COPY

IN THE DISTRICT COURT OF THE UNITED STATES
FOR THE DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	
	)	
AVX CORPORATION, et al.,	)	
	)	
Defendants.	)	Civil Action No.
	)	83-3382-Y
COMMONWEALTH OF MASSACHUSETTS,	)	(Consolidated)
	)	
Plaintiff,	)	
	)	
vs.	)	
	)	
AVX CORPORATION, et al.,	)	
	)	
Defendants.	)	
LUTHERAN'S MUTUAL CASUALTY COMPANY,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Civil Action No.
	)	84-2032-Y
AVX CORPORATION, et al.,	)	
	)	
Defendants.	)	

(Continued on next page)

CONTINUED DEPOSITION OF WILLIAM B. PAPADEMAS
Taken on Behalf of Plaintiff United States of America
May 3, 1985



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IN THE DISTRICT COURT OF THE UNITED STATES
FOR THE DISTRICT OF MASSACHUSETTS

LUMBERMEN'S MUTUAL CASUALTY COMPANY, et al., Plaintiffs, vs. CORNELL-DUBILIER ELECTRONICS COMPANY, et al., Defendants.	Civil Action No. 84-2044-Y
FIREMAN'S FUND INSURANCE CO., Plaintiff, vs. RTE CORPORATION and AEROVOX, INC., Defendants.	

CONTINUED DEPOSITION OF WILLIAM B. PAPAGEORGE, taken to be used in the above-styled actions pending in the United States District Court, for the District of Massachusetts, pursuant to Notice between counsel under the provisions of Rule 26 (a) of the Rules of Civil Procedure, taken on May 5, 1986, at the law offices of Lewis & Rice, 611 Olive Street, St. Louis, Missouri, before William C. Morris, a Registered Professional Reporter and Notary Public.

A P P E A R A N C E S

The Plaintiff United States of America was represented by Ms. Karen L. Florini, of the U.S. Department of Justice, Land & Resources Division, Room 2630, Box 7415, Washington, D.C. 20044-7415.

The Defendant AVX Corporation was represented by Mr. Brian T. Kenner of the law firm of Nutter, McClennen & Fish, Federal Reserve Plaza, 600 Atlantic Avenue, Boston, Massachusetts, 02210.

The Plaintiffs Lumbermen's Mutual Casualty Co. and American Motorists Insurance Company were represented by Mr. Francis J. Connell, III of the law firm of Drinker, Biddle & Reath, 1100 Philadelphia National Bank Building,

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Philadelphia, Pennsylvania 19107.

The Plaintiff Fireman's Fund Insurance Company was represented by Mr. Gary D. Centola of the law firm of Rivkin, Radler, Dunne & Bayh, Eab Plaza, Uniondale, New York 11556-0111.

The Defendant Aerovox, Inc. was represented by Ms. Marjory Robertson of the law firm of Ropes & Gray, 225 Franklin Street, Boston, Massachusetts 02110.

The Defendants RTE Corporation and Aerovox, Inc. were represented by Mr. Daniel B. Winslow of the law firm of Sherin and Lodgen, 100 Summer Street, Boston, Massachusetts 02110.

The Plaintiff Aetna Casualty & Surety Company was represented by Mr. Daniel L. FitzMaurice of the law firm of Day, Berry & Howard, City Place, Hartford, Connecticut 06103.

The Defendant Federal Pacific Electric Company was represented by Mr. Howard T. Weir, III of the law firm of Morgan, Lewis & Cockius, 1800 M Street, N.W., Washington, D.C. 20036.

The Defendant Belleville Industries, Inc. was represented by Mr. David A. McLaughlin of the law firm of McLaughlin & Folan, 448 County Street, Ned Bedford, Massachusetts 02740.

The Defendant Hartford Accident and Indemnity Company was represented by Mr. Lawrence J. Kenney, Jr. of the law firm of Sloane and Walsh, Ten Tremont Street, Boston, Massachusetts 02108.

Monsanto Company was represented by Mr. Stephen H. Oleskey and Mr. Robert C. Kirsch of the law firm of Hale and Dorr, 60 State Street, Boston, Massachusetts 02109.

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IT IS HEREBY STIPULATED AND AGREED by and between Counsel for the Plaintiffs and Counsel for the Defendants that this continued deposition may be taken in shorthand by William C. Morris, a Registered Professional Reporter and Notary Public, and afterwards transcribed into typewriting and signed by the Witness.

o-O-o

WILLIAM B. PAPAGEORGE,

of lawful age, being produced, sworn and examined on the part of the Plaintiff, United States of America, deposes and says:

MR. WINSLOW: On the record, I have no further questions of this witness.

CROSS-EXAMINATION

QUESTIONS BY MS. ROBERTSON:

Q. Good morning, Mr. Papageorge.

A. Good morning.

Q. My name is Marjory Robertson. I represent Aerovox, Incorporated who is the present owner of the Aerovox plant, and I just have a few brief questions about your knowledge about other products that PCB's were used in besides capacitors. I would like to know, do you know what products other than capacitors they were used in?

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A. I know some of them. I don't know that I know all of them.

Q. Could you tell me which ones you know they were used in?

A. We used -- they were used and ingredients in hydraulic -- industrial hydraulic fluids.

Q. Okay.

A. They were used as a fluid in some vacuum pumps. They were used as an ingredient in fluids used in turbines of the type to pump say, natural gas in these big distribution systems. They were used in heat transfer -- industrial heat transfer fluids. They were used as a co-solvent in the carbonless copy paper application. They were used in coatings, paints, varnishes. They were also used in many plastic and rubber formulations to give pliability, flexibility in the end products. I think I've covered most of them.

Q. Do you know whether PCB's have ever been used in the moldings for golf balls?

A. No, I do not.

Q. Do you know whether PCB's were used in the manufacture of printers ink?

A. I know that PCB's were present in printers ink, and it's my understanding that most of that is due to the use of recycled oils.

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Q. And are those recycled oils used in the manufacture of the ink itself?

A. Well, I don't claim to know an awful lot about the ink industry, but oils are used as solvents of the color bodies, and apparently it was economically attractive to find recycled oils, and some of those contained, inadvertently or directly, used PCB fluids.

Q. Do you know whether any companies that used PCB's for these other purposes were located in New Bedford or in the New Bedford area?

A. No, I don't.

Q. Do you know who in Monsanto would have that knowledge?

A. Today I think it would only appear in any records that are still in Monsanto's custody.

Q. When you did your tour of the northeastern area in 1970 --

A. Yes.

Q. Did you visit any companies other than manufacturers of capacitors?

A. Yes, I visited transformer manufacturers as well.

Q. Were any of those located in New Bedford or in the New Bedford area?

A. No.

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Q. Were there any other companies located near New Bedford that you visited during that tour?

A. No.

MS. ROBERTSON: I have nothing further.

QUESTIONS BY MR. CONNELL:

Q. Mr. Papageorge, my name is Frank Connell. I represent Lumbermen's Mutual Casualty Company and American Motorists Insurance Company.

MR. CONNELL: Mr. Oleskey, before I begin my questioning of Mr. Papageorge I'd like to clarify one point with respect to the notice of deposition that was served by Lumbermen's, and that is I believe you stated at the first session of the deposition that Mr. Papageorge has not been designated to testify with respect to Paragraphs 5 and 9 of that notice which deal with information given by Monsanto -- let me get the notice out here. Paragraph 5 of the notice --

MR. KENNER: Has the notice been marked, Frank?

MR. CONNER: Yes, it's Exhibit 85, Papageorge 85. Paragraph 5 of the notice refers to disclosure by Monsanto to insurors of the companies identified in Paragraph 4, which essentially are defendants in the underlying litigation, of the potentially toxic or nazardous nature of PCB's or of the risk that PCB's may

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damage the environment. Mr. Papageorge has not been designated to testify with respect to that matter, is that correct?

MR. OLESKEY: My recollection is that Monsanto indicated that Mr. Papageorge was not going to testify as to Paragraph 5.

MR. CONNELL: Would you refer to Paragraph 9 of the notice, please? It's my understand that Mr. Papageorge is not designated as Monsanto's 30b6 witness with respect to the matters set forth in Paragraph 9 of the Lumbermen's notice, is that correct?

MR. OLESKEY: That's also my recollection.

MR. CONNELL: Now, does Monsanto intend to designate a witness with respect to Paragraphs 5 and 9 of the Lumbermen's notice?

MR. OLESKEY: I can't answer that now, Frank. I'm not sure there is anybody, frankly.

Q. (By Mr. Connell) Mr. Papageorge, did Monsanto produce Aroclor at the Sauget, Illinois plant while you worked there in 1964 and 1965?

A. Yes.

Q. What role did you play in the process of producing Aroclor at the Sauget plant in 1964 and 1965?

A. I played no role.

Q. Do you have knowledge as to whether Monsanto

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had in place a PCB control procedure during the time that you were employed at the Sauget plant?

MR. KENNER: Objection.

THE WITNESS: I find that hard to answer because the control procedure was not just unique to that operation. It was typical of all similar kinds of units in the plant controlling waste to go into the sewer and the like.

Q. What do you mean by the term similar types of units in the plant?

A. The making of what we call organic chemicals, hydrocarbon chemicals.

Q. All right. Was there -- do you know whether there was any difference between the control procedures at the Sauget plant which you have just referred to and the control procedures at the Anniston plant during the 1964-1965 time period?

A. Yes, there were differences.

Q. Did those differences relate in any way to the fact that PCB's were being manufactured at one or the other of those plants?

A. No.

Q. What were the differences in the control procedures at the two plants during 1964 and 1965?

A. The Anniston plant had a pretreatment

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procedure because of the local sewage treatment plant situation, whereas the Sauget, Illinois plant could rely on the Sauget Village sewage treatment plant to handle wastes much more effectively.

Q. Was the pretreatment procedure at the Anniston plant designed specifically with respect to pretreatment of PCB waste?

A. Yes.

Q. What was the nature of that pretreatment procedure at the Anniston plant?

A. It consisted of several settling basins and a neutralizing basin. Limestone, crushed rock, was in the neutralizing basin to take care the acidic conditions.

Q. When was the pretreatment procedure at the Anniston plant instituted?

A. I don't recall the exact date, but some version of that approach existed from the very beginning in the 1930's when Monsanto bought that plant.

Q. Was the purpose of the pretreatment process at the Anniston plant to remove PCB's from the materials that were being discharged into the sewer system?

A. Yes, it was a settling system and a neutralizing system.

Q. Now, you began working at the Anniston plant in 1965, is that right?

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A. Yes.

Q. At the time you began working at the Anniston plant, did you have knowledge as to whether Monsanto was discharging PCB's into the sewer system at the Anniston plant?

A. Yes.

Q. And was Monsanto discharging PCB's into the sewer system at the Anniston plant in 1965?

A. Yes.

Q. Were you aware at the time you began working at that plant as to the concentration of PCB's in those sewer discharges?

A. At the time I was. I don't recall the numbers today.

Q. Do you recall today what the PCB concentration in the Anniston plant's discharges into the sewer system were at any time prior to 1970?

A. No, I do not.

Q. Now, during the time that you worked at the Anniston plant, which as I recall was from sometime in 1965 until the end of 1969, am I right about that?

A. That is correct.

Q. During the time that you worked at the Anniston plant, was anything done with respect to that pretreatment process that you have described to reduce the

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concentration of PCB discharges into the sewer system?

A. During that period of time no changes were made in the treatment plant, no.

Q. Do you have knowledge as to whether changes were made in the pretreatment process at the Anniston plant after 1970 for the purpose of reducing the concentration of PCB's which were being discharged into the sewer system?

A. There were no changes made.

Q. During the time that you were employed at the Anniston plant, were changes made in the company's procedures which were designed to control escape of PCB's?

A. Yes.

Q. What changes were made in those procedures during that time period?

MR. MCLAUGHLIN: Can I have the prior question, please?

(The reporter read back the last two questions.)

THE WITNESS: Well, first of all it involved a tightening up or more attention being given to closing any openings in the system. There were concrete floors poured and constructed with curbing in lieu of dirt or crushed rock paving. There were special systems installed so that the taking of samples would not result in spillage

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of PCB's.

And in the unit at Sauget, which continued to operate later, they installed an underground basin capable of capturing any major spills and preventing those spills from entering the sewer system. Any PCB's that happened to get into water were captured in this basin, and the two were separated to prevent the PCB fluids themselves from entering the sewer system. I can't recall any other specifics.

Q. All right. Now, you have described several changes which were made in the procedure during the time that you were employed at the Anniston plant, and you have referred to the Sauget plant as well.

A. Oh, I misunderstood the question.

Q. Were those changes that you --

MR. KENNER: Excuse me, I believe the witness has just indicated in response to the narrative that he misunderstood the previous question. Perhaps we can get it clarified.

Q. (By Mr. Connell) Mr. Papageorge, at which plant were the changes in procedures that you have just described instituted?

A. The greater attention to be careful not to spill materials was instituted at both plants starting in 1970.

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Q. Okay.

A. The more extensive changes in the system were installed at the Sauget, Illinois plant because the Anniston plant was shut down, as I recall, in 1972 or thereabouts.

Q. All right.

A. It already had these basins that I mentioned earlier, these pits for trapping any spilled PCB's before they entered the Anniston sewage treatment plant system, sewer system. And prior when you asked me were any changes made, I thought we were still talking about those basins at the Anniston plant. They were not changed. They were already capable of doing what we hoped was being done.

Q. Have the changes which you have just described, or were the changes that you have just described instituted after 1970 or before 1970?

A. After.

Q. All right. Were any changes made at the Anniston plant during the time that you worked at the Anniston plant which were designed to keep PCB's out of the environment?

A. Not while I was there, no.

Q. Do you have knowledge as to whether any changes were made at the Sauget plant prior to 1970 which

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were designed to keep PCB's out of the environment?

A. I do not have knowledge, no.

Q. Now, Mr. Papageorge, when did you first learn of the possibility that environmental harm might be caused by PCB's?

A. My earliest recollection was the summer of 1969.

Q. And how did you become aware of that fact?

A. My supervisor.

Q. Who was that?

A. Mr. Raymond Stratmeyer, S-t-r-a-t-m-e-y-e-r.

Q. And what did Mr. Stratmeyer do or say to make you aware of the possibility that environmental harm might be caused by PCB's?

A. He was not aware of all of the information, but he indicated to me that something was being found in some laboratory studies in Europe indicating the presence of PCB's in some samples that were analyzed, and he also had heard that there were some comments from the California area that some birds and seals were being affected by PCB's. That was about the extent of his knowledge, and he shared that with me.

Q. Was Mr. Stratmeyer employed at the Anniston plant?

A. No.

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Q. Where was he employed?

A. St. Louis offices of Monsanto.

Q. After your conversation with Mr. Stratmeyer about this matter, did you take any action at the Anniston plant?

A. No.

[Marked Papageorge Deposition Exhibit 112 for identification.]

MR. CONNELL: This was previously marked as Lopes Exhibit 7. What it is is a copy of a document which was previously marked as Exhibit 102 except that this one is addressed to somebody at Cornell-Dubilier. I forget who the addressee is. It's addressed to Mr. Robinson, I think.

[Marked Papageorge Deposition Exhibit 113 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, you have before you a document which the reporter has marked as Papageorge Exhibit 112. Have you reviewed that document?

A. Yes.

Q. Have you seen that before today?

A. Yes.

Q. Was that document sent to Mr. Robinson at Cornell-Dubilier on or about March 3, 1969?

MR. MCLAUGHLIN: Objection.

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MS. ROBERTSON: Objection.

THE WITNESS: I have no direct personal knowledge of that.

Q. (By Mr. Connell) When did you first see that document?

A. I saw the text of the document early in 1970.

Q. How did you come to see the text of the document in early 1970?

A. When I arrived in St. Louis to assume my new duties, at that time --

Q. All right.

A. -- I met with Mr. Wheeler who reviewed as much as he knew about the PCB situation with me, and this is one of the documents he showed me at that time.

Q. All right. Did Mr. Wheeler tell you anything about what he did with the document that he showed you?

A. My understanding at the time was that he had -- he saw to it that this form letter was mailed to customers on record at the time.

MR. KENNER: Motion to strike as nonresponsive.

MR. MCLAUGHLIN: I join that objection.

MR. OLESKEY: Didn't we reserve all of those?

MR. MCLAUGHLIN: Off the record, please.

(Discussion off the record.)

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MR. OLESKEY: I believe the previous stipulation was that the parties stipulated that all objections except as to the form of the question were reserved until trial, that motions to strike were similarly reserved.

MR. KENNER: Including motions to strike as to the nonresponsiveness of the answer?

MR. OLESKEY: Any motion to strike.

MS. ROBERTSON: And any objection for one is an objection for all.

MR. CONNELL: Does anybody object to incorporating those stipulations or instituting those stipulations for the purpose of this session of Mr. Papageorge's deposition?

MR. MCLAUGHLIN: I'll go long with that.

MR. KENNER: That's agreeable.

Q. Mr. Papageorge, what was Elmer P. Wheeler's title --

MR. MCLAUGHLIN: Wait a minute, there were only about three responses to that question.

MR. OLESKEY: There was no objection noted.

Q. (By Mr. Connell) What was Mr. Elmer P. Wheeler's title as of December, 1969?

A. Manager, environmental health.

Q. In that capacity was it Mr. Wheeler's

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responsibility -- was it one of Mr. Wheeler's responsibilities to correspond with customers concerning reports on the toxicity of PCB's?

A. Yes.

Q. Did Mr. Wheeler's responsibilities at that time include keeping himself abreast of facts or opinions concerning the toxicity of PCB's?

MR. MCLAUGHLIN: Objection, I don't know what the word abreast means.

THE WITNESS: Yes.

Q. (By Mr. Connell) Was it the regular practice of Monsanto in 1969 to correspond with its customers concerning environmental effects of Monsanto's products?

A. Yes.

Q. Now, prior to the time that you were asked to accept the environmental control manager position, with whom did you discuss the question of PCB's impact on the environment?

A. Mr. Stratmeyer.

Q. Did you discuss that with anybody else?

A. And later when I interviewed for that position I discussed it with Messrs. Bergen and Springate.

Q. When did your conversation with Messrs. Bergen and Springate occur?

A. In December of 1969.

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Q. What did Mr. Springate tell you in your conversations with him in December of 1969 about the environmental impact of PCB's?

A. I, of course, don't recall the exact words, but the essence of it it was a repeat of what I had heard from Mr. Stratmeyer in terms of current findings, current in 1969.

Q. Did Mr. Springate discuss with you the reasons why the manager of environmental control position was being created?

A. I don't know that he discussed all the reasons. His interest had to do with the sale of PCB's into the miscellaneous uses as distinguished from the fluids applications, primarily plastics applications.

MR. CONNELL: Could you read that back?

(The reporter read back the answer.)

THE WITNESS: I'm not finished with that statement.

Q. (By Mr. Connell) I'm sorry.

A. Therefore, he was most interested in someone monitoring any new information and keeping him current as to developments, so he was looking forward to having that position filled quickly to help him make decisions regarding the continued sale of these materials for the plastics applications.

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Q. What did Mr. Bergen tell you in late 1969 about the environmental impact of PCB's?

A. Again, nothing different than I already knew from Mr. Stratmeyer, but his interest was in making certain that the PCB's found in the environment were truly PCB's, and also whether or not they originated from the uses in those markets which his group sold the material to.

Q. Did Mr. Bergen tell you what his reasons -- strike that. Did Mr. Bergen say anything to you about the company's reasons for creating the manager of environmental control position?

A. As I recall it, he wanted a single person who could serve as a coordinator and a focal point for all the types of information relating to PCB's, from toxicity studies to analytical results to research and development relating to biodegradation, the improvement of the product in terms of acceptability to the environment. He was seeking one person that he could rely on rather than having to contact half a dozen to a dozen different people.

Q. Now, were you the company's -- Monsanto Company's spokesman regarding environmental issues which concerned PCB's from early 1970 through 1975?

MS. ROBERTSON: Objection.

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THE WITNESS: I was one of its spokesmen.

Q. (By Mr. Connell) Who else were spokesmen for Monsanto on this issue during that time period?

MS. ROBERTSON: Objection.

THE WITNESS: Depending on the audience and the situation, it could be Mr. Bergen himself, it could be Mr. Benignus, it could be a Mr. Randall Graham, Mr. Bryant, Mr. Wheeler, Dr. Emmett Kelly, Dr. Richard, there were many people that spoke for Monsanto.

Q. Was Mr. Olson also a Monsanto spokesman with respect to that issue?

A. At one time, yes.

Q. During which time period was Mr. Olson a spokesman for Monsanto on that issue?

A. Oh, let's see, it was prior to 1970, and I don't know how many years before that, until about 1972.

Q. Now, Mr. Papageorge, I'm showing you a document which the reporter has marked as Papageorge Exhibit 113. For the record, Papageorge Exhibit 113 is a letter dated December 3, 1969, to William Robinson from Randall Graham. Have you reviewed that letter, Mr. Papageorge?

A. I have.

Q. Have you seen that before today?

A. I recall it, yes. I've seen it.

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Q. When did you see that letter before today?

A. I cannot specifically place the time.

Q. Did you see the letter at or about the time it was written?

A. No.

Q. Now, do you have knowledge as to whether representatives of Cornell-Dubilier visited the Monsanto offices in December of 1969?

A. It's my understanding that a meeting was held with representatives, yes.

Q. What's the basis of that understanding?

A. Seems to me I've seen some documents that referred to that meeting, but I can't recall the specific documents.

Q. Did you have discussions with anybody in December of 1969 or shortly thereafter concerning the visit of Cornell-Dubilier representatives to the Monsanto offices?

A. I don't recall any.

Q. Do you have knowledge as to what was discussed during that visit of Cornell-Dubilier representatives to Monsanto's offices in December, 1969?

A. No.

Q. After accepting the manager, environmental control, position, what did you do to educate yourself

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about PCB's impact on the environment?

A. I arranged for discussion sessions which I'll call tutorials with Monsanto individuals which included Dr. Kelly, Emmett Wheeler, Bill Richard, Paul Benignus, Robert Keller, Scott Tucker, I can't recall any others.

Q. And what subjects were discussed in these tutorials with the individuals you've just identified?

A. Well, there were subjects such as where PCB's were being used, how PCB's are analyzed, what is the known toxic effect -- what are the known toxic effects of PCB's, how do they survive or exist in the environment, that's about the list.

Q. Did that initial education process include education concerning the Monsanto Company's practices regarding controlling PCB discharges?

A. Not in the early stages of indoctrination, no.

Q. Did that question become a matter of concern for you at some point after the early indoctrination?

A. Yes.

Q. When did that question become of concern to you?

A. It's hard to recall a specific moment, but it was part of our evolving plan regarding the manufacture and continued use of PCB's. I would say that sometime

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between March and May that it was pretty well documented that we wanted to do these things.

Q. And by these things are you referring to the list of changes that you enumerated earlier this morning?

A. That is correct.

Q. Were any Monsanto employees other than Messrs. Kelly, Wheeler, Richard, Benignus, Keller and Tucker involved in the discussions of control procedures to reduce PCB discharges at Monsanto facilities?

MR. KENNER: Object to the form.

THE WITNESS: Yes.

Q. (By Mr. Connell) And who was involved in these discussions?

A. There were several people at the plants at which the PCB's were manufactured. I'm trying to recall their names. The name Landwehr comes to mind. He was the principal engineer at the Anniston plant. I can't recall the names of the individuals at the Sauget plant nor at Monsanto's corporate engineering department.

Q. During the first five months of 1970, January through the end of May, did your education process include an effort to familiarize yourself with the PCB control procedures at the customers' facilities?

A. There was a beginning of my effort to get familiar with the customers' procedures at that point in

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time.

Q. And what steps did you take to achieve that goal during that time period?

A. Oh, I talked with Mr. Benignus and asked him to share with me his observations, his understandings, and we then made arrangements for me to be scheduled to personally visit as many customers' plants as was possible or practical.

Q. Do you have any recollection today as to what Mr. Benignus said to you about the customers' practices regarding PCB disposal prior to June of 1970?

MR. WINSLOW: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: Only in a general way.

Q. (By Mr. Connell) What do you recall about that?

MR. MCLAUGHLIN: I object.

THE WITNESS: That with the understanding of PCB's available at that time they were perceived to be innocuous, and in his observations, he said that they were -- almost to a customer they were all using their sewer systems and the available landfills or permitted disposal sites to dispose of their wastes.

Q. (By Mr. Connell) Did Mr. Benignus tell you in those conversations -- strike that. Did Mr. Benignus

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tell you during that time period on what he based that statement?

A. No.

Q. Now, will you please refer to Papageorge Exhibit 100? Mr. Papageorge, let me show you -- I'm showing you Papageorge Exhibit 100, Mr. Papageorge. Do you recall that from the last session of your deposition?

A. Yes.

Q. What was Donald Olson's position as of February, 1970?

A. He was director of sales of the functional fluids group in the organic division of Monsanto Company.

Q. As of that time did Mr. Olson have knowledge of the impact of PCB's on the environment?

MR. WINSLOW: Objection.

MR. KENNER: Object to the form.

THE WITNESS: I find it difficult to speak for what Mr. Olson was aware of or thought.

Q. (By Mr. Connell) Okay.

A. I can't answer that.

Q. Were you involved in the decision to send copies of the document marked Papageorge 100 to customers?

A. Yes.

Q. Were you involved in any way in the drafting of that document?

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A. Yes.

Q. Was that document sent to customers along with invoices or shipments of PCB's?

A. Not to my knowledge.

Q. Do you know why there was no mention of Aroclor 1242 in the February 18, 1970 letter which has been marked as Papageorge 100?

A. Yes, I do.

Q. Why was that?

A. Because there was no information at that time of anyone finding Aroclor 1242 in the samples that were analyzed.

Q. As of February 18, 1970, had Monsanto advised any customer that Aroclor 1242 did not pose a risk of environmental damage if it were permitted to escape into the environment?

A. No, we did not.

MR. KENNER: Object to the form.

THE WITNESS: No, we did not.

Q. (By Mr. Connell) When did Monsanto begin production of Aroclor 1242?

A. I can only share with you my understanding. That was one of the PCB's that Monsanto purchased from the predecessor company.

Q. On what do you base your understanding?

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A. The fact that PCB's were manufactured prior to Monsanto's acquisition of that company and were being sold to the electrical equipment manufacturers, that several types of PCB mixtures were included in that group of products, and that Aroclor 1242 was one of the more popular mixtures.

Q. What was the name of the predecessor company which you've just referred to?

A. Swan Chemical Company.

Q. When did Monsanto purchase Swan Chemical Company?

A. About 1934.

Q. Was Aroclor 1242 being sold to capacitor manufacturers as of the time that you became employed at the Anniston plant in 1965?

A. Yes.

Q. Now, I'd like to discuss with you your visits to customers' plants which began in mid 1970 which -- when did you begin to visit customers' plants in 1970?

A. It was about May or June of 1970.

Q. How many customers did you visit in 1970?

A. I don't know. I've never counted them.

Q. Other than Mr. Graham did any other Monsanto employees accompany you on your visits to customers during 1970?

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A. I believe Mr. Benignus accompanied me on some of those, but I'm not certain whether it was 1970 or afterward. I can't recall.

Q. In the course of visiting customers in 1970, did you visit Federal Pacific Electric Company?

A. I believe I did.

MR. CONNELL: Let's go off the record.

(Discussion off the record.)

[Marked Papageorge Deposition Exhibits 114 through 122 for identification.]

(Mr. Howard T. Weir, III, arrived and was present for the remainder of the deposition.)

Q. (By Mr. Connell) Mr. Papageorge, do you have any recollection of the approximate number of customers you visited during your tour of customers' plants in 1970?

A. It's a very rough guess, 30.

Q. And over what period of time did you visit that approximate number of customers?

A. That's from about May or June, 1970, to the end of the year, December, 1970.

Q. Mr. Papageorge, which facility of Federal Pacific Electric Company did you visit in 1970?

MR. WEIR: Objection.

THE WITNESS: As best I recall it was in the west, Arizona, or Nevada or New Mexico, somewhere out

WATER_PCB-SD0000069158

there.

Q. What do you recall about that visit?

A. As I recall it was a transformer manufacturing facility that used PCB's, and that's the extent of my recollection.

Q. Do you have any recollection of the identities of the persons with whom you spoke during that visit?

A. No, I do not.

Q. Was the purpose of that visit to the FPE plant the same as the purpose of your visits to the CDE and Aerovox plants in New Bedford?

MR. WEIR: Objection to the form.

THE WITNESS: Yes.

Q. (By Mr. Connell) During your visit to the Cornell-Dubilier plant in June of 1970, do you recall the identities of the persons with whom you spoke owner Mr. Lopes and Mr. Hurd?

A. I do not recall the names of the other individuals involved, no.

Q. Do you recall whether you spoke with a Mr. Robinson?

A. No.

Q. Do you recall whether you spoke with a Mr. Alexander?

WATER_PCB-SD0000069159

A. No.

Q. Do you recall a Mr. Holmgren?

A. No.

Q. During your tour of the CDE plant in June of 1970, did you observe the storage area of the plant?

A. I don't recall any area designated as storage.

Q. Did you view any area of the plant where Aroclors were stored in tanks?

A. Yes.

Q. What do you recall about that area of the plant?

MR. WEIR: Objection to the form.

THE WITNESS: I don't remember anything specific other than an overall impression.

Q. (By Mr. Connell) What was your overall impression of that area?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: An oily appearance.

Q. (By Mr. Connell) Did you observe any leaks of fluids in that area?

MR. WEIR: Objection.

THE WITNESS: Do you mean by your question actually fluid flowing out of an opening onto something?

WATER_PCB-SD0000069160

Q. (By Mr. Connell) That's my question.

MR. WEIR: Objection.

MR. WINSLOW: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) Did you observe evidence of leaks of Aroclor in the storage area?

MR. WEIR: Objection.

MR. KENNER: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) What was the nature of the evidence that you observed?

MR. WEIR: Objection.

THE WITNESS: It's this oily appearance I referred to earlier.

Q. (By Mr. Connell) Did you have discussions with Mr. Lopes or Mr. Hurd during your visit to the CDE plant in 1970 concerning leaks or spills?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) What do you recall about those discussions?

A. The general guidance that we gave all of the plants we visited was to avoid situations that lead to these oily situations. Those are not the exact words but that was the essence of it.

WATER_PCB-SD0000069161

Q. What did Mr. Lopes or Mr. Hurd tell you during your visit to the plant about leaks or spills?

MR. WEIR: Objection to the form.

THE WITNESS: There again I don't recall the exact words, but I was left with the understanding they understood that they were going to have to do things differently.

Q. (By Mr. Connell) All right. Did you observe any drip pans at the CDE plant in June of 1970?

MR. WEIR: Objection to the form.

THE WITNESS: I don't recall.

Q. (By Mr. Connell) Did you observe the impregnation process at the CDE plant during your June of 1970 visit?

MR. WEIR: Objection, asked and answered.

THE WITNESS: Yes.

Q. (By Mr. Connell) Did you observe the removal of capacitors which had recently been impregnated from impregnation tanks during that visit?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Did you observe during that visit any means of preventing Aroclor from dripping from the recently impregnated capacitors on to the floor of the plant?

WATER_PCB-SD0000069162

MR. WEIR: Objection.

THE WITNESS: I don't recall any.

Q. (By Mr. Connell) As the recently impregnated capacitors were removed from the impregnation tanks, did you see anything under those capacitors?

MR. WEIR: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) Did you observe the movement of newly impregnated capacitors to the -- or did you observe the movement of the newly impregnated capacitors from the impregnation area during your visit to the CDE plant?

A. Yes.

Q. And how were those capacitors moved?

A. I don't know how to answer the question. They were in baskets, as I recall, with employees carrying them to a point where they would place them on a conveyor system whereby they would go by other employees. I don't know how to describe it.

Q. All right. Did the employees who carried the baskets of capacitors to these conveyors use any device in carrying them?

MR. WEIR: Objection.

THE WITNESS: I don't recall.

Q. (By Mr. Connell) Did you observe the area in

WATER_PCB-SD0000069163

which the conveyors existed?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Did you see anything under those conveyors?

MR. WEIR: Objection.

THE WITNESS: I don't recall.

Q. (By Mr. Connell) Do you recall the process that occurred in the area where those conveyors -- or where you saw those conveyors?

A. Yes.

Q. What process was occurring in that area?

A. The opening in the top of the capacitor was being sealed.

Q. What was the general appearance of the area in which the sealing of this opening in the top of the capacitor was occurring?

MR. MCLAUGHLIN: Objection.

MR. WEIR: Objection.

Q. (By Mr. Connell) Referring to the CDE plant now.

MR. MCLAUGHLIN: Objection.

THE WITNESS: I would describe it as having an oily appearance.

Q. (By Mr. Connell) Where did you see oil in

WATER_PCB-SD0000069164

that area?

MR. WINSLOW: Objection.

THE WITNESS: On the conveying systems and on the floors, the walls, the ceilings, just the overall atmosphere was oily.

Q. (By Mr. Connell) Were you aware at that time as to whether -- strike that. Were you aware at that time as to the type of dielectric fluid that was used in the area where the conveyors were?

MR. WEIR: Objection.

THE WITNESS: I had an understanding of which fluid was used.

Q. (By Mr. Connell) What was the basis of your understanding?

A. It was primarily the fact that this was a capacitor manufacturing plant and Aroclor 1242 was the fluid used for that type of application.

Q. Where did you get that information?

A. From Monsanto individuals, researchers, marketers, as well as the -- yes, the marketing people.

Q. Did Mr. Lopes or Mr. Hurd give you information as to the type of dielectric fluid which was being used in the plant?

MR. WEIR: Objection.

THE WITNESS: I don't recall that, no.

WATER_PCB-SD0000069165

Q. (By Mr. Connell) During your visit to the CDE plant in June of 1970, did you make any effort to determine whether the company was discharging PCB's into Buzzards Bay?

MR. WEIR: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) During your visit to that CDE plant in the summer of 1970, did you make any effort to determine what CDE had been doing with its scrap liquid Aroclor?

MR. WEIR: Objection.

THE WITNESS: We had discussions, yes.

Q. (By Mr. Connell) With whom did you have such discussions?

A. With Mr. Lopes and Mr. Hurd that were in the room, along with many others.

Q. Was Mr. Graham also present during those discussions?

A. Yes.

Q. And what was said during those discussions about CDE's practices regarding scrap liquid Aroclor?

MR. WEIR: Objection.

THE WITNESS: They were taking their scrap materials to permitted disposal site.

Q. Who made those statements?

WATER_PCB-SD0000069166

A. Representatives of the CDE Company.

Q. Did you make any statements during that conversation about CDE's scrap liquid Aroclor?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) What statements did you make?

A. Two that I recall. One was, wherever you put it, make sure it's not near water. Number two, Monsanto was planning an incinerator for the destruction of liquid PCB's, and I encouraged them to consider sending it to Monsanto for eventual disposal.

Q. Did you have discussions with the Cornell-Dubilier people in June of 1970 concerning Aerovox Corporation's practices regarding disposal of scrap liquid Aroclor?

MR. WEIR: Objection.

THE WITNESS: As I recall the subject did come up.

Q. (By Mr. Connell) Do you recall anything about those discussions?

MR. WEIR: Objection.

THE WITNESS: Not specifically, no. I was not knowledgeable enough to even contribute to that discussion.

WATER_PCB-SD0000069167

Q. (By Mr. Connell) Did Mr. Hurd or Mr. Lopes indicate to you in the conversation we have been discussing whether they disposed of scrap liquid Aroclor in barrels?

MR. KENNER: Objection, he did not attribute those statements to Lopes.

Q. (By Mr. Connell) Let me amend my question, Mr. Papageorge. Did the Cornell-Dubilier representatives with whom you discussed the question of Cornell-Dubilier's disposal of scrap liquid Aroclor indicate the manner in which they disposed of their liquid Aroclor?

MR. WEIR: Objection.

THE WITNESS: I don't recall.

Q. (By Mr. Connell) During your visit to the CDE plant in -- during your visit to the Cornell-Dubilier plant in June, 1970, did you have discussions concerning CDE's practices regarding disposal of solid waste which contained PCB's?

A. Yes.

Q. And with whom did you have those discussions?

A. Again, I don't recall all the individuals in the room.

Q. Were Mr. Lopes and Mr. Hurd present during those discussionss?

MR. WEIR: Objection.

WATER_PCB-SD0000069168

THE WITNESS: As best as I recall they were. This does not mean that they may not have left the room on occasion. I can't recall that detail.

Q. (By Mr. Connell) What do you recall about the discussions which occurred at the CDE plant in June of 1970 concerning CDE's practices regarding disposal of solid waste which contained PCB's?

A. I recall that I cautioned them against disposal near or in water, and suggested that there was no better technology other than burial available, but they should be careful where they buried it.

Q. Do you recall anything about what any of those Cornell-Dubilier representatives told you in those discussions?

MR. WEIR: Objection.

Q. (By Mr. Connell) If anything?

A. I don't recall the specifics of their response, no.

Q. Do you recall anything at all about their response?

MR. WEIR: Objection.

THE WITNESS: I left with the understanding that they were going to look into the disposal practices.

Q. (By Mr. Connell) Now, by the conclusion of your visit to the Cornell-Dubilier plant in June, 1970,

WATER_PCB-SD0000069169

had you formulated an opinion as to whether or not Cornell-Dubilier was discharging PCB's into Buzzards Bay?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) Had you formulated an opinion by the end of that visit as to whether or not Cornell-Dubilier was discharging PCB's into the sewer system?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) And on what did you base that opinion?

A. Well, my observation as I walked through the plant and no one said anything to counter that observation.

Q. What was your opinion --

MR. WEIR: Objection, excuse me.

Q. (By Mr. Connell) -- as to whether Cornell-Dubilier was discharging PCB's into the New Bedford sewer system as of the end of your visit in June, 1970?

MR. WEIR: Objection.

THE WITNESS: I know nothing about the New Bedford system. I know plant sewers were receiving

WATER_PCB-SD0000069170

material. I don't know where they went from there.

Q. Did you communicate that opinion to the Cornell-Dubilier representatives with whom you spoke that day?

A. As best I recall, yes.

Q. Now, Mr. Papageorge, I'm showing you a document which was marked as Exhibit 48 at the last session of your deposition. Do you recall that document?

A. I remember it, yes.

Q. As of February 16, 1971, did you agree with Mr. Graham's statement in Paragraph 2 of Exhibit 48 in which he states, "It's safe to say you have one of the most serious PCB and water pollution problems in the capacitor industry"?

MR. WEIR: Objection.

THE WITNESS: In 1971, which is the date of this letter, yes.

Q. (By Mr. Connell) And as of that date, Mr. Papageorge, how many capacitor plants had you visited?

A. I can recall six of them.

Q. Which capacitor plants had you visited as of February, 1971, other than the Cornell-Dubilier and Aerovox plants?

A. General Electric plants in New York; there was a plant in La Salle, Illinois.

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Q. Whose plant was that?

A. I've forgotten the name of the company.

Q. All right.

A. There was a Mallory unit in Tennessee; there was a unit in South Carolina, I believe that was a Sangamo Electric unit; a Westinghouse unit in Bloomington, Indiana. Those are all that come to mind now.

Q. Now, Mr. Papageorge, by early 1970 was Monsanto manufacturing any Aroclors other than Aroclor 1254, Aroclor 1242 and Aroclor 1260?

A. Early 1970, yes.

Q. What other Aroclor was Monsanto manufacturing by that time?

A. I don't believe you mentioned Aroclor 1248. Then there were a series of Aroclor 4000 designation, then a series of Aroclor 5000 designation.

Q. Were the 4000 series and the 5000 series sold to the capacitor industry?

A. Not to my knowledge.

Q. Was Aroclor 1248 sold to the capacitor industry at any time?

A. Not that I know of.

Q. Now, did Aroclor 1242 contain Aroclor 1254?

A. Well, it's difficult to answer because they are both mixtures of PCB's. Some of the PCB's were common

WATER_PCB-SD0000069172

to both mixtures.

Q. Do you know whether Paul Benignus ever told any customer that Aroclor 1242 contained small amounts of Aroclor 1254?

A. He might have used that description, yes. I wasn't personally aware of it.

Q. Did Mr. Benignus ever make such a statement to you?

A. Not that I recall.

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

(Discussion off the record.)

Q. (By Mr. Connell) Mr. Papageorge, I've shown you a document marked Papageorge Exhibit 114. For the record it's a copy of a letter from Randall Graham to Mr. A. Kalstein dated October 14, 1970. Now, will you review that document, please?

A. Yes, I have.

Q. Have you seen this document before today?

A. Yes.

Q. When did you see this document before today?

A. When it was first prepared back in October, 1970.

Q. Now, did you have discussions with Randall Graham prior to the time that this document was sent about

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a visit to Monsanto's offices in St. Louis by any representatives of the Aerovox Corporation?

A. No.

Q. Did you ever meet Mr. Kalstein?

A. I don't recall.

Q. Did you participate in any way in a visit by representatives of Aerovox Corporation to the Monsanto facilities in St. Louis or the Monsanto facilities in Sauget in the fall of 1970?

MR. KENNER: Object to the form. We don't know that that meeting took place.

THE WITNESS: When you refer to the fall of 1970, I have to think back. There were meetings with Aerovox people. I did not participate, as I recall, in a meeting that's referred to in this letter dated October 14, 1970. There may have been other meetings in the fall of 1970, but I can't at the moment specifically pinpoint them as to dates.

Q. (By Mr. Connell) Well, with respect to the meeting or meetings which you recall in the fall of 1970, when did those meetings occur?

MR. KENNER: Object, he just said he didn't know.

Q. (By Mr. Connell) I'm sorry, with respect to those meetings that you recall in the fall of 1970, which

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representatives of the Aerovox Corporation visited Monsanto's offices?

A. First, I'm not certain it was the fall of 1970, but it could have been. This is why I couldn't say that I didn't participate. The meetings I do recall, Mr. Cliff Tuttle of Aerovox was the individual that to me represented the key representative.

Q. What was the purpose of Mr. Tuttle's visit?

MR. MCLAUGHLIN: When?

MR. CONNELL: Well, the visit that he's just described. He's testified that he doesn't recall the date.

MR. MCLAUGHLIN: Well, we need some foundation as to when, where. I object.

THE WITNESS: I don't recall the specific time. I do recall there was more than one meeting at which Mr. Tuttle appeared in St. Louis. My memory is not clear on the specifics.

Q. (By Mr. Connell) All right. Do you have knowledge today, Mr. Papageorge, as to whether the meeting referred to in Papageorge 114, in fact, occurred?

A. It did occur.

Q. And what's the basis for your knowledge of that fact?

A. Well, I was aware that the arrangements had

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been made, and I was aware that the individual did appear and that the meeting did take place, although I personally did not participate.

Q. Do you know why you received a copy of Papageorge -- strike that. Did you receive a copy of Papageorge Exhibit 114 in October of 1970?

A. Yes.

Q. Do you know why you received a copy?

A. Mr. Graham tried to keep me informed of all his contacts with capacitor and other dielectric customers. Other than that I don't know why Mr. Graham included me on his mailing list.

Q. Do you have any information at all as to what was discussed in that meeting that occurred that is referred to in Papageorge Exhibit 114?

A. I do not.

Q. Now, Mr. Papageorge, will you refer to Papageorge 115, please. For the record, Papageorge 115 is a five page document with date stamp number in the lower right hand corner, 10000614 through 10000618. The first page is a letter dated January 28, 1972, to Monsanto Company from Wendell Koch.

MR. KENNER: I'd like to state for the record that Papageorge Exhibit 115 appears to me from the face of the document to be an incomplete document, in that at

WATER_PCB-SD0000069176

least one of the closures referenced in the cover page does not appear attached.

Q. (By Mr. Connell) Now, Mr. Papageorge, have you reviewed Papageorge 115?

A. I have.

Q. Have you ever seen Papageorge 115 or any part thereof before today?

A. I have seen parts of the exhibit.

Q. Which parts have you seen before today?

A. I have seen the attachments, pages one through four.

Q. You're referring to the --

A. More specifically, let me -- I have seen pages two, three and four.

Q. You're referring to the pages with date stamp numbers 10000615 through 617, is that right?

A. No, it's 616 through 618.

Q. Thank you.

A. The first page, 615, appears to be a modification of the previous draft that I had seen.

Q. Now, when did you first see those three pages of this exhibit?

A. Some time in January, 1972.

Q. How did you come to see those three pages of Papageorge 115 in January of 1972?

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A. Well, Monsanto's attorneys and marketing people were working on a draft agreement for their dielectric customers, and I don't recall exactly the conditions under which I was privileged to see it, but I recall being handed a copy.

Q. Did you have -- I'm sorry.

A. For my information.

Q. Did you have discussions about those three pages of Papageorge 115 with any Monsanto employee?

A. Yes.

Q. And with which persons did you have such discussions?

A. I believe it was Mr. Gossage of Monsanto, Mr. Bergen, and Mr. Stapleton.

Q. Did Messrs. Gossage, Stapleton and Bergen seek your advice as to whether to accept the proposal?

MR. KENNER: Object to the form.

Q. (By Mr. Connell) Which is the proposal which Aerovox Corporation submitted?

MR. KENNER: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) Mr. Papageorge, would you refer to a document which has been marked Papageorge Exhibit 116, please?

For the record, Papageorge 116 is a two page

WATER_PCB-SD0000069178

document, a letter on Monsanto stationery dated February 22, 1972, addressed to Mr. Ed Link from Howard S. Bergen, Jr. It contains date stamp numbers 10000074 and 75 in the lower right hand corners.

Have you seen Papageorge 116 before today, Mr. Papageorge?

A. I do not recall it.

Q. Do you have knowledge, Mr. Papageorge, as to whether Monsanto Corporation corresponded with RTE Corporation during 1972 concerning the environmental impact of PCB's?

MR. WINSLOW: Objection.

THE WITNESS: I do not.

Q. (By Mr. Connell) Did Mr. Bergen's responsibilities as of February 22, 1972, include the responsibility for corresponding with RTE Corporation with respect to the environmental impact of PCB's?

MR. WINSLOW: Objection.

MS. ROBERTSON: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Will you refer to Papageorge Exhibit 117, please? For the record, Papageorge 117 is a letter on -- the first page of Papageorge 117 is a letter dated March 7, 1972, to Mr. T. Kenwood Mullare, Esquire, from Phocion S. Park. And the

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last two pages are a copy of the special undertaking by purchasers of polychlorinated biphenyls on Monsanto letterhead, date stamp numbers 10000603 through 605.

Have you seen Papageorge Exhibit 117 or any portion thereof before today?

A. I have seen the last two pages of Exhibit 117.

Q. All right. Have you seen the first page of Exhibit 117 before today?

A. I don't recall it.

Q. Were you acquainted with Phocion S. Park in March of 1972?

A. Yes.

Q. Who was Mr. Park?

A. He's an attorney with Monsanto Company.

Q. Is he still employed by Monsanto?

A. No.

Q. When did Mr. Park leave Monsanto?

A. December, 1985.

Q. Are you familiar with Mr. Park's responsibilities during March, 1972?

A. Mr. Park in 1972 was a staff attorney assigned to the part of Monsanto that manufactured and marketed PCB's.

Q. Did Mr. Park's responsibilities include the

WATER_PCB-SD0000069180

responsibility for assuring that Monsanto's customers executed the special undertaking by purchasers of polychlorinated biphenyls which comprises the last two pages of Papageorge Exhibit 117?

A. Yes.

Q. Would you refer to Papageorge Exhibit 118, please? For the record, Papageorge 118 is a three page exhibit. The first page is a letter on Aerovox Corporation's stationery dated March 22, 1972, addressed to Phocion S. Park, Esquire, from T. Kenwood Mullare, Jr. The last two pages are comprised of the special undertaking by purchasers of polychlorinated biphenyls with date stamp numbers 10000599 through 601.

Have you seen Papageorge Exhibit 118 or any portion thereof before today, Mr. Papageorge?

A. I have seen unsigned copies of the last two pages of that document.

Q. All right. And have you seen the first page before today?

A. No, sir.

Q. Would you refer to Papageorge Exhibit 119, please? Have you seen that document before today?

A. I have not.

Q. Did you ever meet Mr. Wendell Koch?

A. I do not recall him, no.

WATER_PCB-SD0000069181

Q. Will you refer to Papageorge 120, please? For the record, Papageorge 120 consists of three pages. The first page is a letter on the stationery of Belleville Industries, Inc., dated January 8, 1973, and signed by Clifford H. Tuttle, addressed to Phocion S. Park. And the second and third pages consist of a signed copy of the special undertaking. The document contains the date stamp numbers 10160001 through 60003.

Have you seen Papageorge 120 before today, Mr. Papageorge?

A. I have not seen the first page, and I have not seen the signed copies of the document attached.

Q. Do you recognize the handwriting on the first page of Papageorge 120?

MR. MCLAUGHLIN: Objection.

THE WITNESS: I do not.

MR. MCLAUGHLIN: Withdraw it.

Q. (By Mr. Connell) Will you refer to Papageorge Exhibit 121, please? For the record, Papageorge Exhibit 121 is a three page document which appears to be a memorandum from H. S. Bergen dated March 21, 1974. Subject: Visit of Mr. Cliff Tuttle. It contains date stamp numbers 10860009 through 108600011.

Have you seen Papageorge 121 before today?

A. Yes, I have.

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Q. When did you first see Papageorge 121?

A. Oh, on or about the date that's listed there, March 21st, 1974.

Q. Now, did you have discussions with Mr. Bergen concerning the subject matter discussed in Papageorge 121?

A. I do not recall any.

Q. Did you participate in any meetings or discussions with Cliff Tuttle in March of 1974 at the Monsanto facility?

A. Yes.

Q. Did those discussions involve the question of the environmental impact of PCB's?

A. Yes.

Q. Who else was present, if anybody, at those discussions with Mr. Tuttle?

A. There were others in the room at the time, and the discussion I had was an informal part of the program and was focused on Mr. Tuttle's activities with the PCB committee of which he was chairman for some association, electronics association. There were others in the room. I don't recall who.

Q. Let me call your attention to the first sentence of the last paragraph on the third page of Exhibit 121 -- I'm sorry, the second sentence.

A. The second sentence?

WATER_PCB-SD0000069183

Q. Of the last paragraph.

A. All right.

Q. And it states, "We both agreed on the sense of urgency on the non-PCB fluids." Were you present during a discussion in which a sense of urgency on non-PCB's fluids occurred?

MR. MCLAUGHLIN: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) Did you have any discussions with Mr. Tuttle during this March, 1974 visit to the Monsanto facilities about Aerovox Industries, Inc.'s discharge of PCB's into the environment?

A. No.

Q. Did you have any discussions with Mr. Tuttle during that visit about Aerovox Industries, Inc.'s control procedures designed to prevent discharges of the PCB's?

A. No.

Q. Now, will you refer please to Papageorge Exhibit 122? For the record, Papageorge 122 is a one page document. It's a letter dated January 19, 1973, to Clifford Tuttle from Howard Bergen and the date stamp number is 10860001.

Have you seen that document before today, Mr. Papageorge?

A. I have not.

WATER_PCB-SD0000069184

Q. Let me call your attention to the second paragraph of this document, Mr. Papageorge. It states, "We have received and reviewed your insurance certificate as supplied by your agent, Fairfield & Ellis, and all details are in order." Do you have any knowledge as to what that statement by Mr. Bergen referred to?

MR. WINSLOW: Objection.

THE WITNESS: I do not.

Q. (By Mr. Connell) Did Monsanto Corporation at any time require customers to submit insurance certificates to it?

A. I do not know.

[Marked Papageorge Deposition Exhibit 123 for identification.]

Q. (By Mr. Connell) The next exhibit will be the 6-10-70 memo from Mr. Lopes to Mr. Fortounes, Mr. Holmgren and Mr. Robinson. Mr. Papageorge, will you please refer to Papageorge Exhibit 123?

[Marked Papageorge Deposition Exhibit 124 for identification.]

Q. (By Mr. Connell) Have you read it, Mr. Papageorge?

A. Yes, I have.

Q. Have you ever seen Papageorge Exhibit 123 before today?

WATER_PCB-SD0000069185

A. No.

Q. Did you ever have discussions with Mr. Benignus prior to June 10, 1970, concerning any conversations he had had with Mr. Lopes about the possibility of environmental pollution by Aroclor 1242?

MR. MCLAUGHLIN: Objection.

THE WITNESS: I do not recall any, no.

Q. (By Mr. Connell) As of June 10, 1970, was Monsanto in the process of attempting to develop an alternative to Aroclor 1242 for use by the capacitor industry?

A. Yes.

Q. Why was Monsanto attempting by that time to develop an alternative to Aroclor 1242?

A. At that time the information Monsanto had was that some of the PCB's were being identified in the environment, and we were -- we had assured ourselves that that data was valid. Therefore, if it could be achieved, if we could remove those persistent types of PCB's from our products and still have an acceptable product, it would go a long way to keeping the more persistent types of PCB's out of the environment in the event you do have some spillages or releases.

Q. As of June, 1970, was Monsanto concerned about the environmental impact of Aroclor 1242?

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MR. MCLAUGHLIN: Objection.

THE WITNESS: The concern was to part of the Aroclor 1242, not to the total.

Q. (By Mr. Connell) As of June, 1970, had Monsanto communicated to any of its customers the information that Aroclor 1242, if discharged into the environment, could cause environmental damage?

MR. KENNER: Objection to the form.

THE WITNESS: No.

Q. (By Mr. Connell) Let me call your attention to Deposition Exhibit 37 which was marked in an earlier session of your deposition. I want to call your attention specifically to the first paragraph of this exhibit, Mr. Papageorge. You received a copy of Exhibit 37, did you not?

A. Yes.

Q. So, were you aware by June 1, 1970 that Mr. Benignus was discussing Aroclor 1242B with customers?

A. Yes.

Q. Do you know whether Mr. Benignus had explained to customers by June 1, 1970, the reasons why Monsanto was attempting to develop an alternative to Aroclor 1242?

MR. KENNER: Object to the form.

THE WITNESS: Would you read that back to me.

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(The reporter read back the question.)

THE WITNESS: The reasons were those that I described previously regarding the persistence of some PCB's which were present in the Aroclor 1242 product, and our desire to avoid having those persistent materials end up in the environment.

Q. (By Mr. Connell) All right. My question was, do you have knowledge as to whether Mr. Benignus communicated that concern to customers.

MR. KENNER: Same objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Do you have knowledge as to whether he communicated that concern to customers as of June 1, 1970?

MR. KENNER: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Did Mr. Benignus -- what is the source of your knowledge about that?

A. This was -- a principal part of our PCB environmental program was to find more degradable materials, and it was Mr. Benignus' assignment to arrange with the customers for testing and eventual acceptance of these alternatives.

Q. By June 1, 1970, had Mr. Benignus communicated Monsanto's concern about Aroclor 1242, as you

WATER_PCB-SD0000069188

have described it, to customers?

MR. KENNER: Objection.

MS. ROBERTSON: Objection.

THE WITNESS: To my understanding, yes.

Q. (By Mr. Connell) Had he communicated that concern to Cornell-Dubilier by June, 1970?

MR. WEIR: Objection.

MS. ROBERTSON: Objection.

THE WITNESS: Sometime during June, yes.

Q. (By Mr. Connell) And had Mr. Benignus communicated that concern to Aerovox Corporation by June of 1970?

MS. ROBERTSON: Objection.

THE WITNESS: To my understanding, yes.

Q. (By Mr. Connell) Now, Mr. Papageorge, I'd like you to refer to Exhibit 35 which was marked earlier in your deposition, and specifically to the fourth page of Exhibit 35. Now, I'd like you to review specifically the second -- the third and fourth paragraphs of the third page of Exhibit -- I'm sorry, let me start over.

I'd like for you to review the third and fourth paragraphs of the fourth page of Exhibit 35, please.

MR. KENNER: Does that begin "as anticipated"?

MR. CENTOLA: Yes.

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MR. KENNER: Thank you.

THE WITNESS: I've read them.

Q. (By Mr. Connell) Now, this document was prepared in January of 1970, is that right?

A. I was looking for a date.

Q. I believe your earlier testimony was that it was prepared in January of 1970.

MR. KENNER: Could we have a reference, if we have one?

THE WITNESS: We arrived at January because of the date appearing on some of the pages of the exhibit.

Q. (By Mr. Connell) Other than your referring to the date which appears on the exhibit itself, do you have any recollection as to when this document was prepared?

A. As best I recall it was early 1970.

Q. Now, let me call your attention to the third paragraph of the fourth page of this exhibit. About halfway through that paragraph the document states, "However, progress has been made in developing strains of microorganisms which are effective in degrading isomers containing two, three and four chlorine atoms. Work is continuing in this area with the aim of finding new and more effective cultures which are capable of degrading the higher chlorine containing isomers."

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Sir, was Monsanto's research effort at that time directed toward developing an Aroclor which could be biodegraded through introduction of microorganisms?

A. No.

Q. What does that last half of the third paragraph refer to?

A. There was research activity under way to better understand how microorganisms degrade PCB's. The objective there was twofold. First, to understand better how PCB's might survive in the natural environment, and secondly, there was at that time a hope that perhaps a culture could be discovered that could be used in waste treatment plants for biodegradation of these kinds of chemicals. But that was all a research objective at that point in time.

Q. Was that objective ever attained?

A. The understanding of how PCB's survive in the environment, that was achieved, attained. The discovery of a species or strain of bacteria or microorganism that could be used commercially in waste treatment plants was not achieved.

Q. Now, calling your attention to the last paragraph on the fourth page of Exhibit 35, will you review that paragraph, please?

A. I have.

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Q. At the time this document was written was Monsanto in the process of developing Aroclor 1242B?

A. Yes.

Q. And was Monsanto also in the process of developing what eventually came to be known as MCS1016 at that time?

A. Yes.

Q. Does the statement in the first sentence of that last paragraph on Page 4 of Exhibit 35, that Monsanto has no intention of trying to develop a PCB compound which will degrade the environment, apply to MCS1016?

A. Well, the intent that Monsanto had really had no relationship to the success it achieved with Aroclor 1016 in demonstrating it could degrade in the environment. That was a fortuitous property that 1016 ended up with or had.

Q. By the time that Monsanto began to sell MCS1016 to its capacitor customers, was MCS1016 a PCB compound which degraded in the environment without the introduction of that substance into treatment facilities?

MR. WEIR: Object.

THE WITNESS: Well, the environment is so complex that I can't say degraded into all kinds of environment.

Q. (By Mr. Connell) Well, by the time MCS1016

WATER_PCB-SD0000069192

was being sold by Monsanto to its capacitor customers, did 1016 degrade in water without treatment of any kind?

MR. MCLAUGHLIN: Object.

THE WITNESS: No.

Q. (By Mr. Connell) Did MCS1016 ever reach a point in its development when it degraded in water without treatment of any kind?

A. No.

Q. Did Monsanto ever tell its customers that MCS1016 did not constitute -- or strike that. Did Monsanto ever tell its customers that MCS1016 did not pose a risk of harm to the environment if it was permitted to escape to the environment?

MR. WINSLOW: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) Did Monsanto ever tell its customers that MCS1016 was safe to discharge into waterways --

MR. WINSLOW: Objection.

Q. (By Mr. Connell) -- without doing environmental damage?

MR. WINSLOW: Objection.

THE WITNESS: No.

Q. (By Mr. Connell) Mr. Papageorge, I've handed you a document which has been marked as Papageorge Exhibit

WATER_PCB-SD0000069193

124. Papageorge 124 is a 28 page document entitled "Polychlorinated Biphenyls, PCB's, A Report on Uses, Environmental and Health Effects and Disposal," and the word Monsanto appears on the lower right hand corner of the front page. Sir, have you seen Papageorge Exhibit 124 or a copy thereof before today?

A. Yes.

Q. What is Papageorge Exhibit 124?

A. It's a summary of Monsanto's knowledge of PCB's, it's manufacturing rates, it's applications, it's health effects, et cetera.

Q. Were you involved in any way in the preparation of Papageorge Exhibit 124?

A. No.

Q. Who prepared Papageorge 124?

A. I do not know.

Q. Are you aware of the reason for which it was prepared?

A. No.

Q. Do you know to whom, if anyone, Papageorge 124 was distributed?

A. I do not know.

Q. When was Papageorge 124 prepared?

A. It was prepared after I was re-assigned and no longer involved with PCB's, so it would have to be

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after 1976.

Q. Is this a document prepared by the Monsanto Company?

A. Yes.

Q. How do you know that?

A. I eventually saw a copy of it in 1983.

Q. How did you come to see a copy of it in 1983?

A. In 1983 the individual currently assigned to monitor PCB activities was assigned to report to me, and at that time that individual tried to bring me up to date on the status of the issue, and it was at that time that he showed me a copy of this summary document.

Q. Who was that person?

A. Dr. John Craddock.

Q. Can you spell that, please?

A. C-r-a-d-d-o-c-k.

Q. At the time that Monsanto implemented its policy of limiting sales of PCB's to the customers that were involved in the capacitor and transformer industry, is that an accurate statement, first of all, of Monsanto's policy?

A. Eventually, yes.

Q. When was that policy implemented?

A. Late 1971.

Q. Now, did that constitute a reduction in

WATER_PCB-SD0000069195

Monsanto's sales of Aroclor in excess of fifty percent?

A. Yes.

Q. Had Monsanto sold Aroclor 1242 to customers other than customers in the transformer and capacitor industries prior to the time that that policy was implemented?

A. Yes.

Q. And at the time that that policy was implemented, did Monsanto cease selling Aroclor 1242 as well as Aroclor 1254 and 1260 to customers outside the transformer and capacitor businesses?

A. Yes.

Q. Mr. Papageorge after Monsanto put Aroclor 1016 on the market, excuse me, MCS1016 on the market, were there customers of Monsanto who purchased only MCS1016 and no other Aroclors?

A. Yes.

Q. Were those customers who purchased only Aroclor 1016 required to execute the special undertaking that we have discussed in this deposition?

A. It is my understanding they were.

Q. And referring to a document which has been marked as Papageorge Exhibit 58 earlier in your deposition, with the exception of the identification of the companies involved is that the form of the special

WATER_PCB-SD0000069196

undertaking that you've just referred to?

A. It appears to be.

MR. CONNELL: Okay, thank you.. I think that this would be a good time to break for lunch.

(A lunch break was taken.)

Q. Mr. Papageorge, are you familiar with any recommendations made by Monsanto to Cornell-Dubilier with respect to a manifold impregnation system?

MR. WEIR: Objection.

THE WITNESS: No.

[Marked Papageorge Deposition Exhibit 125 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, I'm showing you a document which the reporter has marked as Papageorge Exhibit 125. For the record, that is a two page document. It's a copy of a letter dated May 11, 1970, addressed to Mr. Ted Reback from Donald A. Olson bearing date stamp numbers 10000320 and 303. Have you reviewed that document, sir?

A. I have.

Q. Is this a copy of a document that you've seen before?

A. Yes.

Q. When did you first see a copy of Exhibit 125?

A. On or about the date of that memo, May 11,

WATER_PCB-SD0000069197

1970.

Q. Did you have -- did Monsanto send this letter to Mr. Ted Reback at Federal Pacific Electric Company on or about May 11, 1970.

A. That is my understanding.

Q. On what do you base that understanding?

A. From Mr. Olson's note to all recipients of copies of this specific exhibit.

Q. Now, in the first paragraph, the first sentence of Papageorge Exhibit 125, it states, "On February 18, 1970 we wrote to your company alerting you to the potential problem of environmental contamination involving polychlorinated biphenyls." Is the letter referred to in that first sentence of Papageorge 125 a letter identical in form to Papageorge 100?

MR. KENNER: Objection.

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Was Federal Pacific Electric Company a transformer customer of Monsanto in May of nineteen 1970?

A. That is my understanding.

[Marked Papageorge Deposition Exhibit 126 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, I'm showing

WATER_PCB-SD0000069198

you a document which the reporter has marked as Papageorge Exhibit 126. Will you review that, please. For the record, 126 is a one page letter on Monsanto letterhead dated August 25, 1970, addressed to Curtis Lopes and apparently signed by Mr. Papageorge.

Have you seen the original of this document before today, Mr. Papageorge?

A. Yes.

Q. And is that your signature?

A. Yes.

Q. Did you send this letter to Mr. Lopes on or about August 25, 1970?

A. Yes.

Q. Now, why did you send this letter to Mr. Lopes?

A. As I recall Mr. Lopes was looking for an appropriate place to bury some wastes and he had called me asking me if I knew anything about the Scientific Chemical Treating Company, Incorporated, and I at that time told him I didn't but we would look into it. And this letter is in response to that investigation.

Q. Was Mr. Lopes' concern, which you have just described, the concern about liquid wastes or solid wastes?

MR. WEIR: Objection.

WATER_PCB-SD0000069199

THE WITNESS: I don't think he made a distinction. I don't recall a distinction.

Q. (By Mr. Connell) Did you have knowledge when you wrote this letter to Mr. Lopes as to Cornell-Dubilier's policy as of that time with respect to disposal of solid wastes containing PCB's?

MR. WEIR: Objection.

THE WITNESS: I had an understanding at that time.

Q. (By Mr. Connell) What was that understanding based upon?

A. My discussions with Cornell-Dubilier individuals at their plant a couple of months previous to this inquiry.

Q. So, that's the same understanding that you discussed earlier in your deposition this morning?

A. Yes.

Q. Thank you.

[Marked Papageorge Deposition Exhibit 127 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, I'm handing you a document which the reporter has marked as Papageorge 127. Will you review it, please? For the record, this is -- the first page of 127 is a letter on the letterhead of Sangamo Electric Company dated September 23, 1970,

WATER_PCB-SD0000069200

addressed to: Letter to Members of NEMA, Capacitor Technical Committee, and signed by J. F. Kuzela. The second and third pages of the exhibit consist of a memorandum containing the heading: Recommendations to the Board of Directors with Respect to the Environmental Problem Caused by Components of Askarel. The last page is a copy of a letter dated July 7, 1970, to Mr. A. M. Salazar from R. W. Lewis. The exhibit bears date stamp numbers 82001704 through 707.

MR. CENTOLA: Excuse me, this is already in as Exhibit 103.

MR. CONNELL: Well, it's already been marked, let's continue with it.

Q. (By Mr. Connell) Mr. Papageorge, have you seen this exhibit or any portion of it before today with the exception of the last session of your deposition?

A. Yes.

Q. When did you first see this?

A. It was either late 1970 or early '71.

Q. Did you see the entire exhibit at that time or only a portion of it?

A. As best I recall the entire exhibit.

Q. Now, will you refer, please, to the second page of Exhibit 127, and specifically to the first two paragraphs?

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A. Yes.

Q. There's a reference in those paragraphs to a meeting of a committee on August 20, 1970?

A. Yes.

Q. And it is stated in the first clause of the second paragraph that, "Key personnel from the Monsanto Company, who were invited to attend the meeting by the chairman, shared in this view and concurred with the specific recommendations developed at this meeting." Do you know who the personnel from the Monsanto Company referred to in that memorandum were?

A. As best I recall that was Mr. Benignus and me.

Q. Did you attend a meeting of the -- did you attend a meeting of NEMA on August 20th, 1970?

A. Yes, that's the meeting I referred to previously.

Q. And were any representatives of Aerovox Corporation or Cornell-Dubilier Electronics Corporation present at that meeting?

A. I don't recall any.

Q. Did you participate, Mr. Papageorge, in the drafting of the NEMA standard on Askarel handling and disposal?

A. Yes.

WATER_PCB-SD0000069202

Q. How many meetings of the committee which drafted that standard did you attend?

A. I don't have an exact count. I would estimate a half a dozen or so.

Q. Did you attend meetings of that committee which were attended by Curtis Lopes?

A. I believe Mr. Lopes was present at some of those meetings, yes.

Q. Did you attend meetings of that committee which were attended by any other representatives of Cornell-Dubilier Electronics?

A. I just don't recall.

Q. Did you attend meetings of that committee which were attended by representatives of Aerovox Corporation or Aerovox Industries, Inc.?

MR. WINSLOW: Objection.

THE WITNESS: I don't recall individuals from Aerovox being present.

[Marked Papageorge Deposition Exhibit 128 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, will you please review Papageorge George Exhibit 128? For the record, this is a one page document. It's a copy of a letter to Robert S. Crabbe from Randall Graham dated September 28, 1970 bearing date stamp number 10000282.

WATER_PCB-SD0000069203

Have you reviewed it?

A. Yes.

Q. Have you seen that document before today?

A. I have seen the form letter. I don't recall the specific addressees.

Q. When did you see the form letter for the first time?

A. On or about the date of its issue.

Q. Now, was one of Mr. Graham's responsibilities in September of 1980 to conduct dealings with Monsanto's customers concerning shipment of scrap material for incineration?

MR. WINSLOW: 1970?

Q. (By Mr. Connell) Of 1970, yes.

A. Yes.

Q. And were letters written by Mr. Graham to customers on that matter maintained by Monsanto in the normal course of its business?

A. To the best of my knowledge, yes.

Q. Now, calling your attention to the first sentence of Paragraph 1 -- Paragraph 2, excuse me, of Papageorge Exhibit 128, can you tell me when Monsanto in fact made incineration facilities available to its customers for incineration of scrap Aroclor?

A. Well, the service was available on or about

WATER_PCB-SD0000069204

September 28th, 1970. The unit went into operation in the late summer of '71.

MR. CONNELL: Would you read that back.

(The reporter read back the question.)

Q. (By Mr. Connell) What service was available, sir, in 1970?

A. The removal of waste liquid PCB dielectric fluids from our customers' plants to Sauget, Illinois where it was stored until the unit was placed in service.

Q. Did Monsanto charge its customers for the cost of storing waste liquid Aroclor between the time that the service became available in 1970 and the incineration facility was operational?

A. No.

Q. Why did Monsanto make that service available to its customers?

A. We believed, and still do, that incineration of PCB's is the ultimate way to dispose of them. At that time there were no commercial units available. Monsanto saw a need for a unit to dispose of its own waste and they decided to make it large enough to take care of our customers' wastes as well.

Q. Did Cornell-Dubilier, in fact, begin shaping waste liquid Aroclor to Monsanto for incineration during 1970?

WATER_PCB-SD0000069205

MR. WEIR: Objection.

THE WITNESS: I don't believe so. I don't recall.

Q. (By Mr. Connell) Did Aerovox Corporation begin shipping waste liquid Aroclor to Monsanto for incineration in late 1970?

MR. WINSLOW: Objection?

THE WITNESS: I don't recall.

Q. Was the incineration service offered to customers with respect to Aroclor 1242 as well as Aroclor 1254 and 1260?

MR. WINSLOW: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Was the incineration service offered to customers with respect to MCS1016 when that product became available to Monsanto's customers?

A. Yes.

Q. Calling your attention to the third paragraph of Papageorge 128, Mr. Graham states, "Please use the attached label on all drums to be returned." Did you have knowledge at that time as to the contents of the label referred to in that letter?

A. Yes.

Q. What did that label say?

MR. KENNER: Object to the form.

WATER_PCB-SD0000069206

MR. MCLAUGHLIN: Objection.

THE WITNESS: I don't recall the specific wording. It referred to scrap Aroclor or fluids, it referred to -- it contained the environmental statement that was included on the PCB finished product label, it referred to the supervisor of Department 246 at the W. G. Krummerich plant. As I remember it had a telephone number in the event of any in transit accidents.

Q. (By Mr. Connell) All right.

A. I don't remember any other features of it.

[Marked Papageorge Deposition Exhibit 129 for identification.]

Q. (By Mr. Connell) Will you refer, please, to Papageorge Exhibit 129. Papageorge Exhibit 129 is a letter dated September 29, 1970, to Mr. E. E. Motteram from Randall Graham bearing date stamp number 10000283. Have you read Papageorge Exhibit 130 -- I'm sorry, 129?

A. Yes.

Q. Was this letter sent to Mr. E. E. Motteram, Federal Pacific Electric in Newark, New Jersey on or about September 29, 1970?

MR. WEIR: Object.

THE WITNESS: I do not personally know that.

Q. (By Mr. Connell) Will you review Papageorge Exhibit 130, please? For the record, Papageorge 130 is a

WATER_PCB-SD0000069207

letter to William Robinson from Randall Graham dated September 28, 1970, bearing date stamp number 10000284.

A. I've read it.

Q. Have you seen that before today?

A. I saw the form letter without the addressee.

Q. Do you have knowledge as to whether that letter was sent to Mr. Robinson on or about September 28, 1970.

A. I understand it was sent.

Q. What's the basis of your understanding?

A. Mr. Randall Graham informed me that he was sending it.

[Marked Papageorge Deposition Exhibit 130 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, you have before you a document which has been marked as Exhibit 131. For the record, it's a one page document bearing date stamp number 10000353, bearing the words on the left-hand side, "Returned for reclamation or disposal only." Have you seen that document or a copy of it before today?

A. Yes.

Q. What is that document?

A. This is a copy of the label provided by Monsanto to its customers to place on containers of waste

WATER_PCB-SD0000069208

PCB fluids which are to be returned to Monsanto for eventual incineration.

MS. ROBERTSON: Do you have a date, a time period?

THE WITNESS: Starting in 1970, I would say about the third quarter of 1970.

MS. ROBERTSON: I'd just like to note on the record that I found that copy very difficult to read. Parts of it, in fact, I thought were illegible.

Q. (By Mr. Connell) Mr. Papageorge, is Exhibit 131 a copy of the label which was sent to Mr. Crabbe, Mr. Motteram and Mr. Robinson with Exhibits 128, 129 and 130 respectively?

A. Yes.

Q. Did Monsanto ever recommend to its customers that they install a carbon filtering system to remove PCB's from water effluent?

MR. LAUGHLIN: Objection.

MR. KENNER: Objection.

MR. WEIR: Objection.

THE WITNESS: No.

[Marked Papageorge Deposition Exhibit 132 for identification.]

Q. (By Mr. Connell) Papageorge 132 is a one page document. It's a memorandum from G. J. Alexander

WATER_PCB-SD0000069209

dated 11-20-70 to W. Hitchcock and several other people bearing date stamp number 82000997 --

MR. WEIR: Frank, I think this exhibit is the same as Exhibit 45.

MR. CONNELL: Off the record a second.

(Discussion off the record.)

MR. CONNELL: Let me withdraw that exhibit.

MR. WINSLOW: You withdraw the exhibit?

MR. CONNELL: Yes, that document is withdrawn.

[Marked Papageorge Deposition Exhibit 132 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, I'm handing you a document which has been marked as Exhibit 132. For the record, it's a one page document on Monsanto's letterhead. It appears to be a letter to Mr. Charles Rebello from T. L. Gossage dated November 30, 1970. Is that a document that you've seen before today, Mr. Papageorge?

A. I recall it, yes.

Q. When did you first see this document?

A. On or about the date of the document, November 30, 1970.

Q. Now, calling your attention to the third paragraph of Papageorge Exhibit 132, I would ask you

WATER_PCB-SD0000069210

whether the statement made in that paragraph refreshes your recollection as to when it was that Monsanto implemented its program of no longer selling Aroclor 1254 and Aroclor 1260 -- strike that. Let me start over.

Calling your attention to the third paragraph of Papageorge Exhibit 132, does that paragraph refresh your recollection as to when it was that Monsanto withdrew certain Aroclors from sales to customers other than customers in the transformer and capacitor businesses?

MR. KENNER: Objection to the form.

MR. WEIR: Objection.

MR. WINSLOW: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) When was it that Monsanto withdrew sales of Aroclors to customers other than customers in the transformer and capacitor businesses?

MR. WEIR: Objection, asked and answered.

THE WITNESS: It started on August 30, 1970, and went on until about late 1971. So, different applications were not supplied at different times.

Q. (By Mr. Connell) Okay, I understand, thank you.

[Marked Papageorge Deposition Exhibit 133 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, I'm showing

WATER_PCB-SD0000069211

you a document marked Papageorge Exhibit 133. Off the record a second.

(Discussion off the record.)

Q. (By Mr. Connell) For the record, Papageorge 133 is a one page document that's a copy of a letter dated January 20, 1971, to Monsanto from G. J. Alexander bearing date stamp number 97750012. Have you ever seen this document before today, Mr. Papageorge?

A. I don't recall it.

Q. Did you have any discussions with Randall Graham concerning the substance of this letter which has been marked Papageorge Exhibit 133?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) When did you have such discussions?

A. Late '71 or early -- I'm sorry, let me think a minute. During 1971.

Q. And what did you say to Mr. Graham and what did he say to you in those discussions?

A. I don't recall the exact words, but the intent was to get an idea from our customers regarding their PCB needs and their disposal needs so that we could plan ahead regarding the production capacity that would be needed as well as the incineration capacity for the

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liquids, and at that time we had hoped to be able to design a unit to handle the solid wastes. So, all of this had to do with planning for the future regarding producing and disposing of PCB's.

[Marked Papageorge Deposition Exhibit 134 for identification.]

Q. (By Mr. Connell) For the record Papageorge Exhibit 134 is a six page exhibit bearing date stamp numbers 10000285 through 290. Mr. Papageorge, have you reviewed Papageorge Exhibit 134?

MR. MCLAUGHLIN: I object. Again I have a feeling this may have material deleted as in other exhibits.

THE WITNESS: I have reviewed it.

Q. (By Mr. Connell) And have you seen the first page of Papageorge Exhibit 134 before today?

A. I don't recall it.

Q. Have you seen the second and third pages of Papageorge Exhibit 134 before today?

A. Yes.

Q. And when did you first see the second and third pages?

A. On or about the time of the date on the document, February 18, 1971.

Q. And have you seen the last three pages of

WATER_PCB-SD0000069213

this exhibit before today?

A. Yes.

Q. When did you first see those three pages?

A. I saw the last page sometime in 1965, and the other two pages sometime on or about the date of the memo, February 18, 1971.

Q. All right. Now, when you saw the second and third pages of this exhibit in February of 1971, were the fourth, fifth and sixth pages attached to them?

A. Yes.

Q. Do you have knowledge as to whether the last five pages of Papageorge Exhibit 134 were sent to Aerovox Corporation in February of 1971?

A. That is my understanding.

Q. And do you have knowledge as to whether the last five pages were sent to Cornell-Dubilier in New Bedford in February of 1971?

A. That is my understanding.

Q. On what do you base that understanding?

A. I participated in the composition of the document, and the objective of that program was to inform companies that were receiving capacitor type PCB fluids that they would be informed of this new fluid which was becoming available.

Q. When did MCS1016 become available to the

WATER_PCB-SD0000069214

capacitor industry for use in capacitor production?

A. Late summer, '71, about September.

Q. Of '71.

A. Of '71.

[Marked Papageorge Deposition Exhibit 135 for identification.]

Q. (By Mr. Connell) Papageorge 135 is a one page document. It's a copy of a letter dated May 27, 1971, to George Alexander from J. G. Bryant. Have you reviewed Papageorge Exhibit 135?

A. I have.

Q. Have you seen that document before today?

A. Yes, I have.

Q. When did you first see this document?

A. I thought I saw this a few weeks ago as part of my deposition.

Q. Do you have any recollection of having seen Papageorge Exhibit 135 during 1971?

A. I don't recall.

Q. Do you recall a conversation with Mr. Bryant on May 6, 1971, concerning a visit he had had to the Cornell-Dubilier facility?

MR. WEIR: Objection.

THE WITNESS: No, I do not.

[Marked Papageorge Deposition Exhibit 136 for

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identification.]

Q. (By Mr. Connell) Mr. Papageorge, I'm handing you a document marked Papageorge Exhibit 136. Will you review that, please? For the record that is a two page letter dated June 4, 1971, to Curt Lopes from J. G. Bryant. It bears date stamp numbers 10000567 and 568. Have you seen a copy of that document before today?

A. I don't recall it.

Q. Do you have knowledge as to whether Cornell-Dubilier shipped scrap liquid Aroclor to Monsanto for incineration in 55 gallon drums at any time?

A. Yes.

Q. When did Cornell-Dubilier ship scrape liquid Aroclor to Monsanto for incineration in 55 gallon drums?

A. I don't recall.

Q. Did there come a time when Cornell-Dubilier stopped using 55 gallon drums to ship scrap Aroclor to Monsanto for incineration?

MR. KENNER: Object to the form.

THE WITNESS: I do not know.

Q. (By Mr. Connell) Did Cornell-Dubilier ship scrap liquid Aroclor to Monsanto for incineration in drums prior to the time that it began to ship scrap liquid Aroclor in tank cars?

MR. WEIR: Object.

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THE WITNESS: I don't know if they shipped it in tank cars, so I can't answer.

MR. CONNELL: Off the record.

(Discussion off the record.)

[Marked Papageorge Deposition Exhibit 137 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, I've handed you a document marked Papageorge Exhibit 137. Will you review it, please? For the record, that is a one page document dated January 7, 1972 on Monsanto letterhead, a letter to Cornell-Dubilier Electric Corporation from Howard S. Bergen, Jr.

A. I have reviewed it.

Q. Is that a document that you've seen before today?

A. Yes.

Q. When did you first see this document?

A. On or about the date on the document, January 7, 1972.

Q. Was this letter sent by Monsanto to Cornell-Dubilier Electric on or about January 7, 1972?

MR. WEIR: Object.

THE WITNESS: That is my understanding.

Q. (By Mr. Connell) On what do you base that understanding?

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A. This letter was sent to all customers, active customers, on record with Monsanto at that time.

[Marked Papageorge Deposition Exhibit 138 for identification.]

Q. (By Mr. Connell) For the record, Papageorge Exhibit 138 is a letter dated February 22, 1972, to Mr. R. L. Hurd from L. M. Munro on the letterhead of Doble Engineering Company. Have you ever seen that letter before today, Mr. Papageorge?

A. I don't recall it.

Q. Now, I'd like to call your attention to a document which was previously marked as Government Exhibit 59 in your deposition. Do you recall when you submitted the document marked Government 59 to any other person?

A. As I was composing it I did share drafts, several drafts with Monsanto people. Is that the group you meant?

Q. Did you ever send a copy of that document marked Government Exhibit 59 to Mr. Munro of the Doble Engineering Company?

A. Yes.

Q. When did you send Mr. Munro a copy of that document?

A. On or about the date of the document, February 4th, 1972.

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Q. Did you read that paper which has been marked Government Exhibit 59 verbatim at the Doble conference in 1972?

A. Yes.

Q. Were copies of that document distributed to the people who attended the Doble conference in 1972?

A. Yes.

Q. By that document I'm referring to Government Exhibit 59?

A. Yes.

Q. Did you ever have a discussion of the contents of Government Exhibit 59 with Mr. Dwayne Blough?

MR. KENNER: Object to the form.

THE WITNESS: No, I don't remember that.

Q. (By Mr. Connell) Do you have any recollection today as to whether Dwayne Blough attended the Doble conference in 1972?

THE WITNESS: I do not recall any of that.

[Marked Papageorge Deposition Exhibit 139 for identification.]

Q. (By Mr. Connell) All right, Mr. Papageorge, will you review a document which has been marked as Papageorge Exhibit 139, please? For the record that is a two page exhibit. It's on Monsanto letterhead, it has the date April, 1972. The top is simply addressed "Dear sir,"

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and apparently signed by Mr. Papageorge George. It bears a six digit stamp in the lower right hand corner of 322253 and 322254. Is that your signature on the second page, Mr. Papageorge?

A. It is.

Q. Did you send a copy of this letter to Cornell-Dubilier in April of 1972?

A. Yes.

Q. Did you send a copy to Aerovox Corporation?

A. Yes.

Q. In April of 1972?

A. Yes.

Q. Do you have a recollection today as to the geographic area in which the governmental pollution control agency referred to in paragraph three of Papageorge 139 was located?

MR. WEIR: Object.

THE WITNESS: Yes.

Q. (By Mr. Connell) Where was that?

A. That was the Kansas City office of the Environmental Protection Agency.

Q. Did you also send copies of this letter to Federal Pacific Electric Company?

A. Yes.

Q. Did you send a copy to RTE?

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MR. WINSLOW: Objection.

A. Yes.

Q. Did you send those copies to Federal Pacific Electric and RTE in April of 1972?

MR. WINSLOW: Objection.

THE WITNESS: Yes.

[Marked Papageorge Deposition Exhibit 140 for identification.]

Q. (By Mr. Connell) For the record, Papageorge 140 is a copy of a letter dated August 4, 1972, to Mr. Ray Hurd from P. G. Benignus. Have you reviewed Papageorge Exhibit 140?

A. I have.

Q. Have you seen this before today?

A. I don't recall it.

Q. Do you have any recollection of a visit by Mr. Peterson and Mr. Blough of Cornell-Dubilier to Monsanto's offices in St. Louis in late July or early August of 1972?

A. I do not recall.

[Marked Papageorge Deposition Exhibit 141 for identification.]

Q. (By Mr. Connell) Exhibit 141, for the record, is a one page document dated August 31, 1972, addressed to Mr. John Hutzler from P. G. Benignus bearing

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date stamp number of 10000294. Have you reviewed that exhibit, Mr. Papageorge?

A. I have.

Q. Have you seen that before today?

A. I don't recall it.

Q. Do you have any recollection of a visit by Aerovox representatives to St. Louis in September of 1972?

MR. KENNER: Object to the form.

THE WITNESS: I don't remember the date. I remember Aerovox representatives coming to St. Louis. This memorandum implies Mr. Benignus was doing the traveling.

Q. (By Mr. Connell) Do you have any recollection without respect to Papageorge Exhibit 141 of a visit to St. Louis by John Hutzler at any time?

A. I don't remember Mr. Hutzler at all.

Q. Let me call your attention to Government Exhibit 60 which was marked in an earlier portion of your deposition. Does that document refresh your recollection as to whether Mr. Benignus or other Monsanto representatives visited the Aerovox plant on September 12th, 1972?

MR. MCLAUGHLIN: Objection.

MR. KENNER: Object to the form.

THE WITNESS: Yes, it does.

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Q. (By Mr. Connell) Did you visit that plant in 1972?

A. No.

Q. Do you have any recollection as to which Monsanto representatives visited the Aerovox facility in New Bedford in September of 1972?

MR. MCLAUGHLIN: Objection.

THE WITNESS: The only individuals I recall are Mr. Benignus and Mr. Bryant.

Q. (By Mr. Connell) Did you have discussions with Mr. Benignus upon his return from the Aerovox facility following that visit in September of 1972?

MR. KENNER: Object to the form.

THE WITNESS: Yes.

Q. (By Mr. Connell) Did Mr. Benignus discuss with you at that time his presentation to the Aerovox representatives?

MR. WEIR: Object.

THE WITNESS: Yes.

Q. (By Mr. Connell) Let me call your attention to the page which bears the number seven at the bottom of Government Exhibit 60 and specifically to the last paragraph of that page. Did Mr. Benignus discuss with you upon his return from the Aerovox plant in September of 1972 the fact that existing drain systems in capacitor

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MISSING FROM

TRANSCRIPT

MR. MCLAUGHLIN: Could I have when?

MR. CONNELL: I'm asking him what he told him.

MR. MCLAUGHLIN: I object to the form then.

THE WITNESS: I don't remember the exact words, but it's common knowledge or it was common knowledge then that any system that at one time had PCB's in it very likely had a high potential for having PCB's for a long time to come, and they would be detectable by anyone taking samples of the system.

Q. (By Mr. Connell) Now, to which time period are you referring when you make that statement?

A. You mean times when I spoke to people or times when this phenomenon would exist?

Q. When was it -- when was it common knowledge?

MR. MCLAUGHLIN: Objection.

THE WITNESS: I would suggest that by the end of 1970 it was well understood by those who knew PCB's and handled them and continued to handle them.

Q. (By Mr. Connell) And when did you communicate that fact to Mr. Tuttle for the first time?

MR. WINSLOW: Objection.

THE WITNESS: Sometime in 1970.

Q. (By Mr. Connell) Did you ever communicate that fact to any employee of Cornell-Dubilier Electronics?

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MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) And when did you first communicate that information concerning PCB residues in drains to Cornell-Dubilier Electronics employees?

MR. WEIR: Objection.

THE WITNESS: Again, sometime in 1970.

Q. (By Mr. Connell) Which representatives of Cornell-Dubilier did you communicate that information to?

MR. WEIR: Object to the form.

THE WITNESS: Mr. Lopes and others. I don't remember them all.

Q. (By Mr. Connell) And was that in the early 1970's that you communicated that information to Mr. Lopes?

A. Yes.

Q. At the time that you communicated this information about PCB traces in drains to Mr. Tuttle, did you make any recommendations to him as to what should be done to prevent discharges of PCB's through these drainage systems?

MR. MCLAUGHLIN: Objection.

THE WITNESS: My only recommendation was to keep it out of the water systems. I let the engineering and technical approaches up to each customer.

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Q. (By Mr. Connell) Did you make any recommendations to Mr. Lopes concerning that same problem?

MR. WEIR: Objection.

THE WITNESS: Not specific engineering type, no, just a general caution, don't let it get away.

[Marked Papageorge Deposition Exhibit 142 for identification.]

Q. (By Mr. Connell) Okay, Mr. Papageorge, I'm showing you a document marked Exhibit 142. That is a one page letter on Monsanto letterhead dated October 4, 1976, from Wayne Peterson -- to Wayne Peterson from R. G. Potter. Have you seen that before today?

A. I have seen copies of the form letter. I don't recall seeing one specifically addressed to Mr. Peterson.

Q. Was it within the scope of Mr. Potter's responsibilities in October, 1976, to advise customers about the cessation of manufacture of PCB's?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Were you made aware in October of 1976 in any way that customers were being advised that Monsanto planned to cease PCB manufacture used as dielectrics effective August 31, 1977?

A. Yes.

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Q. Did Monsanto in fact cease manufacture of PCB dielectrics on August 31, 1977?

A. As I recall they ceased it in July.

Q. Do you know when the last shipment of PCB dielectrics from Monsanto facilities occurred?

A. As I recall it was September, 1977.

MR. CONNELL: Why don't we take five minutes.

(A short break was taken.)

[Marked Papageorge Deposition Exhibit 143 for identification.]

Q. (By Mr. Connell) Mr. Papageorge, I have -- the reporter has marked as Papageorge Exhibit 143 a letter to Dr. Martha Sager dated July 13, 1973, signed -- apparently signed by you. It's a six page letter bearing date stamp numbers 10000106 through 111. Will you review that, please? Just to speed things along, my questions will be limited to the material at the bottom of the second page, so if you can just read it and take a look at the document to confirm that this is, in fact, a letter that you sent.

A. Okay.

Q. Is Papageorge Exhibit 143 a copy of a letter that you sent to Martha Sager on or about July 13, 1973?

A. It appears to be.

Q. Do you have any recollection of having sent

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that letter at that time?

A. Yes, I do.

Q. What was the purpose of this letter?

A. The advisory committee was addressing the issue of pollutants in water, PCB being one of the chemicals being considered. They held public hearings, to which Monsanto and others were, of course, invited. We appeared at the public hearings.

In addition to that we had this letter hoping it would -- it would become a part of the record to help the committee in its deliberations.

Q. Calling your attention to the last sentence on the second page of this exhibit --

A. I see it.

Q. -- were the transformer and capacitor industries the only industries in which there were no acceptable alternatives to PCB's as of the end of 1971?

A. Yes.

Q. Is the last sentence of the second page of Exhibit 143, which states "The company stopped the sale of PCB for use in various applications except where no acceptable alternatives were available," a true statement?

A. To the best of my knowledge, yes.

Q. Had there been an acceptable alternative to PCB dielectric fluids available, would Monsanto have

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stopped the sale of PCB dielectric fluids to the capacitor industry in 1971?

MR. MCLAUGHLIN: Objection.

MR. WEIR: Objection.

MR. CENTOLA: Could you read that question back?

(The reporter read back the question.)

THE WITNESS: Yes.

Q. (By Mr. Connell) Did Monsanto, in fact, stop the sale of PCB dielectric fluids to the capacitor industry as soon as an acceptable fluid became available?

A. Yes.

Q. Calling your attention, Mr. Papageorge, to Government Exhibit 60 which was marked in the April 16 -- I'm sorry, Government Exhibit 61, which was marked in the April 16, 1986 session of your deposition, and specifically with respect to Page 7 of that exhibit, I'd like to ask you first of all do you know who prepared Government Exhibit 61?

A. As I recall this document was prepared under the direction of Mr. Benignus. Contributions were made by Dr. Munch. That's the best of my recollection.

Q. Do you have knowledge as to who it was that was specifically responsible for the preparation of the material on Page 7 of Government Exhibit 61?

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MR. WEIR: Objection.

THE WITNESS: I do not have specific knowledge, no.

Q. (By Mr. Connell) Did Monsanto, in the normal course of dealing with its customers of Aroclor, meet with the customers for purposes of presenting information relative to the environmental pollution difficulties that Monsanto had identified?

MR. WINSLOW: Objection.

MR. KENNER: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) In so doing did Monsanto, in the normal course of dealing with its customers, prepare documents such as Government Exhibit 61 for distribution to the customers?

MR. KENNER: Objection.

MR. WINSLOW: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Is Government Exhibit 61 a document which Monsanto has maintained in its files in the normal course of going about its business?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

MS. ROBERTSON: Objection.

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THE WITNESS: Yes.

Q. (By Mr. Connell) And is the same true with respect to Government Exhibit 60?

MR. WINSLOW: Object to the question.

MR. MCLAUGHLIN: Objection.

THE WITNESS: Yes.

Q. (By Mr. Connell) Was it your understanding, Mr. Papageorge, in 1970 that even when a manufacturer stopped using PCB's that the PCB residues would remain in the drains in the manufacturer's drainage system?

MR. MCLAUGHLIN: Objection.

MR. KENNER: Objection.

MR. WEIR: Objection.

THE WITNESS: I don't know if I've used the right word or not, but it was definitely a speculation since no samples were taken, but knowing the product and guessing as to the years of usage at each site and the complexity of some sewer systems, our best guess was that it would be found without any analysis samples taken.

Q. (By Mr. Connell) When you say our best guess, to whom are you referring?

A. Monsanto's considered opinion.

MR. CONNELL: Thank you. I have no other questions.

QUESTIONS BY MR. FITZMAURICE

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Q. Mr. Papageorge, my name is Daniel FitzMaurice. I represent Aetna Casualty and Surety Company. Over the course of your deposition we've used a number of terms. I just wonder if we could begin by getting your understanding of what these terms mean, okay?

A. I'll try.

Q. First term is toxicity, what is your understanding of that term?

MR. KENNER: Objection. If you want his understanding, it's part of his prior testimony. I would ask that you refer him to his prior testimony.

MR. MCLAUGHLIN: Objection..

Q. (By Mr. FitzMaurice) You can answer the question.

A. Toxicity means to me the effects on living creatures of chemicals.

Q. Is that it?

A. That's it.

Q. Okay, how about toxic?

MR. KENNER: Same objection.

THE WITNESS: To me the word toxic has a short term and a long term connotation, and I see it as an undesirable effect of a chemical on living creatures. Some of it is transitory and some of it is chronic.

Q. (By Mr. FitzMaurice) Does toxicity have that

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same implication of undesirable effect?

MR. MCLAUGHLIN: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) How about the phrase toxic pollutant, what's your understanding of that?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: Well, my understanding is that if a chemical has been demonstrated to create a harmful effect to some living creature at any level, and that chemical is inadvertently found either in air or water or soil or the environment, it is then referred to as a toxic pollutant.

Q. (By Mr. FitzMaurice) Can you tell me your understanding of the word degrade with respect to chemicals?

MR. KENNER: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: All right, by degrade I mean the chemical change of a material brought about by external factors such as sunlight, exposure to air, exposure to bacteria, high temperatures, but the net result is a material that differs chemically from the original material.

Q. (By Mr. FitzMaurice) What about the word

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inert, can you give us your understanding of that word?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: An inert material is one that does not react with its environment, remains chemically the same.

Q. (By Mr. FitzMaurice) What about the word soluble, can you tell us your understanding of that word?

MR. KENNER: Objection.

Q. (By Mr. FitzMaurice) Let me rephrase the question. Can you tell me the understanding that you have of the expression soluble with respect to a chemical in water?

MR. KENNER: Object.

THE WITNESS: It's the amount of material that can be present in water, and I have to confess, I forget my technical description. It has to be present in that water other than a separate phase. It's miscible in that water. It's not distinguishable, must be miscible. It can't be an emulsion, it can't be droplets, it can't be a separate layer. It's the amount that the water can support in true solution.

Q. (By Mr. FitzMaurice) The last word I'd like to have your understanding of is the expression leach as used with respect to chemicals leaching into a water

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supply.

MR. MCLAUGHLIN: Objection.

MR. KENNER: Objection.

THE WITNESS: My definition of leach involves the phenomenon of solubility, and if there's a material such as water available and the chemical is soluble in that water and that water is moving, the amount of material soluble in that water will be described as being leached and carried with that water.

Q. (By Mr. FitzMaurice) Mr. Papageorge, is -- I'm sorry, are PCB's toxic by your definition?

MR. WEIR: Object.

MR. MCLAUGHLIN: Objection.

THE WITNESS: I can only refer to toxicity when I have a level of exposure. It can't stand alone.

Q. (By Mr. FitzMaurice) Why don't you give me a level -- let me start over. Are PCB's toxic at any level?

MR. MCLAUGHLIN: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) Okay, at what level are they toxic?

MR. MCLAUGHLIN: Objection.

THE WITNESS: This varies with the type of PCB and the creature that's exposed to them and the route of exposure.

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Q. (By Mr. FitzMaurice) Earlier in your deposition you spoke about industrial hygiene problems such as chloracne, do you recall that?

A. Yes.

Q. Is that --

A. Let me correct that. I don't recall -- all right, chloracne, correct, yes.

Q. Okay, you recall saying that workers at the Anniston plant had experienced chloracne in the 1950's?

A. Yes, I remember that.

Q. Is that a toxic reaction, chloracne?

MR. KENNER: Objection.

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) Do you know whether workers in any of Monsanto's dielectric fluid customers experienced chloracne?

MR. WEIR: Object.

MR. MCLAUGHLIN: Objection.

THE WITNESS: I'm not aware of any.

Q. (By Mr. FitzMaurice) Are you aware of any other toxic reactions that Monsanto workers experienced other than chloracne?

MR. WINSLOW: Objection, asked and answered.

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THE WITNESS: Yes, I am.

Q. (By Mr. FitzMaurice) What would those be?

MR. WEIR: Object.

THE WITNESS: I mentioned the respiratory effects similar to a bad cold, and I believe I mentioned the reddening of the skin, the defatting of the skin cells similar to chapped hands. Those were the two human effects that I have been made aware of.

Q. (By Mr. FitzMaurice) When was Monsanto first aware of those two human effects that you just referred to?

MR. WINSLOW: Objection, asked and answered.

THE WITNESS: The best I can determine, that goes back to when they acquired the unit that made PCB's in the early '30's.

Q. (By Mr. FitzMaurice) What about chloracne, when was Monsanto first aware of that human effect?

A. In the 1950's.

Q. Do you know whether Monsanto conveyed the information that in the 1930's it was aware of these two human effects that you referred to to any of its customers of PCB products?

MR. WINSLOW: Objection, asked and answered.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) Did Monsanto convey

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that information?

A. Yes.

Q. When did Monsanto convey that information?

A. Since the 1930's.

Q. Okay, how did Monsanto convey that information?

A. On their labels and in their trade literature.

Q. What about the information concerning chloracne that Monsanto in your testimony became aware of in the 1950's, do you know whether Monsanto conveyed that information to any of its PCB customers?

A. The chloracne observation was related to a very specific kind of PCB that was made for a very limited time, very short period of time. I personally do not know if the customer or two that existed at that time were told about it, but the product was not manufactured after that.

Q. The respiratory effects and reddening of the skin reactions, were they also limited to specific types of PCB's?

A. No, they were typical of all the PCB's.

Q. Would that information about those two human reactions have been conveyed to all of the PCB customers of Monsanto?

MR. WEIR: Object to the form?

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MR. WINSLOW: Objection.

THE WITNESS: That's what I said before, yes.

Q. (By Mr. FitzMaurice) Okay, I just wanted to make sure. We just spoke of three human toxic effects of PCB's. Was Monsanto also aware of any toxic effects of PCB's on any other life forms?

A. Yes.

Q. What other toxic effects was Monsanto aware of on other life forms?

A. Studies with chickens showed that at, as I recall, about three parts per million in the chickens' daily diet there was a reduction in the hatchability of eggs, and there was a thinning of the egg shells.

Q. When did Monsanto become aware of these studies?

A. About 19 -- I believe it was about 1972 we were made aware of it. The final report wasn't issued until 1974.

Q. Let me refer you to Exhibit 102 from your deposition.

A. Okay.

Q. Before we get to that exhibit, can you tell me whether Monsanto communicated the information it had about chicken studies that you just referred to to its customers about PCB's?

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MR. KENNER: Objection to the form of the question.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) When did Monsanto convey information that it had about chicken studies to its PCB customers?

MR. MCLAUGHLIN: Objection.

THE WITNESS: Progress reports of the studies were made available periodically about, and this was not a rigid timing, six to eight month intervals, and these summaries were handed out at virtually every opportunity we could get together with customers, either by salesmen calling on the customer or at the ANSI-NEMA meetings or EIA-PCB ad hoc committee.

Q. (By Mr. FitzMaurice) Okay, let me refer you back then to Exhibit 102. On the second page of that exhibit, first the exhibit is dated March 3, 1969, the top of the second page states "Several years ago two Swedish scientists at Stockholm University's Institute of Analytical Chemistry," and the names of the scientists are given, "reported they had identified the other substances which were appearing during analysis of chlorinated pesticide residues." Now, Mr. Papageorge, this sentence says several years ago, and this document is dated March of 1969. Do you know when this study referred to on the

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top of Page 2 was performed?

A. About 1966.

Q. Do you know when Monsanto first became aware of this study?

A. As best I could determine it was about 1967.

Q. Do you know how Monsanto became aware of this study?

A. One of Monsanto's European employees came across a rough translation of the study report, and forwarded that to Monsanto, St. Louis.

Q. Do you know whether Monsanto conveyed its knowledge about the study referred to at the top of Page 2 on Exhibit 102 to any of its PCB customers?

A. That's what this exhibit attempted to do.

Q. Do you know whether Monsanto conveyed this information in any other way than this exhibit?

A. There were subsequent letters to customers that referred to these studies. As I recall they went out in 1970, and it was our practice that whenever we had an audience of customers reviewing the PCB issue they would review this early work with them at that time.

Q. Do you know if there were any earlier communications from Monsanto to its customers concerning these studies?

A. I'm not aware of any.

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Q. Correct me if I'm wrong, these studies that were performed in Sweden concerned the persistency of PCB's in the environment, is that right?

MR. KENNER: Objection.

MR. WEIR: Objection.

THE WITNESS: No, the implied persistency. I would suggest all they really confirmed was presence.

Q. (By Mr. FitzMaurice) Tell me what you understand the meaning the expression persists is with respect to chemicals in the environment?

MR. WINSLOW: Objection.

MR. WEIR: Objection.

THE WITNESS: That the chemicals stay unchanged and unaffected by the environment in which they find themselves.

Q. (By Mr. FitzMaurice) Do some forms of PCB's persist in the environment?

A. Yes.

Q. What forms of PCB's to your knowledge persist in the environment?

MR. MCLAUGHLIN: Object.

THE WITNESS: Well, there again it depends on the type of environment and the concentrations of PCB's. Generally the more chlorine associated with a PCB, the less it's apt to change in the environment. It stays

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chemically the same.

Q. (By Mr. FitzMaurice) When you say stays chemically the same, is that what you meant before by the expression inert?

A. Yes.

Q. When did Monsanto -- strike that. Is PCB 1254 inert?

MR. KENNER: Object to the form.

MR. WINSLOW: Object to the form. You mean Aroclor?

Q. (By Mr. FitzMaurice) I'm sorry, I mean Aroclor 1254?

A. No.

Q. It's not inert. Are any of the Aroclors that Monsanto produced inert?

A. I find that difficult. Aroclors are mixtures.

Q. Okay.

A. And since they are mixtures it's difficult to describe a mixture as being totally inert.

Q. Let me refer you back to Papageorge Exhibit 143. I'm looking specifically at Page 2, second paragraph, the penultimate sentence in that paragraph.

A. I'm sorry, Page 2, second paragraph, which sentence?

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Q. Second to the last sentence in that paragraph.

A. Oh, all right. I see that sentence.

Q. Okay, can you tell me what you meant in that sentence by their inertness?

A. This refers to their ability to maintain their original chemical identity in service without being affected by such things as contamination with other chemicals or exposure to very high temperatures and pressures.

Q. Can you explain for me why you said that Aroclor 1254 is not inert and in this sentence you referred to PCB's inertness?

MR. KENNER: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: All right, when I said Aroclor 1254 was not inert, I was thinking of it's fate out in the environment in waterways, soils, and the air.

Q. (By Mr. FitzMaurice) Okay.

A. This inertness refers to their intended use inside of heat transfer systems where they are exposed to extremely high temperatures and still maintain their properties rather than becoming tars or charcoal.

Q. Okay.

A. As other materials might.

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Q. Are -- strike that. Is Aroclor 1254 a toxic pollutant?

MR. KENNER: Object.

MR. MCLAUGHLIN: Objection.

THE WITNESS: I'm not aware of any rule or statute or authority that has defined Aroclor 1254 as a toxic pollutant.

Q. (By Mr. FitzMaurice) I'm referring to the definition of toxic pollutant that you gave to me when I began my questioning.

MR. WEIR: Objection.

MS. ROBERTSON: I object.

MR. MCLAUGHLIN: Objection.

Q. (By Mr. FitzMaurice) According to that definition is Aroclor 1254 s toxic pollutant?

MR. MCLAUGHLIN: Objection.

MR. KENNER: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) Why?

MR. MCLAUGHLIN: Objection.

THE WITNESS: Because as I said earlier, a toxic affect is an adverse or undesirable effect. Aroclor 1254 at high levels is known to cause liver damage and enzyme imbalance in test animals. Knowing that and the fact that it could be found in air or water as, let's call

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it a pollutant, it's not intended to be there, so combining the definition of toxic with the presence as a pollutant, it would be a toxic pollutant.

Q. (By Mr. FitzMaurice) When did Monsanto first become aware of Aroclor 1254 as a toxic pollutant according to the way you've just defined it?

MR. WINSLOW: Objection.

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

MR. KENNER: Objection, I don't know if Monsanto is aware of that today. You've asked for Mr. Papageorge's individual understanding --

MR. FITZMAURICE: I'm sorry, Mr. Papageorge has been produced as a 30b6 deponent and --

MR. KENNER: I think it was his definition of how he personally has thought of it during his deposition. I don't think he ever said Monsanto defined toxic pollutant in that way.

MR. WEIR: Or that Aroclor 1254 is a toxic pollutant.

MR. FITZMAURICE: You want to read back the question.

(The reporter read back the question.)

THE WITNESS: Monsanto was aware of the effects of Aroclor 1254 on test animals starting in 1972

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and got the final reports about 1974.

Q. (By Mr. FitzMaurice) Is Aroclor 1254 relatively soluble in water or insoluble in water?

MR. WEIR: Objection.

THE WITNESS: Well, I find it difficult to answer because I don't know relative to what. I have no measure.

Q. (By Mr. FitzMaurice) Okay. Are there degrees of solubility scientifically?

MR. WEIR: Objection?

MR. MCLAUGHLIN: Objection.

THE WITNESS: Oh, yes, definitely.

Q. (By Mr. FitzMaurice) What are those degrees?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: I don't know how to describe them except there are materials that are totally miscible in water such as alcohol. You can pour a lot of alcohol in water and get more alcohol than you have water. In fact, you can go the full spectrum. On the other hand there are materials that to this day with our current analytical methodology we just can't detect it in water. So, when you say zero solubility, you have to say with present analytical methods.

Q. (By Mr. FitzMaurice) Let me ask you about

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when you first undertook your job as manager of environmental control back in 1970. You spoke earlier today about educating yourself with, I think you called it, tutorials. And you had arranged these tutorials with a number of individuals. The first one you mentioned was Dr. Kelly?

A. Yes.

Q. Let me ask you generally, were these tutorials group sessions or were they one on one or both?

A. Primarily one on one initially.

Q. Do you remember the sequence of the tutorials at all, who you met with first?

A. As best I recall I met with Mr. Bergen first who gave me a broad business type perspective, and then I met with Dr. Kelly,

Q. Okay, what can you -- in trying to outline these, it would be helpful if you could tell me who you met with and then briefly the subject matter you discussed.

A. Mr. Bergen was a broad business perspective regarding PCB's, their use, their sales. Dr. Kelly was primarily the human health knowledge available to him, and then Mr. Wheeler who covered birds and seals and the ongoing Monsanto studies with chickens and rats and dogs, and of course, the early studies starting back in the

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1930's, 1950's, 1960's, which involved rats and rabbits, skin studies.

Then I met with Dr. Keller who reviewed with me the state of the analytical methodology and the programs for fine tuning that methodology to get better results. And I'm not certain at this point who was next. I believe it was Dr. Richard who was a director of research who described for me the status of his search for lower chlorinated PCB's, and his search for alternative materials that contained no PCB's whatsoever.

And then I had discussions with the marketing representatives, and I do not recall the exact sequence here, but there was a representative for the sales of PCB's to heat transfer systems, there was a representative for the sales of PCB's to the plastics applications, another for the sale of PCB's to heat transfer fluids, still another responsible for the sale of PCB's to industrial hydraulic fluids and, of course, Mr. Benignus who was responsible for sales in the dielectric industry?

I met with each of those individuals, but I don't recall in what order. And they in turn tried to explain to me the kinds of PCB's that they sold and what applications they sold them to, what kinds of trademarks they used, and what their trade literature looked like, and that's the best I can recall.

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Q. Okay. You referred earlier to Robert Keller, meeting with him in a tutorial?

A. Yes.

Q. Was he one of the individuals you just listed? I'm sorry, you said Dr. Keller.

A. Dr. Keller.

Q. Dr. Tucker, Scott Tucker?

A. Dr. Tucker, I talked to Dr. Tucker shortly right after I talked to Dr. Keller. Dr. Tucker was Dr. Keller's supervisor, so Dr. Keller gave me the broad description of the activities and Dr. Scott Tucker was able then to tell me much more of the details of the programs he was working with.

Q. Just now when you referred to early studies on rats and rabbits, what were those studies?

A. Those are the studies known in the industry as acute toxicity studies which are designed to give results that are helpful in putting warning labels on products where it's appropriate, and in this particular case they did confirm the skin irritation and the respiratory irritation effects that I mentioned earlier.

Q. Do you know when those acute toxicity studies were performed?

A. There was a group, as I remember, of reports in the '30's, they were repeated in the '50's and '60's.

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Q. Would the result of the acute toxicity studies have been -- I'm sorry, strike that. Did Monsanto convey the results of the acute toxicity studies to its PCB customers?

MR. MCLAUGHLIN: Objection.

MR. WEIR: Objection.

THE WITNESS: On request, yes, but not as a mass mailing approach, no.

Q. Do you know whether Cornell-Dubilier ever requested that information?

MR. WEIR: Object.

THE WITNESS: I do not know.

Q. (By Mr. FitzMaurice) Do you know whether Aerovox ever requested that information?

MR. WINSLOW: Objection. Which Aerovox?

THE WITNESS: I do not know.

Q. (By Mr. FitzMaurice) Do you know whether Federal Pacific Electric ever requested that information?

MR. WEIR: Objection.

THE WITNESS: I do not.

Q. (By Mr. FitzMaurice) Do you know -- you just referred to Dr. Richard speaking with you about a search for lower chlorinated PCB's?

A. Yes.

Q. Do you know when Monsanto began the search

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for lower chlorinated PCB's?

A. About 1969.

Q. I believe that way back in the beginning, I'm not trying to characterize your testimony, I'm just trying to orientate us, you referred to Monsanto being surprised when it learned about these studies being performed that showed that PCB's were appearing in the feathers of birds and various samples that were surprising to Monsanto. Do you remember that discussion?

A. I do.

MR. WINSLOW: Objection.

Q. (By Mr. FitzMaurice) Those studies, if I'm not wrong, suggested that PCB's persisted in the environment and did not degrade as rapidly as Monsanto had understood?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

MR. WINSLOW: Objection.

THE WITNESS: I would not characterize that as implying persistence so much as they were detected, therefore that told us they were present, or somebody said they were present. We had no way of knowing when that PCB entered that sample in order come up with a persistence conclusion.

Q. (By Mr. FitzMaurice) So, the surprise that

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Monsanto had was simply at the presence of PCB's in those samples?

MR. WEIR: Objection.

MR. WINSLOW: Objection.

THE WITNESS: Correct.

Q. (By Mr. FitzMaurice) Did Monsanto ever conduct studies on how rapidly PCB's degrade?

A. Yes.

Q. When did it conduct those studies?

A. The period from 1969 through 1971.

Q. Who at Monsanto conducted those studies?

A. They were under the direction of Dr. Tucker.

Q. Do you know why Dr. Tucker conducted those studies?

A. You mean as distinguished from someone else doing it?

Q. No, no.

A. No.

Q. You're getting very sharp after being deposed for four days. It was a bad question. Do you know what the purpose of those studies were?

A. Yes, the purpose was to demonstrate a hypothesis that said to us that the 1254 and 1260 that other investigators were finding in the environment not only could have started out as equivalent types of PCB's,

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but they could have started out as a 1242 or a 1221 or 1248, and by degradation the end result looks like a 1254 or a 1260. That was a hypothesis that had developed. We wanted to demonstrate in the laboratory that it was possible.

Q. Do you know whether that hypothesis was borne out or not?

A. Yes.

Q. Was it borne out?

A. Yes.

Q. Were there any other purposes for these studies on biodegradation of PCB's in 1969 and 1971?

A. I don't know of any other purpose for starting those studies, no.

Q. Do you know if before those studies were conducted Monsanto had any understanding with respect to the biodegradation of PCB's?

MR. WEIR: Object to the form.

THE WITNESS: There was an understanding that these materials were inert.

Q. (By Mr. FitzMaurice) And what do you mean by that?

A. It was generally accepted without any scientific studies that since PCB's were not soluble in water, keeping in mind the methodology available would not

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have detected them, and not being soluble in water and being so resistant to chemical reactions with other chemicals, a conclusion was reached that they were so inert that they would not show up anywhere as they were. They would not be metabolized, they would not be transported. That in essence when they were dropped somewhere, that's where they would stay. That was the understanding back in the '30's, '40's, '50's and '60's.

Q. Did that understanding change at any point?

A. Oh, yes, yes.

Q. When did that understanding change?

MR. MCLAUGHLIN: Monsanto's understanding?

Q. (By Mr. FitzMaurice) This is Monsanto -- we're talking about Monsanto's understanding.

A. It was evolutionary in its nature, but it started to evolve in the '68, '69, '70 time period.

Q. You referred to an evolutionary change and in Monsanto's understanding, and again we're talking about the biodegradability of PCB's and their inertness, okay?

A. Yes.

Q. What were the first changes in that understanding?

A. The principal one was the fact that the higher chlorinated types described as Aroclor 1254 and Aroclor 1260 very likely did not start out as Aroclor 1254

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and Aroclor 1260. And this is arrived at simply by our knowledge of the volumes of the other Aroclors that we had sold and the applications to which they had been put, and the fact that they were found in remote areas indicated to us that a change had taken place so there was some degradation somewhere.

Q. We've been talking about persistence in the environment, we've talked about degradation.

A. Yes.

Q. Can you tell me how those terms relate?

MR. WINSLOW: Objection.

THE WITNESS: Well, to me they are opposites. Those things that do not degrade persist. I don't know how to respond to the question.

Q. (By Mr. FitzMaurice) That's fine. It's really my education. This understanding that Monsanto had in the '30's and '40's and '50's that you referred to, is it fair to say that Monsanto understood that PCB's persisted?

MR. WINSLOW: Objection.

MR. WEIR: Objection.

THE WITNESS: I don't know frankly that the word persistent was even in their vocabulary, but the word inert definitely was. These materials are inert. It shows up in the literature and descriptions.

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Q. (By Mr. FitzMaurice) Let me refer you back to Exhibit 134, and looking specifically at I guess the last page of that exhibit, I believe you testified that you first saw this page here sometime in 1960,, is that right?

A. That is correct.

Q. Is there anything on this page that talks about the inert feature of Aroclor 1242?

MR. WINSLOW: Objection.

MR. KENNER: Objection.

THE WITNESS: No.

Q. (By Mr. FitzMaurice) Do higher level PCB's, Aroclor 1254 and Aroclor 1260, persist in the environment?

MR. WEIR: Objection.

THE WITNESS: Components of those Aroclors persist in the environment.

Q. (By Mr. FitzMaurice) Okay, is Monsanto aware that components of 1254 and 1260 persist in the environment?

MR. WINSLOW: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) When did Monsanto first become aware of the fact that components of Aroclors 1254 and/or 1260 persist in the environment?

MR. WEIR: Objection.

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MR. KENNER: Object to the form. When did they become aware those components persist or that components of those Aroclors persist?

THE WITNESS: I would say 1969 or thereabouts.

Q. (By Mr. FitzMaurice) Did Monsanto have any understanding before 1969 that components of Aroclor 1260 did not persist in the environment?

MR. WEIR: Object to the form.

THE WITNESS: No.

Q. (By Mr. FitzMaurice) Did Monsanto have any understanding with respect to the persistency in the environment of Aroclor 1260 prior to 1969?

MR. WEIR: Object to the form.

THE WITNESS: No.

Q. (By Mr. FitzMaurice) Did Monsanto have any understanding of the persistency of the components of Aroclor 1254 in the environment prior to 1969?

MR. WEIR: Object.

THE WITNESS: No.

Q. (By Mr. FitzMaurice) Is it fair to say that Monsanto had conducted no studies of the persistency in the environment of components of -- strike that. Is it fair to stay that prior to 1969 Monsanto had conducted no studies of the persistency in the environment of

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components of Aroclor 1254 or the components of Aroclor 1260?

A. That is correct.

Q. Let me refer to the tour that you made in 1969 -- I'm sorry, 1970, June of 1970 of Cornell-Dubilier's facility in New Bedford. During that tour you spoke with representatives of Cornell-Dubilier about the persistency of components of Aroclor 1254 in the environment?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) Had you also spoken with them about the persistency in the environment of components of Aroclor 1260?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) Did you -- strike that. Did you understand from any source that this information, namely the persistency in the environment of these Aroclors, had already been transmitted by Monsanto to Cornell-Dubilier?

MR. WEIR: Objection.

THE WITNESS: Yes.

Q. (By Mr. FitzMaurice) When you spoke to these representatives of Cornell-Dubilier, did they confirm that

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this information had been transmitted by Monsanto to them?

MR. WEIR: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: I don't recall that I asked the question, therefore there was no need to confirm?

Q. (By Mr. FitzMaurice) Okay.

A. I don't recall that.

Q. You also discussed with these representatives of Cornell-Dubilier the need to, I think you referred to it as, tighten up the system in terms are controlling the use of or leakage of PCB containing fluids, correct?

MR. WEIR: Objection.

THE WITNESS: That is correct.

Q. (By Mr. FitzMaurice) Did the representatives of Cornell-Dubilier that you spoke to indicate to you that they had any knowledge before your meeting with them in June of 1970 of this need to control leakage of PCB containing fluids?

MR. WEIR: Objection.

THE WITNESS: I had an understanding that they were aware of some of the points that we raised.

Q. (By Mr. FitzMaurice) Okay, what was that understanding based on?

A. The general discussion around the conference table where there was active participation, and my

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understanding was that some of what I was saying was not totally new to the audience.

Q. Do you recall what portions of what you were saying was not new?

MR. MCLAUGHLIN: Objection.

MR. WEIR: Objection.

THE WITNESS: No, it's too long ago and I don't remember.

Q. (By Mr. FitzMaurice) Let me ask you the same types of questions for your visit to the Aerovox facility in New Bedford in June of 1970. When you met with the people at the Aerovox facility, I think you already testified that you discussed the need to control leakage of PCB containing fluids, correct?

MR. MCLAUGHLIN: Objection.

MR. WINSLOW: Objection. Off the record for a moment.

(Discussion off the record.)

Q. (By Mr. FitzMaurice) Did the people that you met with from Aerovox in June of 1970 exhibit to you any knowledge of this need to control leakage of PCB containing fluids?

MR. WINSLOW: Objection.

MR. MCLAUGHLIN: Objection.

THE WITNESS: Again, I had an understanding

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they had some knowledge.

Q. (By Mr. FitzMaurice) Just to be sure it's clear, you do not understand -- you do not recall specifically what their understanding was?

MR. WINSLOW: Objection.

THE WITNESS: I recall in general their understanding that there was something new regarding the proper handling of these materials, and they were anxious to hear what I had to say and what more could be done. And nothing stands out in specifics, but the general impression I had is that things would be different, and that was the intent of the whole discussion and I thought we had achieved it.

MR. FITZMAURICE: Okay, nothing further.

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

(Discussion off the record.)

QUESTIONS BY MR. KENNER:

Q. Mr. Papageorge, my name is Brian Kenner. I represent AVX Corporation. Do you know, sir, what years Aerovox Corporation owned a manufacturing facility in New Bedford?

A. I know nothing about that.

Q. Do you know what years Aerovox Industries, Inc. owned manufacturing facilities in New Bedford?

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A. No, I know nothing about that.

Q. Do you know which years Aerovox, Inc. owned manufacturing facilities in New Bedford?

Q. I do not.

Q. From time to time during the course of your deposition the questioner has asked you a question in which the formal corporate name such as Aerovox Corporation or Aerovox Industries, Inc. or Aerovox, Inc. was incorporated in the question. Did you answer that question without regard to the specifics of the formal corporate name?

A. Yes.

Q. The answers to the questions were common based on an understanding of the Aerovox facility in New Bedford?

A. Yes.

Q. Let me ask you to turn to Exhibit 34, Mr. Papageorge. I'd ask you to look at the bottom of Page 2, sir. The statement that appears at the bottom of the Page 2, "At the same time Monsanto undertook animal feeding studies to show PCB is not a highly toxic material," is an accurate statement to the best of your knowledge?

A. Yes.

Q. Turning to page -- to Exhibit 35, sir.

A. I have it.

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Q. The fifth page of that exhibit which bears the number 530 on the side, look at the fifth paragraph on that page which begins "The above data," and ends with the word "environment," is that an accurate statement to the best of your knowledge?

A. Yes.

Q. When you made the circuit of New England customers in a week in June in 1970 -- let me withdraw that and ask you whether -- I'm not sure whether your testimony was New England or northeastern, now that I look in my notes and see NE, but when you made that what area did you cover in that week in 1970 which included visits to the CDE and Aerovox facilities?

A. In my thinking I call that northeast United Stated.

Q. How many customers did you visit in that week?

A. I believe I can recall four, maybe five.

Q. Where were the customers other than CDE and Aerovox located?

A. General Electric in Pittsfield, Massachusetts; Jard, Inc. in Vermont; General Electric at Glens Falls or Hudson Falls, or both.

Q. And perhaps another?

A. I can't recall any others.

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Q. Did you visit both the Aerovox and the CDE facilities on the same day?

A. I believe they were separate days.

Q. Is your recollection -- your best recollection that you visited the Aerovox and CDE facilities on different days?

A. That's my best recollection, yes.

Q. Is it your best recollection that you visited them on successive days?

A. Yes.

Q. Do you recall which facility you visited first?

A. No, I do not.

Q. Let me ask you to look at Exhibit 39, please, Mr. Papageorge. Can you read the second page of Exhibit 39?

A. The second page is a poor reproduction of a label that I find hard to read.

Q. And do you agree with me that beneath the word returned that the second page of Exhibit 39 is illegible?

A. Yes.

Q. Turn to Exhibit 46, please, Mr. Papageorge. Did you ever see a copy of Exhibit 46 addressed to Aerovox or anyone at Aerovox?

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A. No.

Q. Did you ever see a copy of Exhibit 46 being placed in an envelope addressed to Aerovox or anyone at Aerovox?

A. No.

Q. You testified, sir, earlier in your deposition that Exhibit 46 was sent to Aerovox, and that would be on Page 85 of your deposition if you wish to look at it. My question to you is do you agree that you have no personal knowledge as to whether or not Exhibit 46 was sent to Aerovox?

MR. CENTOLA: Objection.

THE WITNESS: I have only an understanding.

Q. (By Mr. Kenner) The basis of that understanding is what others told you, is that correct?

A. Yes, and in response to my request to get this information.

Q. During your visit to the Aerovox facility in 1970, do you have a recollection of observing a pumproom at that facility?

A. No.

Q. And can you tell me where, if at all, a pumproom is located in the Aerovox facility?

A. I cannot.

Q. Do you have a recollection during that visit

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to the Aerovox facility of observing a capacitor seal room?

A. Yes.

Q. And can you tell me, sir, where in the Aerovox facility the capacitor seal room was located?

A. I couldn't describe the location.

Q. Can you tell me whether the Aerovox facility you visited in the summer of 1970 was a one story or multiple story facility?

A. I don't recall.

Q. Do you recall -- this might be establishing the obvious -- but do you recall what story of the building the capacitor seal room was on which you observed?

A. No. I just followed my guides blindly. I don't know where they took me.

Q. You did not visit the Aerovox facility in April of 1970 -- withdraw that. Were you scheduled to revisit the Aerovox facility in April of 1971, Mr. Papageorge?

A. I had intentions of going back, but I don't know that it was ever scheduled as such.

Q. And those intentions did not result in a second trip because other pressing matters interfered, if I recall your testimony correctly, is that right?

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A. That is correct.

Q. What were those other pressing matters in the spring of 1971, if you recall, Mr. Papageorge?

A. They had to do with PCB applications other than dielectric applications, heat transfer and hydraulic fluids, that I had to address at that time.

Q. Did you visit any Monsanto customers in the spring of 1971, in April or May of 1971?

A. I believe I did. I don't recall exactly.

Q. Was that in connection with the other applications that you referred to?

A. Yes.

Q. Can you describe the nature of the pressing matters that came up with respect to those other operations?

A. Well, they were relating to the phasing out of PCB type hydraulic fluids, the presence of PCB's in plant effluents very similar to the dielectric customers, and we were also in 1971 phasing out of all those carbonless copy paper applications and the plastics applications. Just no single issue, just many of them.

Q. You testified, sir, at Page 119 of your deposition transcript with regard to when call reports were completed. And your answer that appears on that page is that call reports were made for some but the

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preparation of call reports was not mandatory. It was the discretion of the individual making the customer call. Do you recall that testimony?

A. I do.

Q. Were there any guidelines to be used by the individual making the call in exercising the discretion whether or not to make a call report?

A. I've never seen any, I don't know.

Q. I'm not limiting my question, sir, to written guidelines but any guidelines in any form?

A. I have never seen any.

Q. Have you heard of any such guidelines to utilize in the exercise of discretion whether to make a call report?

A. No.

Q. Turning to Exhibit 55, Mr. Papageorge, I believe you testified, sir, that you had a conversation or you recall a conversation with Mr. Tuttle in which Mr. Tuttle mentioned having seen at least the substance of the letter which is Exhibit 55, do you recall that?

A. Yes.

Q. And you placed the date of that conversation, your testimony on Page 125, you were asked, "Do you recall when this discussion with Mr. Tuttle took place?" And your answer was, "Sometime in the early part of 1972."

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My question to you is, what is it about that conversation, if anything, that permitted you to place it in time such as the early part of '72?

A. As best I recall there were two activities that were under way at that time. One was Monsanto's agreement with its dielectric customers, the special undertaking as it was called, was quite active at that time. And Mr. Tuttle, of course, was very involved and interested.

At the same time I recall Mr. Tuttle had either assumed the chairmanship or was considering accepting a chairmanship of a PCB committee with the Electronics Industries Association, and these kinds of precautions and all were being reviewed with him in that context.

Q. You testified, sir, about being present during a conversation within Monsanto on the subject of the economic viability of companies that were signing or being asked to sign the special undertaking. Do you recall that? And I'm referring to Pages 137 and 138 of your transcript, if you care to look.

A. I didn't even know I had a transcript.

MR. KENNER: Perhaps you can have Mr. Papageorge review Pages 137 and 138 of the transcript?

THE WITNESS: I recall that, yes.

Q. (By Mr. Kenner) Who were the Monsanto

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employees who were involved in that discussion referred to on Pages 137 and 138 of the transcript?

A. Mr. Bergen --

MR. LAUGHLIN: Objection.

THE WITNESS: -- Mr. Benignus, I'm not certain, but I believe Mr. Gossage.

Q. (By Mr. Kenner) What was Mr. Gossage's position?

A. He was Mr. Benignus' supervisor and director of sales. and Mr. Gossage reported to Mr. Bergen, and then there's an attorney, John Stapleton. I don't recall any others.

Q. Is Mr. Stapleton still with Monsanto?

A. I don't know.

Q. In the early 1970's, do you know if Monsanto had an office or department which handled the insurance function for Monsanto?

A. Yes.

Q. What was the name of that department?

A. I don't know the name of the specific group, but it reported into the treasury department of Monsanto.

Q. In the early 1970's do you know who the individual was who was the senior individual by way of responsibility for the insurance function?

A. I don't recall it anymore.

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Q. Do you know if anybody from the insurance department participated in any discussions with respect to the special undertaking?

A. I do not.

Q. Page 178 of your transcript, approximately the middle of the page, you are relating a conversation that you had with Mr. Bergen, and although you could not recall the exact words, you testified that you told Mr. Bergen that the PCB subject had gotten emotional. Do you recall saying that to Mr. Bergen?

A. I do.

Q. What did you mean when you told Mr. Bergen that the PCB subject had gotten emotional?

A. I meant that the damage to the environment had yet to be established and yet there were many in our society who felt the material should not be sold any longer, and this is what I personally defined as emotion without any basis, scientific basis.

Q. Did Monsanto ever notify former PCB customers of its learning and -- its learning and knowledge concerning PCB's in the 1970's? Let me withdraw that.

A. Yes.

Q. If a customer for whatever reason ceased purchasing PCB's from Monsanto in say, 1972, would Monsanto or did Monsanto do anything beginning in 1973 and

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going forward to notify that former customer of developing knowledge in the area?

MR. CENTOLA: Object to the extent it's a hypothetical.

THE WITNESS: I don't know.

Q. (By Mr. Kenner) When you have answered questions during the course of this deposition that particular letters went out to customers of Monsanto, or particular notices were provided to Monsanto customers, were you referring to customers at the time of the particular letter?

MR. FITZMAURICE: I'll object to the form of the question.

MR. CENTOLA: Objection.

THE WITNESS: They were customers on record. Some were active, some were inactive.

Q. (By Mr. Kenner) Do you know of any correspondence in the 1970's concerning the subject of PCB's with AVX Corporation?

A. I do not know.

Q. In response to some questions this morning, Mr. Papageorge, you provided a list from memory of other applications of PCB's, and in that list you included coatings, paints and varnishes. Do you recall that?

A. Yes.

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Q. Can you be any more specific as to the types of paints that used or that contained PCB's?

A. I don't claim to know all of them because many of our customers were quite secretive about the eventual application, but it's my understanding that these were generally high quality specialized paints such as paints used to paint boat hulls which would reduce barnacle formation and the like. Paints used to put traffic stripes on highways, the yellow and white stripes; high quality varnishes like boat decks and courtroom walls, bannisters and the like; some special floor -- concrete floors were painted with some of these coatings. High durability, they were tough coatings that were made with PCB's in them.

Q. Do you have an understanding of why PCB's were used in such paints and varnishes?

A. It's my understanding first they made an easy apply coating. It apparently would spread or spray easily for the applicator, but over and above that is the long life that they experienced with those coatings.

MR. KENNER: Off the record.

(Discussion off the record.)

(The deposition was continued to May 6, 1986.)

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William B. Papageorge

Subscribed and sworn to before me this _____ day of _____, 1986.

My commission expires: _____.

Notary Public

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NOTARIAL CERTIFICATE

I, WILLIAM C. MORRIS, a Registered Professional Reporter and Notary Public, do hereby certify that there came before me at the law offices of Lewis & Rice, 611 Olive Street, St. Louis, Missouri,

WILLIAM B. PAPAGEORGE,

who was by me first duly sworn to testify to the truth and nothing but the truth of all knowledge touching and concerning the matters in controversy in this cause; that the witness was thereupon carefully examined under oath and said examination was reduced to writing by me; that the signature of the witness was not waived; and that this deposition is a true and correct record of the testimony given by the witness.

I further certify that I am neither attorney nor counsel for nor related nor employed by any of the parties to the action in which this deposition is taken; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this _____ of _____, 1986.

My commission expires January 17th, 1987.

_____
[Notary Public]

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ORIGINAL

_____

William B. Papageorge

Subscribed and sworn to before me this _____ day of _____, 1986.

My commission expires: _____.

_____

Notary Public

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