

In The Matter Of:

*Nevada Power Company v.
Monsanto Company, et al.*

*Cumming M. Paton
March 18, 1993*

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA
NEVADA POWER COMPANY,)
Plaintiff,)
-vs-) # CV-89-555-LDG (LRL)
MONSANTO COMPANY, GENERAL)
ELECTRIC CORPORATION, et al.,)
Defendants.)
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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA
NEVADA POWER COMPANY,)
Plaintiff,)
-vs-) # CV-89-555-LDG (LRL)
MONSANTO COMPANY, GENERAL)
ELECTRIC CORPORATION, et al.,)
Defendants.)
DISCOVERY DEPOSITION OF WITNESS, to be used in an
action pending in the District Court of the United States,
for the District of Nevada, wherein NEVADA POWER COM-
PANY is
Plaintiff, and MONSANTO COMPANY, et al. are Defendants,
pursuant to Notice, under the provisions of Rule 26 of the
Rules of Civil Procedure, taken on March 18, 1993, at the
law offices of Messrs. Husch & Eppenberger, 100 North
Broadway, St. Louis, Missouri, before John T. Concannon, a
Notary Public within and for the State of Missouri.
APPEARANCES
The Plaintiff was represented by Mr. Ralph A.
Bradley, of the law firm of Bradley & Merrell, c/o Jones,
Jones, Close & Brown, 300 South Fourth Street, Ste. 700,
Las Vegas, Nevada, 89101.
The Defendant, Monsanto Company, was represented by
Mr. Bruce A. Featherstone, of the law firm of Kirkland &
Ellis, 1999 Broadway, Ste. 4000, Denver Colorado, 80202.
The Defendant, Westinghouse Corporation, was
represented by Ms. Laurie Basch, of the law firm of Weil,
Gotshal & Manges, 767 Fifth Avenue, New York, New York,
10153.

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[1] CUMMING M. PATON,

[2] of lawful age, being first duly sworn
to tell the truth, [3] the whole truth, and
nothing but the truth, deposes and [4]
says on behalf of the Plaintiff, as follows:

[5] DIRECT EXAMINATION

[6] QUESTIONS BY MR. BRADLEY:

[7] Q: Mr. Paton, my name is Ralph Brad-
ley and you [8] and I were introduced to
one another just a minute or so [9] ago;
is that correct?

[10] A: Yes.

[11] Q: You understand that I represent
Nevada Power [12] Company in a lawsuit
they brought against Monsanto, General
[13] Electric and Westinghouse?

[14] A: So I understand.

[15] Q: Have you had your deposition
taken before?

[16] A: Yes.

[17] Q: If, during the course of this
deposition, I [18] ask a question that's not
clear to you, will you tell me?

[19] A: Yes.

[20] Q: And if you give an answer to one
of my [21] questions, I'm going to assume
you understood the question. [22] Fair
enough?

[23] A: Well, I think some clarification of
that. I [24] think it depends how you
word the question but if I've got [25] any
doubt, I will ask.

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[1] Q: All right. And if, during the course
of your [2] deposition, you ever want to
take a break, you let us know [3] and we'll
accommodate you.

[4] A: Thank you.

[5] Q: You're welcome. What is your
present [6] residential address?

[7] A: 13300 Fairfield Circle Drive,
Chesterfield, [8] Missouri, 63017.

[9] Q: Are you presently employed?

[10] A: I'm self-employed.

[11] Q: What kind of work do you do?

[12] A: International business consult-
ing.

[13] Q: Do you own the business?

[14] A: Yes.

[15] Q: What's the name of it?

[16] A: Paton Associates, Limited.

[17] Q: Does it have an office in St. Louis?

[18] A: Yes.

[19] Q: How long have you been self-
employed with [20] international busi-
ness consulting?

[21] A: Eighteen months.

[22] Q: I want to ask you some questions
now about [23] your educational back-
ground. Did you attend college?

[24] A: Yes.

[25] Q: Where?

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[1] A: University of Aberdeen, in Scot-
land.

[2] Q: Did you receive a degree from the
University [3] of Aberdeen?

[4] A: Yes.

[5] Q: What degree did you receive?

[6] A: I received two. I received a B.S.C.
in [7] Chemistry.

[8] Q: And what other degree?

[9] A: Ph.D.

[10] Q: In what?

[11] A: Polymer Chemistry.

[12] Q: Would you spell?

[13] A: P-o-l-y-m-e-r.

[14] Q: What is polymer chemistry?

[15] A: It's chemistry into polymers,
which are the [16] type of chemicals that
make up plastics.

[17] Q: When did you receive your
Ph.D.?

[18] A: 1959.

[19] Q: When did you receive your
Bachelors?

[20] A: I received both degrees at the
University of [21] Aberdeen.

[22] Q: When did you receive your
bachelors?

[23] A: Sorry. 1955.

[24] Q: Have you taken any post-graduate
courses [25] following completion of
your Ph.D.?

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[1] A: I started an MBA degree at Case
Western [2] Reserve, oh, probably back
'65, 1965, but I did not [3] complete it
because I moved to St. Louis and didn't
pursue [4] it anymore.

[5] Q: Have you taken any post-graduate
courses in [6] chemistry following
receipt of your Ph.D.?

[7] A: No.

[8] Q: What work did you do following
completion of [9] your doctoral pro-
gram?

[10] A: I joined Monsanto Chemicals,
Limited in South [11] Wales.

[12] Q: Was that in 1959?

[13] A: Yes.

[14] Q: Was Monsanto Chemicals in
South Wales owned by [15] Monsanto
Company here, in St. Louis?

[16] A: Yes.

[17] Q: What was your job title when you
began working [18] with Monsanto
Chemicals in South Wales?

[19] A: I was known as a Research
Chemist, I think.

[20] Q: How long was your title Research
Chemist?

[21] A: Oh, I forget now. I was with them
[22] three-and-a-half years, and I was in
the research and then [23] I moved into
a more, what we call application re-
search, [24] dealing with polymer
products that Monsanto produced.

[25] Q: During the three-and-a-half years
that you

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[1] were with the Monsanto Chemicals
in South Wales, was your [2] job title ever
anything, other than Research Chemist?

[3] A: It might have been. I can't remem-
ber.

[4] Q: All right. And what kind of work
did you do [5] as a research chemist?

[6] A: I would have been involved in the
processing, [7] the manufacture of
products; looking at them from a pilot [8]

plant scale as to whether or not they could be translated [9] into manufacturing.

[10] Q: While you were at Monsanto Chemicals in South [11] Wales, were you working with any chlorinated aromatic [12] hydrocarbons?

[13] A: Not that I can recall.

[14] Q: Do you know what a chlorinated aromatic [15] hydrocarbon is?

[16] A: Yes.

[17] Q: What did you do following the three-and-a-half [18] years you were at South Wales?

[19] A: I then joined the Geigy Company.

[20] Q: G-e-i-g-y?

[21] A: That's right. Uh-huh.

[22] Q: And where were they located? Where were you [23] working when you worked for the Geigy Company?

[24] A: Manchester, England.

[25] Q: Did that begin in 1962, 1963?

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[1] A: 1962.

[2] Q: What work did you do for them?

[3] A: I was head of one of their laboratories.

[4] Q: How long were you with them?

[5] A: Probably around two years, I think.

[6] Q: What work did you do as head of one of their [7] laboratories?

[8] A: This was a laboratory where we handled [9] customer service issues, tried to developed products to [10] suit customers' needs and I supervised the work of that [11] laboratory.

[12] Q: While you were at Geigy Company, did you work [13] with any products that contained chlorinated aromatic [14] hydrocarbons?

[15] A: I don't think so.

[16] Q: Where did you work next?

[17] A: Then I moved to the United States.

[18] Q: Where?

[19] A: Banessville, Ohio.

[20] Q: What did you do in Banessville, Ohio?

[21] A: I worked for Diamond - I think at the time, it [22] was Diamond Alkali Company, and I was responsible for [23] customer technical service on the new products that they [24] were developing.

[25] Q: I got the first name as Diamond. I didn't get

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[1] the second name.

[2] A: Alkali, A-l-k-a-l-i.

[3] Q: What was the new product they were developing?

[4] A: Oh, it was Polysulfide, I believe is what you [5] call it chemically. P-o-l-y-s-u-l-f-i-d-e.

[6] Q: Was Polysulfide a chlorinated aromatic [7] hydrocarbon?

[8] A: No.

[9] Q: How long did you work for Diamond Alkali?

[10] A: Two years.

[11] Q: What was your job title there?

[12] A: I think it was something like Senior [13] Development Chemist, or something like that. Again, time [14] passes. I've forgotten.

[15] Q: Did your work with Diamond Alkali begin in [16] 1964?

[17] A: Yes.

[18] Q: And you left there in 1966?

[19] A: That's right.

[20] Q: Where did you go?

[21] A: I came to Monsanto Company in St. Louis.

[22] Q: Why did you go to Monsanto Company in St. [23] Louis?

[24] A: Because I found that, although I enjoyed [25] living in the States very much and decided this is where I

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[1] wanted to stay, the job at Diamond Alkali was not very [2] satisfying. They had commercialized the product too early, [3] so it had many problems, a lot of issues. So I decided I [4] hadn't made a good move, although I felt I made the right [5] move in terms of my personal life, so I started to look [6] around and Monsanto was advertising a position in the [7] commercial area, which I wanted to get into, and so I [8] applied and got the job.

[9] Q: What was your job title when you began working [10] for Monsanto Company?

[11] A: When I came to Monsanto, I was called a [12] Product Specialist.

[13] Q: What work did you do as a Product Specialist?

[14] A: I would have assisted the sales force, giving [15] them some commercial direction, making customer visits with [16] them and in particular, trying to give product knowledge. [17] Help the salesmen present to the customer what the benefits [18] of our particular product was and how it should be properly [19] used and all that sort of thing.

[20] Q: How long were you a product specialist?

[21] A: I think for just over a year.

[22] Q: Were you working with chlorinated aromatic [23] hydrocarbons as a product specialist?

[24] A: No. The group I was in was called [25] Plasticizers, and they had a group of products that went by

Page 12

[1] that name. I don't think, when I first started, that that [2] was the area that I was directly involved in, although I [3] began to learn a bit about them.

[4] Q: What was your next job title?

[5] A: I was then promoted to be a Market Manager for [6] Specialty Plasticizers in the same group.

[7] Q: What are plasticizers?

[8] A: They are products that are often used to [9] modify plastics, to make them more flexible, maybe to give [10] them other benefits such as resistance to attack or fire [11] resistance or - you know, there's a variety of different [12] ways in which they can modify the properties of plastics.

[13] Q: When you became market manager for [14] plasticizers, how many employees did you have?

[15] A: I had one - As best I remember, I had one [16] person, I think, directly reporting to me.

[17] Q: And do you recall the name of that person?

[18] A: Ken Wells, W-e-l-l-s.

[19] Q: When you were market - I'm sorry. How long [20] were you Market Manager for Plasticizers?

[21] A: About two years.

[22] Q: Did you become market manager in 1967?

[23] A: It would have been the beginning of 1968.

[24] Q: And then in 1970, your job title changed?

[25] A: Yes. Yes.

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[1] Q: What was your job title in 1970?

[2] A: It was Area Marketing Manager for the Organic [3] Division of Monsanto, and the area was Latin America.

[4] Q: While you were Marketing Manager for [5] Plasticizers, were you working with any products that [6] contained chlorinated aromatic hydrocarbons?

[7] A: Yes.

[8] Q: Which products?

[9] A: They would have been known by the tradename [10] Aroclor. They would have included Aroclor 1242, 1254, 45, [11] 60. It could have been any of them, but these were the [12] main ones, I believe.

[13] Q: Do you know what the "12" referenced in the [14] Aroclor 1242?

[15] A: Yes. That generally meant biphenyl.

[16] Q: All right. And were the last two digits the [17] percent of chlorine in the product?

[18] A: Yes.

[19] Q: What work did you do with the Aroclors as [20] marketing manager for plasticizers?

[21] A: Well, the role of Marketing Manager was to be, [22] if you like, the mini-business manager commercially for the [23] products. He would develop the commercial strategies, pass [24] these on to the sales force, have the normal interchange to [25] make sure they were developed correctly. He would give

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[1] guidance to the sales force; he'd be the focal point for [2] the sales force, or the customer queries, and just [3] coordinate along with the other functions of the company - [4] manufacturing, R&D; watched to be sure that everything [5] moved smoothly and in a coordinated fashion towards the [6] budgets and forecasts we developed.

[7] MR. FEATHERSTONE: Are we talking Marketing [8] Manager or Product Manager?

[9] MR. BRADLEY: Marketing Manager for [10] Plasticizers before he became —

[11] MR. FEATHERSTONE: I have it down here - maybe [12] I got it wrong. I have down here Product Manager and 1970, [13] became Marketing Manager.

[14] A: Sorry. It was Market Manager. 1968/1970 [15] would have been Market Manager.

[16] MR. FEATHERSTONE: All right.

[17] Q: (By Mr. Bradley) What products were you [18] involved with as market manager for plasticizers that [19] contained Aroclor?

[20] A: Well, we would have sold the Aroclor products, [21] as such. There might have been some plasticizer blends [22] using them, but I - Now, I just cannot remember if that [23] was the case or not.

[24] Q: As market manager for plasticizers, were you [25] involved in the sale of Aroclors to the manufacturers of

Page 15

[1] electric transformers and capacitors?

[2] A: Not as a market manager, no.

[3] Q: When you were market manager for plasticizers, [4] to whom did you report?

[5] A: I reported to a product manager, whose name [6] was Walt Waychoff.

[7] Q: During the time you were market manager for [8] plasticizers, did you have any conversations with Dr. Emmet [9] Kelly?

[10] A: Yes.

[11] Q: And what was the nature of those [12] conversations?

[13] A: They would have covered many things, because [14] he was responsible for, I guess, the industrial hygiene, [15] safety handling of products, and so it would have been [16] normal that, over the course of time, you would converse [17] with him if you wanted to learn something, and so that [18] would have happened in the case of Aroclor.

[19] Q: Prior to becoming market manager for [20] plasticizers, were you given any training in the toxic [21] makeup of Aroclors?

[22] MR. FEATHERSTONE: Object to the form.

[23] Q: (By Mr. Bradley) Okay. Actually, I'm going [24] to re-ask it. Prior to you becoming market manager for [25] plasticizers, were you given any training in the chemical

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[1] makeup of Aroclors?

[2] A: There wouldn't have been formal training but I [3] picked that up as I went along in my job, and there would [4] have been some sort of a briefing when I took over the [5] position as to what the product line was. I would have, [6] you know, met with the different experts in the company [7] that handled different phases and through that, I would [8] have picked up what I needed to know to start doing the [9] job, and then I added to that as I got more experience, [10] went on.

[11] Q: And did you have a briefing when you became [12] market manager regarding Aroclor?

[13] A: I can't specifically recall one now, but I [14] would have had to have sat down with someone, probably my [15] predecessor, and found out what was happening. There would [16] have been files and literature and so on, and I would have [17] absorbed that and learned that, which is standard for [18] whatever position I moved through.

[19] Q: And what would the files and literature that [20] you would have reviewed have covered?

[21] A: It would have covered many, many things. It [22] would have been customer call reports, probably bulletins, [23] pricing, applications. You know, a whole slew of things.

[24] Q: When you became market manager for [25] plasticizers, were you given any documents that discussed

Page 17

[1] the toxicity of Aroclors?

[2] A: As I recall, in some of our bulletins, there [3] was reference to precautions to be taken in using them. [4] That's normal with most products. They have to be

used [5] properly and caution has to be taken around any chemical.

[6] Q: When you became market manager for [7] plasticizers, did anybody tell you that Aroclor was [8] polychlorinated biphenyl?

[9] A: Well, a certain type of Aroclor is a [10] polychlorinated biphenyl, yes.

[11] Q: Are there Aroclors that are not [12] polychlorinated biphenyls?

[13] A: Yes.

[14] Q: And are those polychlorinated diphenyls?

[15] A: Yes.

[16] Q: Is 1242 a polychlorinated biphenyl?

[17] A: 1242 is a polychlorinated biphenyl.

[18] Q: And is 1254 a biphenyl or triphenyl?

[19] A: 1254 is a biphenyl.

[20] Q: What is 1260?

[21] A: Also a biphenyl.

[22] Q: Why don't you tell me what the polychlorinated [23] diphenyls are?

[24] A: One that I can recall is 5460.

[25] Q: When you became market manager for

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[1] plasticizers, had you heard of PCBs?

[2] A: No. I might have heard about them, as I said, [3] when I joined Monsanto in the plasticizer group. It would [4] have been difficult not to have heard the term, but when I [5] became aware of them and how they were used, that would [6] have been certainly when I became marketing manager.

[7] Q: All right. And do you recall what type of [8] bulletins you would have read as marketing manager which [9] described or referenced the precautions to be taken when [10] working with PCBs?

[11] A: There would have been bulletins on the use of [12] Aroclor as plasticizers. I might even have seen bulletins [13] on the use of Aroclors in other areas, non-plasticizer [14] areas.

[15] Q: And were these bulletins that were prepared by [16] Monsanto?

[17] A: Yes, they would have been prepared by [18] Monsanto.

[19] Q: And were they bulletins intended for Monsanto [20] employees?

[21] THE WITNESS: You mean for internal use only?

[22] MR. BRADLEY: No, I don't. Regardless of the [23] intended use, were they written to be reviewed just by [24] Monsanto employees?

[25] THE WITNESS: I'm not sure I quite understand.

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[1] Written just to be reviewed by Monsanto employees?

[2] Q: Let me ask it a different way. Do you know [3] whether the bulletins were intended to be given to Monsanto [4] customers buying products that contained PCBs?

[5] A: Yes.

[6] Q: And were, in fact, the bulletins given to [7] Monsanto customers that were purchasing Monsanto products [8] containing PCBs?

[9] A: Yes. If they requested it, some. Perhaps [10] some didn't have it, but they were certainly readily [11] available. They were an information tool and most [12] customers would probably have one.

[13] Q: How would a customer know to ask for it?

[14] A: I think just, you know, normal matter of [15] business practice.

[16] Q: All right. Do you recall what the title of [17] those bulletins were?

[18] A: Not exactly anymore.

[19] Q: Were they yearly bulletins?

[20] A: No. They would be revised if new information [21] came along but they weren't automatically revised every [22] year.

[23] Q: Were they called a bulletin?

[24] A: I think that was the general terminology. [25] Now, I'm sure, you know, like everything else, if I went to

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[1] tell, some would probably have a different title but the [2] name we used among ourselves, our customers, our sales [3] force would have been "bulletin."

[4] Q: If you had one of those bulletins here with [5] you today, would the cover sheet of it say "Bulletin?"

[6] A: I can think of one that could. There might be [7] others that didn't.

[8] Q: Did the bulletins that you reviewed when you [9] were a market manager for plasticizers indicate that PCBs [10] enter the body through the skin?

[11] A: I recall that one of the precautions had to do [12] with being sure that you, if you got into contact with the [13] skin, you ought to take precautions to, you know, wipe it [14] off, and I can't remember now what other things to do, but [15] you should take precautions if it got on your skin.

[16] Q: My question was, though, do you recall whether [17] the bulletins informed the intended readers of the bulletin [18] that PCBs enter the body through the skin?

[19] A: Well, I don't know about entering the body. [20] You're sort of somewhat putting words in my mouth.

[21] MR. BRADLEY: I don't mean to do that.

[22] THE WITNESS: Okay.

[23] Q: (By Mr. Bradley) What I want to know is [24] whether any of the bulletins that you reviewed as market [25] manager informed readers that PCBs enter the body through

Page 21

[1] the skin?

[2] A: I have not been involved in PCBs for about [3] sixteen or seventeen years, so for me to remember what's in [4] a bulletin today is extremely difficult but certainly, [5] there would have been ways in which people would have been, [6] indicated what prescriptions they should take, or where [7] they should go to get advice and things like that. As I [8] recall, the labels on our drums, for example, would have [9] indicated any precautions and, you know, go and seek [10] assistance.

[11] Q: All right. Are you represented by a lawyer [12] here, today?

[13] A: Yes.

[14] Q: Mr. Featherstone is your lawyer?

[15] A: Yes.

[16] Q: And did you review any documents in [17] preparation for today's deposition?

[18] A: I met this morning and was told a little bit [19] about the background of the particular case.

[20] Q: My question was, did you review any documents?

[21] A: I saw some documents, yes.

[22] Q: Which documents did you review this morning?

[23] A: I think they were documents, I believe, that [24] had been furnished to you.

[25] Q: What were they?

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[1] A: There was a pile of them. I cannot remember [2] them all.

[3] Q: I just want you to remember as many as you [4] can.

[5] A: I find — I mean, I glanced at them.

[6] Q: You can't recall the name of even one document [7] you reviewed this morning?

[8] A: I remember one that had to do with a [9] presentation I gave to a task force somewhere.

[10] Q: Do you remember any other documents you [11] reviewed this morning?

[12] A: I remember the nature of them.

[13] Q: And what was the nature?

[14] A: There were some letters that went to [15] customers.

[16] Q: Letters written by you?

[17] A: Maybe one or two cases, and letters written by [18] others.

[19] Q: Did you review any letters written by Monsanto [20] employees that went to an electrical utility company?

[21] A: I can't recall now if I did or didn't.

[22] Q: Did you review any letters written by Monsanto [23] employees regarding PCBs that were given to General [24] Electric?

[25] A: Yes. I think so.

Page 23

[1] Q: Did you review any letters that were written [2] by Monsanto employees regarding PCBs that were given to [3] Westinghouse?

[4] A: Yes.

[5] Q: Did the letters that went to GE and [6] Westinghouse refer to PCBs that were to be used with [7] electrical transformers or capacitors?

[8] A: I think there were letters that may have [9] referred to both in different letters.

[10] Q: When you became marketing manager for [11] plasticizers, were you told that in 1937, GE, General [12] Electric, had in the neighborhood of fifty to sixty men [13] afflicted with various degrees of acne as a result of their [14] exposure to a combination of chlorinated biphenyl and [15] chlorinated Naphthalene. Were you told that?

[16] A: I cannot remember.

[17] Q: Were you told that in 1936, GE reported that [18] eight or ten employees exposed to a combination of [19] chlorinated biphenyl and chlorinated Naphthalene were very [20] severely afflicted? Horrible specimens, as far as their [21] skin conditions were concerned?

[22] A: I cannot remember.

[23] Q: When you took that position, were you informed [24] that GE reported in 1937 that one man died, one of their [25] workers died, and the diagnosis may have attributed his

Page 24

[1] death to exposure to a combination of chlorinated [2] Naphthalene and chlorinated biphenyl?

[3] A: I cannot recall that, anything about that.

[4] Q: Is chlorinated biphenyl the same as PCBs?

[5] A: PCB means polychlorinated biphenyl.

[6] Q: Is chlorinated diphenyl the same as [7] chlorinated biphenyl?

[8] A: Yes, I think it is.

[9] Q: When you took this job as marketing manager [10] for plasticizers, were you told that back in 1937, Dr. [11] Lewis Schwartz informed Emmet Kelly, as medical director of [12] Monsanto, and General Electric, through its medical [13] director, and one other employee, that if there are any [14] cases of acne or of dermatitis occurring in a plant where [15] Halowax or the chlorinated Naphthalene or chlorinated [16] diphenyls are used, then that shows that there is [17] sufficient concentration of these substances in the air to [18] cause plugging of the follicles and to cause a skin [19] condition, and if there is a sufficient concentration to do [20] that, there may be sufficient concentrations to cause [21] systemic poisoning in the few people who are hypersensitive [22] to the action of these hydrocarbons?

[23] MR. FEATHERSTONE: Object to the form of the [24] question. You can answer.

[25] A: I cannot ever recall having gone through that,

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[1] but at the same time, you've mentioned two products that I [2] don't think - certainly weren't in the product line that I [3] had anything to do with.

[4] Q: (By Mr. Bradley) When you became marketing [5] manager for plasticizers, did anybody indicate to you that [6] a product named Halowax had been manufactured in the '30s [7] and '40s?

[8] A: I can't remember if they did or didn't.

[9] Q: As you sit here today, do you have information [10] about a product called Halowax?

[11] A: No.

[12] Q: Ever heard of it before today?

[13] A: I think the term sounds like something I may [14] have heard of during my career but trying the pinpoint in [15] what connection, I'm hardpressed to do it.

[16] Q: When you became marketing manager for [17] plasticizers, did anyone tell you that it had been known [18] since 1937 that if any worker exposed to chlorinated [19] diphenyl developed a skin or - skin rash or acne - that [20] that could be an indication that they were being [21] systemically poisoned?

[22] MR. FEATHERSTONE: Object to the form of the [23] question, and the form of the questioning.

[24] A: I honestly don't know how to answer that. [25] It's not very clear. I think the question, systemically

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[1] poisoned, seems to be putting an emphasis - which I'm sure [2] you have a

purpose in doing - but to me, kind of taints the [3] form of the question.

[4] Q: (By Mr. Bradley) Well, I don't mean to taint [5] the form of the question. As a chemist, do you know what [6] systemic poisoning means?

[7] A: I would regard that as being something [8] extremely serious but I don't know the exact medical [9] terminology that would be used for it.

[10] Q: Well, did Dr. Emmet Kelly, or anyone else at [11] Monsanto, indicate to you when you became marketing manager [12] for plasticizers that there was such a thing as systemic [13] poisoning possible for those folks exposed to PCBs?

[14] A: You know, there are poisonings and potential [15] poisoning, potential problems with any chemicals. When I [16] entered the chemical industry to make my career, which I [17] decided on very early, I knew I was dealing with materials [18] that had to be handled carefully but, you know, the extent [19] of that potential danger is, you know, is something that [20] can be dealt with rationally.

[21] Q: My question is whether Dr. Kelly, or anyone [22] else within Monsanto, had a discussion with you about that [23] topic when you became marketing manager for plasticizers?

[24] A: I don't - During the time I was market [25] manager, I had discussions over a period of years about the

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[1] potential toxicity of products, but I cannot recall that we [2] sat down specifically on that one. It would have - [3] You know, I wouldn't have expected there would have been a [4] need to, from my personal experience as a chemist.

[5] Q: And why wouldn't there have been a need to, [6] based upon your personal experience as a chemist?

[7] A: Because I don't think that PCBs are that [8] particularly toxic.

[9] Q: As marketing manager for plasticizers, do you [10] know whether Monsanto ever informed its customers that [11] workers exposed to chlorinated diphenyls could be suffering [12] systemic poisoning if they developed an acne like condition [13] from exposure to PCB?

[14] MR. FEATHERSTONE: Object to the form of the [15] question.

[16] A: I can't recall whether we did, but I think, as [17] I've indicated earlier, my recollection is that we [18] mentioned the need to, if contact with the skin occurred, [19] that steps should be taken to, presumably to wash it out. [20] I can't remember what we might have said about how to deal [21] with it. That

should have been known to those using it.

[22] Q: (By Mr. Bradley) As marketing manager for [23] plasticizers, did you inform Monsanto customers purchasing [24] products containing PCBs from your group that PCB's effects [25] on the liver were studied as early as 1936?

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[1] A: I don't know if I would have done that. [2] Personally, if I had received calls from customers who [3] might have asked questions about that, I would have [4] probably referred them to our medical department.

[5] Q: Well, do you know whether any of these [6] bulletins that you talked about that went out to Monsanto [7] customers indicated that PCB effects on the liver were [8] studied as early as 1936?

[9] A: I can't recall if we did that in there or not.

[10] Q: Do you recall whether any of these bulletins [11] that you gave to Monsanto customers when you were marketing [12] manager for plasticizers indicated that there were [13] morphological changes in the livers of rats resulting from [14] exposure to PCBs and that that was reported as early as [15] 1938?

[16] MR. FEATHERSTONE: Object to the form of the [17] questioning.

[18] A: I can't recall.

[19] Q: (By Mr. Bradley) Do you recall whether these [20] bulletins that went out to Monsanto customers when you were [21] marketing manager of plasticizers, the bulletins that you [22] were responsible for, contained any mention at all of PCBs' [23] effects on the liver?

[24] A: I can't recall.

[25] Q: Do you recall whether any of these bulletins

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[1] that you gave to Monsanto customers indicated that there [2] were pathologic changes in animals exposed to commercial [3] PCBs reported back in the '40s?

[4] A: I can't recall.

[5] Q: Do you recall whether these bulletins that you [6] gave to Monsanto customers indicated that back in the '50s, [7] the toxicity of the vapors of Aroclor 1242 and 1254 were [8] documented?

[9] MR. FEATHERSTONE: Object to the form of the [10] question.

[11] A: First, there's the assumption that I was the [12] only one handing out bulletins. I cannot recall now if I [13] actually revised one in the two years I was in the position [14] but, you know, other people could have given this out but I [15] cannot recall specifically if that was in there or not. I [16] would have to look and see.

[17] Q: (By Mr. Bradley) Do you recall if there was [18] any information in the bulletins that you gave out as [19] marketing manager for plasticizers regarding the toxicity [20] of the vapors of Aroclor 1242 and 1254?

[21] A: I cannot recall.

[22] Q: Have you ever heard the term polychlorinated [23] dibenzylfuran?

[24] A: Yes.

[25] Q: What is it?

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[1] A: I really am not too sure. It's something that [2] I heard, I think, maybe only after I ceased to work with [3] the products, or if I did, it was in the later stages of [4] working. It was not a product that I recall.

[5] Q: Did anybody from Monsanto's medical department [6] indicate to you what the toxicity of polychlorinated [7] dibenzylfurans are?

[8] A: I cannot recall. I seem to remember there [9] being discussion about that.

[10] Q: Do you know whether polychlorinated [11] dibenzylfurans were present in the PCBs manufactured by [12] Monsanto?

[13] A: As best as I know, they weren't.

[14] Q: And do you know whether —

[15] MR. FEATHERSTONE: I'm sorry. They weren't?

[16] A: They were not. As best I know, there were no [17] polybenzylfurans in Monsanto PCBs.

[18] Q: (By Mr. Bradley) Do you know whether the [19] bulletins that went out to Monsanto customers while you [20] were marketing manager for plasticizers talked at all about [21] polychlorinated dibenzylfurans?

[22] A: I cannot recall.

[23] Q: When you became marketing manager for [24] plasticizers, were you shown what is Plaintiff's Exhibit [25] 1373, which is criteria for recommended exposure for

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[1] polychlorinated —

[2] A: This is dated September, 1977 and I became [3] marketing manager in 1968. So I think the answer to that [4] is no.

[5] MR. BRADLEY: I apologize for the question.

[6] Q: (By Mr. Bradley) Were you told when you [7] became marketing manager for plasticizers about a Swedish [8] researcher whose last name was Jensen?

[9] A: Not when I became market manager.

[10] Q: During the two years that you were marketing [11] manager for plasticizers, did somebody tell you about the

[12] work of a Swedish researcher whose last name was Jensen?

[13] A: Yes. And I cannot now remember if someone [14] told me about it or if I saw something in the literature [15] about it, but it came to my attention during those two [16] years.

[17] Q: Do you know whether the bulletins that went [18] out to Monsanto customers while you were marketing manager [19] for plasticizers described the results of the studies of [20] the Swedish researcher whose last name was Jensen?

[21] A: I cannot recall. I think it's unlikely [22] because initially, it was difficult to determine just [23] exactly what the Swedish researchers had found.

[24] Q: Do you know whether, while you were marketing [25] manager for plasticizers, whether bulletins went out to

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[1] Monsanto customers that reported back in 1936, men working [2] with PCBs reported digestive disturbances, burning of the [3] eyes and impotence?

[4] MR. FEATHERSTONE: Object to the form of the [5] question.

[6] A: I cannot remember.

[7] Q: (By Mr. Bradley) Do you know whether the [8] bulletins that went out while you were marketing manager [9] for plasticizers indicated that PCBs might cause impotence [10] in people exposed to PCBs?

[11] A: I cannot recall that, no.

[12] Q: Do you recall whether the bulletins indicated [13] whether exposure to PCBs might cause digestive [14] disturbances?

[15] A: I cannot recall that.

[16] Q: Did the bulletins that went out while you were [17] marketing manager for plasticizers indicate that exposure [18] to PCBs might cause teratogenic effects?

[19] A: I can't recall that.

[20] Q: Do you know what a teratogenic effect is?

[21] A: I think it has something to do with tumors and [22] carcinogenicity, I believe, but I could stand corrected.

[23] Q: Do you know what the term embryotoxic means?

[24] A: I have a general idea but I'm not not [25] specialized knowledge.

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[1] Q: What is your general understanding of the [2] meaning of the words embryotoxic?

[3] A: Well, I would think it would be a potential [4] problem. What specific medical sense, I'm not an expert in [5] that area.

[6] Q: Do you know whether the bulletins that you [7] sent out, or Monsanto sent out to Monsanto's customers [8] while you were marketing manager for plasticizers indicated [9] that PCBs my be embryotoxic?

[10] A: I can't recall.

[11] Q: You indicated when you became market manager [12] for plasticizers, you reviewed some material that your [13] predecessor had, correct?

[14] A: Yes.

[15] Q: Did any of that material include studies [16] regarding the toxicity of PCBs?

[17] A: I can't recall at the moment that would be the [18] case but, you know, like several questions you've asked [19] previously, the question of toxicity, to judge whether [20] something is toxic or can cause problems needs to be very [21] specific. You know, many products can cause problems if [22] used in excessive dosages or incorrectly handled. I mean, [23] I can think if I, you know, took too much salt, I probably [24] would have a major problem, but in small doses is a very [25] essential part of my health. I think that is true of the

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[1] chemical industry. To say does something cause a problem, [2] I think you have to quantify in what range you're talking [3] about.

[4] Q: You're not suggesting that if you had salt, [5] that it would cause some kind of systemic poisoning, are [6] you?

[7] A: I think if you took two pounds of salt a day, [8] I would be in pretty dire shape, I would think.

[9] Q: Was it your understanding that in order for [10] PCBs to be harmful to Monsanto's customers, that somebody [11] would have to consume a couple of pounds a day of it?

[12] A: I don't think you can draw an exact parallel [13] between the analogy I made and this particular parallel.

[14] Q: How much PCBs would somebody have to ingest in [15] order to have some kind of health problems?

[16] A: I'm not an expert at all in that field.

[17] Q: If you're not an expert in the field, then how [18] was it determined what information would be given to [19] Monsanto's customers regarding the toxicity of the PCBs [20] that they were purchasing from Monsanto?

[21] A: Because when a product bulletin gets put [22] together, at least when I was employed in that sort of [23] capacity, it would be circulated to people that would have [24] the expertise to decide what should go in and how to write [25]

it and I would, in general, defer to that expertise.

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[1] Q: And when the bulletin was written for PCB [2] products while you were market manager for plasticizers, [3] were the bulletins reviewed by anyone with experience in [4] the toxicity of PCBs?

[5] A: I cannot say now because I cannot recall that [6] any had to be revised and re-issued when I was market [7] manager.

[8] Q: You don't know whether any of them were [9] reviewed by even one toxicologist, do you?

[10] A: I cannot recall today if I was responsible for [11] saying there needs to be a new bulletin written, and having [12] done it. I cannot remember.

[13] Q: Can you remember for me whether any of the [14] bulletins regarding PCBs intended for Monsanto customers [15] were ever reviewed by a toxicologist?

[16] A: I cannot answer that because I only was [17] responsible for one group of PCBs in a particular area.

[18] Q: But you told us that the bulletins were sent [19] out and reviewed by different people with expertise in [20] different areas?

[21] A: If a bulletin was revised or rewritten, that [22] would have been the procedure. I cannot remember if that [23] happened on my watch as a market manager or not.

[24] Q: All right. Do you know, during your watch as [25] a market manager, whether the bulletins Monsanto was

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[1] sending out to its customers were ever reviewed by a [2] medical doctor?

[3] A: That's a very general question. I can only [4] speak about the products that I had responsibility for and [5] I've told you, I cannot remember.

[6] Q: And I meant that to be just for the products [7] you were responsible for.

[8] A: Okay.

[9] Q: For those products, do you know whether the [10] bulletins were ever reviewed by a medical doctor?

[11] A: I cannot remember — As I say, I cannot [12] remember if I re-issued one. If it was one that had been [13] written before I became market manager, and the same [14] procedures were in place then, someone would have reviewed [15] it but I cannot recall if I did any new ones and therefore, [16] would have no reason to go and have them review it.

[17] Q: I take it, you don't know what procedures were [18] in effect for the development of the bulletins prior to [19] your becoming market manager for plasticizers?

[20] A: No, I don't. I mean, after all, I only joined [21] Monsanto in 1966.

[22] Q: So that I understand what you're saying -

[23] A: Sure.

[24] Q: You don't recall whether any of the bulletins [25] were changed while you were market manager for plasticizers

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[1] regarding any of the products you were responsible for that [2] contained PCBs?

[3] A: I cannot recall but we're now going back [4] twenty-five years in time. It's a long time.

[5] Q: When you were market manager for plasticizers, [6] you were selling PCB products to manufacturers who were [7] manufacturing plastics; is that correct?

[8] A: They would have been using plastics and they [9] would have been using the Aroclor, in general, as part of a [10] formulation.

[11] Q: And when you were market manager for [12] plasticizers, were you selling - your group - was your [13] group selling products - or PCBs, excuse me - to General [14] Electric?

[15] A: I think not.

[16] Q: Westinghouse?

[17] A: I don't think so.

[18] Q: Who were you selling them to?

[19] A: We would have been selling them to certain [20] coatings manufacturers who would have very specialized [21] coatings, resistant coatings; and the recommendation on the [22] formulas might have come from the producer of the resin [23] that goes into the coatings. I seem to recall companies [24] that produced rubber-type materials that could be used in [25] coatings recommending to their customers a formulation with

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[1] Aroclor in it would give a series of benefits. Therefore, [2] a lot of the business came as a result of that. That would [3] have been one group. Another application which fell into [4] my area - it doesn't fall into the definition of [5] plasticizers I gave you before - would have been NCR, [6] National Cash Register, as they were at the time. They [7] used the product in what was known as carbonless copy [8] paper, as a solvent.

[9] Q: Were you selling products for use in the [10] dental industry?

[11] A: I seem to vaguely remember this coming to my [12] attention, but it was a minute, minute application. In [13] fact, it might have been discontinued.

[14] Q: Do you know whether PCBs were put into the [15] things that fillings are made out of?

[16] A: I can't recall that. As I said, many of the [17] applications were developed by our customers and sometimes, [18] we wouldn't really know what they were using them for. I [19] think later, it might have - later, we discovered that [20] there was some but as I say, I think it was a minute area [21] and it might have been more of an academic specialty than [22] an actual commercial product. I cannot recall.

[23] Q: Other than NCR, do you recall the names of any [24] businesses that Monsanto sold products to under your [25] authority as market manager for plasticizers?

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[1] A: There would have been people that would have [2] been in the coatings business.

[3] Q: Do you remember the names of any businesses, [4] though?

[5] A: Let me think. I draw a blank. I think the [6] name H.B. Fowler is one that rings a bell. I think that [7] was hot melt adhesives.

[8] Q: Do you know where they were located?

[9] A: I think they were going — I'm going to say [10] Minneapolis area but I may be wrong.

[11] Q: All right. Do you remember the name of any [12] other businesses?

[13] A: I'm going to say we might have sold to [14] Hercules. They developed some of the marine coatings. I [15] don't know if we would have sold to them or sold to some of [16] their customers.

[17] Q: Where was Hercules located?

[18] A: They're in Delaware. We also sold products [19] through our distributors. So again, I wouldn't have known [20] what the distributors, I wouldn't necessarily have known [21] what they were —

[22] Q: Who were your distributors when you were [23] manager of plasticizers?

[24] A: I think there was a company called Plastic [25] Solvents. I don't know if they're in business.

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[1] Q: Where were they located?

[2] A: They were pretty much a national distributor [3] organization. I think they were in Chicago.

[4] Q: Do you recall any other distributors that you [5] sold to?

[6] A: I know there were others. I can't recall their [7] names now.

[8] Q: When you left — Let me ask it this way. [9] When you began work as market manager for plasticizers, did [10] you

review all of the bulletins that had ever been written [11] by Monsanto regarding Aroclor, or PCBs?

[12] A: I doubt that.

[13] Q: Do you know whether there was a file that [14] contained all of the previously written bulletins on PCBs?

[15] A: I don't know. I can't recall.

[16] Q: When you left as market manager of the [17] plasticizers, did you develop a file that contained all the [18] bulletins that had come through you regarding PCBs?

[19] A: I'd have left files behind so they would have [20] been available somewhere in the department when I left.

[21] Q: Well, did the files that you maintained [22] include the bulletins?

[23] A: There would have been bulletins in the files.

[24] Q: All right. Are you familiar with the term [25] biomagnification?

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[1] A: I've heard it. It was used when I was around [2] a particular group of products but I can't recall now. No, [3] I can't recall specifically how it would be used in a [4] strictly scientific sense, with some of my research [5] colleagues. I would rather not define that.

[6] Q: Do you recall ever learning that [7] biomagnification operates with PCBs in the human food [8] chain?

[9] A: I've heard that concept discussed, yes.

[10] Q: Do you recall whether any of the bulletins [11] that went out to Monsanto customers while you were market [12] manager for plasticizers mentioned the fact that PCBs [13] biomagnify in the human food chain?

[14] A: I cannot recall. My recollection is that at [15] the time, at that point in time, the first indication of [16] so-called persistence, if you will, in the environment for [17] certain products came around this Jensen/Widmark paper. I [18] seem to remember it was sort of the first of that sort, you [19] know, that went into that.

[20] Q: And the Jensen/Widmark paper was written in [21] '66, published in '66?

[22] A: Could be. I can't remember.

[23] Q: Did you review the Jensen/Widmark paper in [24] '66?

[25] A: I would have no reason. No, sir, I didn't. I

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[1] would have had no reason to.

[2] Q: Do you recall whether you reviewed it in '68?

[3] A: Yes. I think I do recall it probably was in [4] '68 when I did see it.

[5] (Whereupon, a discussion was held between Counsel, off the [6] record.)

[7] Q: (By Mr. Bradley) What were your job [8] responsibilities as marketing manager for the organic [9] section of Monsanto with an area of Latin America?

[10] A: I would have been responsible for traveling [11] throughout Latin America and Central America and Mexico - [12] well, all of Latin America - visiting our agents in certain [13] countries, visiting the branch offices where we had our own [14] salespeople and working with them to train them, if need [15] be; visit key customers with them, explain our products, [16] giving them commercial guidance; being the person that they [17] would come to if they had commercial or product application [18] questions; and then I would work with them to set budgets [19] and review performance and things like that.

[20] Q: Were PCBs considered to be part of the organic [21] section of Monsanto?

[22] A: Yes, they would have been.

[23] Q: How long were you the marketing manager for [24] the organic section of Monsanto for Latin America?

[25] A: Almost two years.

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[1] Q: To whom did you report?

[2] A: I reported to a man called Frank Bushong, [3] B-u-s-h-o-n-g.

[4] Q: And what was his job title?

[5] A: He was Director of Marketing for Latin [6] America.

[7] Q: During the time you were marketing manager for [8] the organic section of Monsanto in Latin America, was there [9] a group within Monsanto known as a business group that was [10] assigned to work with PCBs?

[11] A: I cannot recall that.

[12] Q: During the time that you were employed with [13] Monsanto, was there ever a group called the business group [14] that was assigned to work with PCBs?

[15] A: The terminology "business group" was used. I [16] don't think there was a business group which was specific [17] on PCBs. It would have been a business group on, I think, [18] functional products. I mean, we went through various name [19] changes and various organizational changes.

[20] Q: Was there a business group — During the time [21] that you were employed at Monsanto, was there a business [22] group that was responsible for products containing PCBs?

[23] A: The group — I think at some point, all the [24] PCB products came under one group but the group had other [25] products besides PCBs.

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[1] Q: What was the — Was the business group known [2] as the business group?

[3] A: It would have been like the, I'm going to say [4] the fluids business group or the functional products [5] business group or — You know, every two years, it would [6] probably change.

[7] Q: When there was a functional products business [8] group, who, by job title, would have been a member of that [9] group?

[10] A: At some point, I would have been part of that, [11] myself. The head of it at one time, I think, was - might [12] have been Howard Bergen, or he might have been functional [13] fluids business group. You know, I —

[14] Q: I'm interested in knowing the job titles of [15] those people who were members of the business group under [16] which PCBs fell.

[17] MR. FEATHERSTONE: At what point in time?

[18] MR. BRADLEY: Well, I take it, it changed over [19] the course of time.

[20] A: It did.

[21] Q: (By Mr. Bradley) Let's start with the first [22] time you were aware of the business group having to do with [23] P-under which PCBs fell. What year was it and what kind [24] of job titles were involved in the group?

[25] A: I think the best time to put you in, from my

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[1] prospective, would have been probably the latter part of [2] 1971.

[3] Q: All right. And which business group was [4] responsible for PCBs in the latter part of '71?

[5] A: I think it was the functional products group [6] but I cannot be absolutely sure of that now.

[7] Q: Okay. And who were - not by name but by job [8] title - who were the members of the functional products [9] group?

[10] A: You would have had market managers; product [11] managers; a research director; a marketing director; sales [12] manager. You would have had a business director or a [13] business group director, something like that.

[14] Q: All right. And was there ever a point in time [15] where the business group responsible for PCBs changed [16] following the latter part of 1971?

[17] A: As I say, I don't think there was ever a [18] business group just devoted to PCBs alone. They were [19] devoted to product groups that contained PCBs, and that [20] changed because over the years from, I think about early [21] '70 on through mid '73 or so, there was a phas-

ing out of [22] certain of those particular products.

[23] Q: Following the latter part of 1971, was there a [24] change in the group, the business group, responsible for [25] PCBs?

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[1] A: Well, if you say a change at the product [2] manager level, yes. I became — I was brought in as [3] product manager for a certain number of these groups.

[4] Q: Well, you indicated that the functional [5] products group was the business group umbrella under which [6] PCBs fell in the latter part of 1971?

[7] A: Yes. That's right.

[8] Q: Was there ever a time when the umbrella [9] business group for PCBs was not the functional products [10] group?

[11] A: I don't think so. It may have changed names [12] and products may have been rearranged and some moved here [13] and there, but after '71, the phaseout, they stayed in the [14] same general management area.

[15] Q: All right.

[16] THE WITNESS: Excuse me. Can I take a break [17] and get the glass of water?

[18] MR. BRADLEY: Yes. Of course. [19] (Whereupon, a ten minute recess was taken.)

[20] Q: (By Mr. Bradley) Did the functional products [21] group prepare reports regarding products containing PCBs [22] beginning with the latter part of 1971?

[23] A: Well, that's a very general question. Reports [24] would have been prepared on the activities of product [25] groups and if they had PCBs in them and there were PCB

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[1] issues, they would have been brought forward, but reports [2] in any business group are written - say a monthly sales [3] manager report - then I would get from my market manager a [4] report of what they had been doing and I'd condensed and [5] summarized that, send it on; research would write a report [6] and they would all wind their way to the business group [7] director who would then probably send out an executive [8] style report that would be read by the higher management [9] levels of, say - in those days, I think we probably had an [10] organic division, or whatever entity it was within [11] Monsanto.

[12] Q: You referred to a business group director. [13] Would that have been the director of the functional [14] products group?

[15] A: There would have been a director for that [16] group, yes.

[17] Q: And the functional products group is what you [18] referred to as the business group?

[19] A: Yes.

[20] Q: All right. During the time that you were [21] marketing manager for the organic section of Monsanto for [22] Latin America, did you distribute to Monsanto customers [23] bulletins regarding products containing PCBs?

[24] A: Probably. I can't remember specifics but I [25] personally probably wouldn't have done it. It would have

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[1] been more like our agents or salespeople.

[2] Q: All right.

[3] A: Because they would have been, in all [4] likelihood, I think, written in Spanish but I can't say for [5] sure.

[6] Q: Did you ever see any bulletins written in [7] Spanish that were distributed throughout Latin America [8] while you were head of the organic section?

[9] A: I can't recall. It might have been in [10] English, or it may have been in Spanish, depending normally [11] on how the market was for the product at that time.

[12] Q: You were the marketing manager for the organic [13] section from '70 to '72?

[14] A: The early part of 1970 until, I think, the [15] latter part of 1971. I can't recall the months but it was [16] very early 1970 until the latter part of 1971. I may be [17] off by a few months. I don't know actually.

[18] Q: While you were marketing manager for the [19] organic section of Monsanto, did you review any bulletins [20] that were written in English that were intended for [21] Monsanto customers within the United States regarding PCBs?

[22] A: I don't think so.

[23] Q: When you were marketing manager for the [24] organic section, did you have any discussions with [25] Monsanto's medical department regarding the toxicity of

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[1] PCBs?

[2] A: I can't recall that.

[3] MR. FEATHERSTONE: When you use the phrase [4] "marketing manager for the organic section," the organic [5] section, I think, covered a more broader geographic area [6] than Latin America.

[7] MR. BRADLEY: Well, whenever I referred to you [8] as marketing manager for the organic section, it was [9] understood that was just for Latin America, and

that's how [10] I'll understand your answer in the transcript.

[11] THE WITNESS: That's how I have been answering [12] the question.

[13] MR. FEATHERSTONE: Fine.

[14] MR. BRADLEY: It's just too long a sentence to [15] have to repeat all that, so I abbreviated it a little.

[16] THE WITNESS: Maybe say marketing manager, [17] Latin America. That could be unambiguous.

[18] MR. BRADLEY: All right.

[19] Q: (By Mr. Bradley) As marketing manager for [20] Latin America, did you - did Monsanto prepare documents [21] that informed Monsanto customers within Latin America [22] regarding the toxicity of PCBs?

[23] A: I cannot recall whether they did or not, but [24] that's simply — I cannot remember the specifics. It's [25] not to say they didn't.

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[1] Q: What job did you have, move to, at the end of [2] 1971?

[3] A: I became product manager for three groups of [4] fluids, as I recall - heat transfer fluid, dielectric [5] fluids and I think process solvents, I think was the third [6] group.

[7] Q: In that job, were you the head of the [8] functional fluids group?

[9] A: No. Because there was another — I had a [10] counterpart at the same level who dealt with aviation [11] fluids and hydraulic fluids.

[12] Q: At least at the end of '71, you were the head [13] of the fluids group for dielectric fluids?

[14] A: For dielectric fluids, heat transfer fluids [15] and for what we call process solvents, yes.

[16] Q: And Monsanto manufactured PCBs to be used as [17] dielectric fluids?

[18] A: That's right.

[19] Q: Those were Aroclors?

[20] A: Some were sold as Aroclors. They were sold [21] under different trademarks.

[22] Q: Such as?

[23] A: The names, I think, of Pyranol and Inerteen [24] ring a bell.

[25] Q: Does it ring a bell that Inerteen was a

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[1] product name for Westinghouse?

[2] A: Yes.

[3] Q: And Pyranol was a product name for GE?

[4] A: That's right.

[5] Q: And Monsanto mixed those products and shipped [6] them off to GE and Westinghouse?

[7] A: They would have been manufactured to their [8] specification, their formulations.

[9] Q: Going back to your being marketing manager for [10] Latin America, where was your office?

[11] A: It was here, in St. Louis, but I traveled [12] expansively.

[13] Q: When you — Help me here with a short way of [14] referring to the job you had at the latter part of '71 as [15] marketing manager for three groups of fluids.

[16] A: Well, the title was Product Manager, and [17] reporting to me would have been three market managers, one [18] for dielectric fluids, one for heat transfer fluids and one [19] for process solvents.

[20] Q: All right. So if I refer to your job position [21] as product manager, you'll understand that we're referring [22] to the position you held regarding those three groups of [23] fluids?

[24] A: That's right.

[25] Q: All right. When you became product manager,

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[1] did you review any documents on the toxicity of PCBs?

[2] A: When you say review documents, I would have [3] had discussions with some of my colleagues about the issues [4] that were evolving surrounding PCBs having to do with their [5] alleged persistence in the environment and, you know, [6] questions about, you know, are they toxic, how toxic are [7] they.

[8] Q: All right. In addition to the discussions you [9] had with your colleagues, did you review any written [10] documents regarding those topics?

[11] A: I would have seen copies of summaries or work [12] that was going on within Monsanto, trying to understand the [13] nature of the research reports that were being published, [14] research done by others; I would have seen reports and [15] heard about the work that Monsanto was doing internally, as [16] well as with other groups outside, to try to get a better [17] understanding of this whole issue, and then what to do [18] about it.

[19] Q: And when you indicate that you would have seen [20] copies of summaries of work going on, who wrote those [21] summaries?

[22] A: Well, okay. When I say summary, they might [23] have been actual reports but there might have also been [24] a condensed version. The people that I would have [25] interfaced with on those areas would have been Dr. Emmet

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[1] Kelly or probably — Primarily, Dr. Kelly; Dr. Bill [2] Richard, who was Director of Research; there would have [3] been a man called Bob Keller, as I recall, who was in the [4] research but in the analytical area; and probably I also [5] would have interfaced with Bill Papageorge.

[6] Q: What does it mean to interface with Dr. Kelly?

[7] A: Well, sorry. I'll let you finish your [8] question.

[9] Q: That was my question. What does it mean?

[10] A: Well, it means that as product manager, you're [11] sort of - one of your roles is a coordinating role. You're [12] the focal point for that particular group of products, [13] businesswise, but clearly, you rely on other people to do, [14] that have specialized expertise to do jobs. So Kelly had [15] the responsibility for toxicological, medical, industrial [16] hygiene functions within Monsanto; Richards had the [17] responsibilities for the research and development work that [18] went on on fluids, then some in manufacturing; Bill [19] Papageorge had a role of - I forget what his title was now, [20] but it was basically one of making sure - I would call it [21] — Maybe today we might call it product stewardship, but I [22] think it was something different then, because this was an [23] evolving subject back twenty-five years ago, twenty years [24] ago, and Bill Papageorge would have been - you know, he [25] would have had contacts with the various Government

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[1] agencies who were beginning to study the problem and to [2] sort of coordinate that whole - you know, everyone was [3] looking at that in some sort of menial fashion and he would [4] have come to me and kept me informed. I would have gone to [5] him if I saw, heard something that I thought, you know, [6] they ought to be aware of and looking into. So it was — [7] You know, it was a lot of, obviously, discussion and [8] keeping each other informed.

[9] Q: As product manager, did Dr. Emmet Kelly write [10] any reports for you to review regarding the medical or [11] toxicological concerns relating to PCBs?

[12] MR. FEATHERSTONE: Object to the form.

[13] A: I —

[14] MR. BRADLEY: Well, let me re-ask it.

[15] A: Yes.

[16] Q: (By Mr. Bradley) During the time you were [17] product manager, did Dr. Emmet Kelly give you any reports [18]

written by him regarding the toxicology of PCBs?

[19] A: I don't think he would have written reports [20] specifically to me. He might have put together a report of [21] what was being done in that area, and myself, as well as [22] others in the business group, would have seen them.

[23] Q: Was he required to make periodic reports to [24] you?

[25] A: No. But frankly, the subject, the whole

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[1] question of PCBs at that time was getting a great deal of [2] management attention. Time and effort was being spent, [3] resources were being spent, to understand the problem and [4] to try to decide how to act responsibly, not only towards [5] the environment but the customers, and a whole lot of other [6] things. So it was a group that felt a great sense of, you [7] know, we need to work on this actively as a group. So we [8] didn't think of it as gee, having a meeting every week was [9] a must. It was when something had to be done, it would [10] be done.

[11] Q: As part of this attention being given to this [12] group to the issue of PCBs, I take it Dr. Kelly prepared [13] some written reports for your review regarding the [14] toxicology of PCBs?

[15] A: And I recall in the course of my work [16] involving fluids seeing reports that were not only prepared [17] by Dr. Kelly, they might have involved - Dr. Keller, I [18] think his name was, if it had to do with the analytical [19] methodologies and the capabilities of detecting materials [20] and research. I would have seen that and I would have been [21] able to sit down with any of these people and understand [22] what the implications were and what needed to be done next.

[23] Q: When you became product manager, had you [24] already heard of the Jensen and Widmark study?

[25] A: Yes.

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[1] MR. BRADLEY: This would be a good time to [2] take a break. Are you ready for a break?

[3] THE WITNESS: That's fine. [4] (Whereupon, a twenty minute recess was taken.)

[5] Q: (By Mr. Bradley) Did the functional product [6] group maintain records on the dielectric fluids when you [7] were head of - when you were product manager?

[8] THE WITNESS: What kind of records are you [9] thinking about?

[10] MR. BRADLEY: Records regarding the [11] dielectrics that were sold by Monsanto. Anything about [12] them.

[13] THE WITNESS: You mean sales records or —

[14] Q: (By Mr. Bradley) Well, did you maintain sales [15] records?

[16] A: We would have maintained sales records, for [17] example. "Records" is a very broad term.

[18] Q: Did — As product manager, did you review [19] prior sales of dielectrics manufactured by Monsanto?

[20] A: Yes. Up to a point.

[21] Q: And the purpose of that was probably to have a [22] - to determine whether there was growth in the sales of the [23] products?

[24] A: To get a benchmark of where we'd been, yes. [25] That was part of it.

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[1] Q: Do you know whether Monsanto, following 1966, [2] had a corporate goal of increasing its sales of [3] dielectrics?

[4] A: I can't speak for 1966 through 1971.

[5] Q: All right. And how about from 1971 on?

[6] A: I think from 1971, our first order of business [7] was to understand the full implications of the reports that [8] were being circulated concerning the quote, "persistence of [9] PCB in the environment and allegations of toxicity," and [10] Monsanto was trying to understand what the extent of that [11] was and what action should be taken once we knew what the [12] situation was. So, they were probably more focused on [13] addressing those issues than they were, you know, coming up [14] and saying, "Gee, I've got to grow the volume ten percent [15] every year." In fact, I cannot recall that that would have [16] been one of my goals.

[17] Q: Let's talk about the first year that you were [18] product manager. During any part of that year, was there a [19] goal to increase the sale of PCBs manufactured by Monsanto?

[20] A: I doubt it very much.

[21] Q: And was there — I take it, then, there was [22] no goal to increase sales during any subsequent years when [23] you were product manager?

[24] A: No. I mean, we wanted to know — For [25] planning purposes, we wanted to know what our customers

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[1] required, said they required, over those years but we were [2] beginning to discontinue some lines of products. So in [3] fact, the indications were the total volume would probably [4] turn donewards rather than upwards.

[5] Q: Well, during the first year you were product [6] manager, were there any Aroclor formulations that increased [7] in sales volume compared to the year before?

[8] A: There might have been, but that might have [9] been partly due to substitution of one Aroclor for another [10] one, for example, but I think the — In the dielectric [11] area, I think the trend might have been to stay level for a [12] while and then later began to decline until finally, I [13] think at some point in the mid to late '70s, they were [14] discontinued totally.

[15] Q: Do you know whether the sales level stayed at [16] the same level for PCB products manufactured by Monsanto [17] between the end of '71 and 1974?

[18] A: In total, the PCBs manufactured by Monsanto [19] went down, is my recollection.

[20] Q: Do you know whether, in reviewing whatever [21] documents you reviewed both before and after you became [22] product manager, do you know whether Monsanto ever [23] generated a document that indicated that they had a goal of [24] increasing sales of products containing PCBs in the late [25] 1960s?

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[1] A: I can't recall any document in the late 1960s [2] saying they had a goal to increase.

[3] Q: Who was the product manager before you became [4] product manager?

[5] A: I think they had a product manager for heat [6] transfer, and his name was John. I think it was John [7] O'Fallon. O'Fallon, I think, was the last name. Jack [8] O'Fallon.

[9] Q: Who was the product manager for dielectrics [10] prior to you taking that position?

[11] A: Well, I think that might have been — [12] O'Fallon might have been a product manager. In [13] dielectrics, they had Paul Benignus in as a product [14] manager, and he then reported to me when I became product [15] manager. I don't know who he reported to before. I can't [16] remember.

[17] Q: Do you know, for example, who was the product [18] manager for dielectrics immediately preceding you having [19] that position?

[20] A: I don't know if there was a title, "Product [21] Manager." As I said, I think it might have been a market [22] manager title and then it reported into me and I don't know [23] where it reported before. Well, I would have known. I [24] just can't remember.

[25] Q: In late 1971, did Monsanto know — Let me

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[1] rephrase it. In late 1971, had you heard of a Congressman [2] whose last name was Ryan?

[3] A: Vaguely. I mean, you've refreshed my memory, [4] so vaguely it sounds familiar but I can't remember in what [5] connection.

[6] Q: When you were product manager, did you learn [7] whether Congressman Ryan was attempting to introduce [8] legislation into the United States Congress that would ban [9] the use of PCBs?

[10] A: I can't recall that.

[11] Q: Do you recall Monsanto ever informing its [12] customers who were purchasing dielectric fluids that there [13] had been Congressional action to stop the sale of PCBs?

[14] MR. FEATHERSTONE: Object to the form of the [15] question.

[16] A: I cannot remember, at the end of the 1971 time [17] frame, any Congressional activity to stop the sale of PCBs.

[18] I know that the Federal Register contained information on [19] PCBs but I can't recall that they ever, at that point, came [20] out with any kind of a ban, or intended ban.

[21] Q: (By Mr. Bradley) All right. You've heard of [22] the Toxic Substances Control Act?

[23] A: Yes.

[24] Q: And did Monsanto — Strike that. As product [25] manager, when did you first learn of the Toxic Substances

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[1] Control Act?

[2] A: My recollection is that the Toxic Substances [3] Control Act is something that came in the latter part of [4] the '70s, rather than the early part of the '70s, but I may [5] be wrong.

[6] Q: Over what period of time were you product [7] manager?

[8] A: I was product manager from the end of '71, and [9] then sometime in, might have been '72 or '74, I forget [10] which. I then had aviation fluids and hydraulic fluids [11] added to my responsibility, which then they said that any [12] products that had PCBs in them fell into my responsibility, [13] and I think that position then lasted until, I'm going to [14] say sometime in 1976. That's the best of my recollection.

[15] Q: Prior to the end of your job as product [16] manager in or around '76, had you heard of any [17] Congressional action that would limit or ban the sale of [18] PCBs?

[19] A: That doesn't ring a bell, them talking about [20] banning them. In fact, I think the — As I recall, the [21] EPA and various government agencies were - you

know, took [22] note of what the industry's position was, and what the uses [23] for dielectrics were. There were no viable replacements [24] and therefore, they just said continue. So, I cannot [25] recall any, you know, Congressional action. That's not to

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[1] say there wasn't. It just doesn't stand out in my mind.

[2] Q: Do you know whether, between the end of 1971 [3] and in 1976 when you left your job as product manager, if [4] Monsanto informed its customers purchasing dielectric [5] fluids regarding any Congressional action at all involving [6] PCBs?

[7] A: I can't recall. I can't recall anything [8] specifically on Congressional action.

[9] Q: All right. Do you recall, between 1971 and [10] 1976, Monsanto telling its customers of dielectric fluids [11] that if someone suffers chloracne as a result of exposure [12] to PCBs, that it could be a sign of a more serious systemic [13] poisoning?

[14] A: I cannot recall us dealing with that specific [15] issue in the way you worded it, but certainly in the period [16] 1971, and I think it had started earlier, and the period [17] 1976, a great deal of communication went out to the [18] customers of Monsanto's dielectric fluids. We solicited [19] the assistance of industry associations to help in that [20] dissemination of that knowledge; and so no one should have [21] been in any doubt as to what all the various allegations [22] and possibilities were regarding PCBs.

[23] Q: So between '71 and '76, any Monsanto customer [24] of dielectric fluid should have known, for example, that [25] PCBs get absorbed through the skin?

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[1] A: I would have been very surprised if they [2] didn't.

[3] Q: All right. And all of those Monsanto [4] customers of dielectric fluids between '71 and '76 should [5] have known that PCBs were associated with liver damage?

[6] MR. FEATHERSTONE: Object to the form.

[7] A: I think saying "associated with liver damage," [8] that's a very generalized statement.

[9] MR. BRADLEY: Let me rephrase it then.

[10] Q: (By Mr. Bradley) So that all of these [11] customers of Monsanto's dielectric fluid between '71 and [12] '76 should have known that there were previous studies that [13] showed exposure to PCBs caused liver damage?

[14] MR. FEATHERSTONE: Object to the form.

[15] A: If that information was out there, the [16] equipment manufacturers, I think, the customers that we [17] sold to, the associations, would then have — There's a [18] whole history of PCBs out there that was sort of being [19] scrutinized and debated and studied and so on and so forth.

[20] Q: (By Mr. Bradley) And the customers of [21] Monsanto purchasing dielectric fluid between '71 and '76 [22] would have known that exposure to PCBs might cause systemic [23] poisoning?

[24] A: I don't know if that is what — You know, the [25] specific language was used. Certainly, they should have

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[1] been aware of all of the allegations surrounding PCBs [2] because it was in the Federal Register and we were mailing [3] out things; there were task forces organized, Government [4] interagency task forces; there were groups within the [5] electrical industry, including, you know, equipment [6] manufacturers, utilities and whatnot, all studying the [7] problem. I think there was one for transformers and one [8] for capacitors. So it was not an area that was — that was [9] just merely going its own way and nobody knew what was [10] going on, if that gets at what you're trying to get at.

[11] Q: So I take it from your testimony that there [12] was a lot of publicly available information on the toxicity [13] of PCBs, and you took the position that your customers must [14] have known about it?

[15] A: Well, we were responsible for informing our [16] customers of what was going on. Now, at that time, you've [17] got — there was an emerging, you know, capability in terms [18] of analytical abilities to detect things which had not been [19] true previously. So, you know, people were able at that [20] period of time to start detecting things at levels much [21] lower than they had been before. The whole concept of [22] environmental persistence, and I think that phrase you [23] used, biomagnification, was something that was coming under [24] scrutiny. So I think it was a learning situation. It was [25] an evolving situation, and at least Monsanto and the

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[1] colleagues I worked with were determined to try to handle [2] this as responsibly as we could, and we worked with our [3] customers that we dealt with primarily to try to [4] bring this to their attention and to give them what [5] information we had available and to seek means of how we [6] could, you

know, control the situation and decide how best [7] to proceed.

[8] MR. BRADLEY: Would you read back the [9] question?

[10] (Whereupon, the reporter propounded the previous question.)

[11] MR. BRADLEY: I move to strike the answer as [12] nonresponsive.

[13] Q: (By Mr. Bradley) Monsanto knew when it sold [14] dielectrics to General Electric, that General Electric [15] would put those dielectric fluids in electrical [16] transformers and capacitors and sell those products to [17] utility companies, did they not?

[18] THE WITNESS: I'm sorry. Could you repeat the [19] question?

[20] Q: (By Mr. Bradley) Monsanto knew when it sold [21] dielectric fluid to General Electric and Westinghouse while [22] you were an employee of Monsanto, that GE and Westinghouse [23] would put that dielectric fluid in electrical transformers [24] and capacitors and sell those to electric utilities, didn't [25] it?

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[1] A: Yes.

[2] Q: What did Monsanto do, if anything, to make [3] certain that those electric utility companies would know [4] about the toxicity of the dielectric fluid manufactured by [5] Monsanto?

[6] A: As I recall, one forum was an ANSI, A-N-S-I, [7] Committee — I can't remember its designation. It had a [8] number, as I recall — was formed. It had two parts to it, [9] I believe, one transformers and one capacitors, and it had [10] representatives of the electrical utilities, the various [11] trade associations in that area, and I think it had EPA, [12] FDA; you know, Corp of Engineers, various government [13] agencies all involved in it, and certainly a great deal of [14] the discussion, I think, at those groups had to do with, [15] you know, the aspects of toxicity and the aspects of [16] environmental persistence.

[17] Q: And when was the ANSI committee formed?

[18] A: I can't remember now.

[19] Q: And what did you do, if anything, as product [20] manager to inform electric utility companies about the ANSI [21] committee?

[22] A: I cannot recall specifically what I did. I [23] know that Paul Benignus would have been the one that was [24] most involved in that, and so would Bill Papageorge.

[25] Q: Well, did they report to you what they were

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[1] doing to inform electric utility companies about the ANSI [2] committee?

[3] A: Yes, they probably would have done that.

[4] Q: And what did they tell you Monsanto was doing [5] to inform electric utilities companies about the ANSI [6] committee?

[7] A: I can't recall because after all, we didn't — [8] In most cases, I don't think we sold directly to the [9] utility companies. We were selling to transformer [10] manufacturers, to capacitor manufacturers and, in turn, [11] they sold to the utilities; and in the case of transformer [12] fluids, the products that were being sold to the equipment [13] manufacturers were products that they were requesting us to [14] manufacture for them.

[15] Q: And the products that they were selling [16] contained products manufactured by Monsanto?

[17] A: Yes.

[18] Q: And products that Monsanto knew were the [19] subject of tremendous environmental concern?

[20] A: Yes.

[21] Q: And Monsanto — Other than the ANSI [22] committee, what, if anything, did Monsanto do to describe [23] to the ultimate purchasers of Monsanto's dielectric fluid [24] what the environmental concerns were regarding the product [25] that Monsanto was manufacturing?

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[1] MR. FEATHERSTONE: Object to the form of the [2] question.

[3] A: The Federal Register published certain [4] guidelines, you know, on that subject.

[5] Q: (By Mr. Bradley) Well, Monsanto didn't get [6] that notice published in the Federal Register, did it?

[7] A: No.

[8] Q: So my question is, what did Monsanto do, if [9] anything, to inform electric utility companies about what [10] it was learning about the products that it was [11] manufacturing containing PCBs?

[12] A: We were going out through two avenues, as I [13] recall. One — And there might have been communication [14] direct with the utilities, I cannot recall that. That's [15] not to say there wasn't. I cannot recall it. The one was [16] certainly the people that we sold the dielectric to, the [17] fluid to, were told as much as we knew about what was going [18] on; and the other mechanism was once that committee was [19] formed, then they, representatives of the electrical [20] industry participated in that committee

and in fact, I [21] think they helped to get information out.

[22] Q: Do you have any documents that would show that [23] Monsanto asked the ANSI committee to get information out to [24] the electric utility companies?

[25] A: I don't have a document today, no.

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[1] Q: Have you ever reviewed one where it indicates [2] Monsanto asked the ANSI committee to communicate [3] information to electric utilities?

[4] A: I seem to recall that. We also — Monsanto, [5] of courses, was not the only producer of PCBs.

[6] Q: Well, Monsanto was the only producer of PCBs [7] in the United States for electrical transformers and [8] capacitors; isn't that true?

[9] A: The only producer in the U.S., yes. Not the [10] only producer in the world.

[11] MR. BRADLEY: That's right.

[12] Q: (By Mr. Bradley) Well, let me ask you this. [13] Do you know of any electrical transformer and capacitor [14] manufacturer in the United States that ever bought a [15] dielectrics fluid containing PCBs from anyone, other than [16] Monsanto?

[17] A: I have no way of knowing that.

[18] Q: All right. Well, what did Monsanto do to [19] inform electric utility companies that PCBs might be [20] manufactured elsewhere, outside the United States?

[21] THE WITNESS: I'm sorry?

[22] Q: (By Mr. Bradley) What did Monsanto —

[23] MR. FEATHERSTONE: What's the point of asking [24] that question?

[25] MR. BRADLEY: Well, I'll move to the point.

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[1] I'm not asking it for no reason.

[2] MR. FEATHERSTONE: Okay.

[3] Q: (By Mr. Bradley) What did Monsanto do, if [4] anything, to inform electric utility companies that PCBs in [5] electrical transformers — Let me ask it again. What did [6] Monsanto do, if anything, to inform electric utility [7] companies that PCBs were being manufactured outside the [8] United States?

[9] MR. FEATHERSTONE: Object to the form of the [10] question.

[11] A: I don't know if we did anything about that.

[12] Q: (By Mr. Bradley) Is it true that it was [13] claimed that PCBs manufactured outside the United States [14] contained greater concentrations of polychlorinated [15] biphenyls than

PCBs manufactured within the United States?

[16] A: I'm not sure that I can — I'm not sure if I [17] remember that.

[18] Q: Did you communicate directly with any [19] electrical utility company regarding what Monsanto knew [20] about the environmental concerns Monsanto had about its own [21] dielectric fluid?

[22] A: I don't — I can't recollect visiting any [23] electrical utilities myself.

[24] Q: Do you recall talking with anybody from an [25] electrical utility on the telephone where you described for

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[1] them Monsanto's concerns about its own products that [2] contained PCBs?

[3] A: I recollect — I cannot recollect if they [4] were utilities. I do recollect talking to customers who [5] would call up and asked — particularly when we announced [6] that we were going to discontinue the heat transfer fluids [7] — why we were doing that. Now, we sent them letters [8] explaining what the situation was and why we were doing it, [9] and I explained, you know, the reasons why we were doing it [10] and indicated that, you know, allegations had been made but [11] at the time, I am not too sure that we had any definite [12] proof that, indeed, the products were — how toxic the [13] products really were.

[14] Q: Did Monsanto ever tell General Electric that [15] Monsanto would not be telling electric utility companies [16] about the hazards of PCBs but instead, wanted GE to tell [17] those companies about those hazards?

[18] A: I don't know if that's — I don't think — [19] I can't remember that happening.

[20] Q: Did Monsanto ever tell Westinghouse that [21] because the dielectric fluid was such a small part of the [22] transformers and capacitors that Westinghouse was [23] manufacturing, that Monsanto was not going to tell [24] electrical utility companies about the hazards of PCBs but [25] instead, expected Westinghouse to tell them?

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[1] A: I can't remember anything like that.

[2] Q: You've said here, today, that your customers [3] knew as much as you did about the concerns that existed [4] regarding the PCBs. What makes you say that?

[5] A: Because there was a great deal of [6] communication that went out to the industry. There were [7] Federal Register reports on the issue, there were articles [8] written in the press and in journals. So I think there [9] was, you know, quite

a bit of awareness going on as to what [10] happened, and we tried to deal with bodies that would help [11] in that dissemination effort.

[12] **Q:** Between 19 — Between the time you became [13] employed with Monsanto - was that '66?

[14] **A:** Yes, sir.

[15] **Q:** Between 1966 and the time that you left as [16] product manager in 1976, do you know whether General [17] Electric had any medical people on their staff?

[18] **A:** I can't say specifically that they had.

[19] **Q:** Do you know whether they had any toxicologist

[20]

[21] **MR. FEATHERSTONE:** Wait a minute. Are you [22] interrupting his answer, Mr. Bradley?

[23] **MR. BRADLEY:** I don't know. Am I interrupting [24] your answer? I don't mean to. Were you done?

[25] **Q:** (By Mr. Bradley) My question was, do you know

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[1] whether they had any medical people on their staff. You [2] want to answer that again?

[3] **A:** I'm not the right person to ask that question [4] of. There would be others in Monsanto that would probably [5] have, could give you a much better answer than I could.

[6] **Q:** During the time, the five year period of time [7] you were product manager for the dielectrics selling to GE [8] and Westinghouse, do you know whether GE and Westinghouse [9] had medical people on their staffs?

[10] **A:** I'm pretty certain they did.

[11] **Q:** All right. And do you know whether GE and [12] Westinghouse, while you were product manager, had [13] toxicologists on their staffs?

[14] **A:** That, I don't know. My instincts would be [15] they did, but I cannot say a hundred percent certain.

[16] **Q:** During the time you were product manager, [17] would you expect an electrical utility company to have a [18] medical doctor on their staff?

[19] **A:** Yes, I would think so.

[20] **Q:** While you were product manager, do you know of [21] one electric utility company anywhere in the United States [22] that had a medical doctor on their staff?

[23] **A:** I don't know if I could answer that.

[24] **Q:** Well, during the time you were product [25] manager, do you know of any electrical utility company that

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[1] had a toxicologist on their staff?

[2] **A:** I can't recall.

[3] **Q:** You wouldn't have expected electrical utility [4] companies to have the degree of sophistication on [5] toxicology issues while you were product manager, at least [6] in comparison to Monsanto, would you?

[7] **A:** I don't know because it depends a great deal [8] on the electrical utility.

[9] **Q:** Have you ever spoken with anyone from Nevada [10] Power Company?

[11] **A:** No.

[12] **Q:** Have you ever spoken with anyone whose told [13] you that they've spoken with anyone from Nevada Power [14] Company?

[15] **A:** Not that I recall.

[16] **Q:** Have you seen any documents written by [17] Monsanto employees directed to Nevada Power Company?

[18] **A:** Not that I recall.

[19] **Q:** Have you seen any documents from the ANSI [20] committee directed to Nevada Power Company?

[21] **A:** Not that I recall.

[22] **Q:** Have you seen any documents from the ANSI [23] committee directed to any electric utility company?

[24] **A:** No. But that doesn't mean that it wasn't [25] done.

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[1] **Q:** Nor does it mean that it was done; is that [2] fair to say?

[3] **MR. FEATHERSTONE:** Well, we're not getting [4] anywhere with this, Mr. Bradley. Just ask the question.

[5] **Q:** (By Mr. Bradley) Is that fair to say?

[6] **MR. FEATHERSTONE:** Ask the question.

[7] **MR. BRADLEY:** I asked the question.

[8] **MR. FEATHERSTONE:** Utilities had [9] representatives on the ANSI committee.

[10] **MR. BRADLEY:** I asked the question. I don't [11] want to argue would with you. It was a fair question.

[12] **A:** There are others that could give you a better [13] answer than I can.

[14] **Q:** (By Mr. Bradley) But the point was, you [15] didn't see any?

[16] **A:** I can't recall that I did or didn't.

[17] **Q:** Did Monsanto enter into an indemnity agreement [18] with GE regarding the sale of PCBs?

[19] **A:** I believe they did.

[20] **Q:** As part of that indemnity agreement, was GE [21] required to indemnify Monsanto if any claims were made that [22] somebody had lost money or had

become injured because of [23] exposure to PCBs?

[24] **MR. FEATHERSTONE:** Object to the form of the [25] question.

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[1] **A:** I cannot recall the details of that letter [2] now. I remember the letter.

[3] **Q:** (By Mr. Bradley) Tell me what you know about [4] the indemnity agreement? What did it purport to do?

[5] **MR. FEATHERSTONE:** Object to the form of the [6] question. Compound.

[7] **Q:** (By Mr. Bradley) What did the indemnity [8] agreement purport to do?

[9] **A:** As I recall, it drew attention to the issue of [10] the report, saying that PCBs were persistent in the [11] environment, and I can't remember all the legalese. I was [12] not a party to the, you know, the legal points of that [13] document. As a product manager, there was a very practical [14] side to having such a document, and —

[15] **Q:** What was the practical side?

[16] **A:** The practical side was that we were - we had [17] gotten out of the heat transfer fluid business. There were [18] people that still wanted to use PCBs because of the [19] benefits that they confer, the safety benefits, the fire [20] resistance, which were very important to many applications. [21] The products had been - were used because they didn't break [22] down readily. That was the safety fire resistant advantage [23] they had. They got various industrial ratings, as far as [24] insurance, et cetera, and the safety of employees was [25] involved, but we got out of that business and we were

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[1] determined that we would not sell to, what we thought were [2] closed systems but found there could be leaks and could be [3] inadvertent spills and so forth. But the industry, the [4] users in the dielectric industry, the capacitor and [5] transformer manufacturers and users claimed they did not [6] have any replacements. The work done by these interagency [7] committees and the Government recommended that the use in [8] dielectrics continue. So as a product manager, I had to [9] satisfy my management that I wasn't selling into [10] applications that were considered, you know, no longer — [11] You know, we no longer can supply and could only sell to [12] quote, "The Dielectric Users." So from a practical matter, [13] having this sort of letter was useful to me, leaving aside [14] any of the other ramifications, because then it meant we [15] would only sell to those people who had signed the letter [16] and, as I recall, at one time we used to sell to [17] transformer repair shops, for example, maybe even to [18]

utilities that did their own transformer repairs, I cannot [19] recollect now, today, but we gradually narrowed it down [20] that it only went to the manufacturer or his designated [21] locations for which he took responsibility. So then we [22] were able to do the absolute best we can to make sure that [23] we looked after that industry as they struggled to find [24] replacements and yet, we didn't break what we publicly [25] stated was our goal in getting us out of other

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[1] applications.

[2] Q: After Monsanto entered into the indemnity [3] agreements with GE and Monsanto - excuse me, GE and [4] Westinghouse, thank you - what was your understanding of [5] what would happen if somebody sued claiming an injury from [6] exposure to PCBs?

[7] A: I know I probably thought of that, but I can't [8] recall what I thought at the time.

[9] Q: What did you think the indemnity agreements [10] did, if anything, regarding that situation?

[11] A: As I say, I did not look at this through the [12] eyes of a lawyer looking at what it meant. I was looking [13] at the fact that it was one means of having responsible [14] customers take - you know, knew what all the issues [15] surrounding PCBs were, and then I had a means of being able [16] to say okay, if you signed this letter, then okay, we can, [17] in fact, sell you, and it needed to be substantial.

[18] Q: Are you saying that you didn't give any [19] thought whatsoever to what would happen if somebody alleged [20] an injury from exposure from PCBs following entering into [21] these indemnity agreements?

[22] A: No, I didn't mean that. I mean I was not [23] looking at this from the legal standpoint.

[24] Q: All right. Let me ask it again. What was [25] your understanding of what would happen following the

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[1] signing of this indemnification agreement between Monsanto [2] and GE and Westinghouse if somebody sued alleging injury [3] from exposure to PCBs?

[4] A: That would be a matter that would be taken up [5] within Monsanto by people, other than me.

[6] Q: Did you have any understanding of whether [7] Monsanto would have to pay if there were any damages proven [8] because of exposure to PCBs?

[9] MR. FEATHERSTONE: Object to the form.

[10] A: That's something that I - You're asking me [11] to go back almost twenty

years in time and say what did I [12] think on a certain issue, and I cannot recall what I [13] thought at that time.

[14] Q: (By Mr. Bradley) All right. Fair enough. [15] And how did Monsanto, either through the Federal Register [16] or the ANSI committee or publications in the Wall Street [17] Journal, how did Monsanto inform the world that it had [18] entered into these indemnification agreements between GE [19] and Westinghouse?

[20] MR. FEATHERSTONE: Object to the form.

[21] A: I can't recall how that was done.

[22] Q: (By Mr. Bradley) Do you recall whether [23] Monsanto informed anyone that it had entered into [24] indemnification agreements with GE and Westinghouse?

[25] A: What I do know, if people came to us and

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[1] wanted to buy PCBs and we asked, "Have you signed?" In [2] fact, we had a list. If they weren't on that list, we [3] would then probably send them a letter or I would call and [4] explain to them on the phone that this needed to be done, [5] and we would then send them a copy and the, how to go about [6] it if they did.

[7] Q: My question - Maybe my question wasn't [8] clear. My question was, how did Monsanto tell, let's say [9] electric utility companies, that it had entered into [10] indemnification agreements with GE and Westinghouse [11] regarding the sale of PCBs?

[12] A: I can't - Today, I can't remember what was [13] done in that area. I just can't remember. There are [14] probably people that could answer your question.

[15] Q: Including people who might say nothing was [16] done and people who might say a lot was done?

[17] MR. FEATHERSTONE: You don't need to answer [18] that.

[19] A: I can't speculate on that. I think there were [20] people that would have been more involved in that part of [21] it than I was.

[22] Q: (By Mr. Bradley) And what people would that [23] be?

[24] A: I can suggest for starters people like [25] possibly Bill Papageorge; possibly Paul Benignus.

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[1] Q: And if neither of those gentlemen know whether [2] Monsanto told electric utility companies about the [3] indemnity agreements, what other people might have that [4] information?

[5] A: Might be the people that were in marketing - [6] director, business group

director - or maybe even some of [7] the legal positions in the company.

[8] Q: And who were the marketing and business [9] directors after the indemnification agreement was signed [10] who might know how Monsanto told electric utility companies [11] about the existence of those agreements?

[12] THE WITNESS: Are you asking the names of the [13] people?

[14] MR. BRADLEY: Yes.

[15] A: Okay. The marketing director, as I recall, [16] was a Tom Gossach, Thomas Gossach.

[17] Q: Anyone else?

[18] A: The other one is Howard Bergen, B-e-r-g-e-n.

[19] Q: I'm going to show you Plaintiff's Exhibit 1575 [20] and ask you to review that. Exhibit 1575 is a May 13th, [21] 1969 internal memorandum from W.R. Richard to the file and [22] you are listed as one of the people that received a copy of [23] it; is that correct?

[24] Q: Yes.

[25] Q: Do you recall seeing this document?

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[1] A: I don't recall. I do not recall.

[2] Q: Do you recall learning about Professor Widmark [3] and his studies, at least by May 13th, 1969?

[4] A: I am pretty certain that I had heard about him [5] before May 13th, 1969, yes.

[6] Q: What, if anything, did Monsanto do to inform [7] electric utility companies about Professor Widmark's [8] studies involving PCBs?

[9] A: I don't know because at that point in time, I [10] had nothing to do with dielectrics.

[11] Q: All right. Well, in 1971 when you became [12] product manager, what was Monsanto doing to inform electric [13] utility companies about the findings of Professor Widmark [14] regarding his studies involving PCBs?

[15] A: I cannot recall specifically but I seem to [16] recall that letters had already gone out to groups of [17] companies in the dielectric area and I cannot now recall [18] specifically what the composition of that group was, but [19] there were many letters that went out to specific groups in [20] that time frame and, as best I can recall, records of that [21] would have been kept.

[22] Q: And the letters that went out were going to [23] manufacturers of transformers and capacitors using [24] dielectrics?

[25] A: Certainly, to those, and I don't know - I

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[1] cannot recall now whether they went beyond that, to the [2] next phase, because the utilities would have been generally [3] customers of customers.

[4] **Q:** Did Monsanto require manufacturers of [5] transformers and capacitors containing PCB products made by [6] Monsanto to carry a label warning which described the [7] results of the Widmark studies regarding PCBs?

[8] **MR. FEATHERSTONE:** Object to the form of the [9] question.

[10] **THE WITNESS:** Could you repeat the question?

[11] **MR. BRADLEY:** I'll break it down a little bit. [12] Yes.

[13] **Q:** (By Mr. Bradley) Did Monsanto require General [14] Electric to place on electrical transformers a warning that [15] notified the purchaser of the electrical transformer of the [16] results of the studies performed by Professor Widmark?

[17] **A:** I cannot recall if we did that or not.

[18] **Q:** Did Monsanto require — Actually, let me stop [19] for a moment.

[20] **MR. BRADLEY:** Would you read the question [21] back?

[22] (Whereupon, the reporter propounded the previous question.)

[23] **Q:** (By Mr. Bradley) Did Monsanto require that [24] Westinghouse place on its electrical transformers a warning [25] that described the results of the studies of Professor

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[1] Widmark?

[2] **A:** I cannot recall and I — You know, I cannot [3] — There would be a time element there too, I would think. [4] If we did do so, it would have been - time would have [5] entered into it because some studies would have been done [6] to see whether or not we better understood what Widmark was [7] finding.

[8] **Q:** You had indicated earlier that equipment was [9] not developed until a certain period of time to assist in [10] determining lower levels of PCBs in the environment; is [11] that correct?

[12] **A:** Yes. What I meant was, that this was an [13] evolving technology.

[14] **Q:** And the technology had evolved by the end of [15] the 1960s to do those analyses; isn't that true?

[16] **MR. FEATHERSTONE:** Object to the form.

[17] **Q:** (By Mr. Bradley) Is it true by the end of the [18] 1960s, the technology existed to determine the presence in [19] the environment down to parts per billion?

[20] **A:** I'm not sure if it could go down to parts per [21] billion at that time, because I think there was still some [22] controversy over the techniques, the methodologies and [23] accuracy. So it was an area in — You should address that [24] to an analytical chemist.

[25] **Q:** Do you know whether, by the late '60s, the

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[1] technology existed to determine the presence of PCBs in the [2] environment down to parts per million?

[3] **A:** I would be guessing if I gave you an answer. [4] Again, the analytical research chemists are the best people [5] to give you answers to that.

[6] **Q:** Do you know whether, during the late '50s, [7] 1950's and 1960s increased interest in the presence and [8] effects on the environment of chlorinated hydrocarbon [9] pesticides resulted in the development of sophisticated [10] analytical methodologies and capabilities of detecting PCBs [11] at extremely low levels of concentration?

[12] **MR. FEATHERSTONE:** Could you maybe repeat that [13] a little more slowly for me?

[14] **Q:** (By Mr. Bradley) Do you know whether, during [15] the late 1950s and '60s increased interest in the presence [16] and the effects in the environment of chlorinated [17] hydrocarbon pesticides resulted in the development of [18] sophisticated analytical methodologies with capabilities of [19] detecting PCBs at extremely low levels of concentration?

[20] **A:** In the late '50s and early '60s, I would not [21] have been following that particular specialty closely [22] enough to come to a definite conclusion, to give you a [23] definite answer.

[24] **Q:** I'm going to now show you Plaintiff's Exhibit [25] 1578.

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[1] **MR. FEATHERSTONE:** Off the record. [2] (Whereupon, a discussion was held between Counsel, off the [3] record.)

[4] **THE WITNESS:** What do you want me to do? Do [5] you want me to read this?

[6] **MR. BRADLEY:** I'd like you to review it.

[7] **MR. FEATHERSTONE:** Well, let's go off the [8] record.

[9] (Whereupon, a twenty minute recess was taken.)

[10] **A:** I think this would be an example —

[11] **MR. FEATHERSTONE:** He hasn't asked a question.

[12] **Q:** (By Mr. Bradley) My first question is, have [13] you had a chance to review the document?

[14] **A:** Well, again, I mean I can scan this quickly, [15] if that would help, or if you want me to. If you're going [16] to get into questions in every paragraph, then I would have [17] to go through every one very carefully. I can go through [18] and see.

[19] **MR. FEATHERSTONE:** I think he wants you to [20] review the document, just so that you know basically what [21] it is. If he asks you a specific question about a specific [22] paragraph, then we'll read it. Off the record.

[23] (Whereupon, a discussion was held between Counsel, off the [24] record.)

[25] **THE WITNESS:** Okay.

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[1] **Q:** (By Mr. Bradley) This is a document entitled [2] "Polychlorinated Biphenyls, A presentation to the Ontario [3] Hydro Electric Commission, Canadian Interdepartmental [4] Working Party of PCBs, Canadian Capacitor and Transformer [5] Manufacturers," dated November, 1972 by Monsanto Canada, [6] Limited; is that correct?

[7] **A:** Yes.

[8] **Q:** And the next page is a, "Historical Summary of [9] PCB Environmental Issue," by W.B. Papageorge; is that [10] correct?

[11] **A:** Yes.

[12] **Q:** Mr. Papageorge was a Monsanto employee?

[13] **A:** Yes.

[14] **Q:** And when you became project manager, what [15] position did Mr. Papageorge have?

[16] **MR. FEATHERSTONE:** Product.

[17] **MR. BRADLEY:** Product. Thank you.

[18] **A:** I cannot recall his exact title, but it had to [19] deal with — He was the focal point for external [20] communications, if you will, contacts with agencies, [21] industry associations and so on, regarding anything to do [22] with toxicological or environmental or industrial hygiene [23] questions regarding our products.

[24] **Q:** (By Mr. Bradley) All right. On the 5th [25] paragraph of the Historical Summary prepared by W.B.

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[1] Papageorge, it says, "In late 1966, Drs Jensen and Widmark, [2] Analytical Chemistry Laboratories, University of Stockholm, [3] identified those peaks as polychlorinated biphenyls and [4] claimed to have found these materials in many foods, human [5] milk, infant hair, pine needles and in feathers from a [6] mounted eagle in a museum. The results

of this study were [7] published in 1967." Do you know whether Monsanto [8] communicated that information to electrical utility [9] companies purchasing transformers and capacitors containing [10] PCBs manufactured by Monsanto?

[11] **THE WITNESS:** At what point in time?

[12] **MR. BRADLEY:** At any point in time while you [13] were a Monsanto employee.

[14] **A:** Well, I cannot specifically recall. I [15] certainly would not have been aware of anything in the '66 [16] through '67 time frame, that's for sure.

[17] **Q:** (By Mr. Bradley) Well, following '67, do you [18] know whether Monsanto communicated that information to any [19] of the electrical utility companies purchasing transformers [20] and capacitors containing PCBs manufactured by Monsanto?

[21] **A:** What I cannot recall is whether or not there [22] were mailings that went out specifically to the electrical [23] utilities, or whether that was put together, you know, [24] through other means, and I just really cannot recall.

[25] **Q:** How about —

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[1] **MR. FEATHERSTONE:** Before you go on, may I [2] hear the question, please?

[3] (Whereupon, the reporter propounded the previous question.)

[4] **Q:** (By Mr. Bradley) How about after the time [5] when you became product manager? Did Monsanto ever inform [6] electric utility companies purchasing transformers and [7] capacitors that contained PCBs manufactured by Monsanto of [8] the information that I read from the 5th paragraph of the [9] first page of this Exhibit, second page of this Exhibit?

[10] **A:** It would have been communicated to our direct [11] customers - that I feel fairly certain. It would have been [12] communicated through the ANSI-type committees that were set [13] up, and an example of this is the thing that was done in [14] Canada.

[15] **MR. FEATHERSTONE:** What thing are you [16] referring to?

[17] **THE WITNESS:** The 1578 Exhibit that I have in [18] front of me.

[19] **MR. FEATHERSTONE:** Okay.

[20] **A:** I personally would have delegated, left a lot [21] of that responsibility to Paul Benignus, who had been in [22] the dielectric industry for many, many, many years, with a [23] very good reputation in the industry, and was a very [24] capable manager. I had three particular groups reporting [25] to me at the time. I was focusing my own attention

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[1] probably more in the area of heat transfer fluids and the [2] process solvent area, although I would have been in weekly, [3] and sometime daily, contact with both Papageorge and [4] Benignus as to what was going on. I would have looked to [5] them to have carried the ball, in terms of communication.

[6] **Q:** The next paragraph says, "During 1967, other [7] investigators using Jensen's method established the [8] presence of polychlorinated biphenyls in samples from the [9] environment. By late 1967 and early 1968, presence in the [10] environment was fairly well established but in many [11] instances, could not be explained. All of the early [12] reports indicated that the polychlorinated biphenyls being [13] identified represented mixtures of the higher chlorinated [14] isomers." So my question now is what, if anything, did [15] Monsanto do to give that information to electric utility [16] companies purchasing transformers and capacitors that [17] contained PCBs manufactured by Monsanto?

[18] **A:** In the time frame 1966 to 1968, I don't know [19] because I didn't have responsibility then.

[20] **Q:** And following '68?

[21] **A:** Well, following '68, Monsanto launched a - I [22] think before, in early '68, we launched a very full scale [23] program as indicated in Mr. Papageorge's presentation to [24] the Ontario Commission, to obtain more information and what [25] the impact on the environment was.

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[1] **Q:** Well, my question, though, was how did [2] Monsanto communicate the information contained in the 6th [3] paragraph of page two of this Exhibit to electrical utility [4] companies that were purchasing transformers and capacitors [5] with PCBs manufactured by Monsanto?

[6] **A:** And I think, as I've indicated several times [7] earlier, the two people that I would refer you to there [8] would be either Mr. Papageorge or Mr. Benignus or both, [9] because they have a continuity that I do not have.

[10] **Q:** All right. The next paragraph says, "At this [11] point..." which I assume means in 1968. Are you following? [12] Down at the bottom.

[13] **A:** Yes.

[14] **Q:** "At this point, Monsanto launched a multipoint [15] program aimed at obtaining more information about [16] polychlorinated biphenyls and their presence and impact on [17] the environment." What, if anything, did Monsanto do to [18] inform electric

utility companies purchasing transformers [19] and capacitors with PCBs manufactured by Monsanto that [20] Monsanto had launched a multipoint program to obtain more [21] information about PCBs and their presence and impact on the [22] environment?

[23] **A:** Well, in 1967/1968, I had no responsibilities [24] for dielectric fluids.

[25] **Q:** And following '68, would your answer be the

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[1] same, I should direct my question to these two other [2] gentlemen?

[3] **A:** I think from the people — Yes. I think all [4] the way through. Certainly, I did not have responsibility [5] for developing these programs because they were developed, [6] obviously, by people other than me in the '67/'68 period. [7] I had some involvement because of the plasticizer aspect, [8] and was aware; and then I was again, as you know, for two [9] years. When I came back, there were those like Papageorge [10] and Benignus that had been there for a period of time, with [11] us for many, many years, who have as much — I don't know [12] about his recollection, but certainly he would have been [13] the one that had the most continuity in all this.

[14] **Q:** In the corporate scheme of things within [15] Monsanto at the end of 1971, weren't you the person [16] responsible for making certain that —

[17] **A:** Yes.

[18] **MR. FEATHERSTONE:** Just a minute.

[19] **THE WITNESS:** Sorry.

[20] **Q:** (By Mr. Bradley) Weren't you the person [21] responsible for making certain that Monsanto informed the [22] purchasers of products manufactured by Monsanto containing [23] PCBs about any concerns Monsanto had regarding those [24] products?

[25] **A:** Yes. And if the utilities were, in fact,

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[1] purchasers, they would have been, I'm certain. I can't [2] absolutely swear to it today, it's so many years later, but [3] I'm certain they would have been. If they were not [4] customers of ours, there's a question of who - you know, [5] how do we know who they are.

[6] **Q:** Well, did you ask GE who the electrical [7] companies were that were purchasing electrical transformers [8] and capacitors that contained PCBs manufactured by [9] Monsanto?

[10] **A:** There are other ways of going about it. You [11] furnish the information to them and they could go forward [12] and explain to the people that they sold the equipment to [13] what it is that's in

there and so on, because they were [14] putting it, they were putting in fluid that they requested. [15] We did not in any way tell them what to put into those [16] transformers or into those capacitors.

[17] Q: My question was, though, that after you became [18] product manager, did Monsanto ask GE what electrical [19] utility companies were purchasing from GE electrical [20] transformers and capacitors that had PCBs manufactured by [21] Monsanto?

[22] A: I can't recall if we did or didn't. That's [23] not to say we didn't. I cannot remember.

[24] Q: Did you seek that information from [25] Westinghouse?

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[1] A: I cannot remember.

[2] Q: Did you seek it from any of your customers?

[3] A: I personally cannot remember.

[4] Q: In 1968 — Let me rephrase this. After you [5] became product manager, what, if anything, did Monsanto do [6] to tell the electric utility companies purchasing [7] transformers and capacitors that contained PCBs [8] manufactured by Monsanto that Monsanto, as part of an [9] effort to determine the presence and impact of PCBs on the [10] environment, decided to conduct animal toxicity studies?

[11] THE WITNESS: I'm sorry. I'm having [12] difficulty hearing you. Can you repeat that again, please?

[13] MR. BRADLEY: Actually, how about if he reads [14] it back?

[15] (Whereupon, the reporter propounded the previous question.)

[16] MR. FEATHERSTONE: Objection. Repetitive. [17] Mr. Bradley, he's already told you of the ways that [18] Monsanto approached, he's already referred you to [19] Papageorge and Benignus. What more is to be gained on this [20] subject?

[21] A: You know, we are looking back twenty years and [22] I cannot recall. I also think there's a situation that, in [23] many cases, we did not sell to utilities. Now, there was [24] some we probably did sell to. I cannot remember now. If [25] we sold to them, I'm fairly certain that we did communicate

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[1] with them, but there were certainly vehicles set up through [2] this ANSI Committee that I have read about, in which the [3] electrical utility industry nominated people to be there, [4] and that was documented, and there was a great deal of [5] effort and communication that went to that. Now, I think [6] that, as I said several times, there are two people within [7] Monsanto that may have a better recollection than I have, [8]

and probably would have, because they have been on the [9] front line on this issue.

[10] Q: Let me see if I can do this in a more [11] abbreviated fashion. Would you read carefully, if you [12] haven't already, the page that is, that has at the top the [13] number two as part of Plaintiff's Exhibit 1578? Then if [14] your counsel will allow me to ask a multiple, compound [15] question, I might be able to save us all some time. On [16] page two, at the top of the page, there are the numbers 3 [17] through 7, and then following that, it says, "Studies [18] performed throughout the world have resulted in the [19] following findings," and there is one through ten, and at [20] the end of that, I think it says, "Because of its presence [21] in the environment and indicated effects on some species of [22] wild life, coupled with the concern regarding the effect on [23] humans of low level, long-term exposure, Monsanto [24] voluntarily instituted a worldwide program for terminating [25] the sale of polychlorinated biphenyls to those uses in

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[1] which control of escape to the environment was [2] impractical." So my question is, if I ask you what [3] Monsanto did to relay the information contained on page two [4] and going into page three to electrical utility companies [5] who purchased transformers and capacitors with PCBs [6] manufactured by Monsanto, would your answer be that you [7] hadn't participated in the ANSI study and Mr. Benignus and [8] Mr. Papageorge would know better what Monsanto did to relay [9] that information?

[10] A: Yes.

[11] Q: Okay.

[12] THE WITNESS: Are we finished with 1578 now?

[13] MR. BRADLEY: Yes.

[14] Q: (By Mr. Bradley) I'm going to now show you [15] Plaintiff's Exhibit 336?

[16] THE WITNESS: Thank you.

[17] MR. BRADLEY: Have you had a chance to review [18] that?

[19] THE WITNESS: Yes.

[20] Q: (By Mr. Bradley) When you were product [21] manager, were PCBs being used in other parts of the world?

[22] A: Yes.

[23] Q: Were PCBs being used in England when you were [24] product manager?

[25] A: I'm pretty certain they were. @

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[1] Q: Were PCBs being used in Japan when you were [2] product manager?

[3] A: Yes.

[4] Q: Was there a point in time when you became [5] product manager that you learned that Japan was no longer [6] going to allow the manufacture of electrical machinery and [7] equipment containing PCBs?

[8] A: This would refresh my memory. If you had [9] asked me, I wouldn't have remembered it.

[10] Q: And do you know whether there was a point in [11] time when you were product manager that England made a [12] decision that they would no longer allow the manufacture of [13] electrical machinery and equipment that contained PCBs?

[14] A: I cannot recall that, no.

[15] Q: Do you recall whether Monsanto told electrical [16] utility companies purchasing electrical transformers and [17] capacitors with PCBs manufactured by Monsanto that Japan [18] had passed a law that would prohibit the manufacture of [19] electrical machinery and equipment which contains PCBs [20] after September of 1972?

[21] MR. FEATHERSTONE: Object to the form.

[22] A: I cannot recollect that Japan passed a law. [23] All I can go on is this memo from one of our people in a [24] joint venture we had in Japan and, you know, this seems to [25] — This seemed to have led, as I read this memo, lead to

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[1] the producers in Japan deciding to close down, but it [2] didn't seem to stop PCBs being used, and it seemed to allow [3] mechanisms whereby PCBs could still come into Japan. [4] Possibly there were two things happening in Japan. They [5] were concerned about the contamination near some plants and [6] they were using that to try to get production stopped, but [7] they seemed to be also aware of the essential needs in some [8] areas.

[9] Q: And is Plaintiff's Exhibit 336, a March 22nd, [10] 1972 letter from T. Katayama, with the Mitsubishi/Monsanto [11] Chemical Company to Paul Benignus in the St. Louis Monsanto [12] Company?

[13] A: I have no reason to believe it isn't.

[14] Q: You're listed as someone who received a carbon [15] copy; is that correct?

[16] A: Yes.

[17] Q: And the second paragraph of that letter, going [18] down to A, through A, says "The Ministry of International [19] Trade and Industry (MITI) issued notice yesterday to almost [20] every industrial association concerned, as summarized in [21] the following: A, No electrical machinery and equipment [22] which contained PCBs must be manufactured

after September [23] 1, 1972." Is that what it says?

[24] A: Yes.

[25] Q: Was it your understanding that in 1972, the

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[1] Ministry of International Trade and Industry for Japan [2] issued notice that prohibited the manufacture of PCBs in [3] electrical machinery and equipment?

[4] A: All I have to go on today is what I see in [5] this memo.

[6] Q: Okay. And you recall having seen this memo?

[7] A: I don't recall. Again, I'm not denying. I [8] just can't recall it.

[9] Q: Twenty-one years ago?

[10] A: Yes.

[11] Q: When you became product manager, did you know [12] that researchers were finding PCBs in human mother's milk?

[13] A: No. I can't recall that.

[14] Q: While you were product manager, did you ever [15] learn that researchers were finding PCBs in human mother's [16] milk?

[17] A: I can't recall. The only thing is what I saw [18] in this one. I don't recall that being something that was [19] very prevalent. Maybe I did see it.

[20] Q: Do you know whether Monsanto ever informed [21] electrical utility companies that PCBs were being found in [22] human mother's milk?

[23] A: My answer to this would be the same answer [24] I've given on the others.

[25] MR. FEATHERSTONE: Let's go off the record.

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[1] (Whereupon, a discussion was held between counsel, off the [2] record.)

[3] Q: (By Mr. Bradley) During the time that you were [4] product manager, would Mr. Papageorge and Mr. Benignus have [5] been the ones, if there was anyone, who would have [6] communicated to electrical utility companies the [7] information that Monsanto had regarding the effects of [8] PCBs?

[9] A: They would have been in the dielectric area. [10] They would have been the prime instigators.

[11] Q: Who else within Monsanto, if anyone, would [12] have communicated to electrical utility companies [13] purchasing transformers and capacitors with PCBs [14] manufactured by Monsanto regarding the information Monsanto [15] had on PCBs?

[16] A: If there was a general mailing to groups of [17] customers, one of two people might have signed such a [18]

letter. One would have been Howard Bergen, who was the [19] business group director at the time; the other was Tom [20] Gossach, who was the director of marketing.

[21] Q: And if the electrical utility was not a direct [22] customer of Monsanto, then they would not have received a [23] letter from one of those two gentlemen?

[24] A: That's where I have this blank. I don't know [25] if they did or didn't get a letter. If it had been a

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[1] general mailing, I think either Gossach or Bergen would [2] have signed it. If it was one of a more — Since these [3] are customers of customers, it would be changed from the [4] the letter or the communication that might have gone out [5] from Papageorge and Benignus through the network that they [6] had set up.

[7] Q: But you don't know whether information went [8] out to electrical utility companies and if it did go out, [9] you don't know what it said; is that fair to say?

[10] A: No. Well, I cannot remember. If anything had [11] gone out as a general letter, then I would have, in the [12] time that I was product manager with responsibility for [13] fluids or dielectrics, or any other product containing [14] PCBs, I certainly would have participated in the [15] discussion. If they had come and recommended to me it be [16] done, to the best of my recollection, I wouldn't have said [17] no. My *motis opperandi* would have been to do, you know, [18] more communication rather than less. That would have been [19] my style at that particular time.

[20] Q: You just don't recall?

[21] A: I just do not recall.

[22] Q: All right.

[23] THE WITNESS: Can we take a break for a minute [24] or two?

[25] MR. BRADLEY: Yes.

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[1] (Whereupon, a ten minute recess was taken.)

[2] Q: (By Mr. Bradley) I'm going to show you now [3] Plaintiff's exhibit 1536 and ask you to review that [4] document. I want you to review it with enough [5] particularity to tell me whether you ever recall seeing it [6] before.

[7] A: I can't recall this particular article.

[8] Q: All right. When you became product manager, [9] was there a file of materials that were intended for you as [10] product manager?

[11] A: There would have been, you know, all the files [12] that I wanted, and clearly it would have been impossible to

[13] go through every file and go through everything. My style [14] would have been to have gotten the people that reported to [15] me together and brief me on what was going on, what the key [16] issues were, what were they doing about it, what did I need [17] to focus on fairly quickly, and then I would have then set [18] up times for them to come in and brief me about the [19] applications, so that I got up to speed. And they would - [20] I would have asked them, or they would have come in where [21] they would have given me documents that they would have [22] thought particularly relevant. It's unlikely — Either [23] they would have summarized — They might have shown me [24] this first sheet. I would not have sat down at waded [25] through this because I would have looked to Emmet Kelly and

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[1] Elmer Wheeler, a Bill Richard or a Scott Tucker and so on [2] to have, you know, addressed and told me what all this [3] meant or didn't mean.

[4] Q: Did you have an index of the documents within [5] your file when you were product manager?

[6] A: My secretary would have probably kept, you [7] know, filing lists. I would have looked to her to be [8] up-to-date and to know where things were. In those days, [9] more luxury, you just tell them to do it. Now I would [10] probably have to go out and do it myself.

[11] Q: Do you know whether, when you left in 1976, [12] whatever index your secretary had was kept at Monsanto?

[13] A: She would, I think, still have been around, so [14] you know, she would have complied with whatever the record [15] retention policy was within Monsanto, I'm sure of that.

[16] Q: What work did you do when your position of [17] product manager ended in 1976?

[18] A: I'm trying to think. There was a period when [19] I was kind of manager of markets and products, because they [20] added a lot of other things, and so I might have been — [21] At that time, a David Wood, who had replaced Benignus, who [22] had retired, and I can't recall if - I think he reported to [23] me for some point, but whether this was pre 1976 or a short [24] time later, I cannot recall. Then I went to the [25] plasticizer division as a director of commercial

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[1] development, but by then plasticizers didn't have any PCBs, [2] and I was looking at totally other product applications; [3] and after two years, I think, there, I went to Brazil and I [4] lived in Brazil for almost six years.

[5] Q: And when you lived in Brazil, were you still a [6] Monsanto employee?

[7] Q: Yes.

[8] Q: What were you doing in Brazil?

[9] A: Initially, I was the commercial director for [10] Monsanto's chemical business in Brazil, and that was three [11] years; and then I was asked to stay on and head up a [12] business development/business investment function because [13] they — Monsanto wanted to increase its investment in [14] Brazil, and so I did that for probably another three years [15] and I came back to the U.S. toward the end of 1984.

[16] Q: And when you came back to the U.S., did you [17] remain a Monsanto employee?

[18] A: Yes.

[19] Q: And what work did you do then?

[20] A: Then I was, had the title, I think, of [21] Director of International Development and Administration [22] for Monsanto's corporate international operations, and I [23] reported to the managing director, who was the senior [24] person responsible for Monsanto's international business.

[25] Q: All right. What work did you do next?

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[1] A: I then got involved in negotiating a joint [2] venture in Korea because the chemical company wanted to get [3] into Korea, and so I spent almost eight or nine months as a [4] second person on the team, in terms of negotiations. When [5] the decision was made to go ahead, I was asked to go to [6] Korea to co-manage the product, projects, along with a [7] Korean and I spent almost three-and-a-half years and came [8] back at the end of 1990. So I have been back just around [9] two years.

[10] Q: And you were a Monsanto employee?

[11] A: All through that time. So from '66 through [12] the end of 19 - until September, 1991, which is twenty-five [13] years. Twenty-five years a Monsanto employee, plus [14] three-and-a-half before but there was a gap in-between.

[15] Q: You've been retired since 1991?

[16] A: I retired in September of 1991.

[17] Q: All right. I'm now going so show you [18] Plaintiff's Exhibit 1535 and I'd like you to review that to [19] see if you recall it. Do you recall seeing this document? [20] First of all, this is a June 23, 1972 letter from Paul Gann [21] to Mr. C.R. Jordan; is that correct?

[22] A: Yes.

[23] Q: And it has your name at the top?

[24] A: Yes.

[25] Q: Have you seen this document before?

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[1] A: Not this document, but I recollect many such [2] letters like this going out.

[3] Q: Did Monsanto at some point incinerate [4] dielectric fluids that were brought to it by General [5] Electric and Westinghouse?

[6] A: Yes. We offered the service to do that.

[7] Q: And you charged for that?

[8] A: We charged for that.

[9] Q: I'm not going to show you Plaintiff's Exhibit [10] 1534, and I want you to review that again for the purpose [11] of determining whether you recall ever seeing the exhibit.

[12] A: I can't recall this specific one but again, [13] this is along the lines of what was, had become policy [14] within the group at that time.

[15] Q: All right. I'm now going to show you [16] Plaintiff's Exhibit 1570 and it has a date on it of [17] November 17th, 1969. I'm interested in your informing me [18] whether you've seen that document before.

[19] MR. FEATHERSTONE: Sorry. It has what date on [20] it?

[21] MR. BRADLEY: It says at the top, it says, "On [22] November 17th, 1969 we discussed..." And that's, as far as [23] I can tell, the only dates on the document.

[24] Q: (By Mr. Bradley) Have you reviewed that [25] document?

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[1] A: Yes.

[2] Q: Have you seen that document before?

[3] A: It doesn't trigger any recollection, no.

[4] Q: Do you — From your work with dielectric [5] fluids at Monsanto, do you know whether, in 1969, [6] Monsanto's worldwide business in PCBs involved gross [7] profits of ten million dollars?

[8] A: I don't know because in 1969, I didn't really [9] have responsibility for any dielectric product. So I've [10] got no reason to say these numbers are wrong but I can't [11] confirm they're right either.

[12] Q: Do you know whether, in — Excuse me. What [13] was your job responsibility in November of '69?

[14] A: That is when I was the Market Manager for [15] Specialty Plasticizers and my involvement would have been [16] the plasticizers plus the carbonless copy paper application [17] of the products.

[18] Q: And those used sometimes Aroclor 1254 and [19] 1260?

[20] A: Yes. I think primarily 1254, as I recall.

[21] Q: In November of 1969, did you review any [22] documents within Monsanto that referred to Aroclor 1254 and [23] 1260 and the growing of pollution hysteria regarding those [24] chemicals?

[25] A: You know, I don't know who wrote this, so you

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[1] know, I cannot recollect participating and preparing this [2] document, but that wouldn't be that important because at [3] the level I was at then, in my somewhat limited [4] responsibility in the PCB area, it would have been, more [5] than likely, the initiative would have been taken by other [6] people.

[7] Q: I'm now looking at page two, in the middle. [8] There's a reference to Congressman Ryan's press conference.

[9] A: Yes.

[10] Q: Were you informed about Congressman Ryan's [11] press conference while you were a Monsanto employee?

[12] A: I think the odds are that I would have heard [13] about it in my normal day-to-day contacts, or might have [14] had something come to me at some point in it. I cannot [15] recall now. I think the odds are I probably would have [16] been aware of it at the time.

[17] Q: And in 1969, would Thomas Gosage, Howard [18] Bergen or Bill Papageorge have been the people responsible [19] for communicating to electric utility companies purchasing [20] transformers and capacitors containing PCBs manufactured by [21] Monsanto of the studies that were appearing, showing the [22] presence of PCBs in samples of human milk?

[23] MR. FEATHERSTONE: Object to the form of the [24] question.

[25] MR. BRADLEY: All right. Then I'll ask it in

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[1] a way that's going to take us awhile.

[2] MR. FEATHERSTONE: You don't have to ask it in [3] a way that's going to take us awhile. Your question is [4] objectionable because it implies there was a responsibility [5] on Monsanto's part to do that. If you want to ask the [6] question of whether, if it was done, whether they did it, [7] or would know whether it was done, you can ask that.

[8] Q: (By Mr. Bradley) Did anyone within Monsanto [9] in 19 - November of 1969 have responsibility for reporting [10] to electrical utility companies who purchased electrical [11] transformers and capacitors containing PCBs manufactured by [12] Monsanto that studies on or about 1969 were showing

the [13] presence of PCBs in samples of human milk?

[14] A: I don't know because in '69, I didn't have [15] really any responsibilities for dielectric products.

[16] Q: When you became project manager, were you [17] informed that in 1969, November of 1969, Monsanto had [18] determined that absolute identification of PCBs and its [19] effects on the environment were identified as requiring [20] considerable research?

[21] A: I cannot recall being told that in exactly [22] those words, but I certainly would have been briefed and [23] had discussions on where we stood in this whole [24] investigation.

[25] Q: When you became project manager, were you

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[1] informed that in 1969, studies had found PCBs in mothers' [2] milk?

[3] A: I can't recall being told anything [4] specifically about mothers' milk.

[5] Q: Do you recall, when you became project [6] manager, being informed —

[7] MR. FEATHERSTONE: It's product.

[8] MR. BRADLEY: Product manager. - that a [9] laboratory had found PCBs in cows' milk on or about 1969?

[10] MR. FEATHERSTONE: Object to the form.

[11] Q: (By Mr. Bradley) When you became product [12] manager, were you informed that PCBs were being found in [13] milk from cows?

[14] A: I cannot recall, you know, this study says in [15] cows and human milk and so on. I was aware that there were [16] studies that were finding what were alleged to be PCBs in [17] different places, and that what wasn't clear was just [18] exactly what PCBs it was. Was it the higher ones that [19] didn't break down and all of that? So that was still, you [20] know, a subject of a great deal of research within and [21] outside Monsanto.

[22] Q: All right.

[23] A: But it wouldn't have been because anyone was [24] trying to keep information from me. I just can't recall it [25] being brought up specifically. I never had any problem

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[1] finding out what was going on.

[2] Q: When you became product manager, were you [3] informed that PCBs were in the coating on the insides of [4] silos and that the PCBs were getting into the feed stored [5] in the silos?

[6] A: That was something that I think I was aware of [7] just before I left the plasticizer group. I think there [8] had been one or two instances of that; or

maybe I learned [9] it later, but I can associate that with my plasticizer days [10] because, indeed, of the coatings that were used, but I [11] think it was — I can't recall if they just used Aroclor [12] 5460, which was a terphenyl, or whether they also used [13] 1260. I can't remember that. That was something I was [14] aware of.

[15] Q: When you became product manager, did you [16] review any memos from Emmet Kelly, who posed the question [17] in a memo, "When are we going to tell customers not to use [18] any Aroclor in any paint formulation that contacts food, [19] feed or water for animals or humans?"

[20] A: I don't — I mean, I don't know the date of [21] Emmet Kelly's memo. Does he have a date when he posed that [22] question?

[23] MR. BRADLEY: March 30th, 1970.

[24] A: My recollection is at sometime, I think before [25] I became the product manager, I think there had been some

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[1] mailing indicating that the Aroclor should not be used [2] where they could come into contact with foodstuff and so [3] on. My memory is a bit sketchy, but I think there were [4] some, and I think there was some action taken as a result [5] of that question.

[6] Q: Do you know what steps were taken after Dr. [7] Kelly's March 30th, 1970 memo?

[8] A: I cannot now recall if there was anything [9] before that or after that. I honestly don't know. Again, [10] there would be other people. Dr. Kelly, himself, Mr. [11] Papageorge, again, would be maybe a source of information.

[12] THE WITNESS: Are we finished now with 1570?

[13] MR. BRADLEY: Yes.

[14] Q: (By Mr. Bradley) I'm now going to show you [15] Plaintiff's Exhibit 420, which is a March 30th, 1970 letter [16] from R. Emmet Kelly, M.D., to W.B. Papageorge, and ask [17] whether you've ever seen that document before?

[18] A: No. I can't recall seeing it because at that [19] time, I probably was no longer - in fact, almost certainly [20] wasn't in the plasticizer job. I would have been in the [21] Latin America job.

[22] MR. BRADLEY: Would you read that answer back?

[23] MR. FEATHERSTONE: He said he was in the Latin [24] America job.

[25] Q: (By Mr. Bradley) Well, you didn't see this

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[1] document apparently in 1970, but when you became product [2] manager, did you see this document?

[3] A: I can't recall, but I also think by the time I [4] got into the product manager job, I think they had [5] discontinued many of the plasticizer sales, I believe. [6] Again, that's my recollection. My memory on dates may be a [7] little bit faulty.

[8] Q: When you became product manager, did you ever [9] review a document dated November 10th, 1969 as a rough [10] draft, entitled "Outlining PCB Environmental Pollution [11] Abatement Plan?"

[12] A: Doesn't ring a bell.

[13] Q: I'm going to show you Plaintiff's Exhibit 422 [14] and ask you to review that document for me. Have you [15] finished your review?

[16] A: Yes.

[17] Q: Have you seen that document before?

[18] A: Again, I can't recall but it is, you know, [19] possible I have, I did see it.

[20] Q: Could you turn to page five for me?

[21] THE WITNESS: Is that the chart?

[22] MR. BRADLEY: No. No [23] THE WITNESS: Okay. Uh-huh.

[24] Q: (By Mr. Bradley) When you became project [25] manager -

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[1] A: Product manager.

[2] Q: Product manager. - were you informed that in [3] 1969, someone within Monsanto had indicated that direct [4] lawsuits are possible regarding Monsanto's legal liability [5] with respect to PCBs?

[6] MR. FEATHERSTONE: Object to the form of the [7] question.

[8] A: I would want to put this document somewhat in [9] context.

[10] Q: (By Mr. Bradley) Before you do that, you [11] should answer my question.

[12] A: Did somebody — I can't recall if they did or [13] didn't.

[14] Q: When you became project manager, did anyone [15] within Monsanto tell you that PCBs are present in nature [16] already, having done their quote, "alleged damage," [17] unquote?

[18] MR. FEATHERSTONE: Object to the form of the [19] questioning.

[20] A: Again, I don't think anyone used these same [21] words. I was aware that there were these reports out [22] there; I was aware that Monsanto was evaluating it and I [23] think by the end of 1971, I would have known that Monsanto [24] was saying yes, we have confirmed that

they are out there, [25] but when I became product manager in late '71, that's two

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[1] years after this particular document, and action had [2] already been taken and was proceeding. I think what you [3] have in this document is a group, from looking at it, [4] primarily technical, had got together, formed their kind of [5] own sort of ad hoc committee to address it, and they threw [6] out options and so on, and that's what it was, but they may [7] not have had all the facts on any particular issue. Where [8] they were obviously very strong was in the technical area, [9] which was their expertise. That's how we get this.

[10] Q: (By Mr. Bradley) You don't know who authored [11] this statement?

[12] A: I really don't know.

[13] Q: It could have been authored by Emmet Kelly, as [14] far as you know?

[15] A: Exactly. I don't know who.

[16] Q: When you became product manager, did anyone [17] inform you that Monsanto's customers using PCB products [18] have not been officially notified about known effects, nor [19] do Monsanto labels carry information about known effects of [20] PCBs?

[21] MR. FEATHERSTONE: Wait a minute. Let me hear [22] the beginning of the question, please.

[23] (Whereupon, the reporter propounded the previous question.)

[24] MR. FEATHERSTONE: Object to the form of the [25] questioning.

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[1] MR. BRADLEY: To the form of questioning?

[2] MR. FEATHERSTONE: Yes, the form of [3] questioning. You're showing him a 1969 document, reading a [4] statement there, saying did anyone tell him that in 1971 [5] when you know, in fact, it was not true in 1971.

[6] A: I think that's the point. I have a hard time, [7] you know, jumping from this document to 1971 because quite [8] a number of things had happened and I know that - I think [9] I'm pretty certain - by then, there had been a phaseout of [10] the plasticizer area entirely. Maybe I'm wrong on dates [11] but I think there is a phaseout on this. There had been [12] notification to customers. I cannot today recollect when [13] they had been. I do know I was brought in with a mandate [14] to get on and keep moving in that direction.

[15] Q: (By Mr. Bradley) Let me ask this question [16] this way. When you became product manager, were you [17] informed by anyone within Monsanto that as of November 10, [18] 1969, Monsanto

customers using PCB products manufactured by [19] Monsanto had not been officially notified about the known [20] effects of PCBs, nor did Monsanto's labels carry that [21] information?

[22] MR. FEATHERSTONE: Object to the form.

[23] A: When I came in, I would have been - In fact, [24] when I would have been interviewed for the position, people [25] would have given me some information as to what the job

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[1] entailed. When I accepted, they would have sat down and [2] explained to me what was expected of me. I think - and [3] again, I cannot remember the specifics - but they would [4] have first briefed me on what the situation was at that [5] moment in time, which was late 1971, and they probably [6] would have briefed me as to what had been done and what [7] they intended me to do; and so I would not have necessarily [8] gone back to this particular document two years earlier and [9] used that as my base. I'd have gone from where we were, [10] and what had been done and then thought out and worked out, [11] not in isolation but with the other people in the whole [12] business group, as to where we were going.

[13] Q: When you became product manager, did anyone [14] inform you that between November, '69 and the time you [15] became product manager that Monsanto had, in fact, informed [16] its customers using PCB products manufactured by Monsanto [17] about the known effects of PCBs?

[18] A: I cannot today recall how many groups of [19] customers had been informed, but there would be others, [20] again, with continuity that would be able to answer that.

[21] Q: Did anyone tell you when you became product [22] manager, or did you learn it by reading documents, that in [23] November of 1969, Monsanto developed three courses of [24] action for handling the PCB situation?

[25] MR. FEATHERSTONE: Object to the form of the

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[1] question.

[2] A: I cannot - No, I don't think anybody told me [3] that but again, I see this as, you know, a document that, [4] taken in isolation, could be interpreted in many different [5] ways. I would see this as a document that the group of [6] people involved in one particular aspect of the problem [7] wrote but out of it, I think there came a management plan [8] and so on, and I don't have to, you know, to know how this [9] evolved. I need to

see a set of other documents, which you [10] haven't shown me.

[11] Q: (By Mr. Bradley) Do you know whether, in [12] 1969, Monsanto determined that it was probably responsible [13] for the U.S. contamination of PCBs and jointly responsible [14] with MCL for the PCB problem in the United Kingdom?

[15] A: I can't recall being told that but again, I [16] think this is an opinion of one writer. I would not [17] necessarily have subscribed to that point of view.

[18] Q: Well, you don't know whether this was one [19] writer or a group of people?

[20] A: Okay.

[21] MR. FEATHERSTONE: That's the problem about [22] asking him questions, Mr. Bradley, about a document he [23] wasn't involved in.

[24] MR. BRADLEY: I can ask him whether he was [25] told certain information.

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[1] MR. FEATHERSTONE: Well, but then don't get in [2] a quarrel with him when he speculates about his answer. [3] You're asking him to speculate.

[4] MR. BRADLEY: I'm not asking him to speculate. [5] I'm asking him what he was told when he became product [6] manager. There should be no speculation about that.

[7] A: I cannot remember being told about this [8] particular document, and if I wasn't told, I wouldn't think [9] that was any sign of omission or deliberate withholding of [10] information on the part of my superiors, and if I was told, [11] I cannot remember.

[12] Q: (By Mr. Bradley) Would you look at page twelve [13] of this document. Under Roman Numeral Twelve, Letter A, [14] Sub 1 talks about implementation of the recommended course [15] of action immediate by 12-1-69. "1. Set up a task force [16] under a project manager or the equivalent responsible for [17] initiating, directing and implementing all action that [18] Monsanto decides to take; this includes sufficient budget [19] necessary to cope with the immediate problems. This task [20] force should include representatives from medical, legal, [21] research and the two involved marketing groups and public [22] relations and must conduct liaison with MCL and other [23] locations involved in the problem." First, did I read that [24] correctly? All right.

[25] A: Yes.

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[1] Q: Do you know whether a task force under a [2] project manager was in-

stituted as discussed in that [3] paragraph?

[4] A: I cannot recall. I don't think one might have [5] been set up exactly as they indicate.

[6] Q: Do you know whether a task force was [7] instituted that may have been similar to what was discussed [8] in this paragraph?

[9] A: I cannot recall now if there was a task force [10] or a committee, or that the people that had [11] responsibilities in those areas just worked together as [12] they would normally have done, and I cannot recall when [13] Bill Papageorge came aboard. Possibly he was brought on [14] about that time. I cannot remember now. Part of his job [15] would have been some of what - not all, but some of what [16] they're suggesting there. I can't recall when he came [17] aboard.

[18] Q: You don't know whether a task force was [19] developed, then?

[20] A: I cannot recall specifically, no.

[21] Q: All right.

[22] A: But if the implication is because there wasn't [23] a task force, Monsanto wasn't taking it seriously, then I [24] would dispute that because we were taking it very, very [25] seriously.

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[1] Q: Would you look at page thirteen now, under [2] item four at the bottom of the page? It says, "Legally [3] define our present position, recommend reasonable action [4] that will not unduly alarm the market but reduce the [5] exposure in terms of liability." Do you know whether [6] Monsanto, after November of 1969, had its legal department [7] define the present position and recommend reasonable action [8] that was intended to not unduly alarm the market but would [9] reduce exposure in terms of liability?

[10] A: I don't know.

[11] Q: Do you know whether the indemnity agreements [12] that Monsanto entered between Westinghouse and General [13] Electric reduced Monsanto's exposure, in terms of liability [14] regarding PCBs?

[15] MR. FEATHERSTONE: Objection. Cumulative.

[16] A: I'm not the best one to answer that.

[17] Q: (By Mr. Bradley) Would you now turn to the [18] charts at the end of the document? The one that has at the [19] top, "Profit And Liabilities Versus Time." Do you see the [20] chart there?

[21] A: Yes.

[22] Q: The page has three separate charts, one saying [23] "Do Nothing," one saying "Discontinue Manufacture of

PCB," [24] and one that says "Responsible Approach." Is that correct?

[25] A: Yes.

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[1] Q: The one that says responsible approach was the [2] recommended approach, at least according to this document; [3] is that true?

[4] A: As I recall, I think that's what they did. [5] I'm certain that's what they would recommend.

[6] Q: And the responsible approach, at least if you [7] look at the graph, has Monsanto's profits going up over [8] time; is that correct?

[9] A: Yes.

[10] Q: And the graph that shows discontinue [11] manufacture of PCBs shows profits going directly down to [12] zip; isn't that true?

[13] A: Yes.

[14] Q: After you became product manager, did anyone [15] indicate to you that Monsanto's approach to PCBs was [16] governed by profits that it intended to make on the [17] continued sale of PCBs?

[18] A: No. I would say that that was something that [19] was way down on the list of priorities. Yes, we were [20] obviously looking at the cost and what all of the cost [21] might be, but we were not driven. We were trying to do [22] what we thought was right for all involved.

[23] Q: And by doing what was right, it also increased [24] your profits overtime?

[25] A: Well, no. I'm not ready to subscribe to that

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[1] because this is, you know, a document. I don't know who [2] put it together. I don't know the premise is behind it. I [3] would somehow - I've looked at that and there is some [4] question about that, I think. In fact, in hindsight, yes, [5] we did. We did what was considered responsible. We got [6] out of manufacturing, so we didn't - I think we acted [7] responsibly, but we certainly didn't increase our profits [8] with Aroclor. That's for sure.

[9] Q: Do you see the dates down there at the bottom [10] of the draft, '70, '71, '72, '73, '74?

[11] A: Yes.

[12] Q: All right. You didn't stop manufacturing PCBs [13] until what year?

[14] A: Well, we didn't stop manufacturing the [15] Aroclor, I believe, until '76 or '77, I think.

[16] Q: I'd like you to look at the last graph on this [17] Exhibit. At the the top, it says, "Probability of [18] Success." Do you see that?

[19] A: Yes.

[20] Q: And on the left, it says "Profits," and [21] underneath that, it has a dollar sign?

[22] A: Yes.

[23] Q: And the graph shows resultant profits and it [24] shows it going up over time?

[25] A: Yes.

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[1] Q: And it shows it going up until '75?

[2] MR. FEATHERSTONE: You mean projects it doing [3] that? The document is 1969.

[4] MR. BRADLEY: That's what the graph shows.

[5] A: The difficulty with that, Mr. Bradley, is I [6] have no idea what the premises were. I couldn't buy into [7] something that says - you know, that takes all of this and [8] says this is, you know, absolutely correct figures. I [9] would doubt it and I certainly know from my involvement [10] with the company on this whole issue that we were not [11] driven by a policy that said we've got the make, you know, [12] profits increasing at all costs and so on. That is not [13] what we were driven by.

[14] MR. BRADLEY: I move to strike the answer as [15] nonresponsive. My question was simply what the graph [16] showed.

[17] MR. FEATHERSTONE: I object to the absence of [18] foundation. The witness has never seen the document [19] before, he wasn't involved in the preparation, has told you [20] he didn't know what assumptions are on the line. And [21] furthermore, you misstated what the graph shows.

[22] Q: (By Mr. Bradley) I'm now going to show you [23] what's marked for identification as Plaintiff's Exhibit [24] 1217. Have you reviewed that?

[25] A: Yes.

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[1] Q: This is a letter from C.F. Seger, Sales [2] Representative, Specialty Products Group of Monsanto, dated [3] October 9, 1973 to Mr. Harold Wolf, Plant Engineer with [4] Westinghouse Corporation in Ohio?

[5] A: Yes.

[6] Q: And it shows you having received a blind copy?

[7] A: Yes.

[8] Q: Have you seen this document prior to today?

[9] A: I can't recall but I don't deny that I got a [10] copy. I would have seen it.

[11] Q: Is it fair to say that because you don't know, [12] I don't recall whether you have reviewed this before, you [13]

don't know, then, whether it was in your files while you [14] were at Monsanto?

[15] A: I'm — I certainly wouldn't deny that it [16] wasn't in my files or that I haven't seen it. It's the [17] kind of thing I would expect to get just by my normal job.

[18] Q: I'm now going to show you Plaintiff's Exhibit [19] 1552 and ask you to review it just long enough to tell me [20] whether you've ever seen the document before.

[21] A: I cannot recall that document, but I see I was [22] supposed to be at the meeting and I have no reason to [23] believe I wasn't there, and I seem to remember vaguely [24] there was a meeting, fairly large meeting in St. Louis. [25] This, in fact, may have been the one.

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[1] Q: Do you recall attending a meeting where, [2] around February 28th, 1974 in St. Louis, attended by Dr. [3] Tucker from Monsanto, Mr. Sheppard from Westinghouse and [4] the other people listed on pages one and two of this [5] document?

[6] A: I remember a meeting being held in St. Louis. [7] I would have been unable to remember correctly the date [8] without having seen this document.

[9] Q: Do you recollect minutes being developed of a [10] meeting that happened on or about February 28th, 1974 [11] involving those people?

[12] A: I don't recollect but this document refreshes.

[13] Q: It refreshes your recollection?

[14] A: Yes.

[15] Q: All right. And do you recall from reviewing [16] the document whether it accurately reports the discussions [17] held at that meeting?

[18] A: Given this span — You know, given the span [19] of time, I have no way of recollecting whether it did or it [20] didn't, but in my experience, you know, normally if there [21] was a meeting like this and Monsanto took minutes, they [22] would be accurate.

[23] Q: Is this the sort of document that Monsanto [24] would typically generate following one of their meetings?

[25] A: It would depend a great deal. I think in this

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[1] one, given the fact that we had a lot of non-Monsanto [2] participants, we would have gone to a great deal of, you [3] know, attention to make sure that we were very formal and [4] had everything down so that they could get copies and so on [5] and on forth. If we were meeting within Monsanto, we might [6] be more informal. We could get the point across without [7] doing it so formally.

[8] Q: Is this the sort of document that Monsanto [9] would keep in its files, the minutes of an important [10] meeting like this?

[11] MR. FEATHERSTONE: I object to the [12] characterization.

[13] MR. BRADLEY: A meeting of this nature.

[14] A: Whoever wrote it would probably have kept a [15] file copy and would have then been bound by whatever our [16] records retention policy would have been at that time.

[17] Q: (By Mr. Bradley) All right. Now, you had [18] indicated when we first started your deposition that you [19] have given your deposition on other occasions?

[20] A: Yes.

[21] Q: How many other occasions have you had your [22] deposition taken?

[23] A: I'm going to say three or four.

[24] Q: Tell me what you recall about those? When did [25] they occur?

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[1] A: One occurred sometime in San Francisco.

[2] Q: Was that regarding One Market Plaza?

[3] A: I think that's right. Yes. Another had to do [4] with some — I think they were a utility, if I'm not [5] mistaken, or an energy company, in Kentucky. That was [6] somewhere towards the end of last year; and then there was [7] one maybe about the middle of the year, shall we say. Had [8] to do with Transwestern or Transeastern pipeline. That's [9] how many, three? I think I recall one having to do with [10] something in Jacksonville at some point.

[11] Q: Jacksonville, Florida?

[12] A: Yes.

[13] Q: Do you recall what the subject matter of your [14] deposition was regarding the deposition you gave in [15] Kentucky last year?

[16] A: Somewhat vaguely. As I recall, I don't think [17] I was really in a management position involving these [18] products for a great period of time that was under [19] question, so it was, again —

[20] Q: What products were under question in that [21] case?

[22] A: God. I'm losing my memory fast. It must have [23] been some sort of a compressor lubricant or a turbo [24] lubricant. I really cannot recall.

[25] Q: Was it a lubricant that contained PCBs?

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[1] A: I'm sure it would have been. Otherwise, I [2] wouldn't have been in-

volved, but I'm fuzzy. I gave it and [3] that was that. I don't go home and sleep with the thing, [4] think about it.

[5] Q: Do you recall what your testimony was when you [6] gave a deposition in the middle of the year with [7] Transwestern or Transeastern pipeline?

[8] A: That had to do with a turbine lubricant.

[9] Q: That contained PCBs?

[10] A: Yes.

[11] Q: And was the allegation that someone was [12] injured as a result of exposure to the PCB?

[13] A: No. As I recall, I don't think in any of [14] these cases anyone ever was injured.

[15] Q: Was there an allegation that someone was more [16] susceptible to injury as a result of exposure to PCB?

[17] A: I don't recall that at all.

[18] Q: And when you said that you gave that in the [19] middle of the year, did you mean the middle of last year?

[20] A: Yes.

[21] Q: And the one having to do with Jacksonville, [22] Florida, do you recall what the subject matter of that one [23] was?

[24] A: I think it had to do with a transformer but [25] don't hold me to it because that's a number of years ago.

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[1] I think that was maybe before I went to Korea. So that's [2] going back to what, 1986, '87, I think. But again, I'm a [3] bit fuzzy on dates.

[4] Q: Do you have copies of the transcripts of your [5] depositions?

[6] A: No.

[7] Q: Do you know if anyone does?

[8] A: I would have turned them back to whichever [9] lawyer contacted me from Monsanto and, you know, after the [10] court reporter came in with a transcript, I would have been [11] sent a copy, checked it, signed the pages on changes and [12] turned it back in to Monsanto.

[13] Q: Do you know a gentleman named Paul Wright?

[14] A: Paul Wright?

[15] MR. BRADLEY: Yes.

[16] A: The name is somewhat familiar, yes.

[17] Q: Do you know whether he was a Monsanto [18] employee?

[19] A: I believe at one time he was.

[20] Q: And was he a Monsanto employee in the 1970s?

[21] A: He could have been. I can't remember.

[22] Q: Do you recall whether Dr. Wright ever worked [23] for Industrial Biotest Laboratory?

[24] A: I seem to recollect — Well, I'm not sure. [25] I can't recall now whether I knew that or didn't.

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[1] Q: Do you know whether Monsanto ever paid for any [2] legal assistance for Dr. Wright?

[3] A: I don't know that.

[4] Q: Do you know whether Dr. Wright was ever [5] charged with a crime?

[6] A: I vaguely remember reading something in the [7] newspaper, I think it might have been the Wall Street [8] Journal, about a case involving him.

[9] Q: Do you recall whether you learned that the [10] case involving him had to do with studies he performed at [11] IBT labs?

[12] A: I seem to recollect that was the gist of that [13] article.

[14] Q: As product manager, do you know whether any [15] Monsanto materials containing PCBs were studied at IBT [16] labs?

[17] A: I recall that — I think IBT was used to do [18] some toxicological study type work for Monsanto.

[19] Q: Did you ever learn whether other IBT employees [20] were charged with crimes about the same time Dr. Wright was [21] charged with a crime?

[22] A: I have a feeling that other IBT employees [23] were, and I'm thinking again in terms of that newspaper [24] article, but I cannot say for sure.

[25] Q: Do you know a gentleman named Dr. Calandra?

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[1] A: That name rings a bell.

[2] Q: Do you recall ever meeting Dr. Calandra?

[3] A: I don't recall but I might have met him. I [4] would have been a participant in meetings when he was [5] there, but I did not deal with Industrial Biotest or Dr. [6] Calandra or anyone else there on a direct basis.

[7] Q: Did you deal with him on an indirect basis?

[8] A: No.

[9] Q: Do you know whether Dr. Wright was a Monsanto [10] employee before he worked for IBT?

[11] A: I don't know the — I don't know anything [12] about his career history at all.

[13] Q: Do you know whether he was a Monsanto employee [14] after he worked for IBT?

[15] A: I don't know. It just never came up and I had [16] no reason to find out about it.

[17] Q: After you read about IBT employees from the [18] Wall Street Journal, did you do anything to determine [19] whether any tests involving Monsanto products that had been [20] sent to IBT were valid?

[21] A: No, I didn't. As I recall, when I read the [22] article, I think I was in Brazil. I was in Brazil from [23] early 1979 until late 1984. I think it was in that time [24] period, but I cannot — You know, I cannot recall.

[25] Q: During the time that you were a Monsanto

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[1] employee, did you talk with anyone within Monsanto [2] regarding the amount of payments given to Dr. Wright's [3] lawyers to defend him?

[4] A: No. I had no idea of anything like that and [5] certainly no discussions about it.

[6] MR. BRADLEY: Those are all the questions that [7] I have.

[8] CROSS-EXAMINATION

[9] QUESTIONS BY MR. FEATHERSTONE:

[10] Q: Mr. Paton, in your years as product manager [11] involving dielectric fluids from approximately - which you [12] testified lasted from approximately late 1971 until [13] sometime in 1976, did General Electric ever ask Monsanto, [14] to your knowledge, to give warnings directly to General [15] Electric customers?

[16] A: I can't recall that.

[17] Q: For the same time period, did Westinghouse, to [18] your knowledge, ever ask Monsanto to give any warnings [19] regarding PCB dielectric oils directly to Westinghouse [20] customers?

[21] A: I can't recall that.

[22] Q: To your knowledge, did either GE or [23] Westinghouse, or any other manufacturer of transformers or [24] capacitors, ever tell Monsanto that it could not or would [25] not pass along to their customers information that Monsanto

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[1] had given to them?

[2] MR. BRADLEY: Objection. Com- pound.

[3] A: I can't recall anything along those lines.

[4] MR. FEATHERSTONE: No further questions. [5] Thank you.

[6] MR. BRADLEY: Nothing.

[7]

[8] CUMMING PATON

[9] Subscribed and sworn to before me this _ day of [10] ____, A.D., 19__.

[11]

[12] Notary Public [13] Notary Public within and for the State of Missouri.

[14]

[15] MY COMMISSION EXPIRES THE DAY OF [16] ____, A.D., 19__.

[17]

[18]

[19]

[20]

[21]

[22]

[23]

[24]

[25]

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[1] STATE OF MISSOURI)

) SS

[2] COUNTY OF ST. LOUIS)

[3] I, John T. Concannon, a Notary Public within and for [4] the State of Missouri, duly commissioned, qualified and [5] authorized to administer oaths and to take and certify to [6] depositions, do hereby certify that pursuant to Notice in [7] the civil cause now pending and undetermined in the [8] District Court of the United States, within and for the [9] District of Nevada, entitled NEVADA POWER COMPANY [10] Plaintiff, -vs- MONSANTO COMPANY, et al., Defendants, to be [11] used in the trial of said cause in said Court, I was [12] attended at the law offices of Messrs. Husch & Eppenberger, [13] 100 N. Broadway, Suite 1300, in the City of St. Louis, [14] State of Missouri, by Ralph A. Bradley, attorney for the [15] Plaintiff; by Bruce A. Featherstone, attorney for the [16] Defendant, Monsanto Company; by Laurie Basch, attorney for [17] the Defendant, Westinghouse; and by CUMMING PATON witness, [18] in said office on March 18, 1993.

[19] The said witness, CUMMING PATON, being of sound mind [20] and being by me first carefully examined and duly cautioned [21] and sworn to testify the truth, the whole truth and nothing [22] but the truth in the case aforesaid, thereupon testified as [23] is shown in the foregoing transcript, said testimony being [24] by me reported in shorthand and caused to be transcribed [25] into typewriting, and that the foregoing pages correctly

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set out the testimony of the aforementioned witness, CUMMING PATON, together with the questions propounded by counsel and the remarks and objections of counsel thereto, and is in all respects a full, true and complete transcript of the questions propounded to and the answers given by

Cumming M. Paton
March 18, 1993

said witness; and that said testimony, so transcribed, was
subscribed to by the witness on the _____ day of
_____, A. D., 1993.

I FURTHER CERTIFY that I am not of counsel nor
attorney for any of the parties to said suit, nor related,
nor interested in any of the parties or their attorneys.
WITNESS MY HAND and Notarial Seal, given this _____
day of _____, A. D., 1993, at St. Louis, Missouri.

MY COMMISSION EXPIRES SEPTEMBER 12, 1994

JOHN T. CONCANNON,
Notary Public, within and
for the State of Missouri

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May 4, 1993

Bruce A. Featherstone, Esq.

Kirkland & Ellis

1999 Broadway - Ste. 4000

Denver, Colorado 80202

Re: Nevada Power Company -v-
Monsanto Company, et al.

Dear Mr. Featherstone:

This letter, incorporated as the last page of Mr.

Paton's deposition, taken on March 18, 1993, will serve as
notice to you that his testimony is now ready for reading
and signing of same. You will recall you indicated a
preference for him reading his deposition, rather than
waiving signature.

Enclosed please find the original signature page of

Mr. Paton's deposition, along with an errata sheet. Please
have Mr. Paton read and sign his deposition and return the
original signature page to me. I will then return the
signature page to the original transcript, and notify Mr.
Bradley of any corrections the witness may have made.

Thank you for your cooperation in this regard.

Sincerely,

JOHN T. CONCANNON

Shorthand Reporter

Concannon & Jaeger

General Court Reporters

705 Olive Street - Ste. 604

St. Louis, Missouri 63101

JTC:md

Nevada Power Company v.
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