

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN JUDICIAL DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

JOHN W. BAKER, et al.,	)	
	)	
Plaintiffs,	)	
	)	
vs.	)	Civil No. IP 91-626-C
	)	
MONSANTO COMPANY,	)	
	)	
Defendant.	)	

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TELEPHONIC DEPOSITION OF WILLIAM B. PAPAGEORGE, P.E.
On behalf of Plaintiffs
October 2, 1996

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St. Louis, MO 63101
(314) 621-2571

CC-7

1 IT IS HEREBY STIPULATED AND AGREED by and
2 between Counsel for the Plaintiffs and Counsel for the
3 Defendant that this deposition may be taken in shorthand
4 by FAITH A. OLLIGES, a Registered Professional Reporter
5 and Notary Public, and afterwards transcribed into
6 typewriting.

7 o-o-o

8 WILLIAM B. PAPAGEORGE, P.E.,
9 Of lawful age, being produced, sworn, and examined on
10 the part of the Plaintiffs, deposes and says:

11 DIRECT EXAMINATION

12 QUESTIONS BY MR. McCREA:

13 Q. Mr. Papageorge, would you please state your
14 full name for the record?

15 A. William B. Papageorge.

16 Q. Do you still reside at 321 Pebble Valley
17 Drive, St. Louis, Missouri?

18 A. Yes.

19 Q. Mr. Papageorge, what documents have you
20 reviewed in preparation for this deposition?

21 A. Oh, I don't know that I can describe them
22 all by title or name, but they were documents that I
23 understand you had planned to use in this deposition. I
24 recall a copy of my affidavit, a copy of my curriculum
25 vitae, and it seemed to me there was an EPA report dated

1 in the middle '80's. Nothing specifically other than
2 that comes to mind.

3 Q. Did you review a letter that you wrote to
4 Dan Albert dated March 18, 1975 in which you answer
5 certain questions he --

6 A. That was sort of waved in front of me. I
7 did not get to review it.

8 MR. ROSIELLO: Mr. McCrea, that is not
9 within the universe of documents that you told me would
10 be addressed at this deposition, and Mr. Papageorge did
11 not look at it, and I do not have a copy of it with me.

12 MR. MCCREA: Okay. I thought he said it
13 was waved in front of him or words to that effect.

14 MR. ROSIELLO: Yes.

15 MR. MCCREA: Okay.

16 Q. Did you review any other documents,
17 Mr. Papageorge?

18 A. I just don't remember them at the moment by
19 name or title or description of any kind. There
20 couldn't have been more than a half a dozen altogether.

21 Q. All right, sir. Did you review the
22 attachments to your affidavit, A, B, C, D, E, F, G and
23 H?

24 A. They were present. I did not take the time
25 to reread them.

1 Q. Mr. Papageorge, with respect to the
2 affidavit, which has 16 paragraphs, who prepared the
3 affidavit?

4 A. I don't know the individual or individuals
5 that were involved.

6 Q. Did the affidavit come to you for signature
7 in final form, or did you participate in the preparation
8 of the affidavit?

9 A. I received a draft version that I was
10 permitted and privileged to read, and I made some
11 changes to it and reviewed them with an attorney. These
12 changes were incorporated in a final draft that was sent
13 to me for another reading and signing off if I agreed
14 with it.

15 Q. And did you sign off on the final version?

16 A. Yes.

17 Q. Do you have a copy of the draft version?

18 A. No.

19 Q. Was that draft version mailed to you?

20 A. It was Federal Expressed to me.

21 Q. What did you do with it?

22 A. When, sir?

23 Q. After you reviewed it.

24 A. Well, I returned it to a representative of
25 Monsanto's legal department.

1 Q. All right. Who sent the draft version to
2 you?

3 A. Mr. Tim Peck.

4 Q. And he is with you today?

5 A. Yes.

6 Q. Do you recall any substantive changes that
7 you made in the final version compared to the draft
8 version?

9 A. I don't know that I understand your use of
10 the word "substantive". I do remember some changes that
11 I recommended and that were incorporated, primarily some
12 of the dates, to make them more accurate.

13 Q. Mr. Papageorge, I'd like to keep this
14 deposition brief. I want to talk to you about these
15 areas: leaks of the Therminol heat transfer fluid at
16 the Muncie plant, contamination of transformers,
17 contamination of the Muncie plant and the Bloomington
18 plant, your knowledge of Westinghouse as a sophisticated
19 purchaser, and warnings that were incorporated or
20 attached to your affidavit that were on the barrel of --
21 barrels of Therminol sent to the Muncie plant. First of
22 all, I'd like to talk about leaks of Therminol at the
23 Muncie plant. Can you describe for us Therminol as a
24 product, when it was first used, its chemical
25 formulation and changes in the chemical formulation?

1 MR. ROSIELLO: I object to the form of the
2 question. The witness may answer.

3 A. The Therminol products manufactured and
4 sold by Monsanto were introduced as best I recall in the
5 early 1950's. You asked me to describe their chemical
6 formulation. There were several Therminols. They were
7 described by trademarks such as Therminol FR-1,
8 Therminol FR-2, and so on.

9 Speaking of FR-1 and FR-2, as best I
10 recall, the FR-1 formulation consisted of a mixture of
11 industrial polychlorinated biphenyls, PCBs, that were
12 described under the trade name Aroclor 1242. FR-2, as
13 another example, was a mixture of commercial PCBs
14 marketed under the trade name Aroclor 1248. They were
15 colorless, oily materials that could withstand a lot of
16 stress in the way of temperatures and pressures and time
17 and had the property in addition of being fire
18 resistant, which is the principal characteristic that
19 enabled them to be used in heat transfer systems.

20 Q. Mr. Papageorge, were the formulations for
21 FR-1 and FR-2 pure PCBs, or were there other chemicals
22 in the mixture?

23 A. They were pure commercial PCBs.

24 Q. When did Monsanto last manufacture FR-1 and
25 FR-2?

1 A. I don't recall the exact date, but it
2 occurred about 1971 or so. Early 1970's.

3 Q. Who made the decision at Westinghouse to
4 terminate the manufacture of these products which
5 contained pure commercial PCBs?

6 MR. ROSIELLO: You said Westinghouse there,
7 Mr. McCrea.

8 MR. McCREA: Monsanto. Thank you.

9 A. Well, the decision was arrived at by a
10 group of Monsanto employees involved with the research,
11 manufacturing and sale of Therminol fluids. It was
12 then, of course, in the normal procedures followed by
13 Monsanto proposed to the hierarchy of supervision. It
14 was finally approved by the business director of the
15 group within Monsanto that was responsible for the
16 marketing of heat resistant transfer -- heat transfer
17 fluids.

18 Q. What was the primary reason for the
19 termination of the sale of these PCB heat transfer
20 fluids?

21 A. There was a principal reason, but there was
22 also an additional reason, commercial reason. The
23 principal reason was that the heat transfer fluids had
24 been used in food-related processes, such as the frying
25 of potato chips, as an example. There were instances

1 reported early in 1970 of contamination of animal feed
2 with PCBs, primarily in that instance with poultry feed.
3 So as a result of those experiences, a decision was made
4 to get out of that particular application to avoid food
5 and animal feed contamination. From that experience,
6 Monsanto was able to determine that the conversion to
7 flammable fluids could be achieved technically, and,
8 having accomplished that, the decision was made to
9 extend that thinking into all heat transfer
10 applications.

11 Q. Even though at the Muncie Westinghouse
12 transformer plant there was no operation that involved
13 food or feed?

14 A. That is correct.

15 Q. Were you aware of manufacturing guidelines
16 and specifications for FR-1 and FR-2 with respect to its
17 propensity to result in leaks?

18 MR. ROSIELLO: Miss Reporter, would you
19 repeat that question, please?

20 (Reporter read back as requested.)

21 MR. ROSIELLO: I object to the form of that
22 question. I just don't understand it.

23 A. I don't recall any document or brochure
24 that covered that subject, if I understand your question
25 properly.

1 Q. You don't ever recall reading manufacturing
2 specifications published by Monsanto which stated that
3 because of the extreme solvency of these fluids there
4 was a propensity for them to leak at areas where there
5 were joints and connections?

6 A. No. I don't understand your -- the use of
7 your word "solvency" and "propensity for leakage". I
8 just -- No, sir, I just don't remember any such
9 document.

10 Q. Were FR-1 and FR-2 solvents?

11 A. I don't know that I understand the
12 question. Do you mean are they capable of dissolving
13 something in solution?

14 Q. Yes.

15 A. Well, they're certainly capable. I don't
16 propose to know the list of chemicals that could
17 dissolve in them, but they were not to my knowledge used
18 as solvents the way, say, trichlorethylene was used to
19 dissolve materials.

20 Q. Did you visit the Muncie plant which
21 manufactured and repaired transformers?

22 A. I did not.

23 Q. Have you reviewed any trip reports or
24 documents of Monsanto personnel who visited the Muncie
25 transformer plant?

1 A. I have not.

2 Q. Do you have any knowledge as you testify
3 here today about leaks of FR-1 and FR-2 at the Muncie
4 Westinghouse transformer manufacturing and repair
5 facility?

6 A. I do not.

7 Q. Did you review the U.S. EPA report which
8 involved testing fluids at the Muncie plant and
9 resulting data that was collected?

10 A. I saw a copy. I flipped through it. I
11 don't know that I would correctly use the word review
12 it. I saw some references there to analytical results,
13 and that's about the extent of my exposure to that
14 particular document. I had never seen it before it was
15 shown to me yesterday.

16 Q. Mr. Papageorge, can you describe any
17 information in your possession with respect to the
18 Muncie Westinghouse plant and the use of FR-1 and FR-2
19 in the heat transfer system or Vaportherm?

20 MR. ROSIELLO: I object to the form of the
21 question.

22 A. I'd like -- I forgot the first part of your
23 question, sir. Maybe the reporter can repeat it for me.

24 MR. ROSIELLO: Why don't you rephrase it,
25 David?

1 Q. What knowledge do you have, Mr. Papageorge,
2 about the use of FR-1 and FR-2 at the Muncie plant?

3 A. I was made aware of the use of those heat
4 transfer fluids at the plant back in 1970 when the
5 conversion program was underway.

6 Q. Who provided the information to you, and
7 what did they tell you?

8 A. At the time an employee of Monsanto was in
9 charge of this program for conversion. He would publish
10 periodically a summary report of the various customers
11 of Monsanto and the status of their conversion programs.
12 I recall seeing the Westinghouse Muncie plant in some of
13 those reports.

14 Q. What quantity of FR-1 and FR-2 was sold to
15 the Muncie plant?

16 A. I'm sorry. What property?

17 Q. What quantity.

18 A. Quantity. Oh, I'd have to see -- I don't
19 remember numbers, sir. I'd have to see the shipment
20 numbers that go back several years.

21 Q. Mr. Papageorge, who was the employee who
22 provided the information to you in 1970?

23 A. Mr. Paul Gann, G-A-N-N.

24 Q. Do you know where he is located today?

25 A. I do not.

1 Q. If leaks occurred at the Muncie plant of
2 Monsanto's heat transfer fluids, FR-1 and FR-2, as you
3 testify here today, you have no knowledge of those
4 leaks?

5 A. That is correct.

6 Q. In your affidavit, Mr. Papageorge, that was
7 attached to Monsanto's Motion for Summary Judgment, you
8 state in paragraph 11, line five, quote, "These fluids
9 were used as heat transfer fluids in a closed system,"
10 end quote. By that statement, do you mean to imply that
11 those fluids never leaked?

12 A. No, sir. That statement describes the
13 system as designed by the engineers involved and
14 installed by the individuals, and it's a closed system
15 by all the definitions used in engineering technology.

16 Q. But it's a closed system, sir, by design?

17 A. Yes, sir.

18 Q. You do not mean to communicate by your
19 affidavit to this court that the PCBs in that system
20 never leaked?

21 A. I didn't say that.

22 Q. Right. You have no knowledge from any
23 discussions with the U.S. EPA, Westinghouse personnel or
24 anyone else that the FR-1 and FR-2 heat transfer fluids
25 in the closed system at the Muncie transformer plant

1 never leaked? No one ever told you that?

2 A. That is correct.

3 Q. What is the source for your statement in
4 the affidavit that, quote, "In 1973 Westinghouse drained
5 and flushed the PCB-containing Therminol fluid from its
6 heat transfer system" end quote?

7 A. Mr. Gann's periodic reports.

8 Q. Did you or did anyone at Monsanto follow up
9 with respect to contamination of the plant after 1973
10 caused by FR-1 and FR-2 PCB fluids?

11 MR. ROSIELLO: I object to the form of the
12 question. The witness may answer.

13 A. Not to my knowledge.

14 Q. Is your first knowledge, sir, that the
15 plant had PCBs in areas other than the heat transfer
16 fluid the information from the U.S. EPA report that you
17 scanned through in preparation for this deposition?

18 MR. ROSIELLO: I object to the form of that
19 question. It assumes foundation that has not been laid.

20 A. Sir, all I saw was a page on which some
21 analysis results were shown. I have no way of knowing
22 anything other than that from what little I've been able
23 to put together from glancing through the report. I'm
24 not really qualified to comment. All I can say is that
25 that's a number on a piece of paper reported by someone.

1 Q. That someone, sir, is the U.S. EPA, and
2 you're familiar with their function and
3 responsibilities; are you not?

4 MR. ROSIELLO: Object to the form of the
5 question.

6 A. Well, I'm certainly familiar with EPA. I
7 also know that they use many, many laboratories to do
8 their work for them. I also know that through the years
9 the ability of these laboratories to analyze more and
10 more accurately as time went on did occur. I have no
11 way of knowing how the samples were taken. I have no
12 way of knowing whether the laboratory did analyses to
13 confirm their initial results. There's an awful lot yet
14 that I need to know before I can comment on this report.

15 Q. In preparation for the deposition,
16 Mr. Papageorge, did you obtain any information from
17 Westinghouse or the purchaser of the Westinghouse plant,
18 ABB, about remediation efforts which were undertaken to
19 decontaminate the plant of PCBs?

20 A. No, sir.

21 Q. So if I told you that there was extensive
22 remediation undertaken by Westinghouse and ABB to
23 decontaminate the plant, you have no independent
24 knowledge of that?

25 A. That is correct.

1 Q. Have you read any materials relating to
2 Johnnie Taylor, the Afro-American who has filed the
3 personal injury complaint in this case?

4 A. No, sir.

5 Q. Mr. Papageorge, tell me what you know about
6 mineral oil transformers becoming contaminated with
7 PCBs.

8 MR. ROSIELLO: Object to the form of the
9 question. I mean, it's just too general, Mr. McCrea.

10 MR. MCCREA: Well, just in general.

11 MR. ROSIELLO: Contaminated in what way?

12 Q. Contaminated with PCBs. How the
13 contamination occurred, what Monsanto did in response to
14 the information, and just generally what you know about
15 mineral oil transformers becoming contaminated with
16 PCBs.

17 MR. ROSIELLO: Well, I object to the form
18 of that question. You can give a general answer as well
19 as you can, Mr. Papageorge.

20 A. My first exposure to the potential for this
21 contamination to occur was in, oh, about 1971 when I was
22 chairman of a committee addressing PCBs in electrical
23 equipment. In the discussions by representatives of the
24 transformer manufacturing and using communities, the
25 question was raised in my presence about the potential

1 for contamination to occur. At that time, none of the
2 participants had positive evidence that this was
3 happening, but they started speculating about the
4 possibility that a service contractor coming on site
5 with his equipment may not have decontaminated his
6 equipment to the point that where he's working on the
7 mineral oil transformer he may not have introduced some
8 PCBs from a previous job. That was my first exposure to
9 this potential. Other than that, I have no personal
10 feel for the extent of this contamination, both
11 geographically and in amounts of material. It's a
12 possibility is the impression I'm left with.

13 Q. Mr. Papageorge, did the U.S. EPA issue
14 rules and regulations which stated that all mineral oil
15 transformers are presumed to be contaminated with PCBs
16 until tested?

17 A. I don't remember that specifically, sir.
18 The EPA started issuing these in the middle to late
19 1970's. I personally was not involved, so I'm not tuned
20 into that type of action by EPA.

21 Q. Mr. Papageorge, when was Monsanto to your
22 knowledge, based upon your work at Monsanto, put on
23 notice that PCBs could be contaminated with furans?

24 A. In 1975 I was made aware of some analytical
25 studies made by, as best I recall, the Food and Drug

1 Administration Laboratories, in which they saw results
2 that they suspected were furans, chlorinated
3 dibenzofurans. That was '75. This report was made
4 public at a meeting in Chicago in November of 1975.
5 Monsanto's laboratory was able to, with changes in
6 analytical technology, to detect furans in about April
7 of 1976.

8 Q. Mr. Papageorge, my question was not quite
9 the question that I believe you answered.

10 A. Oh!

11 Q. My question was not when were furans
12 confirmed to be in PCBs, but, rather, the question was
13 when was Monsanto put on notice that furans could be a
14 contaminant of PCBs?

15 A. Monsanto was informed of the presence of
16 chlorinated dibenzofurans in European-made PCBs, and the
17 process used by those companies was different than
18 Monsanto's process, so that information turned out not
19 to be applicable at the time to Monsanto's product.

20 Q. In what year was that?

21 A. 1970.

22 Q. Have you read the affidavit that we filed
23 in this case prepared by Ian Webber?

24 A. No, sir.

25 Q. Mr. Papageorge, in your affidavit, you

1 state in paragraph 13, the first sentence, quote,
2 "Through my dealings with Westinghouse, I was aware that
3 Westinghouse was knowledgeable and sophisticated
4 concerning Inerteen environmental handling and potential
5 health concerns," end quote. Earlier I made reference
6 to a document that was, I believe you said, waved in
7 front of you, which was a letter dated March 18, 1975,
8 from you to Dan Albert, Staff Supervisor, Personnel
9 Relations, Westinghouse Electric Corporation, Highway 58
10 West, South Boston, Virginia, dated March 18, 1975, in
11 which you answer specific questions from Mr. Albert. I
12 know that you haven't reviewed that in detail, but do
13 you recall that communication and answering of questions
14 by you?

15 MR. ROSIELLO: Mr. McCrea, I object to that
16 question because it violates the agreement we had, which
17 was that you were going to provide me with the documents
18 that were going to be used at this deposition, and you
19 told me that you would do that and you told me you would
20 do it no earlier than Monday of this week. Now, I sent
21 you a letter confirming that, and we agreed as to what
22 those documents would be. That document was not on the
23 list. I object to your questioning the witness with
24 respect to that document because that is contrary to the
25 agreement we had that permitted the telephone

1 deposition. Now, if you want to reschedule this so that
2 you can come out to St. Louis and take a normal
3 deposition, then why don't you do that? But now we
4 agreed for your convenience to have a telephone
5 deposition on the understanding that you would let us
6 know in advance what documents you were going to use,
7 and you're now using a document that is not one of those
8 documents.

9 MR. MCCREA: Okay. Mike, you've made your
10 point.

11 MR. ROSIELLO: Well, I'm trying to decide
12 whether I'm going to let him answer these questions
13 because I am trying to decide whether I'm going to
14 insist that you put those questions off until you can
15 come to St. Louis, Mr. McCrea.

16 MR. MCCREA: All right.

17 MR. ROSIELLO: How many questions are you
18 going to ask him about this?

19 Q. Mr. Papageorge, did you review that
20 document before today's deposition?

21 MR. ROSIELLO: Objection. Asked and
22 answered.

23 A. No, sir.

24 Q. All right. I've heard your counsel's
25 objection, and I'll try to focus in on your affidavit

1 without reference to your answering the questions of
2 Mr. Albert. When you say Westinghouse was knowledgeable
3 and sophisticated concerning Inerteen environmental
4 handling and potential health concerns, can you recall
5 any instances up through and including 1975 which would
6 have indicated to you contrary information, that
7 Westinghouse was not knowledgeable and sophisticated?

8 A. No. I have no recollection of anything
9 that would lead me to believe they were not
10 knowledgeable. In fact --

11 Q. Mr. Papageorge, in the attachments to your
12 affidavit --

13 MR. ROSIELLO: Just a minute.

14 Mr. Papageorge, are you finished with your answer?

15 MR. McCREA: I'm sorry. I thought he was
16 finished.

17 A. I was just going to add that my frequent
18 contacts with Westinghouse personnel led me to believe
19 without any doubts that the Westinghouse team, some of
20 whom had been involved with PCBs for decades, knew more
21 about PCBs, their proper handling and health effects,
22 than I did. I was learning from them.

23 Q. Okay. Mr. Papageorge, name those
24 individuals and what information they communicated to
25 you that left that impression.

1 A. That's decades ago, sir, but let me try to
2 recall some. There's Dr. T. K. Sloat, and Don McClain,
3 and a Dr. Dakin. I know there were many, many others.
4 Those three individuals stand out because they were in
5 my opinion professionals in this field.

6 Q. What information did Sloat, McClain or
7 Dakin communicate to you about adverse health effects
8 caused by PCBs that led you to believe Westinghouse was
9 knowledgeable and sophisticated concerning potential
10 health concerns?

11 A. Well, I don't propose to say that I
12 remember the specifics, but, in general, their
13 understanding of materials like PCBs, and, of course, in
14 this case specifically PCBs, can result in harm to human
15 beings at high levels and frequent exposures. They were
16 well aware of the symptoms that they should be watching
17 for; for example, reddening of skin, chloracne, chest
18 aggravation from breathing fumes. They talked about
19 these things very comfortably, as though it was a way of
20 life with them, and it confirmed the kinds of things
21 that I personally had learned from Monsanto's medical
22 staff.

23 Q. What did they consider high levels?

24 A. Well, they were all -- All of us were
25 following the guidelines on breathing that were

1 established by the ACGIH, the American Congress of
2 Industrial Hygienists. I'm not too sure of that full
3 title, but they were established by this group and
4 publicized for Aroclor 1242 and Aroclor 1254, as I
5 recall.

6 Q. But what was the number? What was a high
7 level?

8 A. Oh, I just have forgotten the numbers.

9 Q. Other than reddening of the skin, chloracne
10 and chest aggravation, what other harms or symptoms did
11 Sloat, McClain or Dakin communicate to you that led you
12 to believe Westinghouse was knowledgeable and
13 sophisticated about potential health concerns?

14 MR. ROSIELLO: Well, I object to the form
15 of the question because the witness has already
16 testified in general that they exhibited -- He didn't
17 testify that it was just those three things. That, in
18 general, they exhibited familiarity, knowledge,
19 understanding about these things, so I object to the
20 form of the question.

21 A. The conversations I had with these
22 individuals really centered on the potential for these
23 symptoms and effects to be noted. They did not in any
24 way claim that they had personally seen the reddening of
25 skin or the chest aggravation from breathing, the

1 chloracne. I don't recall anyone saying that they
2 personally saw this. But they were aware of the
3 potential, and anyone that is involved with materials
4 like this knows that chloracne at times would indicate
5 the liver being involved, and there's always an
6 awareness that continued excessive exposures can damage
7 the liver permanently. So it can become a very serious
8 effect unless controlled.

9 Q. Other than a reddening of the skin,
10 chloracne with possible liver damage, chest aggravation,
11 did Sloat, McClain or Dakin reference any other health
12 effects that they were concerned about as a result of
13 their workers being exposed to PCBs?

14 A. No.

15 Q. Did any of them tell you that they were
16 concerned about PCB exposure resulting in death?

17 A. No.

18 Q. Do you recall, sir, ever communicating to
19 Westinghouse that there was a potential real effect to
20 humans, including death, from exposure to PCBs?

21 MR. ROSIELLO: Object to the form of the
22 question. It's too vague. Real effect to humans is too
23 vague.

24 A. Well, we did discuss the effect from
25 overexposure. You asked me to recall. I don't recall a

1 specific meeting or setting at which we --

2 Q. Can you recall, Mr. Papageorge, stating,
3 quote, "There is a potential real effect to humans,
4 including death"?

5 MR. ROSIELLO: Could you please identify
6 what you're quoting from?

7 MR. McCREA: I'm quoting from his March 18,
8 1975 letter to Dan Albert.

9 MR. ROSIELLO: So you're using the document
10 in this deposition without telling us that that's what
11 you're going to do?

12 MR. McCREA: I'm not using the document.
13 I'm asking if he ever recalls making that statement.
14 You're the one that asked me to identify the document.

15 MR. ROSIELLO: I'll let him answer that
16 question, but I'm not going to allow any more
17 questioning on that document, Mr. McCrea.

18 THE WITNESS: Can I refer to the documents?

19 MR. ROSIELLO: I don't have a copy of it,
20 and I object to asking him about a document without
21 showing him the whole document.

22 MR. McCREA: I'm not asking him about a
23 document. I'm asking him if he ever recalled making the
24 statement, quote, "There is a potential real effect to
25 humans, including death."

1 A. Your question implies that I made the
2 statement orally, directly to someone?

3 Q. Yes, sir. And I'm just simply asking if
4 you recall making such a statement.

5 A. I personally did not make such a statement.

6 Q. All right, sir.

7 MR. ROSIELLO: Are you representing to this
8 witness that he said that in the document that you
9 identify?

10 MR. MCCREA: I'm stating that that was a
11 direct quote from an answer to a question that was
12 attached to his letter to Mr. Albert dated March 18,
13 1975.

14 MR. ROSIELLO: Well, I object to asking him
15 about what he did or didn't say in a document that is
16 not in front of the witness.

17 MR. MCCREA: He's answered the question.

18 MR. ROSIELLO: And this is contrary to our
19 understanding with respect to this deposition. You're
20 asking him about some document that was created decades
21 ago.

22 MR. MCCREA: Mike, I'm asking him if he
23 ever recalls making that statement. 'He has said he did
24 not make the statement.

25 MR. ROSIELLO: Well, and you're saying

1 you've got a document from him in your hand in which
2 that statement is set forth. But the witness, who
3 obviously has done a lot of things since then, doesn't
4 have the document in front of him.

5 MR. McCREA: That's right. And I'm not
6 referencing the document; I'm referencing the statement.
7 And I don't think we need to prolong this, Mike. I've
8 asked the question. He's answered it.

9 Q. Mr. Papageorge, on the warnings that were
10 placed on Therminol FR-1 and Therminol FR-2, which are
11 exhibits --

12 MR. ROSIELLO: Mr. McCrea, before we leave
13 that subject, are you willing to fax to Mr. Papageorge a
14 copy of this document you say you have?

15 MR. McCREA: Certainly.

16 MR. ROSIELLO: If we get you a phone
17 number, will you do that?

18 MR. McCREA: Sure.

19 MR. ROSIELLO: Let's take a short break.

20 (Whereupon, there was a brief recess.)

21 MR. ROSIELLO: Mr. McCrea, here's the fax
22 number which you should send me that document. It's
23 314-421-0239.

24 MR. McCREA: Okay. You want it right now?

25 MR. ROSIELLO: Yes, please.

1 MR. MCCREA: It should be there in a couple
2 minutes, Mike.

3 MR. ROSIELLO: All right.

4 MR. MCCREA: By the way, it was
5 authenticated in the Pikeville, Kentucky PCB case, this
6 document.

7 MR. ROSIELLO: Mr. McCrea, you can go
8 ahead. We've got you on the phone that happens to have
9 a timer. We're at 49 minutes and counting.

10 MR. MCCREA: All right. I understand.

11 Q. Mr. Papageorge, with respect to your
12 affidavit and the attachments, two attachments under D,
13 with respect to the Therminol FR-1 cautions that you
14 attached to your affidavit, when those were issued, did
15 Monsanto know that PCBs were a systemic poison?

16 MR. ROSIELLO: Object to the form of the
17 question. The witness may answer. The ground of the
18 objection is it assumes a fact that has not been proved.

19 A. Well, I don't claim to know exactly what
20 systemic poisons are. I would have to ask somebody in
21 Monsanto's medical department to be able to answer your
22 question.

23 Q. When those cautions were issued, did
24 Monsanto know that PCBs could be absorbed through the
25 skin into the body?

1 A. Yes, sir.

2 Q. When those cautions were issued, did
3 Monsanto know that PCBs could cause liver damage?

4 A. Yes, sir.

5 Q. When those cautions were issued, did
6 Monsanto know that the recommended level for exposure to
7 ambient PCBs was 0.5 milligrams per cubic meter?

8 A. Yes, sir.

9 Q. When those cautions were issued, did
10 Monsanto know that PCBs could synergistically potentiate
11 the adverse health effects of alcohol?

12 MR. ROSIELLO: Object to the form of the
13 question.

14 A. I don't know.

15 Q. When those cautions were issued, did
16 Monsanto know that pregnant women should not be exposed
17 to PCBs?

18 MR. ROSIELLO: Object to the form of the
19 question.

20 A. I don't know.

21 Q. When those warnings were issued, did
22 Monsanto know that it had not conducted any
23 toxicological testing to determine long-term effects of
24 PCBs?

25 MR. ROSIELLO: I object to the form of the

1 question. You're assuming facts that are not shown by
2 the evidence. You haven't laid a foundation.

3 A. Yes.

4 Q. When Monsanto issued those cautions, did it
5 know that Afro-American workers at the Swann Chemical
6 Plant had suffered chloracne and complained of loss of
7 libido and lassitude?

8 MR. ROSIELLO: Object to the form of the
9 question. Lack of foundation.

10 A. I don't know anything about that, sir.

11 Q. Have you ever read the report by Drs. Jones
12 and Alden on the Afro-American workers that were exposed
13 to PCBs at the Anniston plant?

14 A. No, sir. That's news to me.

15 Q. When Monsanto issued these cautions, was it
16 on notice that PCBs could be contaminated with
17 chlorinated dibenzofurans and that the chlorinated
18 dibenzofurans could explain the symptoms of chloracne?

19 MR. ROSIELLO: Object to the form of the
20 question. Lack of foundation and compound.

21 A. I do not know, sir.

22 Q. When Monsanto issued the cautions, did it
23 know that Therminol FR-1 contained polychlorinated
24 biphenyls?

25 A. Yes.

1 Q. When Monsanto issued the cautions, did
2 Monsanto know that workers exposed to Therminol FR-1 and
3 FR-2 should be medically monitored and should undergo
4 periodic medical monitoring if exposed to PCBs?

5 MR. ROSIELLO: Object to the form of the
6 question. Lack of foundation.

7 A. I find that hard to answer because I really
8 don't know what the medical department knew at that time
9 regarding monitoring of the workers' physical
10 well-being.

11 Q. When Monsanto issued the cautions for FR-1
12 and FR-2, which are attached as Exhibit D, did it have
13 any reason to believe that PCBs could be contaminated
14 with furans?

15 A. No.

16 Q. Mr. Papageorge, earlier in the
17 deposition -- And I'm just about to wind up. I know
18 I've doubled the time. You stated that you were
19 chairman of a committee when a report was presented
20 about contamination of transformers. What committee
21 were you chairman of?

22 A. The American National Standards Institute
23 Committee C-107.

24 Q. Mr. Papageorge, did you ever read any
25 reports of any doctors who reviewed medical records of

1 workers exposed to PCBs and determined that none of the
2 workers had suffered any adverse health effects?

3 MR. ROSIELLO: I object to the form of that
4 question as being awfully broad and vague.

5 Mr. Papageorge can answer it as well as he can.

6 A. Sir, I don't recall reading any reports by
7 medical doctors regarding PCBs and exposed workers.

8 Q. As of 1974, did you have any knowledge from
9 any source whatsoever that medical records of workers
10 exposed to PCBs had been reviewed and that the review
11 indicated there were no adverse health effects in those
12 workers?

13 MR. ROSIELLO: Miss Reporter, would you
14 read that question back, please?

15 (Reporter read back as requested.)

16 A. Sir, I don't remember any specific report.
17 I'm aware of the general impression I had at the time
18 that there were no strong evidences that workers using
19 PCBs in their activities showed unusual health effects.

20 Q. Mr. Papageorge, if a worker came to you in
21 1976 and asked you for a list of health problems and
22 symptoms that could be caused by exposure to PCBs, what
23 list would you give him?

24 MR. ROSIELLO: Mr. McCrea, the date in your
25 question was cut off by the phone. What was the date?

1 MR. MCCREA: 1976.

2 MR. ROSIELLO: All right.

3 A. I'm not personally aware of any existing
4 list that I could hand to anybody, so when you ask me
5 what list I would give them --

6 Q. I'm not asking you, sir, for a list
7 provided to you.

8 A. Uh-huh.

9 Q. I'm asking you based upon your knowledge
10 and experience to provide a list to the person asking.
11 What would you tell him?

12 A. Oh, I would tell him that depending upon
13 how much exposure he might experience he could expect
14 reddening of skin. If that continues, then he can
15 expect an outbreak of chloracne. If he continues
16 misusing the material, he could hurt his liver, and he
17 would get the effects of a malfunctioning liver. And,
18 of course, continued exposure, the liver would stop
19 functioning, and he would be dead. I would also tell
20 him that if he breathes the fumes the early warning
21 symptom would be this effect that seems like a bad chest
22 cold with painful breathing and coughing. Continued --
23 Of course, he will experience the watering eyes and the
24 running nose and other symptoms of aggravation by
25 chemicals of the breathing system. If he continues

1 being exposed, he can expect the same effects that he
2 would have gotten from skin exposure with damage to the
3 liver eventually. That's the kind of discussion I would
4 have held with that individual.

5 Q. Mr. Papageorge, in your affidavit you
6 state, "In 1970 I visited Bloomington's plant and met
7 with plant personnel. I observed the plant as very
8 clean and well-maintained. My observations of the
9 Bloomington plant and discussions with its personnel
10 demonstrated to me that the plant was aware of the
11 environmental and working handling concerns relating to
12 PCB dielectric fluids and was implementing use and
13 handling procedures to address those concerns." Who
14 provided that information to you? Who were the plant
15 personnel that you're referring to?

16 A. Oh, I'm having a difficult time remembering
17 names. I do know that the plant manager was present.

18 Q. Would that have been Don Sauder?

19 A. That's it. Sauder and McClain. I think we
20 called him Don McClain. He may go by some other first
21 name. I've forgotten the names of the plant engineer,
22 the maintenance manager. There were around a conference
23 table about, oh, ten individuals representing the upper
24 management of the plant.

25 Q. If Westinghouse to your knowledge had

1 allowed its workers to become exposed to PCBs in a way
2 that you, Mr. Papageorge, did not think was a good
3 safety practice, would you have terminated or would you
4 have recommended the termination of sale of PCBs to
5 Westinghouse at that plant?

6 MR. ROSIELLO: I object to the form of the
7 question.

8 A. If I had strong evidence that the kinds of
9 symptoms we described earlier were prevalent, I would
10 share my what I'd call displeasure with the management
11 of that plant, and then depending on their reaction and
12 response to my comments, I would have felt an obligation
13 on my part to report this to higher management within
14 Monsanto, and I am in no position to tell you how they
15 would have communicated back to Westinghouse.

16 Q. All right, sir. I think you partially
17 answered the question, but the question really didn't
18 focus on health effects. It focused on exposure. If
19 you felt that the exposure to PCBs at the plant was
20 unacceptable and not a good safety practice, would you
21 have recommended to Monsanto personnel that they end the
22 sale of PCBs to that plant?

23 MR. ROSIELLO: Object to the form of the
24 question.

25 A. Well, sir, the only way I could determine

1 that the exposure was unacceptable was to have evidence
2 that people were having chloracne symptoms or red skin
3 or their toes were reddened because their shoes were
4 constantly soaked, these kind of things. Not having
5 that, no one is in a position to say that the exposure
6 is unacceptable.

7 Q. If you saw workers whose shoes were eaten
8 off their feet by PCBs at the Bloomington Westinghouse
9 plant and you talked to those workers and they described
10 shoes being eaten off their feet from exposure to
11 Inerteen, would you have recommended to Monsanto's
12 management that they terminate the sale of PCBs to that
13 plant?

14 MR. ROSIELLO: Object to the form of that
15 question.

16 A. No, I wouldn't, because in my opinion that
17 would be an irresponsible, shoot-from-the-hip type
18 reaction on my part. I'd have to -- I'd have to have
19 more information to give what I would call a more
20 professional recommendation. Destroyed shoes don't
21 necessarily tell me that the exposure to the person's
22 feet was excessive. I don't know that. I'd have to be
23 a medical doctor examining feet.

24 Q. Did you ever talk to the medical doctor at
25 the Bloomington Westinghouse plant?

1 A. No.

2 Q. Did you ever talk to a worker in F-30 about
3 his exposure to Inerteen?

4 A. No.

5 Q. Can you -- Did you ever visit F-30 or the
6 area where they impregnated the PCBs? Excuse me, sir.
7 Where they impregnated the capacitors with PCBs?

8 A. Yes. I walked through that area, yes.

9 Q. Did you see PCBs on the floor? Did you see
10 PCBs dripping off the capacitors? Did you see sawdust
11 to collect the PCBs? Did you detect the odor of PCBs?

12 A. Yes. There was a faint, typical odor of
13 PCBs, yes. You'd expect that.

14 Q. Describe the odor, please.

15 A. Oh, that's a subjective kind of reaction.
16 To me, it reminds me of a disinfectant-type odor. Now,
17 other people have used different descriptions.

18 Q. What else, sir, did you see in F-30 with
19 respect to PCBs on the floor or on the equipment, on the
20 workers, in the air?

21 A. I didn't see --

22 Q. All your observations and sensations.

23 A. The only PCBs I saw, sir, were entrapped in
24 the sawdust that was deliberately placed there to do
25 just that.

1 Q. How high was the sawdust?

2 A. Oh, I didn't measure it. I would guess
3 four inches, six inches in spots. It was not evenly
4 raked across the floor.

5 Q. And how did the PCBs get from the
6 impregnating ovens to the sawdust on the floor?

7 A. Well, when the capacitors are removed from
8 the impregnating chamber, there are PCBs clinging to the
9 surface of the capacitors, and there's also an
10 accumulation of the fluid on the top -- within the rim
11 on the top of the capacitor, and these capacitors, as
12 they are handled and placed on the conveyor, will lose
13 some of that liquid, and eventually it would drip off
14 the conveyor onto this sawdust, which was placed there
15 to control the PCBs.

16 Q. And, sir, that was -- That system was not
17 designed as a closed system; was it?

18 A. You mean the impregnating device itself?

19 Q. The operation of filling a capacitor,
20 soldering the capacitor, testing the capacitor and
21 moving it out for sale. It was not a closed system; was
22 it?

23 A. There are steps in the process at which the
24 PCBs are exposed; therefore, those steps cannot be
25 considered closed.

1 Q. Mr. Papageorge, in the F-30 area, did you
2 observe a testing procedure in which the capacitors were
3 electrically charged, and what can you tell us about
4 that?

5 A. I don't know what there is to say, sir.
6 They are tested to see if they perform the way they are
7 supposed to.

8 Q. And --

9 A. I didn't see anything that -- There's some
10 that passed the test and some that didn't.

11 Q. Do you know that there were some that did
12 not pass the test?

13 A. I did not observe a test to demonstrate
14 that, but I was told that that was the purpose of the
15 test was to weed out those that didn't perform properly.

16 Q. Were you informed that certain capacitors
17 which did not pass the test ruptured and exploded and
18 spewed PCBs from that area?

19 A. I was not informed at the time. I heard of
20 that later, sir.

21 Q. Did you observe any pregnant women working
22 with capacitors that had failed in the field that had
23 come back for testing?

24 A. I don't remember observing any pregnant
25 women, sir.

1 Q. If you saw a pregnant woman exposed to PCBs
2 in 1970, what would you do with respect to
3 recommendations?

4 MR. ROSIELLO: Object to the form of the
5 question.

6 A. I personally had no medical guidance
7 regarding the effects of PCBs on pregnant women;
8 therefore, I would not have personally done anything.

9 MR. McCREA: Mr. Papageorge, I thank you
10 for your time. If your counsel wants to ask questions
11 or go over the letter that we faxed to you, that would
12 be fine. Otherwise, I have no further questions.

13 MR. ROSIELLO: Well, let's take a short
14 break. We'll see if we can track that fax down, and
15 then we'll see where we go. So can you just hold on the
16 line for a second Mr. McCrea?

17 MR. McCREA: Yes.

18 MR. ROSIELLO: Thank you.

19 (Whereupon, there was a brief recess.)

20 MR. ROSIELLO: You still there, Dave?

21 MR. McCREA: Yes, I am.

22 MR. ROSIELLO: This will only take a
23 second. Miss Reporter, will you please mark that as
24 Papageorge Exhibit No. 1? And probably to make
25 everybody's life less confusing, if you put it over that

1 other exhibit.

2 (Reporter marked Defendant's Exhibit
3 Papageorge No. 1.)

4 CROSS-EXAMINATION

5 QUESTIONS BY MR. ROSIELLO:

6 Q. Mr. Papageorge, I'm placing in front of you
7 what the reporter has marked as Papageorge Deposition
8 Exhibit No. 1, which is the document that was just faxed
9 to us by Mr. McCrea. Now, the first page of that
10 document is a letter you wrote to Mr. Albert on March
11 18, 1975?

12 A. It is.

13 Q. Could you please tell me what the rest of
14 the pages of that exhibit are?

15 A. There are three additional pages on which
16 are listed the questions raised by Mr. Albert and the
17 answers to those questions.

18 Q. Who prepared the answers to the questions?

19 A. Mr. Elmer Wheeler of Monsanto's corporate
20 medical department.

21 Q. So were those his statements rather than
22 your statements?

23 A. Yes.

24 Q. And your statements are contained in the
25 letter which is the first page of Deposition Exhibit No.

1 1?

2 A. Yes.

3 MR. ROSIELLO: I have no further questions.

4 REDIRECT EXAMINATION

5 QUESTIONS BY MR. McCREA:

6 Q. Mr. Papageorge, you don't indicate that
7 Mr. Wheeler prepared the answers in your letter to
8 Mr. Albert, but it's your specific recollection that he
9 did, in fact, prepare those responses; is that correct?

10 A. Yes.

11 Q. And did you in any way participate in the
12 preparation of those responses?

13 A. No.

14 Q. Did you review those responses with
15 Mr. Wheeler before you sent the letter to Dan Albert?

16 A. Yes.

17 Q. Did he explain to you the source of
18 information for his responses?

19 A. Not that I recall.

20 Q. How did you happen to select Mr. Wheeler to
21 respond to those questions of Westinghouse?

22 A. He was the individual in the corporate
23 medical department assigned to work with me on PCB
24 matters.

25 Q. Was he a medical doctor, a Ph.D., or what

1 were his degrees, if you recall?

2 A. He had, as I remember, a degree in public
3 health, and that's the extent of my information.

4 Q. Was Mr. Wheeler an individual that you
5 relied upon and trusted with respect to the information
6 he supplied?

7 A. Yes.

8 Q. Did you ever read his 1956 affidavit to
9 Dr. Kelly with respect to information on the
10 contamination of PCBs with polychlorinated
11 dibenzofurans?

12 MR. ROSIELLO: I object again to use of a
13 document that I'm not sure has been disclosed to us for
14 the purpose of this deposition.

15 MR. MCCREA: It's attached to the Ian
16 Webber affidavit that we filed with the court.

17 MR. ROSIELLO: The witness can answer.

18 A. I think I heard 1956.

19 Q. Yes, sir.

20 A. '56?

21 Q. '56.

22 A. I just don't remember any such document.

23 Q. Mr. Papageorge, isn't it a fact that in
24 1970, when you visited the Bloomington Westinghouse
25 capacitor manufacturing plant, your visit in no way

1 related to protecting the health of the Westinghouse
2 workers exposed to PCBs?

3 A. Well, when you put your question in no way,
4 we did spend time discussing industrial hygiene
5 practices, the experience that Monsanto had, the
6 experience that Monsanto was aware of in its customers'
7 plants. Westinghouse individuals reviewed with us their
8 experiences regarding medical effects on their
9 employees. So we did spend considerable time. I didn't
10 clock it personally, but it seemed like we covered the
11 subject thoroughly.

12 Q. So your visit and tour of the plant did, in
13 fact, focus in part on protecting the health of the
14 Westinghouse workers?

15 A. Yeah. We did discuss subject matter that
16 related to protecting health, yes, sir.

17 Q. But, sir, I'm not talking about the
18 discussions. I'm talking about the tour of the plant.
19 Did that specifically relate in part to protecting the
20 health of the Westinghouse workers?

21 MR. ROSIELLO: Well, Miss Reporter, would
22 you repeat the question, please? I missed a section of
23 it.

24 (Reporter read back as requested.)

25 MR. ROSIELLO: You mean the actual physical

1 walking through the facility?

2 MR. MCCREA: Yes, sir.

3 A. Well, the tour of the plant really was one
4 consisting primarily of observations on my part --

5 Q. And --

6 A. -- relating to the circumstances, the
7 conditions that were observable at that plant. We
8 talked earlier about the visible oil in the sawdust. I
9 recall also there was a -- In one corner of that area
10 there was a table on which there was a reference
11 notebook for use by employees in which I was shown
12 sections on what I'm going to call health effects of
13 exposures, that that information was available to the
14 employees right there in the work area. It's that kind
15 of thing that related to what I'm going to call the
16 people part of the observations as distinguished from
17 the environmental part.

18 Q. So to understand the reason for touring the
19 plant, if you saw a practice that you felt was unsafe,
20 you were there to lend your advice and assistance to
21 Westinghouse?

22 A. Well, yes. If that happened, yes, I would
23 have spoken out. Uh-huh.

24 MR. MCCREA: No further questions,
25 Mr. Papageorge. Thank you for assisting us in this

1 telephonic deposition.

2 MR. ROSIELLO: Thanks.

3 THE WITNESS: Thank you.

4 MR. ROSIELLO: We have no further
5 questions, and we will have the deposition prepared for
6 Mr. Papageorge's review and signature.

7 MR. MCCREA: Off the record.

8 _____
9 WILLIAM B. PAPAGEORGE. P.E.

10 Subscribed and sworn before me this ____ day of
11 _____, 1996.

12
13 My commission expires: _____

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16 _____
17 Notary Public

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25 FAO/JOHN W. BAKER, et al. vs. MONSANTO COMPANY

NOTARIAL CERTIFICATE

STATE OF MISSOURI)
CITY OF ST. LOUIS)

I, FAITH A. OLLIGES, a Registered Professional Reporter and a duly commissioned Notary Public within and for the State of Missouri, do hereby certify that there came before me at the offices of Husch & Eppenberger, 100 North Broadway, St. Louis, Missouri,

WILLIAM B. PAPAGEORGE, P.E.,

who was by me first duly sworn to testify to the truth and nothing but the truth of all knowledge touching and concerning the matters in controversy in this cause; that the witness was thereupon examined under oath and said examination was reduced to writing; and this transcript is a true and correct record of the testimony given by the witness.

I further certify that I am neither attorney nor counsel for nor related nor employed by any of the parties to the action in which this deposition is taken; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on October 7, 1996.

My commission expires March 21, 1997.

Notary Public