IN THE COMMONWEALTH COURT OF PENNSYLVANIA

PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES, PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, PENNSYLVANIA PUBLIC UTILITY COMMISSION, PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY, PENNSYLVANIA DEPARTMENT OF STATE Plaintiffs Vs. UNITED STATES MINERAL PRODUCTS COMPANY, CERTAINTEED CORPORATION, COURTAULDS AEROSPACE, INC; CHEMREX, INC; PHILIPS ELECTRONICS NORTH AMERICA CORPORATION, ADVANCE TRANSFORMER COMPANY and MONSANTO Defendants	NO. 284 M.D. 1990

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TOWOLDMON0047409

Oral Deposition of

Michael A. Pierle, taken pursuant to Notice, held at the Ritz Carlton Hotel, 100 Carondelet Plaza, St. Louis, Missouri, on Monday, June 8, 1998, at 10:00 a.m., before John W. Begley, a Registered Professional Reporter - Notary Public there being present.

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THE COURT REPORTER: Usual stipulations?

MR. ZIEGLER: That's fine.

MR. JUETTNER: That's fine.

MR. ROUX: That's fine.

MR. GOUTMAN: That's fine, but I would like the witness to read and sign the transcript.

- - -

(It is hereby stipulated by and among counsel for the respective parties that the sealing, filing and certification are waived, and that all objections, except as to the form of the questions, be reserved until the time of trial.)

- - -

Michael A. Pierle, after having first been duly sworn, was examined and testified as follows:

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EXAMINATION

- - -

BY MR. ZIEGLER:

Q. Please state your name and address for the

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record.

A. Michael A. Pierle, P I E R L E. My business address is Solutia, S O L U T I A, Inc., I N C, 10300 Olive Boulevard, 63141, I believe.

Q. Is that St. Louis, a St. Louis address?

A. Yes.

Q. Have you ever had your deposition taken before?

A. Yes.

Q. How many times?

A. I believe about five.

Q. Can you tell me about when the last deposition was?

A. It was about a week ago.

Q. The deposition that you had a week ago, was that done in connection with a Monsanto case or a case involving Monsanto?

A. Yes.

Q. All of your prior depositions, were all of those depositions taken in cases in which Monsanto Corporation was a party?

MR. GOUTMAN: I think it is Monsanto Company.

BY MR. ZIEGLER:

Q. Monsanto Company. With that correction --
A. I believe that's correct, yes.
Q. By the way, my name is Jim Ziegler. I'm with a law office in Independence, Missouri. We represent the Commonwealth of Pennsylvania, the plaintiff in this action.

Do you recall the name of the attorney that took your deposition last week?
A. I believe his last name was Barrett.
Q. Do you remember what the case name was?
A. No, I really don't.
Q. And you had counsel for Monsanto with you at the deposition?
A. Yes.
Q. Do you remember their names?
A. Mike Kelly, Adam Best.
Q. How long have you been with Solutia, Inc.?
A. Since its start-up in September.
Q. September of what year?
A. 1997.
Q. What does Solutia do?
A. It is basically a manufacturer of chemicals and fibers.
Q. What is your position with the company?

A. Vice President, Environmental Safety and Health.

Q. How would you describe your responsibilities as a Vice President of Environmental Safety and Health?

A. To provide technical and professional services to the business, to allow them to meet both internal and external requirements, and to provide policy direction in these related fields.

Q. What sort of chemicals are either used or manufactured by Solutia, Inc., which would require your expertise?

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

You may answer.

THE WITNESS: We manufacture a large number of products that range from nylon and acrylic fibers to a polyvinyl butyral product, which is a safety inner liner on automobile windscreens, and we make other chemicals that go into paint, coatings, agricultural chemicals. A variety of materials.

BY MR. ZIEGLER:

Q. Is Solutia a publicly held company?

A. Yes.

Q. Before you were with Solutia who did you work for?

A. Monsanto.

Q. And when did you first start with Monsanto?

A. In February of 1966.

Q. Were you just getting out of school at that point in time?

A. Yes, I had just graduated from Purdue University.

Q. What was your degree in?

A. Civil engineering. Bachelor's degree.

Q. Why did you decide to come work for Monsanto in 1966?

A. It was all around the best offer that I had.

Q. Are you from St. Louis originally?

A. No.

Q. Where are you from originally?

A. I was raised in Indianapolis.

Q. What department of Monsanto did you begin with?

A. I began working with the technical service department at the William G. Krummrich facility in Sauget, Illinois.

Q. Who was your immediate superior at that facility?

A. At that time I believe when I started it was Paul Hodges.

Q. Did Monsanto manufacture PCBs at the Krummrich facility?

A. They did.

Q. Can you tell me what types of PCBs were manufactured there?

A. I don't recall the numbers and types.

Q. Can you tell me what your responsibilities were when you first started with the technical service department?

A. They were basically to do sampling for ambient sulfur dioxide and then some waste water sampling throughout the facility in conjunction with limits that the facility had at that time for discharge into the Mississippi River.

Q. For what compounds are you talking about in terms of the waste water?

A. I believe the work we did there were two; one was phenol and a chemical oxygen demand was the second. COD.

Q. What processes at the Krummrich facility

produced SO 2?

A. We were sampling the ambient atmosphere. The processes there were probably the sulfuric acid plant and the coal burning power house facility at the time.

Q. Do you remember, in terms of company safety, what the company, what the company's tolerances were for sulfur dioxide emissions in the ambient air?

MR. GOUTMAN: Are you talking about within the plant or outside the plant?

MR. ZIEGLER: Within the plant.

MR. GOUTMAN: Within the work space.

MR. ZIEGLER: Yes.

THE WITNESS: I was not associated with the work place monitoring at that time. It would have been probably covered by OSHA or its predecessor, so I don't know within the fence line what the standards were.

BY MR. ZIEGLER:

Q. You were monitoring outside the facility; is that correct?

A. Yes.

Q. Do you know what the odor threshold is for sulfur dioxide?

MR. GOUTMAN: When; now?

MR. ZIEGLER: No, just at any time.

MR. GOUTMAN: Now or at any time.

THE WITNESS: I don't recall.

BY MR. ZIEGLER:

Q. Three to five ppm, does that ring a bell to you?

A. I would just be guessing. I don't know what the limit is now.

Q. Were there times when you could smell sulfur dioxide outside the plant?

MR. GOUTMAN: Can you tell me what this has to do with this litigation? This is not a sulfur dioxide case.

MR. ZIEGLER: I understand that.

MR. GOUTMAN: Can you tell me what it has to do with the litigation?

MR. ZIEGLER: It has to do with this witness and what he was doing at the plant.

MR. GOUTMAN: I understand that. This witness may have been doing all kinds of things that have no relevance to this litigation, including sulfur dioxide.

MR. ZIEGLER: And it is possible that

that's the case, but I have a right to inquire into that to find out what the relevance might be.

MR. GOUTMAN: I don't think you have a right to pursue questions that you can't articulate the relevance of.

MR. ZIEGLER: As I'm telling you, I'm asking him questions to discover what he did at the plant, and this is a discovery deposition and I have the right to do that.

MR. GOUTMAN: I disagree that you have such a right.

What was the question? Note my objection.

(The last question was read back by the Court Reporter).

BY MR. ZIEGLER:

Q. Do you ever recall such a time?

A. There were periods or times when that was possible.

Q. And do you recall conducting sampling at the times during which odors could be detected outside the plant?

MR. GOUTMAN: Objection.

Go ahead.

THE WITNESS: Our system, as I recall, was a continuous monitoring system around the plant, so it would have been sampling 24 hours a day.

BY MR. ZIEGLER:

Q. During the times when odors could be detected outside the plant, do you ever recall sampling for any levels that exceeded one ppm in the ambient air of SO 2?

A. I don't recall what the levels were. I mean, they were -- part of that sampling mechanism was that there were also other sources that impacted the area, but I don't recall the -- I don't recall the level.

Q. You are talking about sources from outside the plant?

A. Yes, other sources. Other coal burning utility boilers. Things of that nature.

Q. And I take it at some point in your employment with Monsanto that your responsibilities changed. You went on to doing something other than monitoring SO 2 levels in the ambient air.

A. I had -- well, I think I mentioned the water sampling and other, general environmental duties at

the plant site.

Q. And that was in addition to the monitoring for the SO 2 and the monitoring at the waste water facility?

A. Yes.

Q. And you had responsibilities apart from those items that I just listed; is that correct?

A. Well, they were all in the same group. They were just different types of work, yes.

Q. When you first started with Monsanto and started working at the Krummrich plant, you were aware that Monsanto manufactured PCBs at that site?

A. Probably not.

Q. Can you tell me about when you first became aware of that?

A. Well, it would have been some time after I was in employment, but I don't recall when that would have been. That was a pretty large facility.

Q. Now, at some point you started, included in your monitoring in the waste water effluent, you started monitoring for PCBs. Do you recall that?

A. We did some work within the department on measuring and control. I do recall that.

Q. You said you did some work on measuring. Can

you tell me about that?

A. Well, I don't recall too much. I know we were doing work on some of the water, the pretty low volume water streams where we were trying to trap and remove PCBs. They were basically heavier than water. We were removing those, and I seem to recall some sampling of some of the process off gas streams. I don't remember much of that.

Q. I'm just trying to get a handle on what you were doing in terms of measuring. Were you part of the development of methods to measure the PCB levels in the effluent?

A. No. I mean, I recall sort of hazily some of that going on, but I don't believe we were doing any of that at the plant site.

Q. Do you know who was working on those methods to measure PCB levels in water?

A. I don't recall their names. We had a, you know, a pretty big research capability sort of in St. Louis, but I don't recall who the individuals were.

Q. And the work that you are describing now, did that occur before 1970?

A. It would have. I left the plant somewhere around August of 1970, so it would have been before

that time frame. At least when I was involved.

Q. About a year or two years before? Can you give me some idea?

MR. GOUTMAN: Objection.

You may answer.

THE WITNESS: Yes. I'm guessing it was in the 1969 time frame, but I don't recall specifically.

MR. GOUTMAN: Mr. Pierle, I would ask you not to guess. If you don't know the answer to the question just say so.

BY MR. ZIEGLER:

Q. And so the work that you were doing, were you developing methods to extract PCBs out of the waste water? Am I correct in understanding your testimony?

MR. GOUTMAN: Objection. Misstates prior testimony.

You may answer.

THE WITNESS: What we were doing, as I remember, was physically, more physically separating PCBs from the water streams out of the department; not running an extraction process.

BY MR. ZIEGLER:

Q. Wasn't the separation process part of an extraction process?

MR. GOUTMAN: Objection. You are arguing with the witness.

You may answer.

THE WITNESS: We may just be talking about extraction. I tend to think what we were doing is helping the physical separation of the materials, so that's the best I can describe it.

BY MR. ZIEGLER:

Q. Did you have an awareness of the purpose for which you were working on this separation process?

A. What I recall is there was an effort to try and reduce losses from the production department, and I recall some general questions about PCBs in the environment during that time frame, but what I remember mainly was just working with a few other people at the department level on efforts to reduce PCB waste or PCB losses from the unit.

Q. Do you remember who those people were?

MR. GOUTMAN: That he worked with?

MR. ZIEGLER: At the department level.

MR. GOUTMAN: He worked with in this

effort to reduce the losses?

MR. ZIEGLER: Yes.

THE WITNESS: I really don't. I mean, I know there was a guy in engineering that was doing some project work, but I do not remember his name. I don't recall the people in the department that we were working with either.

BY MR. ZIEGLER:

Q. When you were doing this work what was your title with Monsanto, your job title?

A. Whatever the title for sort of beginning engineer was at the plant site. I think it was Engineer 1.

Q. How long did you remain an Engineer 1 with Monsanto? If you recall.

A. I believe that title did not change until I left the plant site.

Q. Okay. When did you leave the plant site?

A. It was around August of 1970.

Q. And where did you go from there?

A. I went to a production facility in Bridgeport, New Jersey.

Q. What did Monsanto make at this facility generally?

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

You may answer.

THE WITNESS: We made phthalic anhydride and thalate esters.

BY MR. ZIEGLER:

Q. Do you know what kind of products those were used in?

A. Well, the phthalic anhydride, as I recall, pretty much used as an intermediate on site, and the thalate esters, my recollection is that they were primarily in the flooring materials or other plastics.

Q. What was your job title at Bridgeport when you first started in August of 1970?

A. I don't recall whether it was Engineer 1 or II or Senior Engineer, but I remember that it was -- I think I got the senior engineer some time shortly after I moved there.

Q. Were there any PCBs used or manufactured at the Bridgeport facility?

A. There were none manufactured. There had been heat transfer units at the site and they may have still been in operation in 1970. I'm not certain.

Q. How would PCBs or how were PCBs used in the heat transfer units that you are talking about?

A. I'm not an expert on that. They were the heat transfer fluid. I believe it was heated and then circulated into various parts of the process and then returned back to the heater, principally in kind of a closed loop type of system.

Q. Do you remember any measures that were employed by Monsanto at the Bridgeport facility to control the release of PCBs into the environment?

MR. GOUTMAN: Objection. No foundation.

You may answer if you can.

THE WITNESS: What I recall were drip pans that were sort of preventive collection devices that were around, say, pump connections.

BY MR. ZIEGLER:

Q. Anything else at that facility?

A. Not that I recall.

Q. How long did you work at the Bridgeport facility?

A. Until July 1974.

Q. And where did you go from Bridgeport?

A. I actually left Monsanto for one year and went to work at the Department of Commerce in Washington, DC.

Q. What did you do with the Department of Commerce?

A. I worked in a group that was called, I believe, the Office of Environmental Affairs, and we -- it was a small group of about ten people. We basically participated in the, what was then called, I think, the government's Quality of Life Review on new regulations, new federal regulations.

Q. Tell me about that job. What did you do while you were with the Department of Commerce?

A. It was primarily technical review of proposed regulations that agencies were developing, and it was to comment both on the technical side of that, sort of the do ability, what was generally known about certain technologies, and from time to time -- well, collectively then in that process with other parts of the Commerce Department to represent the entire department's viewpoint on a set of regulations.

Q. Did PCBs come up during your employment with the Department of Commerce?

A. No, I had a very specific exclusion

requirement, as I remember, on the types of things that I would work on that would not involve any Monsanto matters or any chemical industry matters.

Q. And why was that?

A. My view, it was simply a precaution. This position I had was filled about every year by another individual from business or industry. It was a general practice. And I guess I just assumed that was part of the practice of that contractual arrangement.

Q. So you had, after your employment with the Department of Commerce, you intended to come back and work for Monsanto; is that correct?

A. That was my desire, but I did not leave with any contractual obligation on my part or their part that I would come back to work.

Q. Did you receive any compensation from Monsanto while you were employed with the Department of Commerce?

A. There was, as I recall, I was on a dollar a year contract, and the purpose of that was basically to retain my benefits programs, so there was no compensation or salary but there was retention of benefits, and I believe I also received a, what was a

differential, almost sort of like housing adjustment, because it was a pretty significant cost of housing difference between New Jersey and Washington, DC.

Q. DC was higher than New Jersey?

A. Yes. You bet.

Q. And what part of New Jersey were you in again?

A. Southern New Jersey.

Q. You stayed away, when you were at the Department of Commerce, you stayed away from issues dealing with the chemical industry; is that correct?

A. That's correct.

Q. And then you went back to work for Monsanto the next year; is that right?

A. Yes. I believe I started work again, it was like August of 1975, in St. Louis.

Q. And what offices did you come back to in St. Louis?

A. It was in an environmental group that I don't recall the specific unit organizational structure, but it was primarily associated with the organic chemical businesses.

Q. Part of your new job assignment, was part of that interfacing with departments from the United States government concerning environmental matters?

A. There was -- some of that was sort of indirect, but that wasn't the prime focus, the prime focus of it. To the extent that we interfaced with, at that time it would have been EPA, it would have been on, again, just -- it was some general regulatory development, and other than that it would have been in the context of specific items at some of our manufacturing facilities.

Q. Do you recall ever having any communications with the EPA in the mid '70's regarding PCBs?

A. To the extent that I recall, they would have been some -- I believe they were permit discussions associated again with the Krummrich facility, but this time, as I recall, primarily around the discharge permit level limits with the federal EPA from the village waste water treatment system.

Q. Is that the facility's NPDES permit?

A. The facility discharged to a municipal system, so it did not have an NPDES permit.

Q. I see. Can you tell me how long you were with this environmental group.

A. Well, I have been basically with the environment my entire career, so that group -- the group tended to change as the internal organizational

structure changed, so I don't know how to specifically try to answer your question.

Q. I understand. From August of 1975 up until what; until August or September of last year was your work in Monsanto focused on environmental matters?

A. Yes, I spent my entire career in environmental and then health and safety matters, you know, up to the present.

Q. And you were talking -- strike that.

Part of your responsibilities, when you went back to work for Monsanto in 1975, had to do with the effluent -- was it the waste water effluent from the Krummrich facility; is that correct?

A. That was, you know, one of the issues I was aware of and consulted on.

Q. And one of the things that you were trying to do is reduce the PCBs in the waste water emissions; is that correct?

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

You may answer.

THE WITNESS: I don't recall specifically. Most of those discussions were about, as I recall, and I mean they weren't a

large part of what I was dealing with; we were just dealing with the Sauget Village municipal plant's discharge permit and at that time Monsanto's interaction with the regulators and with the village on that

BY MR. ZIEGLER:

Q. Did PCBs come up in the context of the village's discharges?

MR. GOUTMAN: Can we get a time frame?

MR. ZIEGLER: In or about August of 1975.

THE WITNESS: I don't recall the specific dates; I just recall that there were discussions, conversations, around PCB limits with respect to permits and sort of part of the confusion there, the state was involved, the federal folks were involved, but there was some discussion about PCB limits and permits, and I don't really recall the details.

BY MR. ZIEGLER:

Q. Was that the first instance since you returned to Monsanto in August of 1975 in which you recall PCBs -- strike that.

Was that the first instance that you

can recall that you had to deal with PCBs since your return to Monsanto in August of 1975?

A. Well, I don't know when it first, again, sort of came up; I just recall that one of the issues, as I was getting sort of reassociated with a set of plants that I had some responsibility over, that was one of the issues, and it was somewhere back in the late, mid to late '70's, so I really don't recall anything much more than that.

Q. In terms of your responsibilities after your return, were you concerned primarily with regulatory compliance for the Monsanto facilities?

A. That was one of the areas, and it was for some of the facilities and it was primarily in the environmental side, so I would say that basically it was air, water, and solid waste areas.

Q. Can you tell me on what other occasions you recall dealing with PCBs after your return to Monsanto in August of 1975?

MR. GOUTMAN: Objection. Vague. What do you mean by "dealing with PCBs"?

MR. ZIEGLER: Just any times when PCBs came up in the course of your employment.

MR. GOUTMAN: Note my objection to form.

You may answer.

THE WITNESS: I don't recall much. I mean, there was one additional, sort of operational thing we were dealing with somewhere in that time frame, and that was the shut down of the incinerator that had been constructed at that plant site.

BY MR. ZIEGLER:

Q. The purpose of the incinerator was to dispose of PCBs?

MR. GOUTMAN: Objection. Overly broad.

You may answer.

THE WITNESS: As I recall, it was for the return, sort of receipt and disposal of liquid PCBs.

BY MR. ZIEGLER:

Q. And this was in about what year? Was it 1975? 1976?

A. Some time in the mid to late '70's.

MR. GOUTMAN: Are you talking about the shutdown of the incinerator? Is that what you are talking about?

MR. ZIEGLER: Yes. Specifically.

THE WITNESS: I don't recall the date

that it was specifically shut down.

BY MR. ZIEGLER:

Q. Do you remember what the sources of the PCBs were at that late date?

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

You may answer.

THE WITNESS: Well, again, I don't recall the dates, so I don't know whether it was a late date or not or what your reference point is. My understanding was that those were primarily customer returns.

BY MR. ZIEGLER:

Q. Do you recall what types of PCBs were being returned?

A. I don't other than they were, as I recall, primarily liquid materials, if not exclusively liquid materials, but the form or the source, I wasn't paying any particular attention to that.

Q. Were they PCBs -- do you recall who some of the customers were that were returning PCBs?

A. No, I don't.

Q. And you don't recall what the uses of the PCBs for those customers were?

A. No, I don't.

Q. Are there any other times after August of 1975 when you can recall that you had to deal with PCBs in your employment at Monsanto?

MR. GOUTMAN: Note my objection to the vague form of the question.

You may answer.

THE WITNESS: The issue that I described with respect to the discharge permit, I don't know when that ended or stopped or whatever, but that went on for, it seems to me, a period of time. I don't recall whether there was anything else specifically over there or not. The incinerator, I know, was shut down. That seemed to constitute most of what we were dealing with at this site.

BY MR. ZIEGLER:

Q. With respect to the shut down of the incinerator, what regulatory authority was overseeing that?

A. You know, I don't really recall who was at the plant site. Typically on those things the folks at the plant site would hold the permits, know the details, and I don't recall us having any particular

issues around that operation.

Q. Do you recall whether there was any soil testing done at the incineration site? Specifically for PCBs.

A. I don't recall whether we did or not. I mean, I recall that was all pretty well constructed on concrete. I remember being there seeing material, drums, within concrete areas, but I don't recall whether there was any sampling associated with that or not.

Q. Was the incinerator dismantled? Do you recall?

A. Yes. Well, it was because I know it's not there, but I don't --

Q. Do you remember where they took it?

A. I do not.

Q. About what year did this occur in? Can you tell me?

MR. GOUTMAN: Can you read the question back.

(The last question was read back by the Court Reporter)

MR. GOUTMAN: I think the witness has already said he doesn't recall the date the

incinerator was shut down.

THE WITNESS: I really don't, you know, remember when it was. I mean, it was after 1975, but I don't know exactly when that was accomplished or when it was complete.

BY MR. ZIEGLER:

Q. Do you know if it was before or after 1980?

A. I really don't know the precise date.

Q. It wasn't in the 1990's, was it?

A. I'm sure it was done by then.

Q. Do you remember if you were dealing with a state or federal regulatory authority in that connection?

A. I don't recall.

MR. ZIEGLER: This will be marked as Pierle 1. (Indicating).

(Whereupon the above-referred to document was marked as Pierle Exhibit 1 for identification)

BY MR. ZIEGLER:

Q. Subject change.

MR. GOUTMAN: Take your time and read that.

MR. ZIEGLER: Read it.

MR. GOUTMAN: And let us know when you are done.

THE WITNESS: I have read it.

MR. GOUTMAN: This is Pierle 1.

BY MR. ZIEGLER:

Q. With respect to Exhibit Pierle 1, apparently you had instructed Dr. E.S. Tucker to perform some sort of analysis on W.G.K. sediment samples; is that correct?

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

You may answer.

THE WITNESS: It looks like that per this note.

BY MR. ZIEGLER:

Q. And we are talking about the Krummrich plant.

A. Yes.

Q. And you were asking him to analyze the sediment samples for PCBs; is that correct?

A. Yes.

Q. Can you tell me why Monsanto was interested in the contaminant levels of sediment samples taken from the Mississippi River?

MR. GOUTMAN: Objection to the form of

the question. Do you want to know why this witness was interested or every employee of Monsanto?

MR. ZIEGLER: Yes.

BY MR. ZIEGLER:

Q. Why were you interested?

A. Well, this was the time frame that we were doing the sampling in the department that we had referred to as part of that team activity, and I'm trying to recall the purpose for the river sediment. I'm really not clear on it. I mean, obviously we did it. I don't know what the purpose of it was, or if it did or did not fit into an overall program.

Q. Do you recall that one of your superiors instructed you to have those samples taken and analyzed?

A. I just flat don't recall.

Q. Can you tell me whether the sampling activities were taken with respect to a study regarding Aroclors and wildlife?

MR. GOUTMAN: Whether this document was part of a study of Aroclors and wildlife?

MR. ZIEGLER: Yes.

THE WITNESS: That is the title of the

subject. I mean, I don't recall any wildlife related activity at the Krummrich plant. In general, there was a question about Aroclors and wildlife that, as I had previously mentioned, I was aware of at that time, which had been -- part of the reason why we were proceeding on the determination of PCB materials in the plant discharge.

BY MR. ZIEGLER:

Q. So as I understand your testimony, Monsanto was concerned about PCB contamination of the Mississippi River from the W.G. Krummrich plant; is that correct?

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

THE WITNESS: I think what this indicates is that we were looking for whether or not there was presence in some of the sediments, it looks like both upstream and downstream of the point where the waste water from the village would have entered the Mississippi River.

BY MR. ZIEGLER:

Q. And do you recall -- where did you direct this

information after you obtained it from Dr. Tucker?

A. I don't recall. I know, as I said, we were working within a group of people there at the plant site and I'm sure it would have gone back into that group of individuals.

Q. You were trying to -- you brought up an interesting point. Part of the purpose of this sampling was to compare the Aroclor levels upstream and downstream from -- was it from the plant that you were trying to compare those?

MR. GOUTMAN: Objection to the form of the question. He said the samples were taken both upstream and downstream.

THE WITNESS: Of the --

BY MR. ZIEGLER:

Q. Do you understand my question?

A. Not really.

Q. The samples were taken upstream and downstream from the plant; is that correct?

A. I think what I said was they were upstream and downstream of the point where the effluent from the Village of Sauget entered the Mississippi River, which would have included the plant's effluent.

Q. Your purpose for taking samples upstream and

downstream from that point was to compare the PCB levels; is that correct?

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

THE WITNESS: I don't recall the specific purpose. Certainly it was to, at that point in time, just get some data, background data.

BY MR. ZIEGLER:

Q. You wanted to find out what the contribution to the PCB levels in the Mississippi River from the village effluent were; is that correct?

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

You may answer.

THE WITNESS: I believe we were just trying to see if there was any difference or not.

BY MR. ZIEGLER:

Q. Do you remember if your group came up with any conclusions with respect to why the PCB levels were, in some instances, in order of magnitude higher downstream than they were upstream?

A. I don't recall, you know, how much of this we

did or whether we got the conclusions or not or over what time frame.

Q. Who did you relay this information on to?

A. I think I said I specifically don't recall who else at the plant site I would have passed this on to. My presumption --

MR. GOUTMAN: Don't presume. Don't speculate.

BY MR. ZIEGLER:

Q. What department would you have sent these on to?

MR. GOUTMAN: He said he didn't know.

BY MR. ZIEGLER:

Q. This is a different question.

I had asked you who you sent them to. Now my question is what department did you send these on to.

A. I don't know that I sent them to any department. I think I indicated that they would have gone into the team or group of people that were working on this. I don't recall anything beyond that.

Q. And you don't recall what the team's purpose was for taking these samples.

MR. GOUTMAN: Listen, he said that about five times. That's enough.

MR. ZIEGLER: Let's go on to the next document. This will be marked as Pierle 2. (Indicating).

(Whereupon the above-referred to document was marked as Pierle Exhibit 2 for identification).

THE WITNESS: I have read the document.

BY MR. ZIEGLER:

Q. Can you tell me when Mr. Papageorge first began discussing with you the topic of PCBs and air pollution?

A. I don't recall specifically.

Q. Can you tell me why, in preparing this document -- strike that.

Can you tell me what your purpose, what your specific purpose was in preparing Exhibit Number 2?

A. I believe we were trying to understand across the plant site whether there were losses, and in this particular note losses to the atmosphere.

Q. You are talking about losses of PCBs.

A. Yes.

Q. Tell me why you characterize PCB losses as Aroclor air pollution, if you can.

A. I -- are you referring to the subject heading that is circled?

Q. Yes.

A. I don't recall why we used that title. We were looking at Aroclor or PCB and we were looking for potential losses to the air which one would generally define as air pollution.

Q. Is this a specific assignment that Mr. Papageorge gave to you?

A. I don't recall that.

Q. Do you recall who gave this assignment to you?

A. I do not.

Q. Did you physically go around the plant to attempt to identify all points of potential Aroclor air emissions?

A. I don't recall walking around the plant site following piping and looking at other systems.

Q. Did you conduct sampling during this walk through inspection?

A. I don't believe so.

Q. Looking at the second page, how are you able to identify the points of Aroclor vapor losses

without conducting any sort of air sampling?

A. Those would have been done from observations of equipment and/or drawing, and to look at where things might be possible.

Q. Did you have somebody with you that provided you information during your walk through of the plant to help come up with this list?

And I'm talking about the list on the second page of the exhibit.

A. I don't recall if I did this walk around in conjunction with anyone else or not.

Q. Who from --

A. I don't believe any of these estimates were based on sort of a walk around information.

Q. How would you have calculated them?

A. They are described as estimated losses and I believe those probably came from just calculations, more engineering calculations.

Q. Can you tell me what the, for example, under source number one you have 0.1, and then you have a number sign and then / day. Can you tell me what that means, what amount that you have calculated there as an estimate?

A. I think we were using that as a pound sign,

0.1 pounds per day.

Q. Can you tell me how that calculation would have occurred?

MR. GOUTMAN: Can you tell me what this has to do with this case, the amount of PCB loss in the Krummrich plant in 1970?

MR. ZIEGLER: Yes.

MR. GOUTMAN: What is the relevance to this case?

MR. ZIEGLER: The relevance is how Monsanto deals with PCBs in its own facilities, which is highly relevant to the issues in this case, so if you want to take it up with the Court I'm happy to talk to the Court about it.

MR. GOUTMAN: No, I just wanted to know where you thought you were going with this. Thank you.

THE WITNESS: What was the question again?

MR. GOUTMAN: How were the calculations made.

BY MR. ZIEGLER:

Q. Yes.

A. I don't recall on these specifically.

Q. You don't recall who provided you the information that allowed you to make those calculations; correct?

A. I do not. I'm not sure I made the calculations. Your question sort of implies that.

Q. Do you recall, if you could turn over to the next page, you identified some potential sources of Aroclor emissions. Can you tell me how you distinguished the known point sources of emissions from potential sources of Aroclor emissions?

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

THE WITNESS: I guess I'm not following the nuance of your question, between known and potential. This describes the potential sources.

BY MR. ZIEGLER:

Q. Which page?

A. The third page.

Q. Yes. I'm distinguishing that from the second page, which I understand that to be known sources of Aroclor losses.

MR. GOUTMAN: That's your interpretation. You certainly haven't laid a

foundation.

THE WITNESS: The way I would read this is that, again, page two is estimates based on engineering, based on information around the department, and the following is more referring back to the walk around that said, you know, if we are wanting to be sure we have thought about this, where else are other potential sources, and that just lists observations from a potential walk around, from a walk around.

BY MR. ZIEGLER:

Q. This inspection was done because you were attempting to lay out a PCB reduction program for this plant; is that correct?

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

THE WITNESS: I recall the overall focus of the work of the team was on Aroclor reductions, and I think what this document lays out is the activities or the -- information probably relatively early on or air pollution, what we think we might estimate or know about what is going on in the department, and then the third page is are there other potential

sources from other departments, and if so some observations about that.

BY MR. ZIEGLER:

Q. Had Mr. Papageorge determined that air losses of PCBs were too high at this plant?

MR. GOUTMAN: Objection. Do you want him to read Mr. Papageorge's mind? Objection to the form of the question. Is that what you want him to do; read his mind?

MR. ZIEGLER: No.

MR. GOUTMAN: How would he know what is in Mr. Papageorge's mind?

BY MR. ZIEGLER:

Q. You can just answer the question, please.

A. I recall the effort was around the identification, quantification, and the control of PCB or Aroclor at the plant site.

Q. Did he ever express to you that the PCB levels, the PCB emissions from the plant were too high?

A. I don't recall that terminology being used.

Q. Did he ever express to you that there were obvious problem areas of the plant that needed immediate attention?

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

You may answer. If you can.

THE WITNESS: I don't recall any characterization of it other than the identification and looking for ways to reduce losses, but I don't recall any characterization of that.

BY MR. ZIEGLER:

Q. So I take it that that characterization is contained in the last sentence of the first page of the exhibit is your characterization; is that correct?

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

You may answer.

THE WITNESS: Well, I don't know whether this is mine or Mr. Krull's or both of ours, but I think as we were looking for potential areas, the sort of problem areas or where there might be potential is what is described in that last sentence.

BY MR. ZIEGLER:

Q. What types of PCB emissions were you looking

at that you thought needed immediate attention or what levels? How high were the PCB emissions from the furnaces in departments 239, 245, 248, and 255 that you thought they needed immediate attention?

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

You may answer.

THE WITNESS: The way I read this and what I recall is this is more a theoretical kind of discussion. Are there any? Where might they be? Let's go out and sort of do the inventory, so the natural place one would have looked at the outset were, and I think it refers to these furnaces or heat transfer systems that were in place in these departments.

BY MR. ZIEGLER:

Q. What kind of attention did you give to the heat transfer systems?

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

You may answer.

THE WITNESS: I mean, I don't know other than what's described here. I think I have

indicated to you that this was about the time that I was leaving the plant site, almost within the week of leaving the plant site. I do recall doing the walk through and not much more than that.

MR. ZIEGLER: This will be Exhibit 3. (Indicating).

(Whereupon the above-referred to document was marked as Pierle Exhibit 3 for identification)

BY MR. ZIEGLER:

Q. I have handed to you Exhibit Number 3. If you could take a look at it, please, and then identify it for me.

A. I have read it.

MR. GOUTMAN: He wants you to identify it.

BY MR. ZIEGLER:

Q. Yes. And this is a document that you wrote.

A. It is entitled, "Sampling Program for Aroclor Losses" dated April 5, 1970 from myself to a Mr. Engman.

Q. Who is Mr. Engman?

A. Mr. Engman is, as I recall, was an individual

that -- I forget exactly what department he was in that may have been given sort of this team assignment. I don't recall. I know him well. I do not know him in the context of this particular memo, other than I remember him being involved.

Q. He was part of the same team you were; is that right?

A. I believe so.

Q. How long did Mr. Engman work for Monsanto at Krummrich?

A. I don't know specifically. Quite a while.

Q. Did he work there as of the time that you -- strike that.

Tell me, this is part of the same program of sampling for Aroclor losses that we saw in Exhibit Number 2; is that correct?

A. It appears to be.

Q. Can you tell me who developed this sampling program? Did you?

A. Well, obviously I wrote it down, and I remember being a party to it. I don't know that I was the only one involved in the development of the program.

Q. One of your interests was PCB levels in fish;

is that correct?

A. It looks like it from this note.

Q. Can you tell me how that sampling would have been done.

A. I don't recall doing any fishing. I don't recall.

Q. If you could look at the second page for me, you make a statement, and I'm just not sure what that statement means. You state, "If a balance is not obtained between 246 and the treatment plant within two weeks of daily sampling, the program will be expanded to determine other sources."

Could you tell me what that statement means?

A. I believe what we were attempting to do, by sampling at the production department, to see if we could reproduce the levels, that level of discharge by measuring it again at the treatment plant and to see if basically they were the same number or in balance. What this describes, if they were not, and that would have presumed, then, that they would have been higher at the treatment plant, that we would have looked for other potential sources.

Q. Was one of your purposes for taking samples

from the waste water, the river sediment, and the fish, to determine how much of the PCBs that were contained with the effluent that went into the river actually made it into the food chain?

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

You may answer.

THE WITNESS: I think the design of this was simply to find out if we were losing it from the plant site, at what level and then where was it if it left the waste treatment plant or actually before were there levels in the river, and I think the additional discussion was, Well, what about fish? Because fish had been raised as an issue in the general literature, so I think this was around, just in general environmental sampling, in the sediment and fish, and in the waste water it was more particular to attempts to do quantification.

BY MR. ZIEGLER:

Q. Do you recall whether there were any discussions within your environmental group regarding human exposures from eating fish in the Mississippi River?

A. I don't recall any.

MR. ZIEGLER: This will be Exhibit 4. (Indicating).

(Whereupon the above-referred to document was marked as Pierle Exhibit 4 for identification)

BY MR. ZIEGLER:

Q. I'm handing you what has been marked as Exhibit Number 4. Could you read it, please, and tell me if you have ever seen this document.

A. What part do you want me to read? The heading --

Q. Actually, if I have any questions for you at all, they will be from the first three paragraphs.

A. You didn't mean read it out loud; you just meant to read the document.

Q. Yes, read it to yourself.

MR. GOUTMAN: Read the entire document.

THE WITNESS: I have read the document. I don't recall ever seeing this before.

BY MR. ZIEGLER:

Q. Do you recall whether, in your group, whether there was any discussion regarding the chronic toxicity of PCBs to fish?

A. No, I think what I indicated I recall was the general literature and discussion about wildlife and the eggs and the reproduction issue, but I don't recall any specific conversations that were anymore particular than that.

Q. The issue regarding the eggs and reproduction, this was something that you knew about in August of 1970; is that correct?

A. Yes, I believe there was a fair amount of general information available at that point in time.

Q. Do you know if there was any discussion within Monsanto or did you participate in any discussions within Monsanto regarding the withdrawal of PCBs from the market?

A. No, I really wasn't involved in anything beyond the plant work that we have described.

Q. Do you recall any discussion to the effect that PCBs contributed to environmental pollution?

MR. GOUTMAN: At what time are we talking about?

MR. ZIEGLER: Up until August of 1970.

THE WITNESS: Again, in the context of what I have described here about the general discussion about soft egg shells and what is

causing that. That was what, to me, that was the discussion around PCBs or DDT or other things were about at the time.

BY MR. ZIEGLER:

Q. Do you recall any discussion within Monsanto in which you participated in which the view was expressed that any benefits derived from PCB use are out weighed by the resulting environmental contamination?

A. No, I don't.

Q. Do you know whether that was the basis for Monsanto's decision to withdrawal from the PCB market?

A. I don't know. I wasn't involved in that decision.

MR. ZIEGLER: This will be Exhibit 5. (Indicating).

(Whereupon the above-referred to document was marked as Pierle Exhibit 5 for identification).

THE WITNESS: I have read the document.

BY MR. ZIEGLER:

Q. We are up to Exhibit 5 now. Could you identify Exhibit 5. You are the author; correct?

A. Yes.

Q. And the subject of this particular document is what?

A. "PCB System ChangeOvers.

Q. And you were writing to Mr. Papageorge; is that correct?

A. That's correct.

Q. Tell me what your involvement was in the PCB system changeovers, if you could, please, at or about July of 1972.

A. I believe it was more one of observation and seeing that the changeovers were accomplished. I was not involved in the physical work, itself.

Q. You were observing in a supervisory role; is that correct?

A. I don't believe so. I was the plant environmental engineer, senior engineer, at that time, as I mentioned earlier, and as such would not have been involved in the overseeing of this work, in terms of directing it or getting it done, but simply observing and watching what was going on.

Q. Tell me what the company's policy change regarding the use of PCBs and heat transfer system was before the PCB system change over occurred.

MR. GOUTMAN: Can you read back the question.

(The last question was read back by the Court Reporter)

MR. GOUTMAN: Are you talking about at the Delaware River plant?

MR. ZIEGLER: Yes.

MR. GOUTMAN: Do you understand that question?

THE WITNESS: Yes.

There was, in general, a change with respect to open systems use, which this memo seems to imply has happened before this time, and we were simply at a plant site that was using heat transfer systems, conducting a changeover of those systems. I don't recall seeing a specific written policy or document.

BY MR. ZIEGLER:

Q. Tell me, if you don't recall seeing a written document, who created the policy regarding PCB use in open heat transfer systems.

A. I don't know.

Q. Can you tell me what the system changeovers were that were being contemplated in this document?

A. What this describes is a replacement of the fluid.

Q. Do you know if HB40 has any PCBs in it?

A. I don't know that. I don't believe so.

Q. So essentially in your open heat transfer systems Monsanto was contemplating a change from PCB fluids to non PCB containing fluids?

A. I believe so.

Q. And that was for the purpose of reducing or eliminating PCB emissions from those systems?

MR. GOUTMAN: Objection to the form of the question. No foundation. He said he didn't make the policy.

Go ahead. You can answer if you can.

THE WITNESS: I don't know what the purpose was. The effect at the plant site here was that you were basically taking the PCB liquids out and putting a non PCB liquid in.

BY MR. ZIEGLER:

Q. And as I understand your testimony, you don't know whether that was for the purpose of eliminating PCB emissions or not; is that right?

A. Well, I don't know that there were any emissions and I don't know what drove that reference

to company policy. That's what I interpreted your question to be.

Q. Do you know whether this 30 to 40 ppb range of PCBs was what prompted the changeover of the use of fluids in the open heat transfer systems?

A. I don't believe so.

Q. You don't believe that that's what prompted it?

MR. GOUTMAN: He just said that. You are not going to ask questions five times in hopes of getting a different answer at some point. He said he did not think so. If you didn't hear it we can read it back.

Don't answer the question.

MR. ZIEGLER: Thank you for the clarification.

BY MR. ZIEGLER:

Q. Why did you put this sentence in this memo regarding the effluent levels being in the 30 to 40 ppb range for PCBs?

A. I don't specifically remember.

Q. Sitting here today and reading this memorandum, can you tell me what purpose this particular sentence has within the context of this

memorandum?

MR. GOUTMAN: He just said he doesn't know. He just said it.

MR. ZIEGLER: No, wait. He didn't. He said he didn't remember why he didn't put it in there.

MR. GOUTMAN: Right. Isn't that the same question?

MR. ZIEGLER: No, it's not.

MR. GOUTMAN: Why he put it in there versus the purpose of being in there? What's the distinction? You just asked the same question twice.

MR. ZIEGLER: No, I didn't.

THE WITNESS: I'm confused, I guess. Go ahead and ask me again.

BY MR. ZIEGLER:

Q. You don't understand.

A. I'm confused by the conversation and the question, so ask me the question again.

Q. I'm just trying to figure out what this sentence means in the context of the memorandum. That's all.

A. I don't know.

MR. GOUTMAN: Let's take a five minute break.

MR. ZIEGLER: Let me show you what we will have marked as Exhibit 6. (Indicating).

(Whereupon the above-referred to document was marked as Pierle Exhibit 6 for identification)

BY MR. ZIEGLER:

Q. If you could take a look at Exhibit Number 6, please. Look at it.

A. I will just peruse this document, if that's okay.

Q. That's okay for right now.

A. I have looked at the document generally.

Q. Is this a document that your group helped prepare regarding keeping PCBs out of the environment?

A. I have not seen this document before.

Q. Do you know who put together this document?

A. I do not. It was prepared at a time that I wasn't at the plant site, more than two years after I had left.

Q. Can you tell me, do you know if Monsanto ever implemented a policy in which it began to manufacture

more biodegradable polychlorinated biphenyls?

A. You know, my recollection is that there was an effort to develop lower chlorinated products. I don't recall the timing, nor the specific products.

Q. Do you recall that the purpose of that was to try to manufacture PCBs that were more biodegradable than the higher chlorinated types of PCBs?

A. That was one of the attributes. I don't know if that was the purpose of what they were trying to do.

Q. Did you have any responsibility with respect to the development of sophisticated systems of effluent monitoring at Monsanto?

A. I think we have described my involvement back at the plant site. That's my only recollection of being involved in sampling methods.

Q. If you could take a look at page 47695, these questions are directed toward your activities at this plant before August of 1970.

Are you on page 47695?

A. Yes.

Q. Under, "Steps to Eliminate Losses of PCBs"?

A. Yes.

Q. Under the first bullet regarding, "Installing

settling basins and directing all flow to these basins by improved paving, curbing and sloping", did you have any activity in this involvement at the plant?

A. I recall some of that being designed. I don't recall when it was complete.

Q. What about under the next bullet point regarding the, "Re-routing of the rupture disc lines and atmospheric vents through catch tanks"? Can you tell me what catch tanks are in this context?

A. In this context they are describing routing vents into larger tanks that would actually catch any materials if it came out of those lines. That's sort of the connotation of it.

Q. Was the purpose of these catch tanks to eliminate any escape of PCBs from the disk lines or the vents?

MR. GOUTMAN: Objection. You haven't established that this witness had any personal involvement with this.

BY MR. ZIEGLER:

Q. Did you have any personal involvement with this project?

A. None that I recall.

Q. All right. What about putting the nitrogen blankets on top of the tanks?

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

Q. The installation of the mist eliminators, did you have any --

A. No, I don't recall any.

Q. Do you recall when Monsanto began to move the sewers above grade at this plant?

A. No, I do not.

Q. Very quickly, if you could turn over to page 47698, toward the top of the page there's four bullet points. Do you see those?

A. Yes.

Q. And would you agree that PCB measurements can be changed dramatically, depending on any one of these four topics listed beside the bullet point?

MR. GOUTMAN: For monitoring effluent streams for PCBs? Is that what you are referring to?

MR. ZIEGLER: Yes.

BY MR. ZIEGLER:

Q. I'm not trying to change the context.

A. Yes, I think these were all factors in the sampling effectiveness.

Q. Were these issues that you had to deal with before or up to August of 1970 in monitoring the effluent?

A. Yes, I believe so.

Q. Let's move on to the next exhibit. This will be Exhibit 7. (Indicating).

(Whereupon the above-referred to document was marked as Pierle Exhibit 7 for identification)

BY MR. ZIEGLER:

Q. Ready?

A. I have read Exhibit 7.

Q. You authored Exhibit 7 on or about September 2, 1976; is that correct?

A. That's correct.

Q. And this is a letter to Howard Zar of the EPA; is that correct?

A. That's correct.

Q. And tell me what your purpose was in writing to Mr. Zar.

A. I sort of recall that the federal EPA at this time had sent us a request for information and what this was was an attempt to respond to that letter.

Q. Is it true that Monsanto made certain

commitments to the EPA regarding its PCB air emissions?

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

BY MR. ZIEGLER:

Q. I'm looking at the second page, last line.

A. The, "I trust" line?

Q. Yes. Can you tell me what Monsanto's commitments to the EPA were that prompted the making of this letter?

A. I think the way I read this is that the information we provided fulfills the commitments made by Monsanto with respect to past PCB discussions. I don't recall whether that was just a commitment to respond or what. I don't know what the specific commitment is; it just says past discussions.

Q. All right. Let's move on.

Do you recall in 1976 representing to the EPA that Monsanto's PCB operation in -- how do you pronounce it; Sauget?

A. Sauget.

Q. Illinois had PCB emissions of less than one pound per day?

A. Did I just read that in that prior?

(Indicating) .

MR. GOUTMAN: He's asking you whether you recall that now.

BY MR. ZIEGLER:

Q. Yes.

A. My reference is that it seems to me there was a reference to that note to that or one of the other documents. I don't recall it independent of the conversations that we are now having.

MR. ZIEGLER: This will be Pierle Exhibit 8. (Indicating)

(Whereupon the above-referred to document was marked as Pierle Exhibit 8 for identification)

BY MR. ZIEGLER:

Q. Have you had a chance to look at Exhibit Number 8?

A. Yes.

Q. This Exhibit Number 8 is a letter from you to Mr. Roy Harsch dated December 6, 1976; is that correct?

A. Yes, it is.

Q. And you are attaching certain PCB effluent data; is that correct? Relating to the Krummrich

plant.

A. And the Village of Sauget waste water treatment plant.

Q. If you could turn over to the pages that follow this, can you tell me, from this information, is it possible to calculate the total daily emissions from either the Krummrich plant or the Sauget waste treatment plant?

When I say "the amount", I'm thinking can we calculate pounds per day from this data?

A. You should be able to.

Q. How would I go about doing that?

A. Well, in each case the pounds per day is a product of the concentration, times the flow, times some factor that adjusts for units. Conversion units.

Q. You would have to convert from gallons to liters so that you could --

A. You would have to get them all on either metric units or all on English units, and then there has to be conversion to then get to pounds and then pounds per day.

Q. I see. So essentially, if I wanted to figure out the pounds per day, I can convert gallons per

minute to liters per minute, and then calculate how many milligrams per minute would be released, and then from that calculate an average for the entire day, and then convert it back to pounds if I wanted to; right?

A. As long as those samples were taken over a daily period of time or something, yes. And I don't know what the description of the samples, themselves, are.

MR. ZIEGLER: This will be Exhibit 9. (Indicating)

(Whereupon the above-referred to document was marked as Pierle Exhibit 9 for identification)

BY MR. ZIEGLER:

Q. I'm showing you what has been marked as Exhibit Number 9. My question is simply did you submit Exhibit Number 8 in response to Mr. Zar's letter, which has been marked as Exhibit Number 9?

A. Could you repeat the question or read it back?

Q. The question is simply your transmittal, which is contained in Exhibit Number 8, is that in response to Mr. Zar's letter, which is Exhibit Number 9?

A. These appear to be a sequence of

communications: The September second letter transmitting data, the November letter from EPA requesting additional information, and then the submission of the supplemental data in the December six memorandum.

MR. GOUTMAN: Are you done with that one?

BY MR. ZIEGLER:

Q. Is that your answer?

A. Yes.

Q. Just some final questions.

Do you recall any discussions that you had with anybody at Monsanto at any time before 1975 regarding the policing of uses of PCB containing products for the purpose of preventing environmental contamination?

A. I don't recall.

Q. Do you recall any conversations within Monsanto regarding the prolongation of the manufacture, sale, and use of Aroclors?

A. No.

Q. We talked about egg shells earlier. Do you recall any discussions concerning the toxicity of PCBs towards certain species to be high?

A. I don't recall specific concentrations about levels and outcomes and that, no.

Q. Did you have any involvement with the animal studies that Monsanto was conducting?

A. No.

Q. Were you aware that they were occurring?

A. No.

Q. Did you ever learn of any of the results of the animal studies?

MR. GOUTMAN: Other than in communications with counsel?

MR. ZIEGLER: Well, I don't want you to tell me about your communications with Mr. Goutman.

MR. GOUTMAN: Or other Monsanto counsel.

MR. ZIEGLER: Or other Monsanto counsel.

THE WITNESS: No.

BY MR. ZIEGLER:

Q. Did you ever look into the question of whether the prevalence of PCBs in the environment was of natural origin?

A. I don't recall doing that.

Q. Do you recall that subject ever being discussed within your environmental groups?

A. I do not.

Q. Do you ever recall any discussion within your environmental group that Monsanto was, in view of the moral considerations, should notify all Aroclor customers of the environmental contamination problem?

A. No.

Q. Do you recall any discussion within your environmental group that Monsanto should consult with appropriate federal agencies to inform them of Monsanto's research and PCB control efforts?

A. Could you restate the front part of your question?

Q. My question is really not regarding the consultations or the communications, themselves, but whether you were involved in any sort of decision within Monsanto that Monsanto should be consulting the appropriate federal agencies in Washington to inform them of Monsanto's research and control efforts.

A. No.

Q. Was part of your job from 1975 onward to, in whole or in part, to contact universities and laboratories in connection with PCB environmental contamination?

A. No.

Q. Do you have any recollection of, in terms of effluent standards, what PCB levels you were trying to achieve?

MR. GOUTMAN: When?

MR. ZIEGLER: After 1975.

MR. GOUTMAN: In what medium?

MR. ZIEGLER: Meaning --

MR. GOUTMAN: Water run off? Is that what you are talking about?

MR. ZIEGLER: Actually, I'm thinking about the Sauget plant.

THE WITNESS: I don't recall the level.

BY MR. ZIEGLER:

Q. Was part of your job determining the release of Aroclors from burning or partial incineration of waste containing Aroclors?

A. No.

Q. Did you ever deal with Aroclor vapor losses in connection with plasticizer applications?

MR. GOUTMAN: Objection. Overly broad. What does that mean? You mean the manufacturing process?

MR. ZIEGLER: Really, in any connection

in terms of plasticizer applications.

BY MR. ZIEGLER:

Q. Did you ever study or look into or provide anybody information regarding PCB vapor losses from those types of products?

MR. GOUTMAN: You mean the finished product?

MR. ZIEGLER: Yes.

THE WITNESS: I don't recall ever having done that.

BY MR. ZIEGLER:

Q. Do you recall ever discussing the issue of PCB pollution and caulking compounds and sealants while you worked at Monsanto?

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

THE WITNESS: No.

MR. ZIEGLER: No further questions. Thank you for your time, sir.

MR. ROUX: I have no questions.

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BY MR. JUETTNER:

Q. Mr. Pierle, my name is John Juettner and my law firm respects a co-defendant, ChemRex, in this

case. I have just a few follow-up questions.

Mr. Pierle, you testified that you were involved with an environmental group when you were working in St. Louis starting in approximately 1975.

A. Within Monsanto Company?

Q. That's correct.

A. Yes.

Q. Do you recall who the members of that group were at that time?

A. I believe it was Des Hosmer, Paul Hodges, Mort Mullins, and Garth Fort.

Q. And with regard to the group's involvement in examining PCB emissions, are those the individuals that have, that took part in the evaluation of PCB emissions?

A. We each had different areas of assignments and we tend to not get into one another's different issues, so it would be wrong to characterize that that group was all involved in the PCBs issues. That was not the practice of that group.

Q. Whatever the practice of that group was, was it focused on the emissions of PCBs from that particular manufacturing plant or manufacturing plants of Monsanto?

A. No, the focus of that group was basically any matters and issues with respect to the environment at all of the plant sites within those divisions.

Q. With regard to your job responsibilities through the course of your career at Monsanto, were you involved at all in the marketing of PCBs to Monsanto customers?

A. No.

Q. Were you involved at all in recommending or evaluating uses of PCBs in products manufactured by Monsanto customers?

A. No.

Q. Have you ever heard of Sonneborn Building Products?

A. No, I have not.

Q. Do you know anything about PCBs being used as an ingredient in any type of caulk or sealant?

A. No, I do not.

Q. Do you know anything about PCBs migrating from a PCB containing product to a non PCB containing product?

MR. GOUTMAN: Objection. Overly broad. You can answer if you can.

THE WITNESS: No, I don't.

MR. JUETTNER: That's all I have.

MR. GOUTMAN: Let's take a 60 second break here.

(Deposition recessed) .

MR. GOUTMAN: No questions.

(Witness excused.)

(Deposition concluded at 12:45 p.m.)

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C E R T I F I C A T E

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I, JOHN W. BEGLEY, a Registered Professional Reporter and Notary of the State of Pennsylvania, do hereby certify that I reported the deposition of Michael A. Pierle in the foregoing matter; that the foregoing is a true and correct transcript of the stenographic notes of testimony taken by me.

I FURTHER CERTIFY that I am not an attorney or counsel of any of the parties; nor a relative or employee to any attorney or counsel connected with the action, nor am I in any way interested in the result of said case.

JOHN W. BEGLEY

DATE:

*NOTE: The certification appended hereto does not apply to any reproduction of same unless under the direct control and/or supervision of the certifying court reporter.

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Read your deposition over carefully. It is your right to read your deposition and make any changes in form or substance. You should assign a reason in the appropriate column on the errata sheet for any change made.

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Then sign your deposition at the end of your testimony in the space provided. You are signing it subject to the changes you have made in the errata sheet, which will be attached to the deposition before filing. You must sign it in front of a witness. Have the witness sign in the space provided. The witness need not be a notary public. Any competent adult may witness your signature.

Return the original errata sheet & transcript to the deposing attorney, (attorney asking questions) promptly! Court rules require filing within 30 days after you receive the deposition. Thank you.

ERRATA SHEET

PAGE	LINE #	CHANGE	REASON THEREFOR
23	5	"thalate" to "phthalate"	Spelling
23	11	"thalate" to "phthalate"	Spelling
44	18	"don't" recall to "do" recall	Transcription

SIGNATURE PAGE

OF

MICHAEL A. PIERLE

I hereby acknowledge that I have read the aforegoing deposition and that the same is a true and correct transcription of the answers given by me to the questions propounded, except for the changes, if any, noted on the attached errata sheet.

SIGNATURE: Michael A. Pierle

WITNESSED BY: Susan K. Wendler

DATE: 9/22/98

LAWYER'S NOTES

PAGE	LINE	