prepare Mr.

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Gossage or anyone else for that visit?

A Yes.

Q While you were present at that meeting, was there any discussion to the effect that the then current hydraulic fluid that Johnson Motors was purchasing from Monsanto would produce a phenolic effect once it was heated?

A I don't recall that coming up in the discussion.

Q Was there any discussion with respect to whether Monsanto ought to recommend to Johnson Motors that it flush out its machines in order to rid them of any PCB content?

A I don't recall that coming up at that meeting.

Q Do you know whether that subject ever came up within Monsanto?

MR. SCHINK: Now you are asking with respect to advising Johnson Motors about flushing its machines?

MR. POPE: To rid them of PCBs.

BY THE WITNESS:

A Not in my presence.

BY MR. POPE:

Q By the time of this meeting, had Monsanto learned that its chlorinated terphenyl contained PCBs,

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the Pydraul mixture?

A I believe so, yes.

Q By the time of this meeting, had Johnson Motors been informed of that fact, to your knowledge?

A To my knowledge, yes.

Q How was it informed, how did you learn of the fact?

A I was informed that this was conveyed to Johnson Motors by the field salesman.

Q Orally?

A Yes.

Q Do you know who that field salesman was at that time that conveyed that information?

A I don't remember the individual.

Q Was it Mr. Damiani?

A Well, he was certainly there, but I don't know if he was there at this point in time.

Q Did you ever hear, back with respect to Mr. Gossage's visit to OMC, as to whatever event took place?

A Yes. Shortly thereafter, I would say within the week, he and I were discussing it and he informed me that he had to be a little bit insistent, quite a bit insistent in making some point about better control

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of the waste discharge.

Q What particular points did he make, do you know?

A I don't know that he was very specific. He was just very disappointed in the status of the situation and he felt he had to be quite adamant about his remarks, with his remarks as he expressed his beliefs on what should be done and his disappointment that it hadn't been done, and that he hoped he had made his position quite clear.

Q What kind of points are we talking about, what kind of steps was it your understanding were being recommended?

A I don't recall that we discussed specifics. He was disappointed in the fact that PCBs were being discharged from the plant. That is the main thrust of his disappointment, contrary to what we were led to believe were under control earlier.

Q Did anyone at Monsanto ever say anything to you that led you to believe that at Johnson Motors PCBs were kept totally removed from sources of water in the plant?

A No.

Q As a matter of fact, were you led to believe

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the opposite?

A Yes, right, yes.

Q As of late 1971, what steps were available to separate PCB fluids from water prior to discharge in water?

A Certainly the situation where the oil and water layers separate. That is rather simple.

Q Oil and water separator?

A Yes.

The heavy material will settle to the bottom and the water on top.

Q Was it your understanding that that type of treatment was available at Johnson Motors?

MR. SCHINK: Excuse me, available to them or that it was in place at the plant at that time?

MR. POPE: In place at the plant at that time.

BY MR. POPE:

Q Or do you have any perception one way or the other on the subject, Mr. Papageorge?

A I had the understanding that this was the common situation and that a separation did indeed take place and that was the understanding we had even earlier than '71.

Q Was that an adequate device in the 1970-'71

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period, in your opinion, for separating PCBs from water prior to discharge?

MR. SCHINK: Are you asking him generally or whether the oil separator device, which he understood was at Johnson Motors, was adequate?

MR. POPE: No, I am talking about as a general proposition.

BY THE WITNESS:

A That will separate the gross presence of PCB-containing fluids. It does not take care of any PCBs that were dissolved in the water or attached themselves to particles that are suspended in the water.

BY MR. POPE:

Q In your opinion, does that make that an inadequate system for removing PCBs from wastewater before discharge?

A In itself it is a good first step.

Q We are talking about the standards that were applicable in 1970, '71?

A Yes, yes.

Q Was it your testimony that in your opinion there was need for, as a general proposition, a second step prior to discharging of the remaining water?

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A You are talking now about treating in what are also conceivably steps that could be taken to avoid getting into that situation. Don't end up with water with PCBs in it, keep them separated back where the leaks occur. That was the hope, to avoid getting into a situation which called for a very difficult technical solution.

Q Assuming that is not available to you for one reason or another --

A Assuming --

MR. SCHINK: Assuming what is not available?

MR. POPE: The ability to separate PCBs from water early on in the system.

MR. SCHINK: I don't think there is any evidence in this record that that isn't possible.

MR. POPE: Okay.

MR. SCHINK: Based on this man's testimony.

BY MR. POPE:

Q Assuming that is not available to you.

A Yes.

Q Is it your testimony based on the standards you knew would be in place in '70 and '71, was it necessary to take an additional step beyond an oil separator before it was acceptable to discharge water

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for removal of PCBs prior, was it acceptable to discharge water after using an oil separator without taking any additional steps?

MR. SCHINK: Two points of clarification.

By acceptable, do you mean lawful?

MR. POPE: No.

MR. SCHINK: What do you mean by acceptable?

MR. POPE: I mean what was acceptable to Mr. Papageorge.

MR. SCHINK: All right.

And secondly, when you use the term oil separator, do you mean a properly designed and operated oil separator?

MR. POPE: Yes, sir; yes, sir.

MR. SCHINK: Not just any old separator?

MR. POPE: Yes.

BY MR. POPE:

Q Do you understand my question?

A I believe I do.

Whether the water that is separated from the PCB layer is acceptable for discharge, of course, depends on the concentration of PCBs in it. As we indicated earlier, there are ways to lower that concentration using carbon beds, clay beds, sand beds.

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Q Are there any other places, to your knowledge, where those types of devices were in place in 1970 and 1971 for the removal of PCBs from water prior to discharge?

MR. SCHINK: Are you talking now about discharge directly into a navigable stream or discharge into a sewer system if the effluent would go through a treatment plant?

MR. POPE: No, a stream.

MR. SCHINK: Just a stream.

MR. POPE: Anything else, other than into a sewer.

BY THE WITNESS:

A I don't know of any that were in existence in 1970 in a system such as you described.

BY MR. POPE:

Q How about 1971?

A 1971 is a point in time we are talking about, '70 and '71, yes, yes.

Q I take it at that time the Monsanto plants, Anniston, Queeny, Krummrich, did not have such a system in place?

A That is true.

Q Did they ever put in such a system?

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MR. SCHINK: I don't think there has been testimony that there were discharges from those plants, other than to a sanitary system.

MR. POPE: I agree, I agree with you.

THE WITNESS: I have forgotten the question.

BY MR. POPE:

Q There wasn't any in place in 1970 and 1971 in those three plants? There never was such a system put in place in any of those three plants, was there?

A That is true.

Q Do you know during this period of time whether there were any sanitary districts that were using devices to withdraw PCBs from discharged water?

MR. SCHINK: You are asking him now with respect to the use of clay, sand materials?

MR. POPE: Yes, right.

MR. SCHINK: As part of a treatment process, just generally what was used?

BY THE WITNESS:

A That is not the general practice in a sewage treatment plant.

BY MR. POPE:

Q Were there other devices available for the removal of PCBs than sewage treatment plants in 1970,

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'71?

A The sludge itself captures the PCBs.

Q And that in fact is buried?

A Yes.

Q Were there any other?

A May I clarify that, too?

Q Sure.

A Capture those PCBs that have not degraded in the activated sludge system.

Q Were there any other devices or techniques available to Outboard Marine Corporation to your knowledge, 1970, '71, to withdraw PCBs from its discharge, from its effluent prior to discharge other than the ones you have talked about?

MR. SCHINK: Are you excluding steps that Outboard Marine could have taken to have prevented the PCBs from getting into the discharge in the first place?

MR. POPE: Well, of course, that is inherent in the question.

MR. SCHINK: I didn't understand that.

MR. POPE: Similarly, I suppose one of the ways they could do it is not buy any products that contain PCBs or they could trace it back to Aristotle.

Would you read the question.

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(Question read.)

BY THE WITNESS:

A It is possible that they could have considered conducting biodegradation activated sludge studies and built their own bacteria system to reduce the PCBs. That was a possibility that was available to them.

BY MR. POPE:

Q Is that the kind of studies that were being done at your facility in the United Kingdom?

A Yes.

Q Were those studies that Monsanto had commissioned completed by the end of 1971?

A I don't recall when they were completed, but there was enough done that it would indicate this had a possibility of success.

Q Do you know whether that possibility was discussed with Outboard Marine by anybody from Monsanto?

A I don't know.

Q That type of removal, to your knowledge, was not discussed with any of Monsanto's customers, was it?

A No, I recall that discussions were held with some of our customers.

Q Do you know what steps Mr. Gossage suggested

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to OMC to control loss of PCBs into the environment?

A As best I remember, it was a review of all the procedures we discussed earlier relating to control of leaks and spills and proper burial and disposal; don't let it get away from you in terms of discharging into the environment.

I don't know that I could add anything new.

Q I am trying to understand whether your perception is that Gossage went out and kind of gave these generalities, or whether he had any specific suggestions to make that were applicable specifically to Outboard Marine or to you?

MR. SCHINK: I object to the question. It assumes that leaks and spills and proper burial were not applicable.

MR. POPE: No, it doesn't. It assumes those are generally as opposed to specifics, and that is the whole point of my question.

BY THE WITNESS:

A I don't know. I can only refer you to my recollection of the kinds of thoughts that were discussed at this meeting prior to Mr. Gossage's meeting.

BY MR. POPE:

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Q At that meeting prior to his going to Johnson Motors, was there a discussion in your presence of specific recommendations that Monsanto could make to Johnson Motors that relate to their plants?

A I don't know what you mean by specific.

Q You don't know what I mean by specific recommendation?

A That is right, sir.

Q You have just given us a little list of the general subject, like control spillage and those kinds of items.

My question is whether there was any discussion of something that Johnson Motors could do that would relate directly to them as opposed to kind of advice that Monsanto would make available to any of its customers.

MR. SCHINK: Mr. Pope, do you mean how big a bucket you put under a particular leak, is that what you mean by a specific recommendation?

BY THE WITNESS:

A Recommendations we gave cannot be the kind that a consulting engineer, construction firm will give you: Drawings, directions, specifications, flow rates. That is the decision of the management at

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Johnson Motors, they had to make. We can only talk about the objectives that are desirable.

The decision on how to get to those objectives is not ours.

BY MR. POPE:

Q Is it your testimony that as that meeting before Mr. Gossage went out that what was discussed by you was general objectives?

A Yes.

Q Do you know if there was any discussion at this meeting about Johnson Motors' plant in Waukegan and the separation of die cooling water from other water?

A I don't recall a discussion of that type.

Q Was there any discussion with respect to whether the oil interceptors at Johnson Motors could be made more efficient?

A Not in my presence, no.

Q Did Mr. Gossage report after his return that he discussed anything else with Johnson Motors other than controlling leaks for PCBs?

A Not with me, no.

Q You have no way of knowing whether the subject of phenols was actually discussed?

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A Oh, he mentioned it in a sort of quick reference, but since I wasn't involved with the latest formulation, I did not get deeply into discussion.

Q Was there a new reformulation of Pydraul that was about to be introduced at Johnson Motors?

A It was either about to be or had been.

Q Was that the view of Monsanto, that they would basically take care of the phenol problem --

MR. SCHINK: Excuse me, the phenol problem, do you mean the phenol problem we talked about before that Johnson Motors asked Monsanto's help with?

You are referring to the presence of phenols in its discharge?

MR. POPE: That is one way of describing the problem, yes.

BY THE WITNESS:

A I can't comment because I don't have information.

BY MR. POPE:

Q Following the visit and your discussion with Mr. Gossage of what took place at Johnson Motors, did you have any discussion with him at a later point in time regarding Johnson Motors or Outboard Marine?

A I don't recall any specific discussion.

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Q How about Mr. Bradford? Did you have any further discussions with him on the subject of Johnson Motors?

A There was a continual dialog, but there was in my mind, I don't recall any specific date or topic.

Q Did you have any meetings or discussions with anybody at Monsanto regarding the subject of advising Johnson Motors that the reclamation project had been viewed as unfeasible?

MR. SCHINK: Which reclamation project are you referring to?

MR. POPE: Reclamation of used Pydraul.

MR. SCHINK: By who?

MR. POPE: By Monsanto.

MR. SCHINK: I don't believe there has been any testimony that Monsanto did not consider the reclamation project to be feasible in the sense that it could be done. What are you referring to?

BY MR. POPE:

Q Was there a point in time, Mr. Papageorge, when Monsanto decided not to go forward with the reclamation of PCB-bearing Pydraul?

A Yes.

Q Then we talked before in your testimony that

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it was decided there were other people available, is that right?

A Yes.

Q Did you participate or know that anyone at Monsanto had conveyed that information to Johnson Motors?

A I don't know that.

Q You have given me a list of the people that you talked to at Monsanto regarding Johnson Motors, is that correct?

A Yes.

Q Are there any others? We are not confining ourselves at any point in time, just generally if you recall.

A I have covered all that I can recall.

Q Did you ever have a discussion with anyone regarding how Johnson Motors was disposing of used Pydraul?

A I recall discussions on the subject. I don't recall the timing nor the person.

Q What was the substance of the discussion?

A I was led to believe that they were properly disposed of. I was led to believe that there was some reclamation taking place.

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Q Through a device that would separate Pydraul from solid substance?

A Well, separate usable Pydraul from undesirable materials.

Q The disposal of used Pydraul that was not being reclaimed, what was your understanding based on that discussion as to what they were doing with it?

A I was led to believe it was going to some landfill.

Q Did there ever come a point in time when you learned that was not true?

A I don't recall. No, I don't recall that.

Q Do you know whether Johnson shipped any PCB-bearing products to Sauget for purposes of incineration?

A No, I don't.

Q Would they have been eligible so far as you knew for the use of that incinerator?

A Certainly.

MR. POPE: Miss Reporter, I would ask you to mark as Papageorge Deposition Exhibit No. 85 for identification, a one-page document which has been edited and originally purports to be a memo from E. M. Potter to Mr. Papageorge, dated October 17, 1972.

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(Papageorge-OMC Deposition

Exhibit No. 85 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, is that a memorandum you received on or about the date it bears?

A Yes.

Q Did you ask for that information?

A Yes.

Q For what purpose?

A I don't recall any longer.

Q So far as you know, is the information contained in that report accurate, specifically the last Pydraul formulated with Aroclors was manufactured and sold in June of 1971?

MR. SCHINK: Excuse me, with Aroclors or formulated with PCB? I ask that only because terphenyl is an Aroclor as well.

MR. POPE: I stand corrected.

BY MR. POPE:

Q The last PCB shipment of Pydraul took place in June of 1971, is that correct?

A You are referring to next to the last paragraph?

Q Last two paragraphs, both of which refer to

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June of 1971, as I read it.

A I see.

MR. SCHINK: You are talking now about these shipments to Europe?

BY THE WITNESS:

A If I remember your question, it had to do with sales terminated in June.

BY MR. POPE:

Q Yes.

A The majority of the dates in this memo refer to when production was terminated.

Q I see.

So as to Pydraul 312, is it correct that sales continued through September?

A Yes, yes.

Q And then as to Pydraul A-200, am I correct in interpreting that to mean that as to domestic sales of A-200, they had terminated by May of '71?

A Yes.

Q There was some additional Pydraul manufactured in May of '71, Pydraul A-200 manufactured in May of '71 and some other substance which we don't know, not having been permitted to know about, in June of 1971 that were shipped to Europe?

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A Yes.

Q Was there any practice at Monsanto with respect to products that had been discontinued in the United States and in the Pydraul area continuing to be sold abroad?

A There was -- not opportunity, but an occasion when a special need was fulfilled in Europe and the best I recall, it had to do with the coal mining equipment in the German mines.

Q So there it was a special occasion after the PCB fluid was no longer sold in this country when it was available to some customers in Europe?

MR. SCHINK: You are talking now the period of June of 1971?

MR. POPE: Right.

BY THE WITNESS:

A Yes.

BY MR. POPE:

Q Was there any such occasion after June of '71?

A I don't recall.

Q Who would determine whether a particular substance was a special occasion or not?

A I would assume Mr. Bergen.

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Q Did he ask you for your suggestion or your recommendation in connection with the German mine situation?

A We reviewed this and it was an appeal from the German Government.

Q Do you have any contact with representatives of the Department of Defense in this country in connection with PCBs?

A I had contacts with representatives, but at this time I don't recall if it was PCB or PCTs.

Q Was it the Department of Defense purchasing hydraulic fluids which contained PCBs from Monsanto?

A I don't know.

Q Was it purchasing other fluids which contained PCBs from Monsanto?

A I don't know.

Q Who would know the answer to these two questions?

A Marketing people would.

Q Which Marketing people?

A Mr. Gossage for one.

Q Mr. Johnson?

A Mr. Johnson, yes.

MR. POPE: Miss Reporter, I would ask you to mark

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this 3-page document as Papageorge Deposition Exhibit No. 86 for identification, being what appears to be a trip report for Mr. Mees dated October 10, 1972.

(Papageorge-OMC Deposition

Exhibit No. 86 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q I hand you Exhibit No. 86 for identification, Mr. Papageorge, and ask you to take a look at it and tell me if you received a copy of that report on or about the date it bears.

A Yes, I recall this report.

Q What was the purpose of that report?

A The purpose is to report for Mr. Mees, to report his attending an American Chemical Society Meeting in New York from August 29 and 30, 1972.

Q Who was Mr. Mees?

A Mr. Mees was an analytical chemist reporting to Dr. Tucker.

Q The third page of the report contains:

"Perhaps the most significant comment was to the effect that researchers should look for impurities, specifically dibenzofurans, in the Aroclors to explain the erratic toxicity data."

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Did you discuss that statement with
Mr. Mees?

A Yes.

Q Was it your feeling that that was a useful
area for future PCB research?

MR. SCHINK: Are you talking about with respect
to Monsanto's PCBs or those manufactured by the foreign
manufacturers of PCBs we have had some testimony about?

MR. POPE: Monsanto's.

BY THE WITNESS:

A Well, not for the future, because we had
already looked at our material.

BY MR. POPE:

Q How thoroughly had that been looked at, that
question?

A Very thoroughly.

Q By whom?

A The analytical chemists.

Q Dr. Keller's firm?

A Dr. Keller's laboratory, yes.

Q Did they find any dibenzofurans in the
Aroclors?

A No.

Q Upon Aroclors being heated, do they give off

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any substance that relates to dibenzofurans?

A Not to my knowledge.

Q Back to the question of incineration for a moment, the memorandum that was marked at the Bergen deposition as Exhibit No. 7 for identification, at the deposition of Mr. Bergen, on February 14, 1972 he refers in that memorandum to a different pricing schedule for Pydrauls and for other PCB products. Do you recall that being employed?

MR. SCHINK: Does he recall what?

MR. POPE: The employing of a different price schedule for Pydraul fluids being incinerated than for other types of PCB products.

MR. SCHINK: You are talking about other products that didn't contain 100 percent PCBs?

MR. POPE: I am talking about other products that didn't contain Pydraul.

BY THE WITNESS:

A I don't recall this difference in prices charged.

BY MR. POPE:

Q You don't recall the memorandum?

A No.

Q I have a group of documents which I think we

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have already identified more than once in the past depositions.

MR. SCHINK: That is not a complete list. There is a first page to it, Luplow Exhibit 7.

MR. POPE: Before I do anything else, I am going to ask Mr. Papageorge if he is familiar with these documents.

MR. SCHINK: That is only part of the document that came from the files of Johnson Motors. It was marked as Luplow Exhibit 7. There is a first page that appears to be missing from it.

MR. POPE: I am going to ask Mr. Papageorge whether he has ever seen it. If he hasn't seen it, I am not going to do anything further with it.

The first page on this exhibit is marked The Problem.

MR. SCHINK: On the portion of the document you have given him, this is the first page.

MR. POPE: That is all there is to this particular document. There may be other documents that go with it.

BY THE WITNESS:

A I don't recognize this. I don't recall seeing it.

MR. SCHINK: May I see that document?

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BY MR. POPE:

Q You haven't seen those series of documents before?

MR. SCHINK: May we have this marked as an exhibit, please. This is a document that I have not seen before and it has not been produced in this litigation. If we could have it marked, I would appreciate it, since it has been shown to the witness.

MR. POPE: Please mark this 7-page exhibit, the first page of which contains some writing from Mr. Fort as Papageorge Exhibit 87.

MR. SCHINK: You are referring to a reference from Johnson Laboratory's File, Water Pollution Memo, 10/71?

MR. POPE: It seems to be the only writing on there, Mr. Schink.

MR. SCHINK: If that is -- you stated it was Mr. Fort's handwriting. I am trying to clarify what you are referring to.

MR. POPE: The exhibit.

MR. SCHINK: Is that what you are referring to, Mr. Pope?

MR. POPE: Mr. Schink, I am not a witness here.

MR. SCHINK: You made a representation on the

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record.

MR. POPE: If you want to make an objection, make an objection.

MR. SCHINK: You stated for the record there was some writing on the first page which Mr. Fort had added.

MR. POPE: I certainly did.

MR. SCHINK: I am asking you to identify that language, what language is on that document that was added by Mr. Fort.

MR. POPE: I can't read Mr. Fort's writing.

MR. SCHINK: Are you referring to the handwriting in the upper right-hand corner of the first page of Exhibit 87?

MR. POPE: Yes.

MR. SCHINK: Is there any other part of the first page that you are referring to in addition to Mr. Fort's?

(Papageorge-OMC Deposition

Exhibit No. 87 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, Exhibit 87 is the document I just showed you a minute ago and you said you had not

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seen it, is that right?

A Yes.

Q As far as you know in the meeting prior to Mr. Gossage going to Johnson Motors, were there any documents that were either prepared or being prepared of the type here we have listed as Exhibit No. 87?

A I do not recall seeing these at that meeting.

Q These various charts, you did not assist in the preparation of them, did you?

A No.

MR. POPE: Please mark this multi-page document as Papageorge Deposition Exhibit No. 88 for identification, first page of which appears to be a memorandum from a R. A. Baxter to E. P. Wheeler, dated December 21, 1971.

(Papageorge-OMC Deposition

Exhibit No. 88 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, is that a document which you received in the ordinary course of business on or about the date it bears?

A Yes.

Q I understand that that is a report submitted

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from the Bayer Company in Europe?

A Yes.

Q The memorandum, cover memorandum, refers to submitting comments on that report. Do you see that?

A Yes.

Q Do you know whether any such comments were ever prepared by Monsanto representatives?

A I don't recall any.

Q You did not prepare any yourself?

A No, that would not be my responsibility.

MR. POPE: Miss Reporter, if you would mark this 8-page document as Papageorge Deposition Exhibit No. 89 for identification, front page of which is a memorandum from Dr. Richard dated January 7, 1972.

(Papageorge-OMC Deposition
Exhibit No. 89 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I hand you Exhibit No. 89 for identification and ask you to look it over and tell me if you have received a copy of that report in the ordinary course of business on or about the date it bears.

A Yes.

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Q Do I take it correctly this is one of Dr. Richard's monthly summaries of research that was under way with regard to Specialty Products?

A Yes.

Q This is the summary for December 1971?

A Yes.

Q Do you know whose handwriting appears on this document?

A I don't recognize it.

Q There is a reference on Page 4 to Johnson Motors, is there not?

A Yes.

Q Was it normal practice in the circulating of these monthly reports for Dr. Richard to make reference to individual customers?

MR. SCHINK: Are you asking during this time period?

MR. POPE: Yes.

MR. SCHINK: Or over the years as this report was prepared?

MR. POPE: During this general time frame, if you want to be Jus Respicit .

BY THE WITNESS:

A Yes, it was not an uncommon situation.

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BY MR. POPE:

Q What was your perception of what the purpose for including specific customers was in a report such as this?

A That was a way to communicate to all the recipients the activities and results achieved by this laboratory.

Q Under the reference to Johnson Motors, it says:

"We recommended water effluent clean-up to prevent phenolic materials from showing up in the effluent samples. Johnson Motors plans to trial Pydraul 50E."

Do you understand the use of the term "we" to refer only to Dr. Richard's group, or was that terminology that would have reference to Monsanto representatives generally?

MR. SCHINK: You are asking if he knows what Dr. Richard meant by use of the "we" in that context?

MR. POPE: Not at all. I wouldn't ask him that because how could he climb inside Dr. Richard's mind?

I am just asking what he perceived when he read it.

MR. SCHINK: Or if he perceived anything.

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MR. POPE: He had a little bit more knowledge about what the practices of Monsanto were than I do and he may be better taken to describe that.

MR. SCHINK: But I don't think you have laid a foundation that he knows what Dr. Richard meant when he wrote that.

THE WITNESS: Where are we?

MR. POPE: The question is to you.

BY THE WITNESS:

A You asked me how I perceive the use of the "we" in that sentence?

BY MR. POPE:

Q As to whether it would pertain to the Research Department or whether it would include Marketing, various other representatives of Monsanto.

MR. SCHINK: You are asking what it means today or what it meant when he received the document back in 1971?

MR. POPE: I presume if I ask him that latter question, he is going to tell me I don't remember.

BY MR. POPE:

Q Do you remember?

A No, I don't.

Q Do you, as you read it now --

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MR. SCHINK: If it means anything to you one way or the other.

BY THE WITNESS:

A I can't tell. I can't tell.

BY MR. POPE:

Q You sat in at a meeting prior to Mr. Gossage's visit to Johnson Motors, did you not?

A Yes, yes.

Q The subject was communicating facts to Johnson Motors that included reference to phenolics, is that right?

A Yes.

Q Did Dr. Richard and his group sit in at that meeting?

A There were representatives of the group there. I don't know specifically who, I don't recall.

Q Do you have any reason to believe that Dr. Richard communicated directly with Johnson Motors with respect to what is set forth in that memorandum?

MR. SCHINK: You mean he personally or people on his staff?

MR. POPE: I will accept people on his staff.

MR. SCHINK: Such as Mr. Stark and people such as that, is that right?

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MR. POPE: Yes.

BY THE WITNESS:

A I recall people representing Dr. Richard's group accompanying Mr. Gossage in his visit in late '71 to Johnson Motors.

BY MR. POPE:

Q Who was that?

A I don't remember.

Q Do you know if their purpose in accompanying Mr. Gossage on this trip was to recommend water effluent clean-up to prevent phenolic materials from showing up in the effluent samples?

A I don't know the purpose.

MR. POPE: Miss Reporter, would you mark this multi-page document as Papageorge Deposition Exhibit No. 90 for identification, first page of which is a short note from the desk of W. B. Papageorge, dated 9/24/75.

(Papageorge-OMC Deposition
Exhibit No. 90 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q I show you that exhibit, Mr. Papageorge, and ask you if that is a note from you on the front

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page and did you attach copies of that document?

A I am sorry?

Q Is that first page a typed note from you?

A Yes.

Q To those people listed?

A Yes.

Q Did you attach a copy of this document which is attached to the exhibit?

A Yes.

Q That is a chapter of a book Dr. Lee was preparing, is that right?

A I don't recall it as being intended as a chapter in a book.

Q Can you tell me how the material came to you?

A Dr. Lee sent it to me. He and I had met, as I recall, at Duluth, Minnesota.

Q Five years previously?

A 1970.

Q What was Dr. Lee preparing, do you know, what work was he doing at that time?

A As I understood it, he is a consulting engineer or consulting chemist and one of his clients was the Corps of Engineers. And he was working on a project involving PCBs, and at that time I was led to

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believe this was a draft of a report to the Corps of Engineers.

This particular draft had references to PCBs. I have never seen a complete report nor other portions of this report.

Q Why did he send it to you?

A I don't know.

Q What did you do with the report other than circulate it to those four people indicated?

A Nothing other than that.

Q Do you know if anyone gave any comments back to Dr. Lee?

A I don't recall any.

Q Did you ever talk to him again after that meeting in Duluth?

A We had many or several discussions with Dr. Lee over a period of many years.

Q Telephone discussions?

A And he would come to St. Louis and visit.

Q For what purpose?

A He was working, he also had a contract with Monsanto.

Q To do what?

A To work on water chemistry problems wherever

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anyone in Monsanto felt that he could serve, that he could help.

Q Did that include PCBs in water?

A Yes.

Q Did he ever produce a report for Monsanto?

A Yes, yes, he did.

Q Can you tell me the date and the subject matter of the report?

A I don't recall the date, 1971, 1972. He prepared a report for Monsanto.

Q Can you tell me what the report concluded or what his study had been?

A This was not a study. This was comments in Monsanto that Monsanto would have addressed to EPA regarding some proposed water rules. That's all I recall at the moment.

Q Did the comment relate to PCBs in water?

A PCBs was one of several chemicals.

Q Was this report sent across your desk at some point in time?

A Yes, eventually I got a copy.

Q Did that report form the basis for your letter to Dr. Sager that we have discussed earlier?

A No.

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Q Was that report prepared in connection with the same project that EPA was looking at at the time?

A I don't think so.

Q Was that the only report that Dr. Lee did, the only work that Dr. Lee did for Monsanto?

A To the best of my knowledge, yes.

MR. POPE: Miss Reporter, if you would mark this as Deposition Exhibit No. 91 for identification, a 2-page document, being a memorandum to Mr. Papageorge from J. P. Mieure, M-i-e-u-r-e, dated October 9, 1975.

(Papageorge-OMC Deposition
Exhibit No. 91 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q I hand you Exhibit No. 91 for identification, Mr. Papageorge, and ask you if you received the original of that memorandum in the ordinary course of business on or about the date it bears.

A Yes.

Q This memorandum discusses a visit by representatives of Versar and Clark, Dietz, is that correct?

A Yes.

Q Who is the author of that, what was his status?

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A Dr. Mieure is the chemist who replaced Dr. Tucker.

Q In Dr. Keller's department?

A Yes.

Q In the last sentence of the first paragraph, he says:

"We felt it important to appear candid in our discussions because we sensed annoyance at Monsanto's reluctance..."

Do you know what he meant by that?

A No, I don't.

Q Had there been prior contact, to your knowledge, between Versar and Clark, Dietz?

A I don't know.

Q Was it the policy of Monsanto in dealing with any outside bodies on the PCB matter to give the appearance of candor as opposed to actually being candid?

A The policy was to be candid except for some very sensitive information which was confidential.

Q Such as what?

A Customer names, as an example.

Q Any others?

A I'm sure there are many: Technology that is

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unique to Monsanto and so on.

Q Manufacturing process?

A Yes.

Q Any others?

A I can't think of them all. I'm sure there are many others.

Q As you sit here, can you think of any other areas that would be an exception to the policy about being candid about PCB matters?

A Some of our formulations.

Q Of the PCB products, you are referring to?

A Yes.

Q Did those formulations remain secret, confidential, after they were no longer being manufactured and sold?

A I do not recall that they were ever divulged in total. I was never involved in divulging the total recipe of any product.

Q Right up to this date?

A To this day, yes.

Q Are there any other areas that you can think of that would be exceptions to the rule?

A I can think of -- yes, financial data.
Some of it is confidential.

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Q Any others?

A I am sure there are many others, but I am not privy to all of them.

Q Were there any in the area of test data, reports that had been received by Monsanto that were maintained as confidential in the PCB area?

A Not to my knowledge, no.

Q Is it true that of October 9, 1975, Monsanto had only limited knowledge with respect to the various processes for treating wastewater that contained PCBs?

MR. SCHINK: Are you referring to some language in here, Mr. Pope?

MR. POPE: No, I am characterizing.

MR. SCHINK: Well, I object to the characterization.

MR. POPE: Why?

MR. SCHINK: In view of what that document says.

MR. POPE: I am characterizing the knowledge of Monsanto and asking him whether that is true or not.

MR. SCHINK: Well, I think there are eight different techniques that are involved here and the state of the knowledge with respect to each is different and that is specified by the document.

MR. POPE: Set aside the document. Answer the

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question based on what your recollection was, Mr. Papageorge.

BY THE WITNESS:

A We had limited knowledge regarding some technology, but we also had very thorough knowledge about other technologies.

BY MR. POPE:

Q Which were the technologies that you had thorough knowledge?

A It is described in by 1, 3 and 4.

Q Activated carbon, clay and polyurethane?

A Yes.

Q Had there been ongoing tests on those methods for processing or treating water beyond those exhibits we have already looked at in this deposition?

A Not to my knowledge.

Q Those reports from Anniston were basically the basis on which Monsanto had knowledge with regard to those three techniques, is that right?

A Yes.

MR. SCHINK: You are including the Dayton lab? We have also seen some results of Dayton looking to the results on clay and sand as well.

BY MR. POPE:

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Q You never saw any results, but I think that was because they weren't produced.

As of October 1975, was Monsanto treating any wastewater for PCB content using any of those three techniques?

A No, we didn't have to.

Q Was it treating wastewater in any of its plants for PCB content by any other method?

A No.

Q And I mean to include in that other Monsanto plants besides Queeny, Krummrich and Anniston.

Did you understand that?

A I understand that.

MR. POPE: I would ask the reporter to mark as Papageorge Deposition Exhibit No. 92 for identification, a multi-page document entitled Determination of Polychlorinated Biphenyl Residues in Beagle Dog Tissues from a Two-Year Oral Chronic Toxicity Study.

(Papageorge-OMC Deposition

Exhibit No. 92 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I show you Exhibit 92 for identification and ask you if that is a report that you

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received with respect to the work that was commissioned we talked about previously on beagle dogs.

A Yes.

Q Can you detect from the second page when that report was made available?

A December 1972.

Q Is this document a summary by Dr. Keller's department of those final results?

MR. SCHINK: You are talking about whose final results?

MR. POPE: Dr. Tucker's department didn't do the dog test, did they?

MR. SCHINK: You are talking about the feeding or the tissue samples?

BY MR. POPE:

Q Why don't you just tell me what it is, Mr. Papageorge.

A This report summarizes the analytical results determined in Dr. Keller's laboratory relating to PCB residues in tissues from dogs used in previous feeding studies at the Industrial Bio-Test Laboratories.

Q Would it be fair to say that this is like the final aspect of the dog study?

A I have no way of knowing if further tissue was

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analyzed. The report is not specific. I don't know if it is final or not.

MR. POPE: I would ask the reporter to mark as Papageorge Deposition Exhibit No. 93 for identification, this multi-page document which bears the title of Determination of Polychlorinated Biphenyl Residues in White Leghorn Chickens from a Toxicity, Reproduction and Residue Study with Aroclor 1242, Aroclor 1254, and Aroclor 1260.

(Papageorge-OMC Deposition
Exhibit No. 93 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q I hand you that exhibit, Mr. Papageorge, and ask you if that is a document you received from Dr. Keller's department as well?

A Yes.

Q Can you tell me what that is?

A This is a report of the analytical results as found by Dr. Keller's laboratory on the amount of PCBs present in tissue obtained from white leghorn chickens used in toxicity studies at Industrial Bio-Test Laboratories.

Q When was that report prepared?

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A The date of March 1973 appears on the fourth page.

Q Does that indicate the date of preparation?

A Yes.

Q Are you able to tell whether that is a final report with regard to leghorn chickens?

A No, I can't.

Q It was the practice with reports such as these for the analytical group at Monsanto to conduct tissue studies after the basic animal studies were completed, is that right?

A Yes.

Q Exhibit No. 93 refers to the chicken studies we have talked about several times during this deposition, being the ones that had shown some adverse effects on hatchability of eggs, is that right?

A Yes.

Q Did your job change in general in 1972 and 1973 from what it had been in 1970 and '71?

A Not in general, no.

Q When you received the title of Manager, Product Acceptability --

A Yes.

Q -- did your job change other than having

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responsibility for other chemical substances besides PCBs?

A Did my --

Q Did your job change any when you got that title?

A Yes.

Q In what way did your job change?

A I was given other Monsanto products to consider in addition to PCBs for environmental purposes.

Q Did any of those products ultimately get taken off the market?

A I don't believe so. I don't recall any, no.

Q At any point in time did you learn of any studies or reports which would indicate that PCBs are harmful to humans?

A I thought we have covered these when we referred to potential harm to skin, eyes, respiratory system.

Q And other than those and that part of the deposition, I believe we were talking about from 1970 backwards.

Now I am saying as we sit here today, 1981, did you have access to any reports other than these that you talked about reviewing in 1970 and prior

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thereto. Have you come across any reports that indicate PCB's harm to humans?

A I don't know of any. I don't recall any.

Q If I have asked you this question before, I apologize.

Did you specifically discuss anything having to do with Johnson Motors with Mr. Damiani?

A Yes, in a broad general way. I had discussions with Mr. Damiani over the phone or when he visited St. Louis.

Q On the subject of Johnson Motors?

A Yes, and other customers.

Q Was his discussion with you of Johnson Motors consistent with the discussion you have already described for us by Norm Johnson?

A Yes.

Q Did Mr. Damiani ever tell you personally that he had communicated to Outboard Marine, Johnson Motors the results of the analysis from Dr. Tucker's laboratory that had been done on the Johnson samples?

A Yes, he did.

Q He did?

A Yes.

Q Was that a telephone conversation or person-

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to-person?

A I think it was both.

Q Did he tell you that there was Pydraul in the ditch running alongside the Johnson Motors facility?

A I am not aware of any ditch at Johnson Motors.

Q Did he tell you there was Pydraul in a harbor outside of Johnson Motors' facility?

MR. SCHINK: You are using the term Pydraul now, not PCB? Is there a distinction in your using of that term?

MR. POPE: I don't know what the discussion was.

MR. SCHINK: Are you using the term Pydraul and PCB interchangeably in the context of this question?

MR. POPE: I am talking about Pydraul in this question right now.

BY THE WITNESS:

A I don't recall a Pydraul in the harbor type discussion.

BY MR. POPE:

Q Did Mr. Damiani ever indicate to you his intent to go into the Pydraul reclamation business?

A Yes.

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Q Was that before he left Monsanto?

A No, this was after he had left.

Q Did you ever hear any discussions at Monsanto regarding the question of whether Mr. Damiani was devoting a portion of his time while still working for Monsanto to the setting up of his proposed reclamation business?

A I was not aware of that.

Q Are you familiar with the physical characteristics of Pydraul, its color, odor, that sort of thing?

MR. SCHINK: A particular Pydraul or Pydraul?

MR. POPE: Sure, Pydraul F-9, for example.

BY THE WITNESS:

A I used to be. It has been awhile. I don't know that I could recognize them now.

BY MR. POPE:

Q Would your answer be the same with regard to A-200?

A Yes.

Q A-200A, A-200B?

A I've seen the material.

Q You don't know whether it has a color, an odor or such as that?

A As I remember, there was a color associated,

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blues.

Q Was that a color added to the manufacturing process?

A Yes.

Q Added for identification purposes?

A I don't know why it was added.

Q As far as you know, all of these Pydrauls we referred to had the same color?

A Yes.

Q I know it is explicit, but you never visited Johnson Motors?

A No.

Q Did you ever talk directly to any representative of Johnson Motors?

A Not to my knowledge.

Q I think we have discussed this, but the only other user of Pydraul you ever called on, a customer, was General Motors, is that right?

A The only user that I was aware of was General Motors, yes.

Q Aware of when you called on them, you mean?

A Yes.

Q Have you come across any reports, Mr.

Papageorge, right up to today that would indicate that

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bioaccumulation of PCBs in animals is harmful to those animals?

MR. SCHINK: You are talking about the process of bioaccumulation being harmful, Mr. Pope, as opposed to particular levels being present?

MR. POPE: I didn't mean to be that specific, Mr. Schink.

BY THE WITNESS:

A I don't recall any reports in which that direct association of bioaccumulation and harm have ever been published.

BY MR. POPE:

Q Were you aware of reports that there was bioaccumulation in certain animals?

A Yes.

Q Have you seen any reports by Dr. Veith regarding PCBs?

A Yes.

Q What is the context in which you reviewed those?

A The context in which I reviewed them?

Q Yes, for what purpose?

A As part of my responsibilities to keep abreast of developments and I knew that Dr. Veith was

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involved in aquatic analytical work and he was very active in the field of bioaccumulation.

Q When was that that you reviewed those reports?

A 1971, '72, '73. He was active over many years.

Q Did you participate in any meeting or discussions at Monsanto with respect to areas in which Dr. Veith's work was subject to challenge?

A No.

Q How about Dr. Kimbrough? Are you aware of articles that she has published with respect to PCBs?

A I am aware of her work. I don't recall an article published by Dr. Kimbrough.

Q Whether it was published or you came across it in any other fashion, are you aware of her work?

A Yes.

Q Have you participated in any meetings or discussions with respect to ways in which her work or her methodology or her conclusions could be criticized or subject to challenge?

A Yes.

Q Who else participated in those meetings or discussions?

A Dr. Kelly and Mr. Wheeler, Dr. Calandra.

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I believe Dr. Keplinger was also present. That's all I recall.

Q Dr. Calandra is a pathologist?

A Yes.

Q When was that meeting held or discussion held?

A 1973, '74.

Q Was it in conjunction with a lawsuit or as general research?

A No, this was with respect to Dr. Kimbrough's visit to Monsanto to describe her studies and results.

Q That took place in 1973, is that right?

A I believe so.

Q How did that visit occur? Was she invited by Monsanto?

A Dr. Kimbrough was invited by Monsanto to visit. Dr. Kelly was the invitee.

Q She accepted the invitation?

A Yes.

Q Did she present the results she had available at that time of the studies she had done in Atlanta?

A Yes.

Q Was there a question and answer session that took place or was it simply a formal presentation?

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A No, it was a very informal discussion.

Q Was there anybody else present other than the people you have just given me?

A I don't recall anyone else.

Q Did the Monsanto group conclude there were serious errors in her methodology?

A Not in the methodology, no.

Q Were there serious errors, as you concluded, in her conclusions?

A I'm having problems with the word errors. There was a disagreement including observations, not conclusions.

Q Would it be fair to say that your people observed her evidence -- did she bring her slides with her?

A I believe she had some slides with her, yes.

Q I don't mean to prolong this. Would it be fair to say as your people observed the evidence she had, they formed different conclusions than she formed?

A That is correct.

Q Is it fair to say that Monsanto people at that meeting concluded that there was not evidence that PCBs under the test conditions she had performed caused cancer?

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A That is correct.

Q Was this basically a matter of interpretation of slides, your people interpreting them differently than she had?

A Yes.

Q Is Dr. Keplinger also a pathologist?

A I don't think so.

Q I take it at that meeting Dr. Kimbrough remained firm in her conclusions?

A Yes.

Q Was one of Monsanto's people designated to prepare notes or minutes of that visit?

A Not to my knowledge.

Q Following that visit were there any additional studies commissioned by Monsanto in connection with the animal studies of PCBs?

MR. SCHINK: You are asking as a result of that meeting?

MR. POPE: Yes.

BY MR. POPE:

Q I don't want to ask you whether you commissioned something simply to see that she was wrong, but in that same area of tests that she was doing, the studies that she was doing?

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A No, no.

Q Were there any other meetings held at Monsanto that you can recall with other independent scientists who had formed adverse conclusions with respect to PCB in animals or the environment?

A Yes.

Q Could you tell me who those people were?

A There was a group of scientists that visited Monsanto in about 1973. Included in that group were one Robert Risebrough and Warren Muir, M-u-i-r.

Q Is he a physician or chemist?

A He is a doctor in chemistry, as I recall, and a third scientist from Woods Hole Institute of Oceanography. No, let me think.

One of them was from Woods Hole. I have forgotten just who.

Q Was the focus of their work the effect of PCBs on the aquatic environment?

A I'd like to be a little more specific.

Q Please.

A Because there is a difference among those who are involved, primarily --

Q The difference is lost on me.

A A marine biologist as distinguished from

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fresh water which is aquatic; nitpicking.

Q Referring to the oceans?

A Yes.

Q Can you just briefly describe for me what the substance of the meeting was?

A As it turns out, they were again typical of other audiences trying to find out more about PCBs, their uses, the amounts, some ideas on how it might get into marine environment; very, very general, broad type of informational discussion that took place.

Q Was this discussion a discussion where the Monsanto people were fully candid with those three visitors?

A Yes.

Q Who was present from Monsanto?

A I was present. We had someone from Dr. Keller's group. I believe it was Dr. Tucker and I believe Dr. Richard who attended part time, and then we had a management director of the operating unit responsible for PCBs at the time sit down and observe.

Q Who was that?

A Mr. C. P. Cunningham. And my immediate supervisor at that time, Mr. Waddel Cory was in attendance.

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Q What was the nature of the discussion?

A As I said, just a broad general discussion.

Q How do PCBs get into oceans and affect ocean fish life or birds?

A No, there was speculation how it might get in expressed by several people in the room. Some were silent, they had nothing to offer. No one mentioned birds other than Dr. Risebrough mentioning his pelicans.

The others had no personal experience, but they were at that time considering embarking on some test programs.

Q Did the speculation as to how the PCBs get into the ocean include references to the carbonless carbon paper?

A That was brought about, yes.

Q Did you ever formulate any ideas or express any opinion as to what percent of the overall PCBs in the environment could be attributed to carbonless carbon paper?

A No.

Q Have you formed any tentative conclusions or expressed any opinion with regard to any of the other uses?

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A No.

Q As you sit here today, are you able to explain how so much PCB did get into the environment?

A No.

Q Would I be correct in assuming you don't have any personal knowledge with regard to PCBs in the Waukegan area?

A That is correct.

Q You have no information as to whether those PCBs pose any health hazard to man or animal, do you?

A That is correct.

Q Do you have any views on the use of dredging in connection with removal of PCBs?

MR. SCHINK: Where?

MR. POPE: Anywhere.

THE WITNESS: Well --

BY MR. POPE:

Q Most relevant to our concern is a place where they are under water.

A I have some views but personal views.

Q What are those views?

A I would suggest that unless there is some evidence of harm, the dredging operation in itself and the potential for improper subsequent disposal of the

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dredged material could lead to more problems, so the corrective action might be counterproductive.

Q Do you have any experience in effecting or analyzing corrective action regarding PCBs in the environment, either in bringing about corrective action or analyzing people's plans with respect to corrective action of PCBs?

A Limited experience.

Q Where was that limited experience acquired?

A I had the experience that Monsanto itself had at Pensacola, Florida, which the portion of the water system which contained the PCB-containing fluid was covered rather than dredged, diverting the stream through a new channel, thereby through all the information I have tells me that that material is immobile underneath this cover.

Q When was that work done?

A 1970, '69-'79, somewhere in there.

Q Was the reason corrective action had to be taken there solely confined to a single spill?

A Yes.

Q In other words, a spill of Pydraul?

A Yes.

Q Did Monsanto conduct studies at that plant

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or in the environment of that plant to determine whether there had been other spills or leaks or escape of PCB from Monsanto's plant?

A No.

Q Was an independent consultant of any kind retained in connection with that corrective action, either in evaluating what needs to be done or assisting in the bringing about of that remedy?

A Not to my knowledge.

Q Who at Monsanto was in charge of that corrective action?

A I don't know the individual in charge. He would be a member of the plant staff.

Q Did you consult with him in regard to that remedy?

A I consulted with the environmental controller at the plant, who in turn advised someone else, and I don't know who this other party was.

Q How were the PCB fluids covered, to the best of your recollection?

A It had a drag line that dredged the new channel and just lifted the diggings and dropped it on that portion of the chemical that was determined to contain the PCBs.

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Q How far apart were those two?

A I don't recall.

Q A relatively short distance?

A A matter of feet.

Q Do you have any other experience in terms of consulting on corrective action for PCBs in the environment?

A When you say consulting, no, I did not consult anyone.

Q Did you review any proposed corrective action that someone was going to take, whether it was Monsanto or others?

A Yes, yes.

Q Where would that have been?

A One that comes to mind is an incident that happened in the Northwest. I have forgotten the name of the bay.

Q The barrel of PCBs off into the harbor?

A Yes.

Q Tuwamashee?

A I forgot the bay. This was a Government-owned PCB and I understood --

Q United States Government?

A Yes.

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I understand it was a Department of Defense transformer and it was being transferred, destined for Alaska, and that in the loading process was dropped into the bay creating some contamination of PCB fluid and the Corps of Engineers chose to dredge the whole bay and literally build an island with the dredgings.

I was asked my opinion and I suggested leave well enough alone because building the island just relocates your problem and that was my position and they ignored that.

Q Your advice was not followed?

A No.

Q Any birdlife on that island to this day?

A I don't know.

Q Is there any other experience you have had in reviewing proposed corrective action such as those two?

A No.

Q Did you discuss any proposals, review any proposals with respect to Hudson River and General Electric?

A No.

To discuss, you mean in terms of advising and

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consulting?

Q Yes, sir.

A No.

Q Did you follow the development in that matter, the negotiations between the State of New York and General Electric regarding the PCBs in the Hudson River?

A Yes, to a degree, yes.

Q How were you provided with information of what the status was?

A Sorry?

Q How were you provided with information with regard to the status?

A There were individuals involved in GE, individuals involved who were somewhat my counterparts that would communicate with me whenever they felt there was a significant change in developments.

Q Were you apprised of any proposed remedial action that was suggested with respect to the Hudson River?

A Only in a very general way; nothing specific.

Q Was your opinion sought?

A No.

MR. POPE: Miss Reporter, would you mark as

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Papageorge Deposition Exhibit No. 94 for identification, a multi-page document, front page of which is a letter from Mr. Papageorge to Hearing Clerk, dated January 18, 1974.

(Papageorge-OMC Deposition
Exhibit No. 94 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I will hand you Exhibit 94 for identification and ask you to tell me if that is in fact a copy of a letter sent to the Hearing Clerk of the United States Environmental Protection Agency in 1974.

A Yes, I recognize this as a letter I sent.

Q You sent it as a spokesman for Monsanto, did you not?

A Yes.

Q Was this in response to some rule-making proposal of the U.S. EPA?

A Yes.

Q Were these documents attached that were attached to this exhibit?

A The first attachment is a copy of a letter to Dr. Sager, which was previously submitted as an exhibit

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in this issue.

The second exhibit is a copy of a letter I sent to Dr. Hugh Thompson with the Environmental Protection Agency and attached to the letter to Dr. Thompson is a copy of a presentation I made before Dr. Sager's committee.

Q That is the brochure-type document?

A Yes, sir.

MR. POPE: Miss Reporter, I would ask you to mark for identification a 3-page document, copy of a letter from Mr. Papageorge to Dr. Sidney R. Galler as Papageorge Deposition Exhibit No. 95 for identification.

(Papageorge-OMC Deposition

Exhibit No. 95 marked for

identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I would like you to look at that exhibit and tell me if it is a copy you sent to Dr. Sidney R. Galler on or about February 21, 1974.

A Yes.

Q You sent that as a spokesman for Monsanto, did you not?

A Yes.

Q Did you consult with anybody in the preparation

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of that letter?

A Yes.

Q Who, do you remember?

A Well, I reviewed -- I had Dr. Richard review the draft as it relates to the adsorption statement. I consulted with an engineer contact regarding Item No. 2 and Item No. 3, and the overall document was reviewed with Mr. Bergen and Mr. Phocian Park.

MR. POPE: Miss Reporter, would you mark as Papageorge Deposition Exhibit No. 96 for identification, a multi-page exhibit, first page of which is a letter from Mr. Phocian S. Park dated March 12, 1974, addressed to Mrs. Beth J. Billings, copy of which appears to be an affidavit from Mr. Papageorge along with some notations.

(Papageorge-OMC Deposition
Exhibit No. 96 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I would ask you to look at Deposition Exhibit No. 96 for identification and tell me if that is a copy of an affidavit you presented on behalf of Monsanto at certain hearings before the Environmental Protection Agency.

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A The attachment to the letter by Mr. Park?

Q Absolutely.

A That is my written submission. It was never presented before a hearing.

Q It was presented in writing, was it not?

A That is correct.

Q Just in the form of an affidavit?

A Presented -- yes.

Q Was everything you set forth in that affidavit true and correct to the best of your knowledge at the time you presented it?

A The best of my knowledge, yes.

Q With whom did you consult in the preparation of that affidavit?

A The appropriate members of the task force in Monsanto.

Q Those are the same people you described earlier in your task force group?

A Some of them.

Q Marketing, Research?

A Analytical and so on, yes.

Q Is there anybody you consulted with in the preparation of that testimony whose name you have not given us already in this deposition?

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A Not that I recall. I think I mentioned all the appropriate names.

MR. POPE: Miss Reporter, if you would mark as Papageorge Exhibit 97 for identification, a multi-page document, the first pages of which appear to be the letter from Mr. Papageorge to Mr. Thomas Kopp, K-o-p-p, dated July 2, 1975.

(Papageorge-OMC Deposition
Exhibit No. 97 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, I hand you Exhibit No. 97 for identification and ask you to look it over and tell me if that is in fact a copy of a letter you wrote in the ordinary course of business as a representative of Monsanto on or about July 2, 1975.

A Yes.

Q What was the purpose of that letter, as best you recall?

A Mr. Kopp with the Environmental Protection Agency asked me if I could get him some information on the terphenyls and some idea of the production of terphenyls.

Q In connection with that inquiry, did you tell

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Mr. Kopp that in the chlorinated terphenyls as they were sold to customers that those products contained PCBs?

MR. SCHINK: Are you asking if that is in the letter?

MR. POPE: No, in connection with that inquiry, whether it was on the phone or any other way.

BY THE WITNESS:

A No.

BY MR. POPE:

Q Did Mr. Kopp indicate that he was aware of that fact in any way?

A No.

Q Was that brochure attached to Exhibit 97?

A This brochure?

Q Yes.

A It is a technical bulletin which contains information about the biphenyls, terphenyls that were used in the plasticizer application.

Q Can you tell me when it was published?

A March 1970.

Q In the Interdepartmental Task Force on PCBs published in May of 1972, there is a reference on Page 114 to an East Coast Terminal incident, and the document

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says:

"The Monsanto Chemical Company informed FDA in July 1971 that large amounts of fish meal might have been contaminated with Aroclor 1242 leaking from a heating system during pasteurization of fish meal at East Coast Terminal, Wilmington, North Carolina."

Is that true, to the best of your recollection?

A Yes.

Q How did it happen that Monsanto reported this information to the FDA rather than Monsanto's customer or anybody else?

MR. SCHINK: I object to the form of the question. It assumes that Monsanto's customer did not report the information to the FDA.

MR. POPE: Right, I will strike the question, Mr. Schink.

BY MR. POPE:

Q Mr. Papageorge, did Monsanto report that incident to the FDA?

A Yes.

Q Was Monsanto the first one to report the incident to the FDA?

A Yes.

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Q Can you tell me the circumstances under which Monsanto learned about that incident?

MR. SCHINK: I object and direct the witness not to answer unless you can show there was a hydraulic fluid involved in that situation. It has nothing to do with this litigation. We have been here five days now.

MR. POPE: Monsanto's notice of early PCB problems is certainly relevant to this case, Mr. Schink.

MR. SCHINK: At this point, your client had already been fully informed as the documents in your file produced in this case so aptly demonstrate, Mr. Pope.

MR. POPE: That makes a fine closing argument, Mr. Schink.

MR. SCHINK: The witness has been instructed.

BY MR. POPE:

Q Are you going to follow the instruction of your counsel?

A Yes.

Q The report, Exhibit No. 5, also indicates some incidents with respect to milk on Page 116, is that right?

A Yes.

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Q The first reference on that page under the category of milk is to a West Virginia incident that says:

"In July 1969, FDA's Baltimore District found PCBs in milk samples collected in the routine food surveillance..."

I don't intend to read the remaining part, but you certainly may consult if you wish.

Can you tell me when Monsanto first became aware of that incident?

A It was after March of 1970.

Q How were you able to establish that as a date?

A In March of 1970, I got a telephone call from a representative of an agency in the State of Ohio in which he told me that he detected some PCBs in milk and could I help him determine what the sources of those PCBs might be. He was trying to get help from the Federal agencies and as best I recall, shortly after he mentioned this West Virginia incident.

Q As far as you know, is the report correct that by February of 1970, the FDA advised the source of contamination to spent transformer fluid?

A That is my understanding, yes.

Q Did Monsanto have any knowledge with regard

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to the other two incidents listed under the milk category, Ohio and Florida?

A I just mentioned the Ohio incident.

Q That is the person that called you in March?

A Yes. Eventually we knew about the Florida incident, but I don't recall, at least I am not aware of any Monsanto people being directly involved.

Q And the Ohio incident, had the FDA already been advised by the time you received that call, to your knowledge?

A Yes.

Q Was the incident that has been reported as the Campbell Soup contamination in New York, did that take place after March of 1970?

A Yes.

Q Is this the first case you have testified in involving hydraulic fluids?

A Yes.

MR. POPE: I suggest we take a lunch break.

MR. SCHINK: Are you finished?

MR. POPE: I will consult with my colleagues.

(At 1:50 o'clock p.m., a lunch recess was taken to 2:30 o'clock p.m., this same day.)

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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.)

September 2, 1981,

2:30 o'clock p.m.

The deposition of WILLIAM B. PAPAGEORGE
resumed pursuant to luncheon recess at 200 East
Randolph Drive, Room 5700, Chicago, Illinois 60601,
before Thea L. Urban.

PRESENT:

MR. JAMES T. HYNES,
MR. MICHAEL A. POPE,
MR. JEFFREY C. FORT,
MR. JAMES H. SCHINK.

ALSO PRESENT:

MR. HUGH THOMAS.

- - -

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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 I think I understood your testimony on this
subject, but I want to make sure there are no gaps
left.

As far as you know, there was no agree-
ment ever reached between Monsanto and the United States
Government with respect to the manufacture and sale
of PCBs, is that correct?

A Would you help me with the word agreement?

Q An undertaking or decision by one party to
take or refrain from certain action in return to the
other party taking or refraining from certain action.

A No.

Q There was none?

A There was no agreement.

Q Did you ever have any discussions with
representatives of the State of Indiana regarding PCBs?

A I don't remember the State of Indiana.

Q Did you have any discussions with any State

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officials on the subject of PCBs at the New Bedford Plant of General Motors?

A I --

Q In Indiana.

A No.

Q Were you aware of anyone else in Monsanto having discussions with representatives from the State of Indiana regarding PCBs?

A No.

Q I mean to include discussions that took place before January of 1970, for example, but you later may have come upon it in the file.

Do you understand my question would include that?

A Yes. The answer is still no.

Q Am I correct that at the current time Monsanto is not manufacturing PCBs? Is that right?

A That is correct.

Q Is the form of PCB manufactured as a by-product in the manufacture of any other substance?

A No.

Q Specifically in the manufacture of tri-chlorobenzene, are PCBs made as a by-product, to your knowledge?

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A I don't know anything about the manufacture of trichlorobenzene.

Q You have no knowledge with respect to any products that Monsanto manufactured whereby PCBs were a by-product, is that right?

A That's right.

Q Who in your opinion would have the most knowledge regarding the current handling, and by handling I mean both analysis and treatment, of discharge waters at Krummrich?

A It would be available to the Plant Manager at the Krummrich Plant.

Q Who is that?

A Jack Malloy, M-a-l-l-o-y.

Q Have you ever had any discussions with any local representatives in the Anniston area regarding the treatment of PCBs at a sanitary district?

A No.

Q Have you had such discussions with any representatives in connection with Queeny or Krummrich?

A No.

Q My understanding is that sometime in 1976 you were disassociated from further work on the PCB matter, is that correct?

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A Yes.

Q Would you bring us up to date as to how your position changed in 1976, what your duties were and how they differed until the current time?

A In 1976 I was a Manager of Product Acceptability, responsible for several Monsanto products, and in early '76, in addition to those products, I still retained the PCB responsibility.

In February the PCB portion of my total responsibility was assigned to another individual.

Q Mr. Weber?

A J. Coleman Weber, correct, and I retained the remainder of this assignment as it existed in January '76.

Q Did you turn over to Mr. Weber all of the files that you had maintained and acquired with respect to the PCBs up to that period of time?

A Everything but my personal file.

Q Where is your personal file today?

A In my possession.

Q What is contained in your personal file?

A I don't know the content. It is copies of memoranda and reports that I authored.

Q Did you bring that to Chicago with you?

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A No.

MR. POPE: Mr. Schink, has that been included in Monsanto's production?

MR. SCHINK: It was.

BY MR. POPE:

Q The materials that you left behind for Mr. Weber, how were they maintained, file drawer?

A Yes. It was a series of file drawers.

Q Series of file drawers would be more correct, I take it?

A Yes.

Q Approximately how many?

A As I remember, it was three file cabinets, four or five drawers each.

Q Did that file have an overall name or designation by number?

A No.

Q You started telling us the changes in your duties that took place in 1976.

A Yes.

Q Would you describe what you just began to do then, maintain the same responsibilities except not for PCB products?

A That's right.

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WATER_PCB-00055770

Q Have those duties continued to this day?

A No. I retained those duties until November of 1976, at which time Monsanto formed another operating unit and I was assigned to the new operating unit with responsibility for some of the products I had prior to that, just prior to that, and an additional set, a new set of products.

Q What was that unit called?

A It is the Monsanto Chemical Intermediates Company.

Q Has that been your position through today?

A No. I had the position of Manager, Product Acceptability for Monsanto Chemical Intermediates Company, continued until about September or so of 1977.

Q What took place then?

A I was then appointed Director, Environmental Operations for Monsanto Chemical Intermediates Company.

Q What did your duties entail at that time?

A It included the responsibilities of the Manager, Product Acceptability and in addition I picked up additional duties, responsibilities relating to the environmental control and industrial hygiene, exposure and the like.

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WATER_PCB-00055771

Q So those duties included responsibility for the operation of Monsanto's various plants, is that right, in terms of environmental and occupational health and safety?

A Yes.

Q Is that domestic plants?

A I had some responsibility overseas, too.

Q Has that position also put you as Mr. Weber's direct supervisor?

A No, Mr. Weber remained in the operating unit.

Q How long did your duties remain as you just described them?

A They continue to date.

Q So from September --

A September on, somewhere in the Fall of 1977.

Q Besides the one meeting you described attending, the Corporate Management Committee, have you had any meetings with Mr. Bok where the subject of PCBs was discussed?

A No.

Q There was only one meeting that you attended at the Corporate Management Committee?

A Yes.

Q In your entire life?

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A No.

Q Since then --

A I thought you meant with respect to PCBs.

Q You have attended other meetings, or why don't you tell me how many times you have attended Corporate Management Committee meetings.

A At least two more times.

Q Devoted to totally other discussions?

A Yes.

Q Were those two times since the one we have discussed in April of 1970?

A Yes.

Q Have you ever had any appearances before the Board of Directors of Monsanto regarding PCBs?

A No.

Q Have you ever had any discussions with Mr. Hanley regarding PCBs?

A No.

Q To your knowledge, were any Monsanto documents relating to PCBs destroyed, either subsequently or on purpose, other than in accordance with the corporate retention of documents policy?

A No. To my knowledge, I am not aware of any destruction of that type.

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Q I believe you testified earlier that the notes you took at meetings of any kind relating to PCBs were turned over to your successor, is that right; Mr. Weber?

A Not necessarily.

Q Would you explain that for me, please. What was turned over and what wasn't?

A I turned over everything that I retained which consisted of anything from rough penciled notes to Government reports to formal Research Department reports, letters, memoranda and so on.

Q How about notes taken at task force meetings that you attended?

A They may be in there, they may not be. Many times I would discard those notes.

Q But whatever you maintained was turned over to Mr. Weber?

A Yes.

MR. POPE: Mr. Schink, I believe I have concluded the interrogation at this point, subject only to the outstanding discovery matters we have, subject to the Judge's ruling on your excising of certain documents, the question of whether it has been full and complete compliance with the various discovery issues.

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CROSS EXAMINATION

BY MR. HYNES:

Q To get back for a moment on the subject of the sales of PCB-bearing fluids in the tank car lots, I believe you stated that the labeling which was affixed to the 55-gallon drums, those types of sales, were not affixed to the tank cars, is that correct?

A Yes.

Q I believe you stated that the only information other than amounts, costs, things of that nature that were sent with the tank car lots were whatever was required by the Department of Transportation regulations, is that correct?

A Yes, yes.

Q The information which was contained on a labeled product, for example, contains chlorinated hydrocarbons or the warnings we discussed earlier concerning caution, keep the product out of the environment, were those types of instructions, warnings, however you want to characterize them, ever given in writing in written form to customers who purchased PCB fluids in tank car lots?

A Yes.

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

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Are you talking about customers who purchase only in tank car lots?

MR. HYNES: No, any customer who received --

MR. SCHINK: Any amount in a tank car?

MR. HYNES: Any amount in a tank car lot.

BY THE WITNESS:

A Customers did receive it in writing, yes.

BY MR. HYNES:

Q How did they receive that information in writing?

A It could take many forms. Some of it was by a letter addressed to a given person from a Monsanto representative. That would be the typical way we'd get it.

Q Who would be the author typically of this letter to the customer?

A It would be the salesman in the field who had that account.

Q Was it Monsanto's policy for that salesman to send a letter of this type each time the customer received a tank car lot of a PCB product?

A No, no.

Q As far as you know the practice, when would that letter be sent to the customer?

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A This would be left to the discretion of the salesman in terms of adequately communicating to the customer.

Q Any other method, any other written method that that information would be communicated to a customer on tank car lot sales?

A I am not -- I don't recall any of it at this time.

Q Would information such as the product containing chlorinated hydrocarbon be one of the Department of Transportation requirements to be sent along with the tank car lots to the customer?

A I don't believe so, no.

Q Likewise, would the environmental warnings that you affixed, put on the labels, I believe it was in '70, would that type of information --

MR. SCHINK: I believe he testified May of '70.

BY MR. HYNES:

Q (Continuing.) May of '70, fine.

Would that type of information be communicated to the customer by way of the documents that were required by the Department of Transportation regulations?

A No.

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Q Would the information which was contained on labels dealing with safety, would that be the type of information which would be required to be communicated by the Department of Transportation regulations?

MR. SCHINK: Excuse me, what are you referring to?

MR. HYNES: Safety in terms of Pydraul labels, for example, inhalation of vapors, getting it on your skin, cautionary instruction of that nature.

BY THE WITNESS:

A No.

BY MR. HYNES:

Q We discussed quite a bit the various biodegradation studies which were done either by Monsanto and some others. I am not sure I didn't hear something right, but is there a difference between degradation studies and biodegradation studies, to your knowledge?

A Are you referring to the --

Q I am referring to the studies that Monsanto had done or we talked about in this deposition.

Were there different studies, either degradation or biodegradation?

A Those terms are, for all purposes, synonymous.

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Q Am I correct that the biodegradation of the lower chlorinated Aroclors, that biodegradation does not occur naturally in the environment, but rather it occurs in sanitary treatment of waste?

A No. It is my understanding that where living creatures are present, whether it be bacteria or rats or dogs, that there is evidence that in the metabolism of that PCB in this creature, there is a change that takes place, indicating a degradation or a loss of identity of that type because of PCBs.

Q So biodegradation is either the PCBs are metabolized by the organism such as the rat. I believe there was one study they were metabolizing the lower chlorinated Aroclor in addition to a treatment plant which would use that means to encourage the biodegradation.

A Yes, and the bacteria also metabolized --

Q I understand. I just wanted to get that clear.

Do you recall if there was any work done by Monsanto concerning incineration other than the incineration of the liquid PCBs that was ongoing where the incinerator was built at Krummrich in the end of '71, '72?

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A Would you read your --

MR. SCHINK: The question is did we look into the incineration of solid materials in addition to liquid.

BY THE WITNESS:

A If I understand, with the unit at the Krummrich Plant --

BY MR. HYNES:

Q Or any other unit.

A Yes, there was another study.

Q Did Monsanto determine that that was feasible?

A Yes.

Q Was such an incinerator ever constructed?

A No.

Q When was a feasibility study on an incinerator for solid wastes completed?

A I don't recall the time of the study. It was either 1971 or 1972.

Q Who was conducting that study?

A This was conducted by Environchem Company.

Q Who requested Environchem to initiate such a study?

A I did.

Q Was that on your own or in consultation with

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others?

A It was in consultation with the task force.

Q So it was a task force decision that it should be looked into, is that correct?

A Yes.

Q Why did the task force decide that this is an area that should be looked into?

A There was considerable interest in the capacitor industry for methods of disposal of electrical capacitors, so that this study was designed to determine the feasibility of handling such a combination of metal, paper and liquid in a commercial incinerator.

Q You said that the feasibility study came back in and it was feasible to do it?

A Yes.

Q Do you recall whether there were cost estimates as to how much it would cost to build such an incinerator?

A Yes, but I don't recall the numbers.

MR. HYNES: Miss Reporter, would you mark as Papageorge Deposition Exhibit No. 98 for identification, this 2-page document.

(Papageorge-USA Deposition
Exhibit No. 98 marked for
identification, 9/2/81, TLU.)

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BY MR. HYNES:

Q Mr. Papageorge, I show you what has been marked as Exhibit 98 for identification, a letter from William B. Papageorge, dated July 16, 1971, addressed to S. Uneno, U-n-e-n-o.

Do you recognize that letter?

A I vaguely recall it, yes.

Q You were the author of it and it was sent on or about the date noted there?

A Yes.

Q Referring you to the paragraph at the bottom of the first page that the "test which was conducted in December indicated that the technology required to properly incinerate was available," is that the test you referred to earlier done by Environchem?

A Yes.

Q Does this refresh your recollection as to what the cost estimate and capacities were as to that disposal as contemplated by that study?

A Yes.

Q What were the costs associated with building that incinerator?

A It was estimated at that time for a unit that will handle 10 million pounds, it would be a

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million dollars.

Q I note here that your letter states:

"The decision was made to postpone the installation until the need was great enough to justify the cost."

A Correct.

Q Any other reason to delay the installation of that project?

A Well, there was another reason, and that was the difficult logistic problem in collecting capacitors which was the initial intent of this whole program, and we could not get from our customers a good estimate of volume of capacitors that would have to be destroyed; therefore, we couldn't proceed with any meaningful design.

Q Who was responsible to get that information from the customers as to the volume of capacitors that they may want to send for incineration?

A I requested that of the salesmen who handled the electrical accounts.

Q I take it they reported back to you that they could not get the information in any usable form?

A Something like that, yes.

Q I note the letter also refers to the intent

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to "dispose of capacitors as well as transformer parts, floor sweepings, treatment clay, treatment carbon, rags, et cetera."

A Yes.

Q Those types of solid wastes weren't exclusively in the electrical industry, were they?

A That is true.

Q Any contemplation to utilize dredged spills, dirt, PCBs which were contaminated with other chemicals in this solid waste disposal incinerator?

A There was some consideration given and the unit was visualized as being able to handle such materials. Again, we had no material of the quantities, could not estimate.

Q Do you recall any letters going out to customers, and I don't mean to just limit it to capacitor customers, but any customers of PCB-bearing products, requesting information from them as to whether they would want to utilize such an incinerator for solid wastes?

A I don't recall any.

Q Do you recall any correspondence, directions, oral or written, to the sales force to go out and get this information from customers, to let the

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customers know that this was potentially available?

A I don't recall any.

Q Who would know such information was requested from customers?

A The representatives of Marketing Department would be in the best position to know.

Q Those again would be Mr. Johnson, Mr. Bergen?

MR. SCHINK: When?

MR. HYNES: Subsequent to that letter, between July of 1971 -- excuse me.

BY MR. HYNES:

Q The report was concluded in December of 1970, is that correct? Was that the reference at the bottom there?

A Yes, yes.

Q From December of 1970 through the end of 1972, do you recall who would be the individuals who would have gotten that information from customers?

A It would be Mr. Bergen, Mr. Gossage, Mr. Bradford, Mr. Benignus and I don't recall the individual, whoever was responsible for the heat transfer applications at that time.

Q To the best of your knowledge, there was no direction to the sales force to go out and get this

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information for Monsanto on the solid, this proposed solid waste incinerator?

MR. SCHINK: I object to the form of the question. I don't think there has been testimony that there was ever proposed. I think the document suggests that a test be conducted which would indicate there was technology available for that purpose.

MR. HYNES: It also indicates on the memo that there was no interest, that the decision to install was postponed until there was a need to justify the cost.

BY MR. HYNES:

Q My question is do you know of any direction to the sales force or any other group within Monsanto to go out and find out if there was a need by their customers for such a solid waste incinerator?

A I don't remember. This doesn't mean it didn't take place, I just don't remember.

Q I understand. You don't remember, you don't remember.

Mr. Pope asked you some questions on your notes of your meetings with the Interdepartmental Task Force. Did you keep those notes in any particular form, 3-ring binder, spiral notebook, anything of that

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nature where you kept those notes in any particular format?

A I don't know which notes you are referring to.

Q Your notes of the various task force meetings you attended.

A I did not as a matter of my normal way of doing things keep such notes in a formal fashion.

Q Earlier on in the deposition, you mentioned that you had attended a meeting of, it was called by Dr. Mount in Duluth, Minnesota in April of 1970, I believe.

A March, I believe.

Q And you recalled the various people you recall attended.

Do you recall anyone at that meeting requesting information from Monsanto as to how Monsanto thought the PCBs were getting into the environment?

MR. SCHINK: What PCBs are you referring to?

MR. HYNES: The PCBs that they were talking about at the Duluth meeting.

BY THE WITNESS:

A I don't think they had any particular ones in mind at the time.

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MR. SCHINK: The document relates to certain reports of presence that were presented at that meeting. Are those the PCBs?

MR. HYNES: I am not being that specific. I am being very general.

BY MR. HYNES:

Q Did anyone at that meeting ask you or any other Monsanto people who were at that meeting that you know of what your opinions or thoughts were concerning how PCBs were getting into the environment?

A I don't recall that question being posed specifically to a Monsanto representative.

Q Do you recall it being a subject of any of the discussions at the meeting?

A Yes.

Q In what context did they come up?

A I have forgotten just who first raised that question, but it was raised, and it became, of course, part of the discussion and the group was rather informal and anyone who had a thought was encouraged and free to stand up and speak. And there were, as I remember, many people in the audience who would get up and share their speculations, which is what it all boiled down to. We were all speculating.

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Then it ranged really from some conceptions about aerial spraying of pesticides all the way to how do we really know if it is PCBs, and even industrial wastes.

Q Other than pesticides, airborne spraying of pesticides, maybe industrial wastes, maybe no PCBs at all, any other ideas that were speculated on at the meeting as to how the PCBs got into the environment?

A There was some speculation of carbonless carbon paper and where does this all hook up, about all these paints and coatings, all these miscellaneous uses, where do they all end up.

No one, as I remember, had any definite answer to the question.

Q Did you participate in any of these speculative discussions?

A Yes.

Q Did you make any suggestions or have any ideas concerning the source of the PCBs?

A My contribution was to share with them the types of uses that I was familiar with and I let the participants speculate as to could this use be an answer.

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Q By types of uses, that is what was discussed earlier, transformer, capacitors, hydraulic fluids, all the various uses you knew PCBs were used for?

A Yes.

Q Were Monsanto people asked to get back to Dr. Mount or the participants with any information concerning Monsanto customers who may potentially be discharging PCBs into the environment, at that meeting?

A Yes. We were asked for customer information, as I remember.

Q At that time you told them it was company policy not to disclose customer information?

A Yes.

Q Was there a follow-up meeting to this PCB meeting in Duluth that you attended?

A No.

Q Do you know if anyone else at Monsanto attended any such follow-up meeting?

A I believe so.

Q Who was that and when and where was the meeting?

A The Duluth laboratory had other meetings in which PCBs were discussed along with other materials.

I don't know who from Monsanto attended

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at this time, I don't remember..

Q Do you recall when these meetings were, in 1970?

A It was after 1970; '71, '72.

Q Were they all either at that laboratory in Duluth or sponsored by that laboratory?

A Both.

Q You don't remember who attended or when they were?

A No.

Q You yourself did not attend any other meetings sponsored or conducted at this laboratory, is that correct?

A That is correct.

Q You mentioned something to Mr. Pope that you also attended something called a Five-State Meeting or something like that?

A Yes.

Q Where was that meeting and what was it?

A It was a group that I understood had a designation that referred to the Five-State Governors Panel, and I believe, it is my understanding it related to the Great Lakes area, and the staff that worked for this particular group called the meeting.

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(Brief interruption.)

BY THE WITNESS:

A The specific purpose was for interested individuals involved to somehow with this group become familiar with PCBs and I was invited to attend and I was on the program. And I went through my typical presentation of what PCBs were, how they were made, how long were they made, how were they used, what we knew about toxicity studies and what we knew about the analytical methodologies and the state of the art analytical-wise.

It was held near O'Hare Airport, as I remember, in 1971, is the best I recall.

BY MR. HYNES:

Q I take it you were asked questions by the participants in the conference?

A Yes.

Q Were you asked whether Monsanto had any ideas as to the various sources of PCBs being found in the environment?

A I don't recall specifically that that question was asked.

Q Similar types of questions, were they asked?

A Yes.

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Q To the best you recall, what were your responses to the questions, what was the discussion in that area?

A I went through the normal speculative type of comments regarding presence in waste discharge streams, presence in rain runoffs, possibility of introduction into waterways by contamination of rain, because of rain, because of burning of materials that contained PCBs, didn't destroy the PCBs but volatilized them.

I was at that time able to tell them that pesticides did not appear to be the source.

That is as best I recall the extent of my comments.

Q Do you recall mentioning that a potential major source for PCBs being found in the environment was mishandling of PCB products at the plant site where the PCBs would be just washed into a sewer and then discharged into a lake or river?

A Yes. I mentioned that as a possible source, yes.

Q At that meeting, was there anyone else at the meeting from Monsanto besides yourself?

A I don't think so, I don't remember.

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Q Do you recall being asked by anyone at the meeting for any customer information concerning customers which potentially may be a cause or source of any PCB pollution?

MR. SCHINK: Are you asking him just for the names of customers generally?

MR. HYNES: No, I am asking if anyone asked him for the names of any customers or to identify any customers who may be likely sources of pollution in the Great Lakes.

BY THE WITNESS:

A No one asked me.

BY MR. HYNES:

Q Did the subject of information concerning customers come up in any of your discussions?

MR. SCHINK: Excuse me, information concerning customers, who are you referring to?

MR. HYNES: Specific customers.

MR. SCHINK: The names of who Monsanto's customers were generally?

MR. HYNES: The names of customers who may be.

MR. SCHINK: Well, he answered that question.

MR. HYNES: Let me just rephrase it then.

BY MR. HYNES:

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Q Were you asked to identify or attempt to identify Monsanto customers who may be using PCB products in specific areas; for instance, the Milwaukee River, Waukegan, Grand Harbor, anything specific in that nature?

A No.

Q Was there any discussion at that conference dealing with the fishing industry in the Great Lakes as it related to PCBs?

A I don't remember.

Q Do you recall at any other meetings people with the Government talking about effects of PCBs on the Great Lakes fishing industry?

A Yes. I was made aware of this subject at some meeting. I don't recall when or where specifically.

Q How were you made aware of this concern?

A It was discussions about the presence of PCBs in fish in Great Lakes. There was a limit on the amount that FDA would approve for interstate movement and I recall a concern about the fish that did not move out of any State which was beyond the jurisdiction of FDA.

I was concerned about sports fishermen and the amount of fish they would consume, which would

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be greater than the average population.

I recall those things coming out at, very likely, several meetings around the Great Lakes area.

Q Do you recall what groups or individuals you met with at any of these meetings?

A I remember a meeting involving the Wisconsin Department of Resources. I remember another meeting involving the State of Michigan and various agencies within the State. That is all I can remember at the moment.

Q Do you recall any meetings with any agencies of the Federal Government concerning the Great Lakes fishing industry?

A No.

Q At any of these meetings, was the concern expressed to you that PCBs continually flowing into the Great Lakes will have adverse impact on the Great Lakes fishing industry because of FDA limits on interstate transportation of these fish?

A That thought was raised in my presence, but not directly to me. It was to the total group.

Q Do you recall a concern of the people in those groups to find the sources of PCBs so that they

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could stop the sources and improve the quality of the fish in the Lake from PCB?

MR. SCHINK: When is it you are referring to in these questions?

MR. HYNES: He didn't recall.

MR. SCHINK: He recalled other meetings.

MR. HYNES: We know it is after there were some FDA limits?

BY MR. HYNES:

Q Were they after some FDA limits were set, these meetings?

A As I remember, yes.

Q Do you recall when those FDA limits were set, what dates, what year?

A I believe it was 1973.

Q We were in the middle of a question.

Could you repeat the question that was still pending.

(Question read.)

BY THE WITNESS:

A That concern was expressed, yes.

BY MR. HYNES:

Q Was there a concern expressed by asking you to find out which of your customers may potentially be

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sources of PCBs into the Great Lakes?

A No.

Q You were never asked that?

A That is right.

Q Prior to 1973, do you recall being asked or learning of Monsanto being asked to provide information on customers who may be potential sources for PCB contamination in the Great Lakes?

MR. SCHINK: You are talking about customers who may be potential future sources of PCB contamination?

MR. HYNES: No, current, past, future.

MR. SCHINK: At any time?

MR. HYNES: At any time.

BY THE WITNESS:

A I do not recall any request for that kind of information.

MR. SCHINK: He asked you prior to 1973.

BY THE WITNESS:

A I am sorry?

MR. SCHINK: He asked you prior to 1973.

BY THE WITNESS:

A Prior to 1973, and limited to the Great Lakes area, I don't remember a request at any time.

BY MR. HYNES:

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Q Do you recall any broader request, not limited to the Great Lakes?

MR. SCHINK: Again, you are asking prior to 1973?

MR. HYNES: Prior to 1973.

BY THE WITNESS:

A Yes, I do.

BY MR. HYNES:

Q Do you recall who made the request and when?

A No, I don't recall who and when.

Q Do you recall the reasons for the requests?

A As I understood it, the stated reasons were that we needed to know so that we could better enforce PCB control or words to that effect.

Q Do you recall it was in regard to any particular incident?

A No.

Q No, it was not, or no, you don't recall?

A No, it was not with regard to a particular incident.

Q So at least up through 1973, and I believe Mr. Pope went into this, it was Monsanto's policy not to divulge customer information to anyone who requested it concerning PCBs, is that correct?

A That is correct.

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Q And subsequently did you, other than these instances Mr. Pope went over, I believe the Inter-departmental Task Force you talked about earlier, do you recall any other individual incident or occurrence where customer information was turned over to a governmental State/Federal agency?

MR. SCHINK: I object to your characterization of each of those incidents. I don't believe it was established that Monsanto was the source of information with respect to each of those incidents.

There was one in particular, I know, where there was a question asked and Mr. Papageorge indicated that Monsanto had provided some information.

Further, I don't believe that it was established that that information related to one of Monsanto's customers.

BY MR. HYNES:

Q Can you answer the question?

A Yes. The answer is there were.

Q Do you recall the circumstances for turning over such information?

A Yes.

Q What was it?

A I believe it was in 1975. We had a request

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from the Environmental Protection Agency, Washington, to supply the information regarding PCBs and one of the questions referred to customers and quantities for, as I remember, a 10-year period of time in '75, back to '65, and that was submitted under 308 of the Water Act.

Q Were there any other instances that you can recall other than the one you just mentioned where customer information was disclosed to a governmental entity?

A With regard to hearings held in New York regarding the Hudson River.

Q That would be General Electric, the customer?

A Well, we were asked to submit the customers in a geographic area. I forgot just how broad, how wide the area of companies that purchased PCB products from Monsanto, again, back to some period of time, and that was given to the authorities in the State of New York.

I have forgotten just who at this moment.

Q Am I correct in assuming that Monsanto's response to that 308 request from the Environmental Protection Agency and the response to the New York

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authorities and the request you just talked about was a legal decision, you were required to do it rather than doing it voluntarily?

A That is correct.

Q Were there any other instances where other than NCR, I think you talked about before, where you disclosed customer information concerning PCBs to a governmental source with the permission of a customer?

A I don't recall any.

Q Do you recall any in the United Kingdom, not just the United States?

A No, I don't remember United Kingdom, either.

Q I call your attention to Papageorge Deposition Exhibit 35 for identification, Outline CMC Presentation, PCB Environmental Problem. There is no page number, but the number at the bottom is 0001533.

Would you read that first, to yourself, with regard to the reference in that paragraph with respect to meeting with the Ministry of Agriculture, Fisheries and Food, requesting Monsanto to divulge.

MR. SCHINK: You are speaking now with respect to the United Kingdom?

MR. HYNES: Yes, we don't have ministries here.

MR. SCHINK: In my church we do.

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MR. HYNES: Not in the Government.

BY MR. HYNES:

Q The procedure that is apparently outlined here of divulging customer names with assurances that it would be kept in confidence and any information to be released would be cleared with both Monsanto and the customer, do you know if that procedure was ever put into effect in the United States?

A Yes.

Q Was it put into effect?

A On this one case.

Q On that one case; any other?

A Not that I know of.

Q Earlier in the deposition, you had explained what your experience was in terms of industry practices with disposal of industrial chemicals, capturing them in a bucket, using rags; with PCBs, keep them away from the water, dispose of the wastes in a chemical landfill. Those procedures that you have gone into several times, was that your understanding as the practice in industry with regard to the treatment of industrial chemicals?

MR. SCHINK: You mean handling?

BY MR. HYNES:

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Q Treatment implies something else -- handling of industrial chemicals.

A Yes.

Q Where did you learn of that industry practice?

MR. SCHINK: You are now referring to the period 1950, '60, '70?

BY MR. HYNES:

Q 1950, 1960, prior to January of 1970.

A I don't know any specific point or place where I learned it. It is an accumulation of my personal experiences, training, exposure from the time I entered industry in 1947 until 1970.

Q Was it your understanding that was the industry practice?

MR. POPE: Which industry?

MR. HYNES: Any industry handling industrial chemicals.

BY THE WITNESS:

A Yes.

BY MR. HYNES:

Q Did you ever attend any seminars, training sessions, professional meetings where that subject was discussed prior to 1970?

A Yes.

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Q Other than internal Monsanto meetings?

A Yes.

Q Do you recall which groups?

A It would have to be either the American Chemical Society Meeting or the American Institute of Chemical Engineers.

As I remember, I also attended some sessions that were conducted by the petroleum industry, but I have forgotten the sponsor.

Q Am I correct at those meetings the topics, proper handling techniques, industrial chemicals, was discussed?

A Yes.

Q And the standards discussed there comported with your understanding of industry practice?

A Yes.

Q Other than this meeting in Duluth with the Federal Water Quality Laboratory, Dr. Mount, the meeting of the Five-State Governors Council, the other Government meetings with governmental people that Mr. Pope has gone into, do you recall any other meetings with Federal or State entities concerning PCBs in the Great Lakes, either specifically on the Great Lakes or where the Great Lakes were discussed?

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A I don't recall any additional meetings.

Q Do you know if Monsanto has ever attempted to quantify the amount of PCBs in the environment in the United States which would be attributable to Monsanto products versus foreign manufactured products?

A No.

Q If such quantification was done or attempted, wouldn't you have known about it in your position through 1976?

A Yes.

Q Subsequent to 1976 would you have known about that or be given access to that information?

A No.

Q Other than Monsanto, do you know of any other manufacturer of PCBs in the United States?

MR. SCHINK: Currently?

MR. HYNES: At any point, today back to 1940, let us say.

BY MR. HYNES:

Q I mean a manufacturer, not somebody who did it for an experiment or something like that, but a commercially available PCB.

A At one time I was informed that PCBs were manufactured by a company known as Geneva Chemicals

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Company. I attempted to verify that and found that I couldn't do it alone and I asked for the Government agencies to investigate.

I have not to this day had response to that query.

Q When was that inquiry made and to what Government agencies?

A Sometime in 19 -- around 1972, 1971 through '73. And I believe the agency I asked to help on this was the EPA and the Department of Commerce. I do not recall the individuals I contacted.

Q The information you were attempting to verify on this Geneva Chemicals Company, what was that information that you received?

A As best I recall, it was information I received from several of our salesmen that indicated that some of the customers to whom we discontinued selling PCBs were claiming they were finding or obtaining PCBs from a company known as Geneva Chemicals Company.

Q Do you know what region of the country that was?

MR. SCHINK: What was, where the customer was located, Geneva?

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BY MR. HYNES:

Q Where the information came from, from the salesman.

A It was scattered. The salesmen were from virtually all parts of the U.S.

Q Do you know what type of product the PCB that Geneva was reportedly selling were to be used for?

A These were predominantly the open-ended miscellaneous uses that we discontinued in August of 1970.

Q Plasticizers, adhesive uses, such as that?

A Yes.

Q Mr. Pope asked you and he gave his own definition of agreement, if there was any agreement between the United States and Monsanto with regard to the sale and manufacture of PCBs.

Going beyond Mr. Pope's definition of someone giving up this to get that, do you recall being involved in any meetings with representatives of the Federal Government where they tried to convince you or Monsanto through you to discontinue the sale and manufacture of PCB-bearing products?

A No, there was no such.

Q There was no such?

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A That's right.

Q Was it, rather than trying to convince you, suggest to you that you should, that Monsanto should discontinue the manufacture and sales of PCB products?

A No. I was never approached with that kind of conversation.

Q Were you approached with regard to certain particular uses for the products rather than across-the-board discontinuance of sale or manufacture?

A No. In fact, it was the reverse. We went to the Government and told them, here is what we are going to do.

MR. SCHINK: You mean --

THE WITNESS: Monsanto representatives told the Government representatives, this is our plan. We told us.

MR. SCHINK: You told us, you mean Monsanto told?

THE WITNESS: (Nodding affirmatively.)

BY MR. HYNES:

Q The first day, way back when, of your deposition you stated that you had given depositions in two trials and five or six depositions where Monsanto was involved concerning PCBs.

Other than those which you already

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testified about, are there any pending that you know about where you have been notified that you may give a deposition or testify?

A Yes.

Q Where are those cases pending and what do they concern?

A I have forgotten the terminology used to describe them. There is a case out in the West involving transformer and animal feed.

Q Do you know what city or state that is pending?

A No, I don't. I am guessing, I don't know.

Q Any others?

A It seems to me there is another case involving silo coatings, dairy cattle, milk in Michigan.

Q Any others that you recall other than those two?

A That's all.

Q Do you know of any litigation that you are in other than those two cases?

A No.

Q Do you recall an incident several years ago in Michigan concerning cattle that were contaminated with polybrominated biphenyls?

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A Yes.

Q Were you involved in investigation of that incident to rule out that PCBs were also involved in there? Do you have input in that proceeding?

A As far as I knew, the presence of bromobiphenyls was quickly established and they immediately told us that PCBs were not involved.

Q So you were not involved in anything related to that incident?

A That is correct.

Q Have you heard of a recent incident concerning acute poisoning of people in Taiwan relating to PCBs?

A No, sir.

Q You have no knowledge of that whatsoever?

A No.

MR. HYNES: Sorry, that's all I have.

REDIRECT EXAMINATION

BY MR. POPE:

Q Mr. Papageorge, do you know whether Papageorge Deposition Exhibit No. 58 for identification, so-called closing the loop document, whether the last three pages of that exhibit were ever displayed to Outboard Marine Corporation or any of its representatives?

MR. SCHINK: You are asking him now the pages as

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such as opposed to the ideas contained therein?

MR. POPE: I think that is exactly what I said,
Mr. Schink.

BY THE WITNESS:

A I do not know personally.

BY MR. POPE:

Q Did anybody tell you they had given to
Outboard Marine Corporation the specific information
contained in that document in a written form?

A No.

Q Mr. Hynes asked you some questions about your
opinion about the proper handling of industrial chemicals.

A Yes.

Q What type of chemicals did you have reference
to in your answer?

A For example, solvents that are used to de-
grease metal surfaces prior to painting; acids that
are used in which metal is immersed and is referred
to as pickling baths.

It would also include speaking of baths,
in it would include plating, even chemicals used in
treating boiling waters, cooling waters are industrial
chemicals.

Q Would you agree that there are thousands of

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chemicals that would fall within that category?

A Hundreds anyway.

Q Is it your testimony that the proper handling techniques for those chemicals during the period of time that you were talking about, the '50s and '60s, called for avoiding water with regard to each one of those chemicals?

MR. SCHINK: Excuse me, what context, avoiding mixing chemicals with water in their use?

MR. POPE: No, in the mixing up, general handling of them, and in connection with any disposal of them.

MR. SCHINK: Well, handling includes the use of them, does it not, so you are talking about water in connection with the use of it, Mr. Pope, or the disposal?

BY MR. POPE:

Q Your opinion that you gave Mr. Hynes dealt with the handling of those chemicals as well as their disposal, did it not?

A Yes.

Q Is it your testimony that as to all of those chemicals, the state of practice of industry during the period of time that you referred to called for avoiding water coming into contact with those chemicals?

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A No.

Q Was it your intention to segregate out certain types of chemicals where the practice was avoid having them come in contact with water?

MR. SCHINK: Are you speaking now with respect to handling or disposal?

There may be a difference. Which are you referring to, Mr. Pope?

MR. POPE: Both.

MR. SCHINK: Both, then that question is a compound question and I object to the form.

BY THE WITNESS:

A The answer is yes.

BY MR. POPE:

Q What types of chemicals?

A Those chemicals, for example, that are not soluble in water.

Q Are there other examples that come to mind?

A Oil. If you are going to handle oil, you don't want to get it with water, just complicates the handling and disposal problem.

Q It is your testimony that industry did not as a general practice during the period of time referred to use water to clean up, for example, oil disposal; is

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that right?

A That's my understanding, yes.

Q Any other types of chemicals that you would include within that category?

MR. SCHINK: You are asking now chemicals not soluble in water?

MR. POPE: Any other categories besides chemicals that are not soluble in water or any other way of categorizing chemicals.

BY THE WITNESS:

A Well, certainly some chemicals act violently with water, that is well understood, don't introduce water.

There are some solid material chemicals that don't dissolve in water. For example, plain old gypsum.

BY MR. POPE:

Q Is it your testimony that practice in industry was to avoid having gypsum come in contact with water?

A There again, it depends on the use. If you want to make a paste with gypsum for application, certainly you add water, but if you wanted to dispose of gypsum, the best way to do it is leave it dry and bury it, don't introduce it into a waterway. It makes

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a difficult problem.

Q We are not talking about the best way to dispose of it. We are talking about what your understanding was as to industry practice.

A Okay. Yes.

Q That was the way you were answering the question of Mr. Hynes, wasn't it?

A Yes.

Q It is your testimony that industry did not dispose of gypsum in connection with any water, is that right?

A That's right.

Q Is it your understanding that the practices you described in response to the question of Mr. Hynes were followed during that relevant period of time by the automobile industry?

A I don't know that I am that familiar with the automobile industry that I can answer your question.

Q How about the aluminum die cast industry? Are you familiar enough with that to answer the question?

A No, I am not.

Q You are familiar with what the industry practices were as to that industry, is that right?

A No.

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Q Your discussion with Mr. Hynes regarding the providing of information to, I guess it was the Environmental Protection Agency in response to that 308 request --

A Yes.

Q -- did you provide data only between 1970 and 1975, do you recall?

MR. SCHINK: I thought it was a 10-year period, '65 to '75, but I am not certain.

BY MR. POPE:

Q Do you know whether Monsanto performed any studies or commissioned any studies regarding the effect of PCBs on coho salmon?

A No, we did not.

Q Do you know if anyone else did any such studies?

A I don't recall.

Q Did Monsanto subscribe to a PCB newsletter that was published by the Natural Water Quality Laboratory of the U.S. EPA of Duluth?

A Yes.

Q Do you remember how soon after the Duluth meeting that newsletter started to be published?

A It was shortly thereafter, but I don't remember

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just when, no.

Q Did Monsanto contribute articles or ideas, results of reports to use?

A No.

Q Did you serve as chairman of a committee of the Power Equipment Division of the Electrical Manufacturers Association?

A Yes.

Q Did that committee produce a report which was adopted by the American National Standards Institute?

A Yes.

Q Could you tell us what that subject matter of the report was?

A This report covered the handling and disposal of fluids used in electrical equipment that contained PCBs.

Q That was a Committee 1071 for 1974, is it not?

A That sounds about right, yes.

Q Were you chairman of that committee?

A Yes.

Q At the time that report was issued, was Monsanto in compliance with the guidelines that that report recommended?

A Yes.

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Q Did you take any steps to determine whether Monsanto was in compliance with those guidelines at all of its plants?

A No.

Q On what basis did you say that Monsanto was in compliance?

A I thought you were referring to the three plants that produced PCBs.

Q They were in compliance, you determined that as to those three plants?

A Yes.

Q But how about the remaining plants? Did you ever make any determination as to whether Monsanto complied to those guidelines as of the time they were published in 1974?

A I didn't, no.

Q The guidelines related to the handling and disposal of those types of fluids, is that right?

MR. SCHINK: Of the dielectric fluids, is this what you are referring to?

BY THE WITNESS:

A The dielectric fluids, yes.

BY MR. POPE:

Q Did you serve on any other committees during

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1970 to 1974 that studied or did work related to the PCB matter?

A I was involved with a group, although I don't know that I was a member of it. If I am correct, the EEI, Edison Electric Institute.

Q What was that group studying?

A They were also involved with the PCBs and electrical equipment, as I recall. They had an interest.

Q Is that a group of electrical power companies?

A No. As I remember, these were primarily appliance manufacturers; TV, wash machines, and the like.

Q Did they come to issue a report?

A I have never seen one, I don't know.

Q Had you ever done any prior work with the American Standards Institute?

A No.

Q Had you ever been on any committees of the Electrical Manufacturers Association?

A No.

Q Can you tell me how you became chairman of this guidelines writing committee?

A I was asked by the representatives of Monsanto dielectric customers to serve as chairman and I accepted.

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Q Besides those two committees, have you devoted any time during the 1970 to 1974, '75 period to any other committees dealing with PCB matters?

A I don't remember any.

MR. POPE: Miss Reporter, would you mark as Papageorge Deposition Exhibit No. 99 for identification, an exhibit being a copy of a letter from Mr. Wheeler to David B. Peakall, dated May 14, 1971.

(Papageorge-OMC Deposition
Exhibit No. 99 marked for
identification, 9/2/81, TLU.)

BY MR. POPE:

Q Mr. Papageorge, if you would take a look at that Exhibit No. 99 and tell me if that is a copy of a letter you sent to Dr. Peakall on or about the date it bears.

A I did not send it.

Q I am sorry. That is a copy of a letter that Mr. Wheeler sent to that gentleman on or about that date?

A Yes.

Q Did you receive a copy of it?

A Yes.

Q Did you discuss with Mr. Wheeler the content

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of that letter before it went out?

A No.

Q Did you discuss the content of the letter with him shortly after it went out?

A Yes.

Q What was the nature of the discussion with Mr. Wheeler at that time?

A Oh, it was just a general review of the items, whether or not he had heard back from Dr. Peakall. That is about the extent of it.

Q Did you point out any inaccuracies to Mr. Wheeler as far as you recall?

A I don't remember.

Q Would I be correct in assuming that this was in response to a letter that Dr. Peakall had originally addressed to you?

A Yes.

Q And you had been out of the office for some time for surgery?

A Right.

Q Did you share Mr. Wheeler's thought that the article that Dr. Peakall had recently had published the prior September had been a good summary of the literature available?

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A Yes.

Q At the time Mr. Wheeler sent this letter, was Monsanto accepting for reclamation any spent hydraulic fluids from its customers?

A No, not for reclamation.

Q Reference is made on Page 4 of the letter to Monsanto accepting back spent fluid and if the fluid can be reclaimed by filtering and/or distillation, this is done and the fluid is reused.

Does that refer to some other fluid other than hydraulic?

A Yes.

Q What type is that?

A Dielectric.

Q At that time, May 1971, Monsanto was reclaiming dielectric fluid, is that right, from its customers?

A Yes.

Q Do you know how much dielectric fluid was reclaimed and put back into use for customers?

A I don't remember the amount, but it was relatively small.

Q Was that because of the technical problems or because of the lack of interest by customers?

A No, it was the situation where most of our

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customers had their own reclaiming facilities. It was only the very small customers that we would assist in this reclamation.

Q There is further reference to building up of "scrap PCBs returned by customers for nearly a year."

What does that refer to?

A This is the PCBs intended for destruction.

Q What types of fluids was Monsanto accepting for that one-year period or nearly a year?

A All types.

Q Hydraulic fluids as well as dielectric as well as heat transfer fluids?

A That is correct.

Q How were customers being advised that they could return those kinds of fluids for incineration by Monsanto?

MR. SCHINK: Excuse me. You used the term return to Monsanto, return for credit or simply send them to --

MR. POPE: It says return.

MR. SCHINK: I understand what the letter says. I am asking in what sense are you using the term, to ship back?

MR. POPE: Sure. I don't know whether they gave

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them credit or not

BY MR. POPE:

Q Do you understand the question?

A This is the normal oral message conveyed to the customer and as I remember, there were some written notices describing this program and the cost per pound and the use of a special label and what kinds of containers should be used.

Q Did those written notices go to all customers of PCB fluids?

A To the best of my knowledge, yes.

Q Is it your understanding that those notices were sent out beginning approximately a year before the incinerator was ready for use?

A About that.

Q Would it be true, Mr. Papageorge, that the best you could learn about Geneva Industries is that it was a company in Houston, Texas, that they may have produced some PCBs on occasion for heat transfer purposes after Monsanto got out of that area?

MR. SCHINK: You are asking now to the best he could learn from the Government or the --

MR. POPE: The whole world.

BY THE WITNESS:

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A That's the best I could do at the time, and in addition to heat transfer, there was some indication of other uses possible here which I could never confirm.

BY MR. POPE:

Q Did you have anybody from Monsanto contact Geneva Industries?

A Yes, somebody went and talked to them but they were admitting to nothing. I forgot just who that was.

Q Is it true that the best you could determine was they started up whatever production they had after Monsanto had gotten out of the business as far as PCBs were concerned?

A I could not establish that. That was a thought.

MR. POPE: Well, again, pending ruling from the Court on the remaining discovery, I have no more questions.

MR. SCHINK: Mr. Hynes, do you have anything else?

MR. HYNES: Let me check.

(Papageorge-USA Deposition
Exhibit No. 100 marked for
identification, 9/2/81, TLU.)

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RE CROSS EXAMINATION

BY MR. HYNES:

Q Mr. Papageorge, I hand you Papageorge Deposition Exhibit 100 for identification, which is a letter from James M. Wriston, W-r-i-s-t-o-n, Jr. to R. M. Stovall, dated October 26, 1972, states:

"Monthly PCB Status Report."

Would you take a look at it and see if you either saw that letter before or are familiar with the content.

A I don't recall seeing this specific letter, but the information appears similar to some that I have seen.

Q With regard to this letter under the heading Material Returned for Incineration, Customer Returns, there is a series of categories with pounds afterwards.

Would you take a look at that letter and tell me your interpretation. Does that mean year-to-date 1972 through September year-to-date?

A Yes.

Q You would take that to be the year dated December of '72?

A That is correct.

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Q Would you take a look at these figure for number of pounds under each of the five cat

To the best of your recollection, is that a fair representation of the amounts received at the incinerator from customers as to each category in terms of percentages or per proportions?

MR. SCHINK: For the year 1972 to date of that memo?

MR. HYNES: No. I am not talking about for '72. I am talking about '70, '71.

MR. SCHINK: Over the entire life of the incinerator's operation?

MR. HYNES: Right.

BY MR. HYNES:

Q Based upon your knowledge of the material returned for incineration, is that a representative proportion of different sources of customer returns: Dielectrics, Therminol and the like?

A I don't recall the 1970 and '71 figures. Therefore, I cannot make a true evaluation, but the numbers in one year will vary depending on circumstances.

Q What circumstances would those be?

A It depends, for example, how much material was stockpiled by certain types of customers and ready

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to be sent to us, and then it would show as a peak year, which would throw the proportions off; so not knowing any of the background, I cannot say that this was typical.

Q With reference to Santovac and Pydraul category, 281,032 pounds, do you have any explanation of why the amount of material returned for incineration for that category is so much less than the dielectric and Therminol?

A No, It is a difficult comparison to make. That is apples and oranges. I can't.

Q You cannot say if that proportion of return continued in that manner between Pydrauls and the other returns?

A No, I couldn't.

MR. HYNES: That's it.

MR. SCHINK: I have a question.

Do you have anything more, Mr. Pope?

MR. POPE: You're next.

MR. HYNES: Finish up.

MR. POPE: Go ahead.

MR. SCHINK: You go ahead.

MR. POPE: Do you have any questions of the witness?

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MR. SCHINK: Do you have a question?

MR. POPE: Subject to the same reservation I previously expressed, I don't.

CROSS EXAMINATION

BY MR. SCHINK:

Q Mr. Papageorge, this morning you described for Mr. Pope information which you received in 1971 from individuals within Monsanto's Marketing Department regarding the situation at Johnson Motors in the area of control of discharges of PCBs into the environment.

Do you remember that general testimony?

A Yes.

Q You stated in response to one of Mr. Pope's questions that information which you received in 1971 indicated to you that the situation was not as well managed as you had previously understood.

Do you remember that testimony?

MR. POPE: Objection, those are not the words he used.

BY THE WITNESS:

A Yes.

BY MR. SCHINK:

Q Would you explain what you meant when you testified earlier this morning that in 1971 based on

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the information provided to you, it was your belief that the situation was not as well managed as you had previously understood?

MR. POPE: Objection to the form of the question. It misstates the testimony.

BY MR. SCHINK:

Q You may answer.

A In my conversations with Mr. Gossage, I was first made aware that the control of PCB discharges at the Johnson Motors Plant was not what I had been led to believe in terms of improvement. For example, I was informed that conversations had been held with the appropriate people in Johnson Motors regarding some ideas and what makes for good control, what to avoid and what not to do.

Well, I was also informed that -- from Monsanto representatives who were involved -- that we had assurances that programs would be undertaken, necessary expertise obtained somewhere from either within Johnson or elsewhere, and that the right things would be done to control discharge.

I was informed by Mr. Gossage that over a year had gone by and it appeared that nothing had been accomplished, and this is what I meant earlier

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by use of the words "the problem was not properly managed."

Q You were referring to the failur of Johnson Motors to properly manage the situation as you understood?

A Yes, yes.

MR. POPE: Objection to the form of the question, leading.

BY MR. SCHINK:

Q Who did you understand at that time had not properly managed the situation?

MR. POPE: The same objection.

BY THE WITNESS:

A Johnson Motors Company personnel.

MR. SCHINK: I have no further questions.

FURTHER REDIRECT EXAMINATION

BY MR. POPE:

Q Mr. Papageorge, is that a subject that you and Mr. Schink discussed at lunch?

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

MR. POPE: If you discussed with the witness the subject matter in the middle of a deposition, you cannot expect to direct him with respect to that.

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MR. SCHINK: Conversations he had with his attorney are not privileged testimony?

MR. POPE: Not the knowledge of his testimony --

MR. SCHINK: I don't agree with that one way or the other.

BY MR. POPE:

Q Mr. Papageorge, are you going to follow the direction of counsel?

A Yes.

Q At the time in late 1971 when you had this conversation with Mr. Gossage, was one of your thoughts at the time that the Monsanto representatives who had previously told you something about Johnson Motors may have lied to you?

A No.

Q Did you ever consider that a possibility?

A I had no reason to.

Q At the point in time you had this conversation with Mr. Gossage, was Mr. Damiani still employed by Monsanto?

A 1971, I believe he was.

Q Did you get him on the phone and ask him what had taken place about the so-called assurances that you thought you had?

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MR. SCHINK: Are you asking now what information he got with respect to whether Johnson Motors hadn't done what they had assured the representatives of Monsanto they were going to do?

MR. POPE: You will have your chance to ask him questions after I finish, Mr. Schink.

That question had nothing to do with the question I posed to the witness.

BY MR. POPE:

Q Do you understand my question?

A Yes.

I don't recall getting on the phone to Mr. Damiani.

Q Did you pull him aside the next time you saw him personally?

A Yes, yes.

Q And did you say to him, "Bob, did you really tell those people something the first time you talked to them"?

A Yes.

Q What was his response?

A His answer was, "Certainly I did."

MR. POPE: Subject to the same reservations, I have nothing further at this time.

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MR. SCHINK: That's all.

Thank you.

MR. POPE: Thank you, Mr. Papageorge. I am
sorry it was so long.

(Witness excused.)

FURTHER DEPONENT SAYETH NOT. . .

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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.	)	

I hereby certify that I have read the foregoing transcript of my deposition given at the time and place aforesaid, consisting of Pages 1 to 1183, inclusive, and I do again subscribe and make oath that the same is a true, correct and complete transcript of my deposition so given as aforesaid, as it now appears.

William B. Papageorge

Subscribed and sworn to
before me this ____ day
of _____, A.D. 1981.

Notary Public.

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UNITED STATES OF AMERICA)
NORTHERN DISTRICT OF ILLINOIS)
EASTERN DIVISION) SS:
STATE OF ILLINOIS)
COUNTY OF COOK)

I, Thea L. Urban, a notary public in
and for the County of Cook and State of Illinois, do
hereby certify that WILLIAM B. PAPAGEORGE was by me
first duly sworn to testify the whole truth and that
the above deposition was recorded stenographically by
me and was reduced to typewriting under my personal
direction, and that the said deposition constitutes
a true record of the testimony given by said witness.

I further certify that the reading and
signing of said deposition was not waived by the
witness and his counsel.

I further certify that I am not a
relative or employee or attorney or counsel of any
of the parties, or a relative or employee of such
attorney or counsel, or financially interested directly
or indirectly in this action.

IN WITNESS WHEREOF, I have hereunto
set my hand and affixed my seal of office at Chicago,
Illinois, this _____ day of September, A.D. 1981.

Notary Public, Cook County, Illinois.
My commission expires May 31, 1983.

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