

STATE OF ALABAMA
IN THE CIRCUIT COURT OF CALHOUN COUNTY

MARS HILL MISSIONARY
BAPTIST CHURCH, et al.,

Plaintiffs,

CIVIL ACTION NUMBER

versus

CV-96-243

MONSANTO COMPANY, et al.,

Defendants.

CONTINUATION OF THE
DEPOSITION OF WILLIAM B. PAPAGEORGE

The continuation of the videographic and stenographic deposition of WILLIAM B. PAPAGEORGE, was taken before Deborah Salers Garrett, Certified Shorthand Reporter, Registered Professional Reporter, as Commissioner, commencing at 9:00 a.m. on May 21, 1998, by the Plaintiffs, at the Ritz Carlton Hotel, 100 Carondelet, St. Louis, Missouri, pursuant to the stipulations set forth herein.

Regional Reporting Service, Inc.
755 Walnut Street
Gadsden, Alabama 35901-0755

APPEARANCES

For the Plaintiffs:

JACK ATKIN, Esq.
KASOWITZ, BENSON, TORRES & FRIEDMAN
1301 Avenue of the Americas
New York, New York 10019

For the Defendants:

ADAM PECK, Esq.
LIGHTFOOT, FRANKLIN & WHITE
300 Financial Center
505 North 20th Street
Birmingham, Alabama 35203

GERARD H. DAVIDSON, JR., Esq.
SMITH, HELMS, MULLISS & MOORE
P. O. Box 21927
Greensboro, North Carolina 27420

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No other exhibits were marked for identification, offered or attached as exhibits hereto.

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STIPULATIONS

IT IS STIPULATED AND AGREED by the parties, through their respective counsel, that the deposition of WILLIAM B. PAPAGEORGE, may be taken before Deborah Salers Garrett, CSR, RPR, as Commissioner and Notary Public, Alabama at Large, at St. Louis, Missouri, on May 21, 1998, at 9:00 a.m.

IT IS STIPULATED AND AGREED that the signature to and reading of the deposition by the witness is waived, the deposition to have the same force and effect as if full compliance were had with all laws and rules of Court relating to the taking of depositions.

IT IS STIPULATED AND AGREED that it shall not be necessary for any objections to be made by counsel to any questions except as to form or leading questions and that counsel may make objections and assign grounds at the time of trial or at the time said deposition is offered in evidence or prior thereto.

IT IS STIPULATED AND AGREED that notice of filing by the Commissioner is waived.

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STATE OF MISSOURI, ST. LOUIS, MAY 21, 1998

WILLIAM B. PAPAGEORGE,

after having been first duly sworn, was
examined and testified as follows:

EXAMINATION

BY MR. ATKIN:

Q. Good morning, Mr. Papageorge. How are
you today?

MR. ATKIN: Off the record.

(Discussion held off record.)

Q. Mr. Papageorge, have you met with
Monsanto's attorneys since your last
deposition?

A. Yes, I have.

Q. And when was that?

A. Are you speaking of this matter here or
any matters?

Q. I would say related to this matter here.

A. I met yesterday with attorneys.

Q. Who did you meet with?

A. Mr. Mike Kelly, Mr. Adam Peck, and

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Mr. Gerard Davidson.

Q. Okay. And where did you meet with them?

A. At the offices of Solutia, Incorporated.

Q. Here in St. Louis?

A. Yes.

Q. How long did you meet with them for?

A. About four hours.

Q. Okay. Do you expect to be compensated
for the time you spent yesterday with
Monsanto's attorneys preparing for the
deposition?

A. I expect it, yes.

Q. Okay. Would that be at an hourly rate,
or would that be within the monthly
retainer that you were telling us about
last time?

A. It's within the monthly, unless the
hours exceed the monthly rate.

Q. Okay. Have you reviewed the deposition
transcripts from your first two days of
testimony in this matter?

A. I have.

Q. When did you do that?

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A. Oh, a week or two ago.

Q. Okay. Have you reviewed any other
transcripts of deposition testimony
given in this case by anyone else?

A. No.

Q. Did you review any documents yesterday
when you met with Monsanto's lawyers?

A. Some, yes, sir.

Q. What did you review?

A. I can't remember in detail.

Q. Did you review the transcript of your --
the two transcripts of your first two
days of testimony in this matter?

A. Not really reviewed it. We talked about
it.

MR. PECK: Wait a minute. I'm
going to instruct you. Do
not discuss anything that we
discussed. That would be
within the attorney-client
privilege. He's entitled to
ask you and I think all he
really has done is ask you

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about something that you
looked at with us. But he's
not entitled to ask you about
anything we discussed. So I
caution you not to get into
anything we discussed.

A. I don't recall looking at anything that
I associated with the depositions you
referred to.

Q. Okay. I'm still talking specifically
about the transcripts from your first
two days of testimony.

A. Yes. There was a page that I recall.

Q. Okay. Do you recall what page that was?

A. No, I don't, sir.

Q. Do you recall what the topic was?

A. As I remember, I had mentioned a wrong
date associated with a document. That's
all I can recall at the moment.

Q. Okay. Now, other than the documents
that you reviewed yesterday with
Monsanto's attorneys and your review of
the deposition transcripts from your

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first two days of testimony that was done around one or two weeks ago, have you reviewed any other documents in connection with the preparation for your deposition here today?

A. I have not.

Q. Okay. Let me show you what was previously marked in this case for identification as Papageorge Fifty-two. I don't believe we -- I think we left off last time with this document. I don't believe that we ever asked any questions about it. So why don't you take a look at it, if you could.

MR. PECK: In fact, I don't think it was marked. It wasn't offered.

MR. ATKIN: Why don't I just, then, mark it for the record. Thank you. This is a memorandum dated October 26th, 1971, subject, General Electric Capacitor

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Department, to various people, including Mr. Papageorge. This is a memorandum by Mr. Benignus, B-e-n-i-g-n-u-s.

A. I have scanned the document.

Q. Okay. If you could, look at paragraph six. In that paragraph, Mr. Benignus states that Monsanto would soon have to stand up before the ANSI and give understandable and convincing evidence about the biodegradation and migration of PCBs regarding Aroclor 1016. And then he goes on to say, "The information available at this time is not sufficient and lacks conviction required for us to present our case to ANSI." Do you see that?

A. I think you used some words that I don't see here. You used biodegradation when you described the sentence.

Q. Will have to stand up -- about this -- You're right.

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If you look at the previous paragraph -- I was taking an extra step there. If you look at the previous paragraph, it says, "This puts all emphasis on the questions of migration and how biodegradable is Aroclor 1016 in terms of realistic conditions of organisms and time and also knowledge about what is formed after biodegradation." And then he goes on to say, "The time is rapidly approaching when we will have to stand up before ANSI and give understandable and convincing evidence about this." Do you see that?

A. Yes.

Q. Okay. Let me just ask you first. What is ANSI?

A. That's an acronym for the American National Standards Institute.

Q. Okay. And what type of organization was it or is it?

A. It's a group that represents industry

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that addresses the formulation of industrial standards.

Q. When you say it represents industry, it represents industry where?

A. When you say where, are you talking about the specific locality or --

Q. No. In connection with what does it represent in industry?

A. If a particular industry is interested in formulating a standard to cover its area of interest, it can, as a group, approach the ANSI organization to establish a working group, which will then convene, as they see fit, to establish standards, whether it be in the workplace or in the product or in the labeling or whatever area is of interest to the group requesting that back-up support from ANSI.

Q. Okay. And what was Monsanto's involvement with ANSI?

A. Oh, I can't speak for all of Monsanto's involvement. I don't know.

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- 1 Q. Well, in connection with PCBs, what was
2 Monsanto's involvement with ANSI?
- 3 A. I was offered and did serve as a
4 chairman of a committee under the
5 sponsorship of ANSI.
- 6 Q. What was the committee?
- 7 A. It was referred to as ANSI C-107.
- 8 Q. What was the purpose of that committee?
- 9 A. To establish standards for the handling
10 of PCBs in the use proposed by
11 electrical equipment manufacturers.
- 12 Q. Okay. And did Monsanto ever appear
13 before ANSI to discuss the
14 biodegradation or migration of PCBs?
- 15 A. I recall discussing -- giving progress
16 reports on the studies that Monsanto
17 gave.
- 18 Q. On which studies?
- 19 A. There were studies conducted within
20 Monsanto to establish the rate at which
21 PCBs would degrade in the environment
22 when exposed to the bacteria of living
23 creatures in the normal environment.

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- 1 Q. And that information was shared with
2 ANSI?
- 3 A. Yes.
- 4 Q. When Mr. Benignus says, "The information
5 available at this time is not sufficient
6 and lacks conviction required for us to
7 present our case at ANSI," do you know
8 how the information that Monsanto had at
9 that time was insufficient and lacking
10 conviction regarding biodegradation and
11 migration of PCBs?
- 12 A. Well, sir, the statement you have read
13 represents Mr. Benignus' understanding,
14 and he is not a bacteriologist or an
15 analytical chemist, so I can't say that
16 Monsanto's information was not
17 sufficient or lacked conviction. It
18 depends on who understood it and how it
19 was interpreted to each individual.
- 20 Q. In your view at this time, in October of
21 1971, did Monsanto have sufficient
22 information and did that information
23 have sufficient conviction regarding

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- 1 biodegradation and migration of PCBs?
- 2 A. It did.
- 3 MR. ATKIN: Okay. Let us mark for
4 identification purposes as
5 Benignus Fifty-three -- I'm
6 sorry -- as Papageorge
7 Fifty-three a February 2nd,
8 1972, letter from
9 Mr. Papageorge to
10 Dr. Posefsky and Mr. Raab of
11 General Electric Company.
- 12 MR. PECK: Jack, did you want me
13 to mark it?
- 14 MR. ATKIN: Yes, please.
15 (Plaintiffs' Exhibit Number
16 Fifty-three was marked for
17 identification.)
- 18 A. I have reviewed the exhibit.
- 19 Q. Okay. Do you recognize this document?
- 20 A. I do.
- 21 Q. Do you remember writing this letter?
- 22 A. I do.
- 23 Q. In the first paragraph of this letter

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- 1 you state, "Attached is a question and
2 answer list for responding to PCB
3 inquiries, which I offered to mail to
4 you at our December 10th ANSI C-107
5 meeting."
- 6 When you talk about responding to
7 PCB inquiries, whose inquiries regarding
8 PCBs was the attachment -- the
9 attachment to this letter supposed to
10 respond to?
- 11 A. These were inquiries that the electrical
12 equipment manufacturers were receiving
13 from within their own companies and from
14 their customers.
- 15 Q. Okay. And when you refer to the
16 December 10th ANSI C-107 meeting, do you
17 recall what the purpose of that meeting
18 was?
- 19 A. Well, that was one of the several
20 meetings held by this ANSI committee to
21 establish the standards that were
22 eventually put together.
- 23 MR. PECK: Just for the record,

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what's the date of the document?

MR. ATKIN: February 2nd, 1972.

MR. PECK: I couldn't read it.

Sorry.

MR. ATKIN: No problem.

Q. Now, question four of the attached questions and answers for ANSI PCB states, "How does PCB get into the environment?" And the answer begins, "Probably through improper handling, use, and disposal."

Is that an accurate statement?

A. Accurate in what way, your reading it from here or accurate in its --

Q. Is that an accurate answer to the question?

A. Yes. But the word "probably" is not that specific.

Q. Okay. Did you draft these questions and answers?

A. Yes, sir.

Q. Okay. When you say probably is not that

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specific, what do you mean?

A. To me the use of the word "probably" there reflects my lack of specific reasons for PCBs getting into the environment. Otherwise, I would have started with the word "through."

Q. Okay. I understand.

Now, Mr. Papageorge, if PCBs have been detected beyond the boundaries of Monsanto's Anniston plant, that would mean that Monsanto improperly used or disposed of PCBs, wouldn't it?

A. Not necessarily. It could be an accident, or it could be another source of PCBs other than the Monsanto plant.

Q. Well, let's assume that it's determined that the source was in fact the Monsanto plant, then PCBs that are detected beyond the boundaries of the plant -- and that those PCBs are detected beyond the boundaries of the plant and they can be shown to have come from the plant, that would mean that Monsanto improperly

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used or disposed of PCBs?

MR. PECK: Object to the form of the question.

A. Well, the reason I'm hesitating is the word "improper" is time related. What was proper in 1930 might be improper in 1998. So throughout the decades that PCBs were manufactured, I cannot honestly say that they were improperly handled, because that definition of "proper" kept changing.

Q. But you wrote this letter and these answers in 1972, correct?

A. Yes, sir.

Q. So that was an accurate statement at the time that you wrote this letter; is that right?

When you wrote that "PCBs get into the environment through improper handling, use, and disposal," that was an accurate statement, according to your opinion, in 1972?

A. Yes, and it refers to that time period.

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Q. Right. To the 1972 time period?

A. Yes, sir.

Q. And it doesn't refer to -- Does it refer to any time period before that?

A. Well, the statement does, but the definition of proper and improper is the variable.

Q. And in your opinion when did that variable change?

A. It happens so gradually that I don't have a definite date in mind.

Q. Okay. Is it your opinion that allowing PCBs to escape into the environment in 1972 constituted a violation of the proper standard of care in the chemical production industry?

MR. PECK: Object to the form of the question.

A. That is dependent, sir, on the accidental versus deliberate type of allowing and also is dependent on the amount that is involved.

Q. Let's focus on the latter statement you

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just made. What -- Do you have a specific amount in mind when you say that the answer is dependent on the amount?

A. No, I don't, because it depends on where it is going to end up.

Q. What do you mean by that?

A. I'm trying to think of an example. If you take a pound of PCB and introduce it into water with some juvenile shrimp, that pound is too much. Now, if you took that pound and introduced it into a piece of soil in your backyard, it's not going to do anything. It's going to stay there. So I can't say that that's too much. Too much for what? It's not going to do any harm.

So it's not only the amount, it's the final disposal point or area.

Q. Okay. Let's look at question six, if we could, which asks, "Does PCB cause birth defects?" And the answer is, "Again, some studies have shown it can be

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detrimental to the reproductive cycles of certain species of wildlife," correct?

A. That's what it says, yes, sir.

Q. And you authored that?

A. Yes.

Q. Did Monsanto ever undertake any studies to determine whether PCBs can cause reproductive disorders in humans?

A. In humans?

Q. Yes.

A. No, sir.

Q. Why not?

A. There was nothing known to anybody, not only Monsanto, to indicate a need for such a study.

Q. Okay. If you could take a look at question eight, it states, question, "How can PCB be disposed of?" And the answer discusses, "Under high temperature, controlled incineration, PCB break down into hydrochloric acid, carbon dioxide, and water."

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This answer doesn't mention landfilling at all, does it?

A. It does not.

MR. ATKIN: Okay. Let us mark for identification as Exhibit Number Fifty-four --

MR. PECK: Yes.

MR. ATKIN: -- a letter -- a three-page letter dated March 22nd, 1972, from T. Katayama, K-a-t-a-y-a-m-a, to Mr. Benignus, and various people received copies, including Mr. Papageorge. This bears Bate's number FGL 0010322 through 0010324. (Plaintiffs' Exhibit Number Fifty-four was marked for identification.)

A. I have read the exhibit.

Q. Okay. Do you recognize this document?

A. I do after I read it, yes.

Q. Do you recall receiving it?

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A. Yes.

Q. Who was Mr. Katayama?

A. He was a sales representative, as best I recall, with the Mitsubishi Monsanto Company in Japan.

Q. Was that a joint venture between Mitsubishi and Monsanto?

A. I don't know if the words "joint venture" adequately describe it, but it was a joint business activity. I don't know how that's described legally.

Q. Okay. On the second page, in the second to last paragraph, Mr. Katayama states, "I think the latest happening sensationally moved the government to this direction. The analysis of mothers' milk in Osaka showed PCB levels of zero point seven to zero point one parts per million, as against the FDA's zero point two maximum level for cows' milk. In the diet committee, the Welfare Minister was at a loss when asked if or not babies can drink milk

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1 with zero point seven parts per million
2 PCB without any danger to their healthy
3 growth."

4 Let me ask you first, when
5 Mr. Katayama refers to the latest
6 happening sensationally moved the
7 government to this direction, do you
8 know what happening he is referring to?

9 A. By reading this, sir, at the time I
10 assumed it's this analysis of milk that
11 he follows in that same sentence.

12 Q. Okay. Did you have an understanding,
13 when you received this letter, as to how
14 elevated levels of PCBs got into the
15 breast milk of Osaka women?

16 A. I had a questionable impression --

17 Q. And what was --

18 A. -- that somehow that was related to the
19 water contamination, but I had no
20 specifics to confirm that.

21 Q. Did you have any impression that it
22 might have been from the capacitor
23 plants that were upstream from Osaka

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1 that are referred to in the last
2 paragraph on that second page?

3 A. Well, I find that I can't jump to
4 conclusions like that because there are
5 so many possible sources of PCBs that
6 it's just not responsible to assume any
7 one source.

8 Q. Would you agree, sir, that women who
9 live downstream from areas in which PCBs
10 are released into bodies of water are at
11 a risk for having elevated PCB levels in
12 their breast milk?

13 MR. PECK: Object to the form of
14 the question.

15 A. Sir, I'm not an authority on that. I
16 don't know.

17 Q. Okay. Did Monsanto ever undertake any
18 studies of whether babies can drink milk
19 with zero point seven parts per million
20 of PCBs without any danger to their
21 health?

22 A. No. No reason to.

23 Q. Okay. Did Monsanto ever undertake any

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1 studies regarding what levels of PCBs in
2 babies' milk would be considered -- in
3 mothers' milk would be considered safe
4 to babies' health?

5 A. Like I said, sir, there was nothing to
6 indicate to anyone, including Monsanto,
7 that such a study would be appropriate
8 and meaningful.

9 Q. Do you know if the Welfare Minister of
10 Japan ever reached a conclusion as to
11 whether or not babies can drink milk
12 with zero point seven parts per million
13 PCBs without any danger to their healthy
14 growth?

15 A. I do not know.

16 Q. Do you know if -- Do you know if any
17 regulatory body in our country has ever
18 made a determination as to what is
19 considered a safe level of PCBs in
20 mothers' milk?

21 A. I don't recall any regulation referring
22 to PCBs in mothers' milk.

23 Q. Okay. Now, in the last paragraph on

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1 that page, Mr. Katayama says that soil
2 samples taken at Nichicon -- Lake
3 Nichicon, N-i-c-h-i-c-o-n, had, in
4 quotes, an unfortunate result, showing
5 one thousand parts per million PCBs.

6 Do you know why Mr. Katayama
7 believed that a thousand parts per
8 million of PCBs were an unfortunate
9 result?

10 MR. PECK: Object to the form of
11 the question.

12 A. No, I don't.

13 Q. Is there any level of PCBs in soil --
14 soil samples that you would consider to
15 be an unfortunate result?

16 MR. PECK: Object to the form of
17 the question.

18 A. There again, sir, it isn't only the
19 presence in soil at a level. It's the
20 potential for that soil to cause an
21 exposure to some living creature that
22 would result in some harm. The question
23 is just so broad, I really can't answer

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1 it.

2 Q. Do you know if any regulatory body in
3 this country has ever set any threshold
4 levels for PCBs in soil?

5 A. Yes. Eventually the Environmental
6 Protection Agency came up with a level
7 that they use for regulatory purposes.

8 Q. What is that level, sir?

9 A. As I remember, it was fifty parts per
10 million.

11 MR. ATKIN: Okay. That's all I
12 have on that document.

13 Let us mark as exhibit
14 Fifty-five for the Papageorge
15 deposition a May 4th, 1973,
16 letter from Mr. Papageorge to
17 Ms. Mary A. Appelhof,
18 A-p-p-e-l-h-o-f, of the
19 Environmental Health
20 Committee in South Central
21 Michigan Health Planning
22 Council, bearing Bate's
23 number MONS 091681 through

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1 091682.

2 (Plaintiffs' Exhibit Number
3 Fifty-five was marked for
4 identification.)

5 Q. I'd ask you to take a look at that, sir,
6 if you could.

7 A. I have read the exhibit.

8 Q. Okay. Let me ask you first, have you
9 seen this letter before?

10 A. Certainly. I wrote it.

11 Q. When did you last see the letter?

12 A. About the date of the letter.

13 Q. Okay. Fine. Do you recognize the
14 letter?

15 A. I do.

16 Q. Do you recall writing it?

17 A. Yes.

18 Q. Do you know why Ms. Appelhof was writing
19 to Monsanto?

20 A. Not really.

21 Q. Okay. Do you know who at Monsanto she
22 wrote to, she addressed her inquiry to?

23 A. As best I recall, it was addressed to

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1 some broad title, such as Chief
2 Operating Officer of Monsanto Company or
3 something. It was not addressed to a
4 specific person.

5 Q. Okay. And who referred the letter over
6 to you?

7 A. I don't recall the individual. It was a
8 marketing representative at Monsanto
9 involved with PCBs, but I don't recall
10 the specific person.

11 Q. Do you know why the letter was referred
12 to you?

13 A. Well, I was involved with the issue.
14 Why that particular individual brought
15 it to me, I don't know.

16 Q. Okay. Fair enough.

17 Do you recall generally what type
18 of information Ms. Appelhof was looking
19 for from Monsanto?

20 A. Generally she was interested in learning
21 more about PCBs. I don't know how else
22 to put it. She had heard of PCBs and
23 didn't quite understand everything she

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1 had heard and was trying to get up to
2 date.

3 Q. Okay. In the second paragraph of the
4 letter you state, "With increasing
5 evidence that polychlorinated biphenyls
6 were being identified as environmental
7 contaminants and that some mammals,
8 birds, and marine life were being
9 affected" -- Which mammals, birds, and
10 marine life were being affected, as to
11 the time you wrote this letter, on May
12 4th, 1973?

13 A. Well, Monsanto studies themselves by '73
14 reported that some of the PCBs at high
15 levels fed to test animals did result in
16 some effects. And I'm talking here now
17 about the white rat studies.

18 Q. The ones that were done by IBT?

19 A. Yes. And then there were some studies
20 done with -- Again, IBT did some studies
21 with poultry, chickens. And those
22 studies indicated that some of the PCBs
23 would result in eggs that wouldn't

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1 hatch.

2 The marine life reflected such
3 studies as were conducted in Gulf
4 Breeze, Florida, by the Federal
5 Commercial Fisheries Laboratory and
6 established that juvenile shrimp
7 represented a very sensitive species.
8 It's that kind of information.

9 Q. Okay. On the second page, in the first
10 paragraph, you state that "Ideally,
11 disposal should be made by exposing the
12 waste to high temperature incineration,"
13 correct?

14 A. Now, this does refer to solid waste,
15 yes, sir.

16 Q. And you say, "We have not been able to
17 locate commercial incinerator --
18 incinerators capable of reaching the
19 high temperatures required."

20 Did Monsanto ever locate an
21 incinerator that could reach the
22 necessary temperatures?

23 A. No.

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1 Q. For how long did Monsanto continue its
2 efforts to locate an incinerator that
3 could reach the necessary temperatures?

4 A. That I don't know, because I was not
5 involved after about 1976 or so.

6 Q. Now, in the next sentence you state,
7 "Additionally the problem of segregating
8 and collecting the waste material still
9 remains to be solved." What did you
10 mean by that?

11 A. I thought the sentence is pretty clear.
12 You have got to segregate the
13 contaminated from the non-contaminated,
14 put it in the proper bins or receptacles
15 to avoid losses in transport.

16 Q. What waste material were you referring
17 to?

18 A. This could include capacitors that have
19 failed in service. It could include
20 clay that was used to treat a PCB
21 liquid. It could include sawdust which
22 was sprinkled on a spill to absorb it,
23 rags, workers' clothing.

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1 Q. Okay.

2 A. That's just a partial list.

3 Q. Did Monsanto make any efforts to
4 segregate and collect the waste
5 materials?

6 A. We certainly collected it. I don't know
7 that we segregated the soiled clothing
8 that was discarded from the sawdust. It
9 was all put in steel barrels for
10 disposal.

11 Q. Okay. Well, when you say that the
12 problem of segregating and collecting
13 the waste material still remains to be
14 solved, was that problem ever solved?

15 A. Not to my knowledge.

16 Q. Now, in the last sentence of that
17 paragraph, you state, "It is our
18 considered opinion that as long as the
19 polychlorinated biphenyl waste is not
20 exposed to water and thereby
21 transported, adverse effects to the
22 environment will be essentially
23 eliminated." Do you see that?

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1 A. I do.

2 Q. What adverse effects to the
3 environment were you referring to could
4 be prevented by preventing PCB waste
5 from coming in contact with water?

6 A. Well, it's the -- An example is this
7 juvenile shrimp injury or harm that we
8 just talked about. That's just one
9 example.

10 And at that time, since the
11 chickens were affected by some PCBs, in
12 terms of egg hatching, the idea was
13 extended to say this could possibly
14 apply to wild birds, so let's avoid that
15 exposure.

16 Q. Okay. Now, if PCB waste is exposed to
17 water and transported, then adverse
18 effects to the environment can be
19 expected to occur?

20 MR. PECK: Object to the form of
21 the question.

22 A. No. All I say with that is it's
23 relocated. It doesn't necessarily mean

REGIONAL REPORTING SERVICE, INC.

1 that the end result is any different
2 than before the relocation.

3 Q. Now, you say also in this paragraph,
4 "Lacking proper incineration, the only
5 recourse available is the use of
6 authorized, properly managed dry
7 landfills." Do you see that?

8 A. I'm looking for it.

9 Q. I'm sorry, sir. It was before -- It was
10 the sentence before the one I just read
11 to you before.

12 A. Oh, I find it, yes.

13 Q. Now, Monsanto's PCB landfills in
14 Anniston weren't properly managed or
15 dry, were they?

16 MR. PECK: Object to the form of
17 the question.

18 A. Again, sir, we're talking a period of
19 decades. And the adjective "properly"
20 changed through that forty, fifty year
21 period. What was proper in 1930 was
22 modified such that what was proper in
23 the 1970s is different. I don't know

REGIONAL REPORTING SERVICE, INC.

1 how to respond to your question other
2 than that.

3 Q. Are you aware, sir, of all the work that
4 Monsanto has been required to undertake
5 to try to address the PCB releases from
6 the Anniston landfill?

7 A. I'm aware of the fact that work has been
8 done. I'm not aware of the details. I
9 don't know any more than that.

10 Q. The PCBs at the Mars Hills Missionary
11 Baptist Church came from Monsanto's
12 landfill, didn't they, sir?

13 MR. PECK: Object to the form of
14 the question.

15 A. I don't know that any more than you do.

16 Q. Okay. Well, if they didn't come from
17 Monsanto's plant, then where did they
18 come from, in your opinion, sir?

19 MR. PECK: Object to the form of
20 the question, lack of
21 foundation.

22 A. Since I didn't personally see it, I can
23 only -- it amounts to guessing where it

REGIONAL REPORTING SERVICE, INC.

1 could come from.

2 MR. ATKIN: Okay. That's all I
3 have on that document.

4 Let's mark for
5 identification as Papageorge
6 Fifty-six a March 18th, 1975,
7 letter from Mr. Papageorge to
8 Mr. Dan A. Albert, Staff
9 Supervisor, Personal
10 Relations of the Westinghouse
11 Electric Corporation. It
12 appears to be an eight-page
13 letter bearing Bate's number
14 GBRN 001641 through GBRN
15 001648.
16 (Plaintiffs' Exhibit Number
17 Fifty-six was marked for
18 identification.)

19 A. I've scanned the exhibit.

20 Q. Mr. Papageorge, under the first page --
21 on the first page of the attachment,
22 under question one, the question states,
23 "Does Inerteen have permanent effects on

REGIONAL REPORTING SERVICE, INC.

1 the human body? If so, what type of
2 permanent damage and how long a period
3 of time does it take for this to
4 develop; if not, explain why, if
5 possible."

6 And these are responses that you
7 are giving to questions that were
8 written to you by Mr. Albert of
9 Westinghouse; is that right?

10 A. Yes.

11 Q. Okay. Now, the answer that you give --
12 And by the way, did you draft the
13 answers to these questions?

14 A. No.

15 Q. Who did?

16 A. Mr. Elmer Wheeler.

17 Q. Okay. If Mr. Wheeler drafted the
18 answers to the question, then why were
19 you addressing the response to
20 Mr. Albert?

21 A. Well, Mr. Albert had contacted me via a
22 letter with a list of questions. And
23 since they were medically-oriented type

REGIONAL REPORTING SERVICE, INC.

of questions, I asked Mr. Wheeler, who was a member of Monsanto's medical department, if he would draft the responses. And Mr. Wheeler did that and sent them to my office, and I forwarded them to Mr. Albert.

Q. Okay. The answer to that first question states at the beginning, "The polychlorinated biphenyls in Inerteen can have permanent effects on the human body."

What was Inerteen, by the way?

A. Inerteen is a Westinghouse trademark used with products that are liquids that are used in Westinghouse electrical equipment.

Q. Okay. Now, when it states here that the polychlorinated biphenyls in Inerteen can have permanent effects on the human body, what kind of permanent health effects was Mr. Wheeler referring to?

MR. PECK: Object to the form of the question.

REGIONAL REPORTING SERVICE, INC.

Q. To your knowledge.

A. Well, he was referring to -- Excuse me. I hesitate because I'm trying to define the word "permanent" in a way that's understood by both of us.

Continued exposure can in a way result in this chloracne that is described in a person. And as far as that person is concerned, it's permanent. That's an example of a permanent effect, health effect. I don't know how else to describe it.

The enlarged liver is another effect that could be included under the definition of a permanent effect.

Q. Okay. Now, in the middle of that page, in the paragraph beginning "The potential toxic effects," it says --

A. I haven't found it yet.

Q. I'm sorry. In the -- I'm sorry -- the one, two, three, four -- the fifth paragraph of the answer.

A. Oh, okay. And what was your question,

REGIONAL REPORTING SERVICE, INC.

sir?

Q. It refers to the fact that chloracne may be an external symptom of overexposure preceding serious liver injury. I just wanted to ask you if you know what -- is it Mr. Wheeler or Dr. Wheeler?

A. Mister.

Q. -- what Mr. Wheeler meant when he was referring to serious liver injury?

A. Well, it does refer to increased liver weights.

Q. Okay. Anything else that you're aware of other than increased liver weight when he's referring to serious liver injury?

A. No. You mean other than what we are discussing here?

Q. Yeah.

A. Well, I understand that continued high exposures can result in that liver being damaged to the point where it cannot recover.

Q. Did Monsanto -- I'm sorry. Did Monsanto

REGIONAL REPORTING SERVICE, INC.

ever tell the residents of Anniston, Alabama, that PCBs can cause serious liver injuries in humans?

A. No more than your service station would tell the neighborhood about the used motor oils that can cause these very things.

MR. ATKIN: Okay. That's all I have on that document.

Let us mark -- Let us mark for identification as Papageorge Fifty-seven a March 25th, 1969, letter from Mr. Eugene C. Wright, Pollution Control Engineer of Monsanto, to W. A. Kuhn, K-u-h-n, and several recipients, including Mr. Papageorge, bearing Bate's number MONS 097308. (Plaintiffs' Exhibit Number Fifty-seven was marked for identification.)

REGIONAL REPORTING SERVICE, INC.

- 1 Q. Let me ask you to take a look at that,
2 if you could, sir.
- 3 A. I have scanned the article. It's rather
4 difficult to read.
- 5 Q. Maybe I can help you with some of it.
6 Sir, did Monsanto ever conduct
7 biological studies on the Choccolocco
8 Creek watershed?
- 9 A. Yes.
- 10 Q. Okay. And did Monsanto hire outside
11 parties to conduct those biological
12 studies?
- 13 A. Yes.
- 14 Q. When did Monsanto first hire the outside
15 consultants to conduct the studies?
- 16 A. Well, this exhibit reminds me that a
17 study was made and refers to the date
18 1964.
- 19 Q. Okay. Where are you referring to?
- 20 A. I may have misread that. It's the
21 fourth line down, the third -- the
22 date --
- 23 Q. Is that from late 1966?

REGIONAL REPORTING SERVICE, INC.

- 1 A. '66, it looks like, yes.
- 2 Q. To August or September of 1967?
- 3 A. Yes.
- 4 Q. Okay. Now, let me ask you first, do you
5 recall receiving this memorandum or this
6 letter?
- 7 A. I don't recall receiving it. I recall
8 reading it since the date of the letter,
9 but I don't recall under what
10 conditions.
- 11 Q. Do you recall reading this anytime in
12 the recent past, within the last few
13 weeks?
- 14 A. No.
- 15 Q. Okay. What is referred to as the
16 Choccolocco Creek watershed?
- 17 MR. PECK: Object to the form of
18 the question.
- 19 A. I just associate it personally with the
20 presence of a creek that has the name
21 "Choccolocco Creek" in that area.
- 22 Q. Okay.
- 23 A. I don't know --

REGIONAL REPORTING SERVICE, INC.

- 1 Q. What the watershed is referring to?
- 2 A. That's right. The hydrologist's
3 definition of a watershed, I do not
4 know.
- 5 Q. Now, the purpose of the studies that
6 were conducted was to determine whether
7 Monsanto's effluents were producing any
8 adverse effects upon the ecology or
9 chemistry of the watershed?
- 10 A. That is the intent, yes.
- 11 Q. What did the studies conclude?
- 12 A. As best I recall, it concluded the
13 presence of PCBs. I do not recall any
14 adverse effects being documented.
- 15 Q. Okay. Who were the outside consultants
16 hired to do these studies?
- 17 A. Well, the initial one is referred to as
18 Dr. Ferguson, and later --
- 19 Q. Later was it Drs. Gunning and Suttkus?
- 20 A. Gunning and Suttkus.
- 21 Q. When did Monsanto first become concerned
22 about whether the effluents were
23 producing any adverse effects on the

REGIONAL REPORTING SERVICE, INC.

- 1 ecology or chemistry of the watershed?
- 2 A. I don't recall a specific date. There
3 was an evolving awareness developing as
4 the analytical procedures were being
5 developed and more information was
6 coming from other sources. And I really
7 can't pinpoint a specific time.
- 8 Q. Okay.
- 9 A. It started with the Swedish work in
10 1966. And from that point on the
11 information slowly evolved.
- 12 Q. Okay. In the middle of the second
13 paragraph it says, "In each of these
14 reports there is mention of the fact
15 that there are no fish or other aquatic
16 life in Snow Creek.
- 17 When did Monsanto first learn that
18 there was no fish or aquatic life in
19 Snow Creek?
- 20 A. I don't know that I could speak for
21 Monsanto. I can only speak for myself.
- 22 Q. Okay. When did you first learn of that?
- 23 A. I was first exposed to Snow Creek in

REGIONAL REPORTING SERVICE, INC.

1 1965. And from that point on -- My
2 personal observation and discussions
3 with plant people, we were all under the
4 definite impression that it was
5 lifeless.

6 Q. Did Monsanto ever tell the residents of
7 Anniston that it knew that there was no
8 fish or aquatic life in Snow Creek?

9 A. That would be an irrational -- No,
10 because there was a lot of industry
11 around there, not just Monsanto's plant.

12 Q. The answer is no?

13 A. That is right.

14 Q. Okay. The next sentence says, "Snow
15 Creek receives all of the waste water
16 and sewer acid from our Aroclor
17 process."

18 Do you know when Snow Creek first
19 began receiving all of the waste water
20 from Monsanto's Anniston plant?

21 MR. PECK: Object to the form of
22 the question. It's a
23 mischaracterization of the

REGIONAL REPORTING SERVICE, INC.

1 document.

2 A. No. When I arrived, that was the
3 practice. I have no way of knowing when
4 it really started.

5 Q. Okay. The next sentence says, "Although
6 there are many other factors which could
7 adversely affect Snow Creek, the fact
8 that we dump into Snow Creek should
9 certainly be of great interest to us."

10 As this memo reflects, Monsanto
11 was dumping PCBs into Snow Creek; isn't
12 that right?

13 MR. PECK: Object to form of the
14 question, mischaracterization
15 of the document.

16 A. No, sir, it doesn't say that. And you
17 left out a parenthetical expression
18 there referring to organic dyes and
19 foundry waste and so on that contribute
20 to the conditions of that creek.

21 Q. But my question is, sir, regardless of
22 whatever else might have been dumped
23 into the creek, this memo reflects that

REGIONAL REPORTING SERVICE, INC.

1 Monsanto -- Mr. Wright, Pollution
2 Control Engineer, his recognition that
3 Monsanto was dumping into Snow Creek;
4 isn't that right?

5 A. I would suggest, sir, that Monsanto was
6 discharging a water stream that had gone
7 through a collection pit and a limestone
8 bed that deacidified that waste water
9 before it was discharged into a -- I'm
10 going to call it a local ditch that
11 eventually ended up in Snow Creek.

12 Q. Okay. Is it fair to say, sir, that you
13 disagree with Mr. Wright's
14 characterization and use of the word
15 "dumping"?

16 A. I'm having a hard time finding that
17 word, sir. Can you help me?

18 Q. Sure. As I just read previously, the
19 sentence, "Although there are many other
20 factors which could adversely affect
21 Snow Creek" -- and then there is the
22 parenthetical that you referred to --
23 "the fact that we dump into Snow Creek

REGIONAL REPORTING SERVICE, INC.

1 should certainly be of great interest to
2 us."

3 A. Yeah. I personally would not use the
4 word "dump." I would use the word
5 "discharge."

6 Q. Okay. That's all I have on that
7 document. Thank you.

8 Actually, if you could take a look
9 at it -- You don't need the document.
10 Well, yeah, you do. If you could, take
11 a look at it again.

12 Let me ask you this, sir: Was the
13 fact that Monsanto was dumping -- to use
14 Mr. Wright's language, characterization
15 -- into Snow Creek, was that of interest
16 to Monsanto?

17 A. Well, it certainly is of interest in
18 that they had to dispose of this water,
19 and it had to go somewhere. So
20 naturally they are interested in the
21 method of discharge, which included that
22 waterway. So there was interest in
23 that.

REGIONAL REPORTING SERVICE, INC.

Of course, the fact that Monsanto installed the limestone neutralization catch basin reflects the interest in avoiding any undesirable contaminants being in that water that finds its way to Snow Creek.

Q. Okay. Did Monsanto ever tell the residents of Anniston, Alabama, that it was dumping PCBs into Snow Creek?

A. I don't know that Monsanto even knew it was dumping PCBs. It was discharging a treated waste water.

Q. Did Monsanto ever tell the residents of Anniston that it was discharging PCBs into Snow Creek?

A. No.

Q. Do you think that might have been of interest to the residents of Anniston, Alabama, to know that?

MR. PECK: Object to the form of the question, calls for speculation.

A. Sir, I have no way of knowing what is

REGIONAL REPORTING SERVICE, INC.

interesting to others.

Q. Do you think they had a right to know that information, that Monsanto was discharging PCBs into Snow Creek?

MR. PECK: Object to the form of the question.

A. If there is no harm in that, it's no different than telling them we are discharging dirty laundry water.

Q. Is your answer no, you don't think that they had a right to know that information?

A. I don't know about rights and knowing that kind of information. It's not helpful.

Q. Do you think Monsanto should have told the residents of Anniston, Alabama, that it was discharging PCBs into Snow Creek?

A. There was no reason to, therefore --

Q. Is the answer no?

A. The answer is no.

Q. Okay. Let's take a look at the last -- the handwritten note there on the

REGIONAL REPORTING SERVICE, INC.

bottom, which I believe is addressed to you. It says, "Bill" -- Do you see that?

A. That's not me. That's Mr. Kuhn.

Q. It says, "Our thought was that if the business group was interested in long-term effects of PCB on a stream, Choccolocco Creek would be a good place to start. Any information would also help us in maintaining knowledge of the situation in the creek and future insurance if an upset occurs." And I believe that is signed by Mr. Landwehr; is that right?

A. That is correct.

Q. His first name was Joe?

A. Yes.

Q. Do you know what Mr. Landwehr meant by an upset occurring in the future?

MR. PECK: Object to the form of the question.

Q. Do you have an understanding of what he meant?

REGIONAL REPORTING SERVICE, INC.

A. I don't know what Mr. Landwehr meant.

Q. Do you have an understanding of what he meant when he was referring to future insurance if an upset occurs?

MR. PECK: Object to the form of the question.

A. Again, I don't know what he's thinking.

MR. ATKIN: Okay. Thank you.

That brings us to the next document for identification, which I believe is Papageorge Fifty-eight, which is a four-page document. It's a memorandum written by Mr. Papageorge to -- I'm sorry -- written by Mr. Keller to Mr. Papageorge, dated April 17th, 1970, with a number of other recipients. And the memo is dated personal and confidential. I'd ask you to mark this. (Plaintiffs' Exhibit Number

REGIONAL REPORTING SERVICE, INC.

1 Fifty-eight was marked for
2 identification.)
3 A. I have reviewed the exhibit.
4 Q. Okay. The subject of this memorandum is
5 Environmental Materials Analyzed by
6 Monsanto for PCBs, correct?
7 A. Correct.
8 Q. What work did Monsanto do to detect PCBs
9 in environmental materials?
10 A. I don't think I understand the question.
11 Q. Okay. This memo reflects that -- or
12 contains results of samples that were
13 taken from or near eleven waterways
14 associated with industrial sites and
15 waterways and other areas associated
16 with non-industrial sites, correct?
17 A. Yes.
18 Q. Now, the types of samples taken by
19 Monsanto included samples from water,
20 sediment, air, fish, human fat, and
21 milk, correct?
22 A. You used the expression "taken by
23 Monsanto." These samples were taken by

REGIONAL REPORTING SERVICE, INC.

1 others and sent to Monsanto's
2 laboratory.
3 Q. For analysis.
4 A. For analysis.
5 Q. Thank you for clarifying that.
6 But those samples included water,
7 sediment, air, fish, human fat, and
8 milk?
9 A. Yes.
10 Q. And in fact, PCBs were detected in
11 water, sediment, air, fish, human fat,
12 and milk, correct?
13 A. It is correct generally, but not in
14 every sample.
15 Q. Okay. Now, I'd like to ask you about
16 the samples that were taken from Snow
17 Creek and Choccolocco Creek that are
18 reflected on the chart right at the
19 beginning of the first chart there on
20 page two. Do you see that?
21 A. I do.
22 Q. Okay. Do you know where these samples
23 were taken other than Snow Creek and

REGIONAL REPORTING SERVICE, INC.

1 Choccolocco Creek?
2 A. No, I don't.
3 Q. Now, in discussing the -- Are you able
4 to determine from this what levels of
5 PCBs were found in the samples that were
6 taken from Snow Creek and Choccolocco
7 Creek?
8 A. By levels, do you mean specific numbers?
9 Q. Yes.
10 A. No. This is --
11 Q. This is just reflection that there were
12 PCBs found in levels from, let's say,
13 parts per billion to parts per million?
14 A. That's the way it's reported, yes.
15 Q. That's what I thought.
16 Now, do you have any recollection,
17 independent recollection of what the
18 levels were of the air, water, sediment,
19 and fish samples that were taken?
20 A. I do not.
21 Q. Okay. Now, Monsanto analyzed a human
22 fat biopsy specimen also, correct?
23 A. Yes.

REGIONAL REPORTING SERVICE, INC.

1 Q. Why? Why did it do that?
2 A. I don't know.
3 Q. Do you know what the levels were of the
4 PCBs found in the human fat biopsy?
5 A. I don't remember.
6 Q. Okay. Did Monsanto ever tell the
7 residents of Anniston, Alabama, that
8 PCBs had been found in water samples
9 from Snow Creek and Choccolocco Creek?
10 A. No.
11 Q. How about sediment samples?
12 A. No.
13 Q. How about the air?
14 A. No.
15 Q. How about fish?
16 A. No.
17 Q. How about human fat?
18 MR. PECK: Object to the form of
19 the question.
20 A. No.
21 Q. And how about milk?
22 MR. PECK: Object to the form of
23 the question, no foundation.

REGIONAL REPORTING SERVICE, INC.

1 A. No.

2 MR. ATKIN: Okay. That's all I

3 have on that document.

4 And let us mark for

5 identification purposes as

6 Exhibit Fifty-nine to the

7 Papageorge deposition a

8 December 3rd, 1970, letter --

9 memorandum, rather, from

10 E. S. Tucker to

11 Mr. Papageorge and several

12 other recipients as well. It

13 is a three-page memorandum

14 bearing Bate's number SCM

15 037756 through SCM 037758.

16 And I'd ask you to mark that,

17 if you could.

18 (Plaintiffs' Exhibit Number

19 Fifty-nine was marked for

20 identification.)

21 MR. PECK: Do you want me to

22 cover --

23 MR. ATKIN: Oh, sure, yeah. That

REGIONAL REPORTING SERVICE, INC.

1 will be good. Thank you.

2 Q. Now, this memorandum refers to the

3 shrimp studies that you were telling us

4 about before; is that right?

5 A. No.

6 Q. Okay. Let me take a look at -- This

7 memorandum, then, refers to the PCB

8 content of Pensacola White or Bay

9 Shrimp, correct?

10 A. That's the title, yes, sir.

11 Q. Which shrimp studies were you referring

12 to earlier?

13 A. There is a laboratory located offshore

14 from Pensacola, the City of Pensacola,

15 at Gulf Breeze, Florida, that at that

16 time was called the Commercial Fisheries

17 Laboratory, as best I recall, in which

18 the researchers tried different

19 exposures to the shrimp and the fish and

20 whatever is found in the Gulf of Mexico.

21 And they exposed some of the

22 recently-hatched shrimp to different

23 chemicals. One of them was PCBs.

REGIONAL REPORTING SERVICE, INC.

1 Q. So that is separate and apart from the

2 studies that were done -- or the PCB

3 analyses that were done that are

4 referred to in this memorandum?

5 A. That's correct.

6 Q. Were those studies done at or about the

7 same time as the studies that are

8 referred to here, 1970?

9 A. At or about, yes, about that period of

10 time.

11 Q. Okay. Now, Monsanto concluded from the

12 studies that were done on the shrimp in

13 Escambia Bay that there were in fact --

14 that PCBs were in fact affecting the

15 shrimp in Escambia Bay; is that right?

16 A. No, sir.

17 MR. PECK: Object to the form of

18 the question.

19 A. I don't see any mention of effects.

20 Q. Okay. This reflects the fact -- the

21 presence of PCBs in the shrimp in

22 Escambia Bay?

23 A. That is correct.

REGIONAL REPORTING SERVICE, INC.

1 Q. Okay. Do you know why Monsanto

2 undertook this analysis of the PCB

3 content of shrimp from Escambia Bay?

4 A. I'd be guessing, sir.

5 Q. Okay. I don't want you to guess.

6 Escambia Bay is near the Monsanto

7 plant in Pensacola, Florida, right?

8 A. Yes.

9 Q. Did Monsanto ever take any steps to

10 minimize the amount of PCBs discharged

11 from its plant in Pensacola, Florida?

12 A. Yes. That was a continuing objective.

13 Q. And did Monsanto make any attempt to

14 reduce the level of PCBs in Escambia

15 Bay?

16 A. Not the bay itself, no, sir.

17 Q. Did Monsanto ever share the results of

18 its PCB analysis of shrimp in Escambia

19 Bay with any state or federal

20 authorities?

21 A. Not to my knowledge.

22 Q. Did Monsanto ever share the results of

23 its PCB analysis of shrimp in Escambia

REGIONAL REPORTING SERVICE, INC.

1 Bay in Florida with any state or federal
2 authority in Alabama?

3 A. I don't know.

4 MR. ATKIN: Okay. That's all I
5 have on that document.

6 Let us mark for
7 identification as Papageorge
8 Sixty a one-page memorandum
9 from Mr. Wheeler to D. S.
10 Cameron, C-a-m-e-r-o-n,
11 Brussels, dated January 29th,
12 1970, regarding status of
13 Aroclor toxicological
14 studies.

15 (Plaintiffs' Exhibit Number
16 Sixty was marked for
17 identification.)

18 A. I have read the document.

19 Q. Okay. This memo -- In this memo
20 Mr. Wheeler states that he is enclosing
21 a copy of the reports from our
22 consulting laboratory indicating the
23 status of the animal toxicity studies.

REGIONAL REPORTING SERVICE, INC.

1 Now, when he's referring to the
2 animal toxicity studies and the work
3 done by the consulting laboratory, is he
4 referring to the IBT studies?

5 A. Yes.

6 Q. Okay. When did Monsanto first hire
7 consultants to conduct animal toxicity
8 studies regarding the PCBs, to the best
9 of your recollection?

10 A. It was in the '40s, late '30s, as best I
11 recall.

12 Q. Who did the work that was done in the
13 late 1930s or the 1940s on animal
14 toxicity and PCBs?

15 A. There was a laboratory, as best I
16 recall, Younger Laboratories.

17 Q. Younger?

18 A. Younger, Y-o-u-n-g-e-r.

19 Q. And the work that they did, was that
20 done only in the late '30s, early '40s,
21 or did they continue to do work?

22 A. There were repeated studies in the '50s
23 and then of course in the '60s.

REGIONAL REPORTING SERVICE, INC.

1 Q. Who did the studies in the '50s?

2 A. I don't remember the name of the
3 laboratory.

4 Q. Okay. And who did the studies in the
5 1960s?

6 A. Industrial Bio-Test Laboratories.

7 Q. IBT?

8 A. IBT.

9 Q. Let's talk for a second about the
10 studies that were done in the late 1930s
11 or early 1940s by Younger Laboratories.
12 Do you recall what type of studies were
13 done?

14 A. Those were the studies typically
15 referred to as Acute Animal Toxicity
16 Studies.

17 Q. What types of animals were studied?

18 A. The white rat is the typical --

19 Q. Okay.

20 A. -- test animal.

21 Q. What was the purpose of those studies
22 that were done in the late 1930s or
23 early 1940s by Younger Laboratories?

REGIONAL REPORTING SERVICE, INC.

1 A. To establish the level at which the
2 animals are seriously affected. I
3 forget the exact ground rules, something
4 like half of the animals die as a result
5 of exposure, some such guideline.

6 Q. LD 50?

7 A. Yes, that's it, LD 50.

8 Q. Do you recall what level was determined
9 to be the LD 50 level by Younger
10 Laboratories based on the studies that
11 they did with white rats in the late
12 1930s or early 1940s?

13 A. I do not.

14 Q. Now, the studies that were done in the
15 1950s, to the best of your knowledge
16 were they done by a laboratory other
17 than Younger Laboratories?

18 A. The reason I hesitate, as I remember,
19 Younger Laboratories changed names. The
20 personnel were the same, but the
21 laboratory designation changed. And I
22 don't recall which took place first.

23 Q. But was the -- were the studies that

REGIONAL REPORTING SERVICE, INC.

1 were done in the '50s done by the
 2 laboratory that was formerly known as
 3 Younger Laboratories?
 4 A. I'm under that impression, yes.
 5 Q. You just don't remember the name of the
 6 laboratory?
 7 A. That is correct.
 8 Q. What was the purpose of the studies that
 9 were done in the 1950s?
 10 A. Just a reconfirmation of what was
 11 perceived to be data that might bear a
 12 looking into again.
 13 Q. And do you recall the results of any of
 14 those studies?
 15 A. I don't remember the specifics.
 16 Q. Okay. And how about the studies that
 17 were done in the 1960s by IBT? What was
 18 the purpose of those studies?
 19 A. The first tests run in that period were
 20 referred to as a subchronic series,
 21 which is the exposure that is -- as best
 22 I remember, is a ninety-day exposure.
 23 And the idea is to expose the test

REGIONAL REPORTING SERVICE, INC.

1 given to?
 2 A. I do not.
 3 Q. Do you know what data they were given?
 4 A. I do not.
 5 Q. Do you know if the data that's referred
 6 to in this memorandum was ever shared
 7 with any other Monsanto customer?
 8 A. I do know that later versions of those
 9 status reports were shared with Monsanto
 10 customers.
 11 Q. How much later?
 12 A. Oh, I can't recall the exact period, but
 13 the intent was to have a status report
 14 about every six months that we would
 15 share with customers.
 16 Q. Okay. The next sentence says, "I don't
 17 see why this information cannot be
 18 released with discretion in Britain or
 19 Europe."
 20 Do you know what Mr. Wheeler meant
 21 when he talked about the animal toxicity
 22 data possibly being released with
 23 discretion in Britain and Europe?

REGIONAL REPORTING SERVICE, INC.

1 animal to the point where it survives
 2 for the ninety-day test period, but at
 3 the same time, if there is an effect,
 4 that that effect be noted. And that
 5 series of tests was used to establish
 6 the dosage levels that were later used
 7 for the lifetime studies, the
 8 two-year-plus studies.
 9 Q. That were done, when, in the '70s?
 10 A. Yeah, in the early '70s.
 11 Q. And the tests that were done by IBT in
 12 the 1960s, what types of animals were
 13 they done on?
 14 A. There were white rats, beagle dogs, and
 15 leghorn chickens.
 16 Q. Okay. Now, in this memorandum,
 17 Mr. Wheeler says, in the second
 18 paragraph, "We have given copies of
 19 these data to one U.S. customer, the
 20 USFDA, and one or two other state
 21 agencies."
 22 Now, let me ask you first, do you
 23 know which U.S. customer the data was

REGIONAL REPORTING SERVICE, INC.

1 MR. PECK: Object to the form of
 2 the question, calls for
 3 speculation.
 4 A. I don't know what Mr. Wheeler meant by
 5 that.
 6 Q. Was the animal toxicity information that
 7 is referred to in this memorandum ever
 8 released with discretion in Britain or
 9 Europe?
 10 A. Well, sir, I know personally that it was
 11 released, but I don't know about the use
 12 of the word "discretion." I personally
 13 was involved shortly after January, in
 14 April, as I remember --
 15 Q. January 1970?
 16 A. -- 1970, with sharing that kind of
 17 information with individuals, customers,
 18 co-producers and what have you in
 19 Europe.
 20 Q. Okay. Now, according to this
 21 memorandum, the paragraph states, "Our
 22 interpretation is that PCBs are
 23 exhibiting a greater degree of toxicity

REGIONAL REPORTING SERVICE, INC.

1 in this chronic study than we had
2 anticipated."

3 What were the results of the
4 studies that showed a greater degree of
5 toxicity than had been anticipated?

6 MR. PECK: Object to the form of
7 the question. There is lack
8 of foundation for this
9 witness to deal with issues
10 of toxicity.

11 A. It has to do with the observed results
12 on the livers of the test animals at the
13 high levels of exposure and for the
14 higher chlorinated types of PCBs.

15 Q. The higher chlorinated, referring to
16 1254 and 1260?

17 A. 1260, yes, sir.

18 Q. What results had been anticipated?

19 MR. PECK: Object to the form of
20 the question.

21 A. Well, up to this point there was nothing
22 to indicate that PCBs would have any
23 results, and we expected the test

REGIONAL REPORTING SERVICE, INC.

1 animals to reflect that belief. And it
2 didn't do so.

3 Q. Okay. Now, the next paragraph states --
4 actually -- Withdrawn.

5 The next sentence in that
6 paragraph states, "Secondly, although
7 there are variations, depending on
8 species of animals, the PCBs are about
9 the same as DDT in mammals." Do you
10 know what Mr. Wheeler meant by that?

11 MR. PECK: Object to the form of
12 the question.

13 A. No, I don't.

14 Q. The next paragraph states, "We have
15 additional interim data which will
16 perhaps be more discouraging." Do you
17 know what data Mr. Wheeler was referring
18 to in that sentence?

19 MR. PECK: Object to the form of
20 the question.

21 A. He was referring to the results in the
22 chicken studies.

23 Q. Okay. What results specifically was he

REGIONAL REPORTING SERVICE, INC.

1 referring to when he said that data
2 would perhaps be more discouraging?

3 MR. PECK: Object to the form of
4 the question.

5 A. Hatchability of eggs.

6 Q. Okay. Now, in the last sentence in this
7 memorandum, Mr. Wheeler says, "We are
8 repeating some of the experiments to
9 confirm or deny the earlier findings and
10 are not distributing the early results
11 at this time."

12 Let me just ask you. Did Monsanto
13 have the experiments repeated?

14 A. Yes.

15 Q. Okay. And did they confirm or deny the
16 earlier findings?

17 A. They confirmed.

18 MR. ATKIN: Okay. Let us mark for
19 identification purposes for
20 your deposition as Papageorge
21 Sixty-one a May 7th, 1970,
22 memorandum from G. W. Miller
23 to G. L. Jessee. And

REGIONAL REPORTING SERVICE, INC.

1 Mr. Papageorge is a recipient
2 of this memoranda. The
3 memorandum is dated May 7th,
4 1970. It bears -- It's a
5 two-page memorandum bearing
6 Bate's number MONS 099533
7 through 099534.
8 (Plaintiffs' Exhibit Number
9 Sixty-one was marked for
10 identification.)

11 A. I have scanned the exhibit.

12 Q. Okay. This discusses a visit by
13 Mr. Landwehr, Mr. Wright, and Mr. Miller
14 to Mr. Crockett at the Alabama Water
15 Improvement Commission in or about May
16 1970. Were you aware of that visit?

17 A. Eventually, yes.

18 Q. What does eventually mean?

19 A. When I got a copy of this letter or
20 memorandum.

21 Q. Okay. Have you seen this memorandum
22 anytime in the recent past?

23 A. By recent, if you mean the past couple

REGIONAL REPORTING SERVICE, INC.

1 of months, yes.
 2 Q. Did you look at it in the last couple of
 3 weeks?
 4 A. No.
 5 Q. Okay. Now, who -- Do you know who at
 6 Monsanto first initiated contacts with
 7 Mr. Crockett on the PCB issue?
 8 A. No, I don't.
 9 Q. Okay. One of the topics that they
 10 discussed with Mr. Crockett was that
 11 Aroclors reaching the watershed from the
 12 Anniston plant were entering Snow Creek,
 13 correct?
 14 A. Will you help me find that reference?
 15 Q. Yes. If you look in the second
 16 paragraph, it says -- number three says,
 17 "Additional information supplied covered
 18 the following facts." And number three
 19 is, "Any Aroclors reaching the watershed
 20 from the Anniston plant were entering
 21 Snow Creek."
 22 A. That's what it states, yes.
 23 Q. Okay. Now, in the next paragraph, it

REGIONAL REPORTING SERVICE, INC.

1 states, "He" -- referring to
 2 Mr. Crockett -- "alluded that our action
 3 would produce a situation that was
 4 beneficial to the protection of both the
 5 Monsanto and AWIC positions." Do you
 6 know what he meant by that?
 7 A. No.
 8 MR. ATKIN: You didn't need that
 9 objection.
 10 MR. PECK: I was just going to
 11 object to the form of the
 12 question because it calls for
 13 speculation by you. You
 14 handled it, so never mind.
 15 Q. Do you know, sir, what position Monsanto
 16 was looking to protect that is referred
 17 to here in this memorandum?
 18 A. No, I don't.
 19 Q. Do you know what position the AWIC was
 20 looking to protect?
 21 A. I do not.
 22 Q. Okay. Now, in the recommendations that
 23 Mr. Crockett made that are referred to

REGIONAL REPORTING SERVICE, INC.

1 in the third paragraph of this
 2 memorandum, one of the things that he
 3 recommended, number three, is "Give no
 4 statements or publications which would
 5 bring the situation to the public's
 6 attention." Do you see that?
 7 A. I see that.
 8 Q. Okay. Do you recall learning about the
 9 fact or discussing the fact that
 10 Mr. Crockett had recommended that
 11 Monsanto should give no statements or
 12 publications which would bring the
 13 situation to the public's attention?
 14 A. I recall that, yes, sir.
 15 Q. What do you recall about that?
 16 A. I can share with you my impressions at
 17 the time.
 18 Q. Okay.
 19 A. This confirmed my experience and belief
 20 that individuals in this type of
 21 assignment are very sensitive to what is
 22 revealed to the public; and therefore,
 23 this is almost an expected request.

REGIONAL REPORTING SERVICE, INC.

1 Q. Okay. That was your impression at the
 2 time?
 3 A. That is my impression.
 4 Q. Okay. Did Monsanto follow this
 5 recommendation?
 6 A. No.
 7 Q. Okay. Well, did it ever make any
 8 statements to the public about the fact
 9 that it knew that Aroclors reaching the
 10 watershed from the Anniston plant were
 11 entering Snow Creek?
 12 A. I don't know about those specific words,
 13 but I do recall -- Yes, they did. The
 14 plant manager addressed that.
 15 Q. How did he address that?
 16 A. Well, I have a vivid recollection of an
 17 article in a local paper that appeared
 18 in 1970, as best I recall.
 19 Q. Anything else?
 20 A. That's all that comes to mind right now.
 21 Q. Okay. Do you recall being told of a
 22 recommendation that Mr. Crockett made
 23 that if approached by news media, either

REGIONAL REPORTING SERVICE, INC.

- 1 the AWIC or Monsanto is free to state
 2 the situation is under study by the
 3 staff of AWIC at the direction of the
 4 technical director, Mr. Crockett?
- 5 A. Yes.
- 6 Q. And was that recommendation adopted by
 7 Monsanto?
- 8 A. Yeah.
- 9 Q. Okay. Now, the paragraph number five in
 10 this memorandum, under the
 11 recommendation, says, "If in the future
 12 information is developed indicating that
 13 Aroclors are detrimental to watersheds,
 14 Monsanto will be required to secure a
 15 permit from AWIC to allow certain
 16 maximum quantities of chlorinated
 17 biphenyl to enter Snow Creek."
- 18 Did Monsanto ever secure such a
 19 permit from the AWIC?
- 20 A. No. The detrimental effect was never
 21 determined; therefore, no need to secure
 22 any permit.
- 23 Q. Okay. Let me ask you. Before this

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- 1 situation involving the PCBs and the
 2 contacts that Monsanto had with
 3 Mr. Crockett regarding Aroclor
 4 pollution, did Mr. Miller, Mr. Landwehr,
 5 or Mr. Wright or anyone else at Monsanto
 6 have any prior dealings with
 7 Mr. Crockett on any other environmental
 8 matters?
- 9 A. Yes.
- 10 Q. What types of matters?
- 11 A. Well, I personally met with Mr. Crockett
 12 on a situation where some agricultural
 13 chemical resulted in a fish kill in -- I
 14 have forgotten the exact date, in the
 15 '67, '68 period.
- 16 Q. An agricultural chemical produced or
 17 manufactured at the Anniston plant?
- 18 A. Yes, sir.
- 19 Q. When you say a fish kill, what do you
 20 mean?
- 21 A. A fish kill, you know, bellies up
 22 scenario, where the fish -- And I forget
 23 which water system. It was the system

REGIONAL REPORTING SERVICE, INC.

- 1 that received the discharge of the
 2 Anniston Municipal Treatment Plant.
- 3 Q. What chemical was involved?
- 4 A. Parathion, p-a-r-a-t-h-i-o-n.
- 5 Q. When you say a fish kill, how many fish
 6 were killed?
- 7 A. I have no idea. I don't remember the
 8 amount.
- 9 Q. Okay. Was that information ever
 10 disclosed to the public?
- 11 A. Oh, yes.
- 12 Q. How was it disclosed to the public?
- 13 A. All the media, news media, radio,
 14 newspaper.
- 15 Q. Did Monsanto ever release any -- a press
 16 release regarding the fish kill that you
 17 are referring to in the '60s that
 18 resulted from parathion?
- 19 A. Press release, I don't remember any.
- 20 MR. ATKIN: That's all I have on
 21 that document.
- 22 Let us mark for
 23 identification purposes as

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- 1 Papageorge Sixty-two a
 2 one-page document bearing
 3 Bate's number FGL 0913054, a
 4 summary by Mr. Papageorge.
 5 (Plaintiffs' Exhibit Number
 6 Sixty-two was marked for
 7 identification.)
- 8 A. I have read the exhibit.
- 9 Q. Let me ask you first. Do you know when
 10 this summary was prepared by you?
- 11 A. It's familiar, and yet I can't place it
 12 time-wise.
- 13 Q. Well, I note that it says on top,
 14 "Received by Westinghouse from Monsanto
 15 on May 29th, 1987." Obviously that
 16 wasn't on the original document that you
 17 authored.
- 18 A. That is correct.
- 19 Q. Does that refresh your recollection,
 20 though, as to whether or not you wrote
 21 the summary in or about that time, in or
 22 about 1987?
- 23 A. Oh, no. This was in the '70s.

REGIONAL REPORTING SERVICE, INC.

- 1 Q. Okay. Do you know if it was the early
2 '70s or late '70s?
- 3 A. I suggest about the middle '70s.
- 4 Q. Okay. Now, in this summary you are
5 discussing with Monsanto -- revealing to
6 Monsanto's customers your observations
7 regarding whether PCBs degrade in the
8 environment, correct?
- 9 A. I'm not certain. I am advising
10 somebody, but I don't recall at the
11 moment what the audience was.
- 12 Q. Oh, okay. That's a good point.
13 Let me ask you this, then: Did
14 you ever issue summaries to Monsanto's
15 customers explaining your observations
16 about whether PCBs degrade in the
17 environment?
- 18 A. Yes.
- 19 Q. Okay. How often did you do that?
- 20 A. I think it was done once.
- 21 Q. So this may be the summary that was
22 done; is that right?
- 23 A. Yeah. Underline the "may be."

REGIONAL REPORTING SERVICE, INC.

- 1 Q. You're not sure?
- 2 A. I'm not sure.
- 3 Q. Now, when did Monsanto first believe
4 that PCBs degrade in the environment?
- 5 A. You used the word "believe."
- 6 Q. Well, actually -- I don't mean to
7 interrupt, but it's your word. It says,
8 "Lead us to believe with considerable
9 confidence that PCBs do degrade in the
10 environment."
- 11 A. This use of the word "belief" is based
12 on some laboratory data. Monsanto's
13 observation of the analytical results it
14 was receiving in the late '60s, early
15 '70s created a -- I'm going to call it a
16 hypothesis. The reason the lower
17 chlorinated PCBs, which were sold in
18 greater quantities, were not being found
19 in the environment could well be that
20 they are degrading.
- 21 Q. Okay. So when you refer to here the
22 fact that there is degradation, you are
23 referring to the lower chlorinated PCBs?

REGIONAL REPORTING SERVICE, INC.

- 1 A. Yes.
- 2 Q. Okay. Now, when you say that this
3 belief is results from laboratory data,
4 what laboratory data were you referring
5 to?
- 6 A. There was a study conducted by Dr. Scott
7 Tucker and another study conducted in
8 Robin, Wales, by Monsanto research
9 personnel.
- 10 Q. Okay. Can you tell us any specifics of
11 what those studies found?
- 12 A. They found that the lower chlorinated
13 types of PCBs --
- 14 Q. Which PCBs are you referring to
15 specifically?
- 16 A. The di, the tri, the tetra, the chloro,
17 some of the pentas. Once you get above
18 the five chloros, they were more
19 resistant.
- 20 Q. Did you ever issue any subsequent
21 summaries regarding the degradation of
22 PCBs in the environment subsequent to
23 this document?

REGIONAL REPORTING SERVICE, INC.

- 1 A. Not knowing the details of this summary,
2 I don't know that I can answer your
3 question. This may well have been the
4 last one, or it could have been an
5 intermediate one. I don't know.
- 6 Q. Do you recall ever telling any customers
7 of Monsanto that PCBs do not degrade in
8 the environment?
- 9 A. At what point in time, sir?
- 10 Q. At any point in time.
- 11 A. Any point? There was, before the
12 studies confirmed the suspicion we had,
13 a point in time when it was sincerely
14 believed that PCBs were inactive, inert,
15 that once they got in the environment
16 nothing would happen.
- 17 Q. Do you know what that point in time was?
- 18 A. Oh, gosh, it's again one of those
19 evolving impressions. In the early
20 '30s, '40s and '50s, it was sincerely
21 believed that they were inert. It was
22 only when the studies out of Sweden were
23 known or made known that the inertness

REGIONAL REPORTING SERVICE, INC.

1 began to be questioned.

2 MR. ATKIN: Okay. That's all I
3 have on that document.

4 Let us mark for
5 identification purposes a
6 December 24th, 1970 --

7 MR. PECK: It will be Plaintiffs'
8 Exhibit Sixty-three.

9 MR. ATKIN: I'm sorry?

10 MR. PECK: It will be Plaintiffs'
11 Exhibit Sixty-three.

12 MR. ATKIN: Thank you. For
13 identification purposes as
14 Papageorge Sixty-three, a
15 one-page memorandum dated
16 December 24th, 1970.
17 Mr. Papageorge is apparently
18 a recipient. The memo was
19 written -- It appears to have
20 been written by Mr. Landwehr
21 or perhaps by Mr. Savage to
22 Mr. Landwehr.
23 (Plaintiffs' Exhibit Number

REGIONAL REPORTING SERVICE, INC.

1 Sixty-three was marked for
2 identification.)

3 Q. Let me just hand it to you.

4 A. I have read the exhibit.

5 Q. Let me ask you this: Did Monsanto have
6 a budget for PCB pollution control in
7 1970?

8 A. Yes.

9 Q. What was the monthly amount budgeted?
10 Do you know?

11 A. No, I don't remember.

12 Q. Is that pollution -- PCB pollution
13 control what -- PCB pollution control
14 budgeted amount also referred to in this
15 memorandum as the toxicological account?

16 A. Can you help me find that reference?

17 Q. Sure. The next to the last paragraph.
18 It says, "I cannot agree that the
19 toxicological account will be ten
20 thousand dollars a month in 1971." And
21 I think it says in parenthesis,
22 "Sixty-seven hundred dollars over the
23 present budget."

REGIONAL REPORTING SERVICE, INC.

1 I guess what I'd like to know is
2 the toxicological account being referred
3 to here, is that the same as the PCB
4 pollution capital amount -- budgeted
5 amount?

6 MR. PECK: Object to the form of
7 the question.

8 A. I don't remember.

9 Q. What was the PCB pollution capital
10 amount supposed to be used for?

11 A. The capital account?

12 Q. The PCB pollution -- Well, it refers to
13 "PCB pollution capital at Anniston
14 should be held to minimum."

15 I guess what I am asking you is --
16 I presume that is referring to a certain
17 budgeted amount?

18 A. It's a budgeted amount of money to be
19 used for new facilities.

20 Q. What types of new facilities?

21 A. Whatever the management of the plant
22 felt they need.

23 Q. New facilities to do what?

REGIONAL REPORTING SERVICE, INC.

1 A. Whatever their programs called for.

2 Q. Is that in connection with controlling
3 PCB pollution?

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

6 A. Yes. If it's referred to as PCB
7 pollution capital, it has to do with
8 PCBs in the environment. And any new
9 facility, like a new pump, for example,
10 had to come out of that budget as
11 distinguished from repairing a pump
12 that's already in service and needs
13 repairs.

14 Q. Okay. Now, according to this, it
15 appears that the present budget in 1970
16 for PCB pollution capital was
17 thirty-three hundred dollars a month.
18 Is that right?

19 MR. PECK: Object to the form of
20 the question.

21 A. I'm having a difficult time finding it
22 again.

23 Q. Sure. It's the next to the last

REGIONAL REPORTING SERVICE, INC.

paragraph. "I cannot agree that the toxicological account will be ten thousand dollars a month in 1971." In parenthesis, "Sixty-seven hundred dollars over the present budget."

MR. PECK: What was the question again?

Q. Does that refresh your recollection, sir, that the budget in 1970 for the PCB pollution capital at Anniston was thirty-three hundred dollars a month?

A. Sir, as I had indicated earlier, I don't know that the terminology today to -- I don't recall the terminology that would help me make a distinction between the so-called toxicological account and the pollution control account.

Q. Do you have any understanding, sir, as to whether or not the toxicological account is any different than the PCB pollution capital account?

A. I don't know the difference today.

Q. Do you know what the toxicological

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account is referring to?

A. I do not.

Q. Okay. Did the decision to move production of liquid Aroclor to Krummrich have any effect upon the budget Monsanto was willing to allot to PCB pollution control at Anniston?

A. Naturally, yes.

Q. And Monsanto was looking to minimize the amount that would be spent on PCB pollution control consistent with the phaseout of the PCB manufacture in the Anniston plant; is that right?

MR. PECK: Object to the form of the question.

A. Yes. If you -- by your expression of tying it in to the phasing out, that is correct, yes.

Q. Okay. Now, who at Monsanto made the decision to minimize the budget for PCB pollution control at Anniston?

A. Don't know.

Q. Well, maybe you can help me with this:

REGIONAL REPORTING SERVICE, INC.

Does this memo reflect that it was written -- Can you tell if this was written by Mr. Landwehr to Mr. Savage or from Mr. Savage to Mr. Landwehr?

A. The author is Mr. Savage, addressed to Mr. Landwehr.

Q. Okay. Mr. Savage was in the general office?

A. Yes.

Q. What was his title?

A. He was manager, manufacturing for the organic chemicals division of Monsanto company.

Q. Do you recall whether or not Mr. Landwehr had proposed that the toxicological account for 1971 be ten thousand dollars a month?

A. I don't remember that, no.

Q. Do you recall Mr. Savage -- Do you recall the topic of this memorandum, which is -- Do you recall Mr. Savage at any time stating that he could not agree with a proposed amount that was being

REGIONAL REPORTING SERVICE, INC.

budgeted or a proposed budget for toxicological or PCB pollution control in Anniston in 1971?

MR. PECK: Object to the form of the question.

A. Do I remember it specifically? No. This is a normal type of discussion that takes place during the budget-setting process. There are differences of opinion.

Q. You don't remember it specifically?

A. No, I don't.

MR. ATKIN: That is all I have on that memorandum.

(Discussion held off record.)

MR. PECK: I was just asking Jack if he knew there was any more to this document. It looks like this document, which was marked as Plaintiffs' Exhibit Sixty-three, is more than one page to me.

MR. ATKIN: And all I can tell you

REGIONAL REPORTING SERVICE, INC.

1 is that I'm not aware of -- I
2 see what you're saying, that
3 perhaps there should be some
4 additional material, but I'm
5 not aware of any. Maybe in
6 the way it was produced, we
7 couldn't put -- You know,
8 maybe it was produced
9 separately.

10 You are switching tapes,
11 right?

12 THE VIDEOGRAPHER: I have switched
13 already.

14 MR. ATKIN: Let us mark for
15 identification purposes as
16 Papageorge Sixty-three --

17 MR. PECK: Sixty-four.

18 MR. ATKIN: -- Sixty-four -- thank
19 you -- a three-page
20 memorandum, a report by PCB
21 study group dated December
22 10th, 1975, by Mr. Wilkins to
23 Mr. Harbison. And there are

REGIONAL REPORTING SERVICE, INC.

1 several recipients on the
2 bottom of the memorandum,
3 including Mr. Papageorge.
4 (Plaintiffs' Exhibit Number
5 Sixty-four was marked for
6 identification.)

7 A. I have scanned the exhibit.

8 Q. Okay. Let me ask you first. Who is
9 Mr. Wilkins, Pierre Wilkins?

10 A. Mr. Wilkins at that time was the
11 Monsanto medio relations individual
12 located in New York City.

13 Q. Was he a Monsanto employee?

14 A. Yes.

15 Q. And who was Mr. Harbison?

16 A. Mr. Harbison at that time was the vice
17 president and principal official in the
18 group within Monsanto referred to as the
19 Monsanto Industrial Chemicals Company.

20 Q. Okay. Now, was there a group at
21 Monsanto called the PCB study group or
22 referred to as the PCB study group?

23 A. That group was primarily a media

REGIONAL REPORTING SERVICE, INC.

1 relations and government relations team.

2 Q. Okay. Who was on that team?

3 A. I remember a Warren Wealey out of the
4 Washington office and Dan Bishop and Jim
5 McKee.

6 Q. All the people who are listed here as
7 recipients, were you all part of the PCB
8 study group?

9 A. No. I wasn't, I know, and Mr. Paton
10 wasn't, and neither was Mr. Potter.

11 Q. Why did you receive a copy of this?

12 A. I'm sorry?

13 Q. Why did you receive a copy of this
14 memorandum that is referring to a report
15 by the PCB study group?

16 A. Well, I was the person that had the
17 assignment with PCBs from 1970, and I
18 was perceived to be a part of the
19 network, if you will, regarding PCBs.

20 Q. Okay. What was the purpose of the PCB
21 study group?

22 A. I'd be guessing, sir. I don't know.

23 Q. Okay. Now, the -- On the last page of

REGIONAL REPORTING SERVICE, INC.

1 this memorandum, it states, "The group
2 further considered a number of broad
3 principles and courses of action during
4 the period ahead to minimize the
5 negative impact on Monsanto's image.
6 Those were:" And it lists a whole bunch
7 of different things.

8 The last one is the one I would
9 like to talk to you about. It says,
10 "Principally, Monsanto must not be
11 viewed as being forced into a decision
12 to withdraw from PCB manufacture by
13 either government action or public
14 pressure. Rather, key audiences must
15 perceive Monsanto as having initiated
16 responsible action in a manner
17 consistent with past reputation and
18 practices."

19 Let me ask you this: Was the PCB
20 study group concerned that Monsanto
21 would be viewed as being forced into a
22 decision to withdraw from PCB
23 manufacture by government action?

REGIONAL REPORTING SERVICE, INC.

1 MR. PECK: Object to the form.
 2 A. Again, since I wasn't part of this
 3 group, I really can't speak as to what
 4 thoughts went through their minds.
 5 Q. Well, when you received this memorandum,
 6 did you formulate any opinions or
 7 discuss the contents of the memorandum
 8 with anyone?
 9 A. I formed my own opinions after reading
 10 the document.
 11 Q. And did you form an opinion as to
 12 whether or not the group was concerned
 13 that Monsanto not be viewed as being
 14 forced into a decision to withdraw from
 15 PCB manufacture by government action?
 16 A. Yes. The impression I got from that is
 17 that whatever Monsanto did, it should
 18 not be perceived as being forced to do
 19 it. The intent was to -- if it's going
 20 to be done, Monsanto take the lead and
 21 do it. That's my impression of that
 22 statement.
 23 Q. And similarly, that it should not be

REGIONAL REPORTING SERVICE, INC.

1 forced into a decision to withdraw from
 2 PCB manufacture by public pressure?
 3 A. Yeah. That goes along with the
 4 government action, yes.
 5 Q. Okay. Do you know why Monsanto wanted
 6 to avoid being viewed as being forced
 7 into a decision to withdraw from PCB
 8 manufacture by government action or
 9 public pressure?
 10 A. I can't speak for the corporate thinking
 11 there, no. I'd be guessing.
 12 Q. Okay. Now, when the last paragraph says
 13 that "Rather, key audiences must
 14 perceive Monsanto as having initiated
 15 responsible action," do you know who the
 16 key audiences were being referred to
 17 here?
 18 A. Again, sir, I can list you many, but
 19 it's still a guess on my part.
 20 Q. Okay. You don't know?
 21 A. I don't know.
 22 MR. ATKIN: Okay. That's all I
 23 have on that document, which

REGIONAL REPORTING SERVICE, INC.

1 brings us to Papageorge
 2 Sixty-five for identification
 3 purposes.
 4 And this is a four-page
 5 document called Executive
 6 Summary, PCB Pollution, dated
 7 10-29-69, bearing Bate's
 8 number STR 018891 through STR
 9 018894.
 10 (Plaintiffs' Exhibit Number
 11 Sixty-five was marked for
 12 identification.)
 13 A. I have glanced at the document.
 14 Q. Okay. This is an executive summary on
 15 PCB pollution. Do you know who prepared
 16 this executive summary?
 17 A. I do not.
 18 Q. It wasn't you?
 19 A. Correct.
 20 Q. Do you recall receiving this executive
 21 summary?
 22 A. I did not.
 23 Q. You did not receive it?

REGIONAL REPORTING SERVICE, INC.

1 A. That is correct.
 2 Q. Okay. Do you know who this executive
 3 summary was sent to?
 4 A. I do not.
 5 Q. Now, this summary reflects that by 1969
 6 Monsanto was aware of the ecological
 7 problems caused by PCB pollution,
 8 correct?
 9 MR. PECK: Object to the form of
 10 the question.
 11 A. That's what it states, yes, sir.
 12 Q. In fact, it states that by mid 1969
 13 Monsanto knew that PCBs had created a
 14 world-wide ecological problem; isn't
 15 that right?
 16 MR. PECK: Object to the form of
 17 the question. The document
 18 speaks for itself. It's not
 19 a document he has seen
 20 before.
 21 Q. I'm referring to the last sentence of
 22 the first section, Problem Definition
 23 and Timing, "Monsanto confirmed PCBs in

REGIONAL REPORTING SERVICE, INC.

mid 1969 and confirmed the adequacy of work by Widmark and Jensen and others, a world-wide ecological problem."

MR. PECK: Let me object to the form. There is no evidence of where the document even came from and no foundation for questioning him about it. Go ahead.

A. I don't understand the question. Am I supposed to agree that it's here, that that is what we are reading?

Q. I'm asking you whether or not -- Well, obviously it states that here, correct?

A. That's what's typewritten here.

Q. Do you have an understanding as to whether or not Monsanto knew in mid 1969 that PCBs had created a world-wide ecological problem?

A. Well, the presence of PCBs in many, many samples imply world-wide ecological problem.

Q. And you knew that in 1969, right?

REGIONAL REPORTING SERVICE, INC.

A. Did I personally know it in '69?

Q. Yes.

A. No.

Q. But others at Monsanto knew that?

MR. PECK: Object to the form of the question.

A. Yes, there were others.

Q. Certainly the person who prepared this executive summary knew that?

MR. PECK: Object to the form of the question.

A. Correct.

Q. Did you ever hear about anybody working on an executive summary on PCB pollution?

A. Did I ever hear of it?

Q. Yes.

MR. PECK: We are operating under the usual stipulations, aren't we?

MR. ATKIN: Yes.

MR. PECK: We never said that. I'm assuming so.

REGIONAL REPORTING SERVICE, INC.

Q. Go ahead.

A. Sir, after I received my appointment in the PCB environmental issue in 1970, I was made aware of some of the activities that took place prior to 1970. I was aware that a presentation was prepared for upper Monsanto management. This specific document seems to cover those subjects, but I have no way of relating it to the presentation that actually took place.

Q. When you say a presentation was prepared, who was it prepared by?

A. There was a group composed of Monsanto employees that reflected marketing, research, public relations, medical, that put together the many thoughts that related to the issue and assisted the managers of the two business groups involved in preparing a presentation that was made to the top management committee.

Q. Do you know who made that presentation

REGIONAL REPORTING SERVICE, INC.

to the top management committee?

A. I know some of the people. I recall some of them.

Q. All right, sir. Who were they?

A. Howard Bergen, James Springgate, representing the business groups. Elmer Wheeler spoke on the medical information. Those were the key presenters.

Q. Okay. When you say that they made a presentation to upper Monsanto management, who are you referring to there?

A. At the time -- this was the president of Monsanto -- was several vice presidents. The committee itself had different names through the periods of time. I think at the time it was called the corporate development committee, but it could have been the corporate administrative committee.

Q. Who was the president of Monsanto at that time?

REGIONAL REPORTING SERVICE, INC.

1 A. Ed Bok. B-o-k, I think, is the way you
2 spell that.

3 Q. Now, on page two the memo reflects that
4 Monsanto was worried about the potential
5 business it might lose for PCBs on a
6 world-wide basis, correct? I'm
7 referring to the paragraph headed Effect
8 on Monsanto; one, business potential at
9 stake on a world-wide basis.

10 A. I'm having a hard time again finding
11 the exact --

12 Q. It's the paragraph before that, the
13 heading. Do you see the heading Effect
14 on Monsanto?

15 A. Yes.

16 Q. One, business potential at stake on a
17 world-wide basis?

18 A. Yes. This is the -- This particular
19 item number one on page two reports the
20 quantities and value of the different
21 uses of PCBs.

22 Q. Right. And the potential business loss
23 that Monsanto was concerned about was

REGIONAL REPORTING SERVICE, INC.

1 eight to eleven million dollars a year
2 annually in gross profit, correct?

3 MR. PECK: Object to the form of
4 the question, calls for
5 speculation from this
6 witness.

7 A. I don't know. That's not necessarily a
8 loss. That's the value of the business.
9 It could be replaced by substitute
10 products and even exceed that eleven
11 million. So that is the piece of
12 business that is going to get the
13 attention here.

14 Q. Right, the PCB piece of business. The
15 PCB piece of business?

16 A. Yes. That doesn't mean it's all going
17 to be loss.

18 Q. I understand.

19 Well, this executive summary
20 reflects that in 1969 Monsanto was
21 weighing the risk of producing PCB
22 products which cause a world-wide
23 ecological problem against a potential

REGIONAL REPORTING SERVICE, INC.

1 loss of business; isn't that right?

2 MR. PECK: Object to the form of
3 the question, calls for
4 speculation from this
5 witness.

6 A. Yes. Those are the factors that enter
7 into the decision making.

8 MR. ATKIN: That's all I have on
9 that.

10 MR. PECK: Jack, let's take a
11 quick break.
(A break was taken from 11:55
12 a.m. to 1:00 p.m.)

13 MR. ATKIN: Let us mark for
14 identification purposes -- We
15 are now back on the record
16 after lunch. Thank you --
17 Papageorge Exhibit Number
18 Sixty-six. And this is a
19 January 23rd, 1969,
20 memorandum on Aroclors and
21 plant effluent, with a Bate's
22 number NEV 031181.
23

REGIONAL REPORTING SERVICE, INC.

1 And I will say, to save,
2 Mr. Peck, time, I think one
3 could surmise that perhaps
4 there is another page to this
5 document as well, but I don't
6 have it. I'm not sure, but I
7 say that because there is no
8 signature at the bottom or
9 anything.

10 (Plaintiffs' Exhibit Number
11 Sixty-six was marked for
12 identification.)

13 MR. PECK: Yeah. I suspect there
14 are additional pages to this.

15 Q. I have that one page for you.

16 A. I have scanned the exhibit.

17 Q. Okay. You have had a chance to look at
18 it. Let me ask you. Do you know who
19 wrote this document?

20 A. No, I don't.

21 Q. It's addressed to E. G. Wright in
22 Anniston. Is that Mr. Wright that we
23 referred to earlier?

REGIONAL REPORTING SERVICE, INC.

- 1 A. Yes.
- 2 Q. And is it Mr. Buckley in Krummrich?
- 3 A. Yes.
- 4 Q. Who is Mr. Buckley?
- 5 A. He is Mr. Wright's counterpart at the
6 Krummrich plant.
- 7 Q. And you were one of the people who
8 received this memorandum, correct?
- 9 A. I was, yes.
- 10 Q. Do you recall receiving it?
- 11 A. Now that I've reviewed it, I do recall
12 it, yes.
- 13 Q. In the first paragraph, it says, "With
14 the likelihood that the attention now
15 being focused on presence of Aroclors in
16 natural waters will draw attention to
17 any Aroclor being sewerage in our
18 production plant outfalls, we should
19 begin to protect ourselves."
- 20 And I just would like to ask you,
21 do you know what was meant by the author
22 of this letter when he wrote that we
23 should begin to protect ourselves?

REGIONAL REPORTING SERVICE, INC.

- 1 A. I can only guess.
- 2 MR. PECK: Object to the form of
3 the question.
- 4 Q. I'm sorry?
- 5 A. I can only guess.
- 6 Q. I don't want you to guess, then.
- 7 Do you recall having any
8 discussions with anyone about what was
9 written here, about this particular
10 sentence, about beginning to protect
11 ourselves?
- 12 A. No, I don't.
- 13 MR. ATKIN: Okay. Then let's move
14 on.
- 15 Let us mark for
16 identification purposes for
17 this deposition as Papageorge
18 Sixty-seven a -- It looks
19 like an eleven-page document,
20 but the last page has
21 absolutely nothing on it. So
22 it's probably a ten-page
23 document bearing Bate's

REGIONAL REPORTING SERVICE, INC.

- 1 number SCM 037621 through SCM
2 037630, a document authored
3 by Mr. Benignus on January
4 26th, 1970, regarding the PCB
5 pollution problem, January 21
6 and 22, 1970, St. Louis
7 meeting with General Electric
8 Company.
- 9 (Plaintiffs' Exhibit Number
10 Sixty-seven was marked for
11 identification.)
- 12 Q. I'd ask you to take a look at that, if
13 you could.
- 14 A. I have read item D on page two and
15 scanned the remainder of the exhibit.
- 16 Q. Okay. Let me ask you first. Did you
17 attend this -- Well, this memorandum
18 reflects that you attended a meeting
19 that was held with General Electric on
20 January 21st and 22nd, 1970?
- 21 A. Yes, I was there.
- 22 Q. Do you recall that meeting?
- 23 A. Yes.

REGIONAL REPORTING SERVICE, INC.

- 1 Q. On page two, D, it discusses the status
2 of Aroclor studies at IBT?
- 3 A. It does.
- 4 Q. And it mentions the fact that the
5 chronic animal toxicity test and animal
6 reproducibility studies that were being
7 done by IBT were not as favorable as
8 Monsanto had hoped or anticipated?
- 9 A. It does.
- 10 Q. And it also says that the studies on the
11 effect of PCBs on the hatchability and
12 production of eggshells of white leghorn
13 chickens was particularly alarming,
14 correct?
- 15 A. It does.
- 16 Q. Do you know exactly what the results
17 were that were considered to be
18 particularly alarming?
- 19 A. The fact that the eggs would not hatch,
20 and some of the eggs that were farmed
21 were so thin-shelled, which was another
22 new piece of information.
- 23 Q. Okay. Now, it then goes on to state,

REGIONAL REPORTING SERVICE, INC.

1 "The studies involved Aroclor 1242,
2 1254, and 1260. Some of the studies
3 will be repeated to arrive at better
4 conclusions."

5 Did Monsanto have PCB toxicity
6 tests and animal reproducibility studies
7 repeated by IBT in order to get better
8 results?

9 A. I don't know that I would call them
10 better results.

11 Q. Well, results that have better
12 conclusions?

13 A. Yes. The tests were repeated to confirm
14 the reliability of the first results.
15 And by looking at both sets of tests,
16 the intent was to arrive at a better
17 conclusion.

18 Q. Okay. If you could look at page six for
19 one second, I have one other question
20 for you, under number eight there on
21 page six.

22 A. Page six, number eight, I have it.

23 Q. It says, "To date and for the

REGIONAL REPORTING SERVICE, INC.

1 foreseeable future, our only effective
2 disposal is to a landfill. While this
3 is not desirable, it is better than
4 indiscriminate dumping."

5 Why did Monsanto feel in 1970 that
6 it was not desirable to dispose of PCBs
7 in a landfill?

8 A. I don't know that it says it's not
9 desirable in a landfill. That's the
10 only effective method available.

11 Q. Well, why don't we just read the words,
12 if we could. It says, "While this is
13 not desirable, it is better than
14 indiscriminate dumping."

15 A. The -- Although it's not specifically
16 stated, what they are referring to here
17 is liquid, unrecoverable scrap PCBs.
18 And the hope at that time was that
19 incineration would eventually be
20 developed, incineration technology would
21 be developed. So depositing in a
22 landfill was perceived to be really
23 make-do until the technology is

REGIONAL REPORTING SERVICE, INC.

1 available, lacking anything better.

2 Q. Okay.

3 A. The intent is to try to come up with
4 something better than what was
5 available.

6 MR. ATKIN: Okay. That's all I
7 have on that.

8 (Discussion held off record.)

9 MR. ATKIN: Let us mark for
10 identification purposes for
11 the Papageorge deposition as
12 Exhibit Number Sixty-eight a
13 July 27th, 1970, letter from
14 Mr. Papageorge to Mr. Fred R.
15 Viland, senior buyer at
16 Westinghouse Electric
17 Corporation. And I don't
18 know why I don't have any
19 Bate's numbers on it, but I
20 don't.

21 (Plaintiffs' Exhibit Number
22 Sixty-eight was marked for
23 identification.)

REGIONAL REPORTING SERVICE, INC.

1 A. I have read the exhibit.

2 Q. Okay. Now, you were telling Monsanto's
3 customers in 1970 that landfills for
4 PCBs should not be located near surface
5 and underground water, correct?

6 A. Correct.

7 Q. And you're also telling your customers
8 that it's important to monitor bodies of
9 water near the landfill, especially
10 after heavy rainfall, to assure that
11 PCBs are not escaping into the
12 environment?

13 A. I was.

14 Q. Did Monsanto ever monitor the bodies of
15 water near the Anniston plant after
16 heavy rainfall to ensure that PCBs were
17 not escaping into the environment?

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

20 A. Yes, once we got the methodology.

21 Q. When was that?

22 A. About 1969 or thereabouts.

23 Q. Okay. Do you recall the results of any

REGIONAL REPORTING SERVICE, INC.

1 monitoring of the bodies of the water
2 near the Anniston plant after heavy
3 rainfalls?

4 A. I don't at the moment.

5 Q. Do you recall specifically monitoring
6 being done after heavy rainfall?

7 A. I don't remember any specific events,
8 no.

9 Q. Let me ask you this: What PCB sampling
10 did Monsanto do near the landfills in
11 Anniston, Alabama?

12 A. The reason I'm hesitating a bit is I --
13 The sampling that was done included any
14 potential sources of PCBs, whether it be
15 a landfill or a soil on the outside of
16 the operating unit or the neutralizing
17 pit of the wastes that were coming from
18 the PCB unit.

19 If there were any PCBs in that
20 whole area, it would have shown up in
21 the sample where it was taken at the
22 lowest point.

23 Q. What about sampling done outside of the

REGIONAL REPORTING SERVICE, INC.

1 plant? What types of sampling were
2 done?

3 A. Well, I was not personally involved when
4 that program started, so I don't know
5 where they took all these samples beyond
6 the plant boundary line.

7 Q. When was that program started?

8 A. 19 -- late '70, '71, '72.

9 Q. As we sit here today, are you aware of
10 any specific sampling that was done,
11 either air, water, soil outside of the
12 Monsanto facility for PCBs?

13 A. I recall -- And it's not specific. I
14 recall references to sampling beyond the
15 plant boundary line, as I visualize it.

16 Q. Okay. And when?

17 A. The early '70 period I just mentioned.

18 Q. What type of samples do you recall?

19 A. Water and sediment samples is the best I
20 can recall.

21 Q. Do you recall where they were taken
22 from?

23 A. Again, not specifically, but I do recall

REGIONAL REPORTING SERVICE, INC.

1 that there is a natural drainage ditch
2 that runs from the plant boundary line
3 and eventually meanders down and meets
4 Snow Creek.

5 In plant terminology, that ditch
6 was called Snow Creek. It didn't have a
7 name. So when I would read reports that
8 samples were taken in Snow Creek, that
9 meant right beyond the plant boundary,
10 which as I remember was a mile or so
11 from Snow Creek, something like that.

12 Q. So it wasn't -- When you recall seeing
13 reports on sampling that was done of
14 Snow Creek, are you saying that it
15 wasn't of Snow Creek itself, that it was
16 of the ditch that was beyond the outside
17 -- just outside the plant?

18 A. That was my interpretation of the
19 report.

20 Q. Okay. Do you remember any air samples
21 being done by Monsanto at any point in
22 time beyond the boundaries of the plant?

23 A. I don't recall any.

REGIONAL REPORTING SERVICE, INC.

1 Q. When I say recall, I guess what I'm
2 asking you is do you know if there was
3 ever any air samples done in Anniston
4 outside the boundaries of the plant?

5 A. I just --

6 MR. PECK: Do you mean air
7 sampling for PCBs?

8 MR. ATKIN: Yes. Thank you.

9 A. I just don't remember any sampling of
10 that type.

11 MR. ATKIN: Okay. Let's move on,
12 then. Let's mark this for
13 identification purposes as
14 Papageorge Exhibit
15 Sixty-nine. This is a
16 September 27th, 1974,
17 memorandum from J. G. Bryant
18 to D. Wood. It's a five-page
19 memorandum bearing Bate's
20 number MONS 029193 through
21 029197.
22 (Plaintiffs' Exhibit Number
23 Sixty-nine was marked for

REGIONAL REPORTING SERVICE, INC.

identification.)

Q. I'd ask you to take a look at that, if you could.

To save you some time, I can tell you I'm going to ask you about page two. That's what I'm going to ask you about, just a little part of it.

A. I have scanned the exhibit.

Q. Okay. If you could, turn to page two. I just want to ask you one quick question

The question in the middle of the page or towards the latter part of the page says, "Ernie Bergenstein, Ferranti Packard." Is that a customer?

A. Don't know.

Q. Do you know who Mr. Bergenstein is?

A. No, I don't.

Q. It says that "He is concerned about spills we have had or that we are going to have; one, what should he do; two, can Monsanto make some distribution to the public on the fact that the askarel

REGIONAL REPORTING SERVICE, INC.

does not disburse." Answer, "W. B.

Papageorge replied that Monsanto plans to publish the data on the soil studies."

Now, what soil studies were you referring to?

A. Analyses of soil samples received by Monsanto's analytical laboratory.

Q. Which soil samples, or soil samples taken where?

A. Oh, it was over a period of time, starting in '70 up to this point, '74 --

Q. Okay.

A. -- from many sources.

Q. Did Monsanto in fact ever publish the data on the soil studies?

A. It seems to me we did. They were available. They were shared.

Q. They were shared with whom?

A. Well, I, for one, know that I shared the data with the members of the ANSI committee.

Q. Did Monsanto ever share the data on the

REGIONAL REPORTING SERVICE, INC.

soil studies with the public?

A. You mean through the popular media and so on?

Q. Through any means.

A. Well, we shared it, I know, with the EPA.

Q. When I say the public, I'm referring to private citizens.

A. Not directly, no.

MR. ATKIN: Okay. Thank you.

Let us mark for identification purposes Papageorge Seventy, a March 6, 1970, memorandum from Mr. Papageorge to J. R. Durland in Tokyo about the Aroclor environmental problem -- program. I'm sorry. (Plaintiffs' Exhibit Number Seventy was marked for identification.)

A. I have reviewed the exhibit.

Q. Okay. Now, Mr. Papageorge, you knew in

REGIONAL REPORTING SERVICE, INC.

March 1970 that disposing of PCBs in dumps wasn't the ultimate solution for disposing of PCBs because the PCBs could eventually enter the environment; isn't that right?

A. Could, yes, eventually, when disturbed and so on.

Q. Okay. Now, in -- On page two, the paragraph headed Aroclor Toxicity, Anniston Plant --

A. I see that.

Q. It states there, "Aroclors have been found in Snow Creek near the plant. There is no record of any water life observed in this creek for many years. We've assumed other plant wastes were to blame; for example, muriatic acid. Aroclors could be involved also."

Did Monsanto ever make a determination as to whether the fact that there was no water life in the creek -- whether that was due in part to muriatic acid that had been dumped into

REGIONAL REPORTING SERVICE, INC.

-the creek?

A. No. That was just a guess on my part.

Q. Okay.

A. Now, recall earlier, I recalled the use of the term "Snow Creek" to describe that ditch, the unnamed ditch, which many times during the year would run dry. That ought to be telling us something about the viability of any life in a dry creek.

Q. Okay. Did Monsanto ever make a determination as to whether or not the fact that there was no water life observed in the creek was due in part to the Aroclors?

A. No. There was nothing to inform us that such a study would be meaningful.

MR. ATKIN: Okay. Let us mark for identification purposes for your deposition as Exhibit Seventy-one a one-page memorandum authored by Mr. Papageorge to J. R.

REGIONAL REPORTING SERVICE, INC.

Savage, dated October 26, 1970, bearing Bate's number MONS 21073.
(Plaintiffs' Exhibit Number Seventy-one was marked for identification.)

A. I have read the exhibit.

Q. Can you tell us the molecular difference between a PCB molecule and a furan molecule? Maybe I can make it a little easier for you.

Is a dioxin molecule basically a furan molecule with a second oxygen atom?

A. The dioxin does involve two oxygens. The furan involved one oxygen. Of course, there are various combinations of chlorine associated with the carbon and the hydrogen.

Q. Are furans a contaminant found in PCBs?

A. They were eventually found, yes, sir.

Q. Were they found in PCBs made in Anniston?

REGIONAL REPORTING SERVICE, INC.

A. No. The Anniston unit was shut down when the samples that were analyzed were determined to have furan. So I don't know anything about the furans in Anniston PCB.

Q. I'm a little unclear on your answer. I guess my question is were the PCBs manufactured at Anniston found at any point in time to contain furans?

A. I'm not aware of any furan analytical work being done on PCBs produced at Anniston, because the methodology that was finally successful was available in 1975, which was three or four years after the shutdown of the Anniston unit.

Q. Furans are highly toxic, aren't they?

MR. PECK: Object to the form of the question, lack of foundation for this witness.

A. When you say highly, I don't know what my yardstick is. It depends again on amount, type, and the creature that's exposed, whether it be a human or animal

REGIONAL REPORTING SERVICE, INC.

or insect or bird.

Q. Are furans toxic to humans?

MR. PECK: Object to the form of the question, lack of foundation for this witness.

A. Well, there again, sir, I'm under an impression that if you get enough of them, somebody is going to get sick.

Q. Okay. When did Monsanto first learn that furans could be present in PCBs?

A. We first were aware -- I'm trying to think of the dates. In 1970 I was present at a meeting at the University of Utrecht in the Netherlands where researchers there asked the question of why Monsanto's PCBs did not have furans and other PCBs manufactured by European companies did have them. So it was 1970.

Q. Okay. And was that question directed towards anyone in particular?

A. Well, it was directed at Monsanto, and we were represented by three of us.

REGIONAL REPORTING SERVICE, INC.

- 1 Q. Who were the three people?
- 2 A. Mr. Wheeler, Mr. Robert Keller, and me.
- 3 Q. Okay. Did you have an answer to that
- 4 question?
- 5 A. Yes, we had an answer.
- 6 Q. What was your answer?
- 7 A. And the answer was as follows: We
- 8 understood that the producers in Europe
- 9 in the manufacture of PCBs used sodium
- 10 hydroxide, which is lye, which is a very
- 11 strong, active chemical, to neutralize
- 12 any acid that was still in the mixture
- 13 of PCBs.
- 14 Monsanto's procedure used in the
- 15 United States, Japan, and Wales used
- 16 limestone or used lime, which is a
- 17 milder chemical. And we speculated that
- 18 the aggressive lye could well result in
- 19 adding the oxygen to make a furan. That
- 20 was our speculative hypothesis, if you
- 21 will.
- 22 Q. Was your hypothesis ever borne out?
- 23 A. I don't know of any study that attempted

REGIONAL REPORTING SERVICE, INC.

- 1 to do this. As the methodology became
- 2 more refined, where the analytical
- 3 chemists found a fine-tune knob, if you
- 4 will, they were able to finally find
- 5 some furans in Monsanto's material, and
- 6 this was in 1975.
- 7 Q. Okay. That is material that was
- 8 manufactured where?
- 9 A. The material that was tested then was
- 10 manufactured at Monsanto's W. G.
- 11 Krummrich plant in Illinois.
- 12 Q. Do you know if Monsanto ever conducted
- 13 any testing to determine whether there
- 14 were furans present near the Anniston
- 15 plant or the landfill in Anniston?
- 16 A. I'm not aware of any.
- 17 Q. If you look at this document that I just
- 18 gave you --
- 19 A. Yes, sir.
- 20 Q. -- as Papageorge Seventy-one --
- 21 A. I have it.
- 22 Q. Okay. The document is discussing -- In
- 23 the first paragraph it says -- discusses

REGIONAL REPORTING SERVICE, INC.

- 1 data from Dr. J. P. Mieux's work
- 2 indicates the presence of naphthalene
- 3 and biphenyl and anthracene or
- 4 phenanthrene and dibenzylfurans in
- 5 Santowax R used in the manufacture of
- 6 Aroclors.
- 7 Who is Dr. Mieux?
- 8 A. Dr. Mieux was an analytical chemist
- 9 working under Dr. Scott Tucker.
- 10 And while we are looking at that
- 11 paragraph, sir, I think it's appropriate
- 12 that we point out that the Aroclors
- 13 mentioned in that paragraph use the
- 14 ingredient Santowax R. Those are the
- 15 chlorinated terphenyls.
- 16 Q. Okay. Was that manufactured at
- 17 Anniston?
- 18 A. Yes, they were.
- 19 Q. Now, at the end of the -- in the last
- 20 paragraph it says, "The Anniston plant
- 21 should design and execute a program for
- 22 determining the source or sources of
- 23 these contaminants."

REGIONAL REPORTING SERVICE, INC.

- 1 Was the program that you refer to
- 2 here that was supposed to be designed
- 3 and executed, was such a program ever
- 4 designed or executed?
- 5 A. Yes.
- 6 Q. Okay. When?
- 7 A. Oh, shortly after the date of this
- 8 memorandum. I would suggest by the
- 9 middle or third quarter of 1971 programs
- 10 were underway.
- 11 Q. Who designed and executed the program?
- 12 A. It was all done under Dr. Keller's
- 13 group. I don't know the specific
- 14 individuals who were assigned this.
- 15 Q. Did they reach any? Do you know what
- 16 the results were of the program that
- 17 they designed and executed for
- 18 determining the source or sources of
- 19 these contaminants?
- 20 A. I don't recall it now. I would have to
- 21 see reports.
- 22 MR. ATKIN: Okay. Let us mark for
- 23 identification purposes as

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1 Papageorge Seventy-two a
2 memorandum from D. Wood to
3 J. N. Haggart; subject,
4 chlorinated dibenzylfurans.
5 This bears Bate's number MONS
6 206969.
7 (Plaintiffs' Exhibit Number
8 Seventy-two was marked for
9 identification.)
10 A. I have read the exhibit.
11 Q. Okay. And this exhibit also discusses
12 the possibility of the existence of
13 dibenzylfurans in Aroclors, correct?
14 A. Yes.
15 Q. Okay. Now, who was D. Wood?
16 A. He was a Monsanto employee.
17 Q. Do you know what his title was?
18 A. I don't recall his title. He was a
19 marketing representative working with
20 PCB products, along with others, still
21 being supplied in June of 1975.
22 Q. Okay. And who was J. N. Haggart?
23 A. He was in essence Mr. Wood's counterpart

REGIONAL REPORTING SERVICE, INC.

1 to the need for Monsanto to develop its
2 own methods to determine the existence
3 of furans in 1975. Is that correct?
4 A. Yes.
5 Q. Okay. What happened in the interim
6 five-year period?
7 A. Dr. Keller's group in St. Louis was
8 working on methodology to determine the
9 presence of furan in Monsanto's PCBs.
10 And throughout that period they kept
11 coming up with non-detectable. And it's
12 only as we approached the year 1975,
13 with changes -- and I don't know the
14 details -- in their methodology, they
15 were able to detect the dibenzylfurans.
16 And this, coincidentally, happened at
17 about the time the U.S. Food and Drug
18 Administration thought they saw furans
19 in Monsanto's PCBs. And this was all
20 discussed at a meeting in Chicago in
21 November of 1975.
22 Q. Discussed by whom?
23 A. You mean by whom, Monsanto people, FDA

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1 in England, in Europe.
2 Q. Okay. Now, he mentions here the need to
3 develop our own methods to determine if
4 indeed the chlorinated dibenzylfurans
5 are present and what is the potential
6 hazard.
7 Let me ask you first. Did
8 Monsanto ever develop its own methods to
9 determine if furans were present in
10 PCBs?
11 A. Yes, they did.
12 Q. When did they do that?
13 A. Oh, golly, when did they succeed? I
14 would suggest at about this point in
15 time.
16 Q. Now, let me ask you something. The
17 previous exhibit talks about the
18 Anniston plant should design and execute
19 a program for determining the source or
20 sources of these contaminants in October
21 of 1970, correct?
22 A. Yes.
23 Q. Okay. Now, this seems to be referring

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1 people, informally and from the podium.
2 Q. Okay. This memo talks about the fact
3 that Monsanto also needed to develop not
4 only a method for determining whether
5 furans exist but also what is the
6 potential hazard.
7 A. Yes.
8 Q. Did Monsanto ever make the determination
9 of what the potential hazard was of
10 furans?
11 A. Not Monsanto.
12 Q. Okay. Who did?
13 A. I don't know of anybody that did
14 anywhere in the world.
15 Q. To your knowledge it was never done?
16 A. That's right.
17 MR. ATKIN: I'm done with that.
18 Let us mark for
19 identification purposes for
20 your deposition as Exhibit
21 Seventy-three a progress
22 report bearing Bate's numbers
23 MONS 202097 through MONS

REGIONAL REPORTING SERVICE, INC.

030358. No. That doesn't make sense. Let's just take that off for a second and take that back. Through MONS 202106.

(Plaintiffs' Exhibit Number Seventy-three was marked for identification)

Q. I had unfortunately another document attached at the end of it that I'm not going to ask you about now. I'm only going to ask you about the first page of this document.

A. I have scanned the exhibit.

Q. Okay. I have a couple of quick questions on that.

This report reports on an environmental analytical study undertaken by Monsanto in 1971, correct?

A. It does.

Q. And part of the purpose of the study was to identify, locate, and assess the magnitude of the PCB pollution problem;

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is that right?

A. Correct.

Q. Okay. And Monsanto's study showed that PCBs typical of Monsanto's Aroclor products had been found at levels below and above recommended guidelines in coated paper and paper coatings, correct?

A. Yes.

Q. And in machine oils and plant effluents?

A. From a customer's site.

Q. From a customer's site?

A. Yes.

Q. And from fourteen Monsanto Industrial Chemical Company products from manufacturing sites, from four different manufacturing sites?

A. Yes.

Q. And from chicken chow used as feed by IBT?

A. Yes.

Q. And from sewer effluents from a Monsanto plant?

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A. Yes.

Q. Do you know which plant that's referring to?

A. I didn't read it that carefully. On page seven, MONS 202103.

Q. Uh-huh (indicating yes).

A. At the top of the page is J. F. Queeny plant.

Q. Okay. And where was that?

A. That's located right -- in St. Louis.

Q. And it also reflected -- the summary reflects that PCBs typical of Monsanto's Aroclor products have been found in tissue turkey extracts from the USDA?

A. It does.

Q. And also in two competitive products. Do you know which competitive products it's referring to?

A. I thought I saw them. It was on page ten, which is MONS 202106, at the bottom section. You will see reference to Prodelec Phenoclor DP6, Prodelec Phenoclor DP6 again, and Bayer Clophen

REGIONAL REPORTING SERVICE, INC.

A60 and Kaneclor KC-300.

Q. Okay. Did this study that was done by Monsanto confirm for Monsanto the magnitude of the PCB problem?

A. I don't know that it confirmed it. It just -- it's just a little bit more information added to their -- let's call it data bank regarding PCB and presence.

MR. ATKIN: Okay. I'm done with that document.

Q. Were you involved in any of the toxicity testing that was done by IBT for Monsanto?

A. Well, I was involved to some degree. Of course, I'm not a toxicologist or a medical doctor, but I did get involved.

Q. What was the extent of your involvement, the nature of your involvement?

A. I got involved in the -- I'm going to call it the approval process, in terms of seeing to it that funds were available to pay for the study. I got involved in terms of requesting and

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1 getting status reports on where the
2 studies were headed and what they were
3 finding.
4 Q. Okay.
5 A. I made several trips to the laboratories
6 and attended sessions at the laboratory.
7 Q. Where was the laboratory located?
8 A. The rat and dog studies were in
9 Northbrook, Illinois. The poultry
10 studies were in Decatur, Illinois.
11 Q. Okay. Who at IBT worked on the tests
12 that were conducted for Monsanto?
13 A. There were several individuals involved.
14 There was of course the head of the
15 laboratory, Dr. Calandra --
16 Q. All right.
17 A. Then there was a Keplinger,
18 Dr. Keplinger, and a Dr. Otis Fancher,
19 Dr. Gordon. The pathologist -- I think
20 his name was Richter or something like
21 that, Dr. Richter, the pathologist. I'm
22 sure there were others. I just can't
23 remember them all.

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1 Q. Was Mr. Wright involved?
2 A. I understood he was, but I personally
3 never saw him at the laboratory or
4 didn't get to know him until he joined
5 Monsanto.
6 Q. Do you know if a person named Philip
7 Smith was involved in the studies?
8 A. Phil Smith, yes, yes. He was one that I
9 forgot.
10 Q. Now, what types of studies were done for
11 Monsanto by IBT regarding PCB toxicity?
12 You told us about some rat studies.
13 A. Yes.
14 Q. Were there fish studies done?
15 A. IBT attempted some fish studies, which
16 were not successful.
17 Q. What do you mean by not successful?
18 A. They just were not in the fish toxicity
19 testing business, and they had some
20 problems getting the tests going. It
21 was complicated further by the fact that
22 PCBs have a way of plating out on
23 surfaces, so it turned out that the PCBs

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1 introduced into the waters that the fish
2 were exposed to would be relatively free
3 of PCBs because the PCBs had plated out
4 on the walls of the aquarium.
5 Nevertheless, the final result was
6 that the test results were not reliable
7 at all.
8 Q. Okay. Now, who from Monsanto was
9 involved with the studies that were done
10 by IBT?
11 A. Of course, Dr. Kelly, as the director of
12 the medical department, Elmer Wheeler,
13 and Bill Hunt. Those are the people I
14 worked with.
15 Q. How about Dr. Levinskas?
16 A. Oh, yeah. Dr. Levinskas came later,
17 yes.
18 Q. Was what the nature of the involvement
19 of Monsanto's -- of the people you told
20 us about, the nature of their
21 involvement with the IBT studies?
22 A. Well, they would keep tuned in as to
23 what was going on and how well things

REGIONAL REPORTING SERVICE, INC.

1 were going and whether further studies
2 would be proposed. They would supply
3 the material to be tested. They would
4 also help determine whether or not more
5 animals should be added to the test
6 population or the dosages be altered or
7 changed. They would also review the
8 drafts of the reports. That's the type
9 of involvement that I'm aware of.
10 Q. Okay. Let us have you take a look at,
11 if you would, a document that has been
12 previously marked in this case as
13 Levinskas One, Exhibit Number One to
14 Dr. Levinskas' deposition. This is a
15 March 4th, 1970, letter to Dr. Calandra
16 from Elmer Wheeler.
17 A. I have scanned the exhibit.
18 Q. Okay. Now, you and Dr. French are
19 listed as ccs on this letter, correct?
20 A. Dr. French or Fancher?
21 Q. Fancher, I'm sorry.
22 A. Yes, that's true.
23 Q. Do you remember receiving this letter?

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1 A. Yes.

2 Q. Do you remember -- When was the last

3 time you reviewed this letter?

4 A. I'm sorry?

5 Q. When was the last time you reviewed this

6 letter? Let me make it easier. Was it

7 anytime in the recent past?

8 A. It is recent. I believe I saw this

9 yesterday.

10 Q. Okay. Now, item number one of this

11 letter discusses a proposal for

12 repeating fish toxicity studies done by

13 IBT for Monsanto. Do you see that?

14 A. I do.

15 Q. Do you know why Monsanto was asking IBT

16 to repeat the fish toxicity studies?

17 A. Because of the failure of the first try.

18 Q. Do you know what the results were of any

19 fish toxicity studies that were done for

20 Monsanto by IBT?

21 A. They were in every try a failure.

22 Q. Failure meaning what?

23 A. The results were meaningless. They

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1 could not be interpreted, didn't make

2 any sense.

3 Q. Do you know what fish were studied?

4 A. Today I don't, no.

5 Q. You can just put that to the side for a

6 second.

7 Now, let me ask you to take a look

8 at what has previously been marked as

9 Levinskis Two in this case.

10 A. I have scanned the exhibit.

11 Q. Okay. Who is Dr. Hunt?

12 A. He was a member of Monsanto's medical

13 department, working with Mr. Wheeler in

14 the monitoring of animal toxicity

15 testing.

16 Q. Okay. Now, the third paragraph

17 discusses fish toxicity studies?

18 A. Yes.

19 Q. Do you know if these studies are the

20 repeat studies that were referred in

21 Dr. Wheeler's March 4th, 1970, letter,

22 this one?

23 A. I have no way of knowing. I don't know

REGIONAL REPORTING SERVICE, INC.

1 if these are the original or the second

2 attempt.

3 Q. Okay. Did you review this document

4 yesterday?

5 A. I don't remember this one, no.

6 Q. Okay. This paragraph states that "The

7 time schedule for fish toxicity studies

8 for catfish and bluegills will be two to

9 three weeks behind because doses which

10 were believed to be okay produced a

11 hundred percent kill."

12 Do you know what Dr. Hunt was

13 referring to when he said that doses

14 that were believed to be okay produced a

15 hundred percent kill?

16 A. I can give you my understanding.

17 Q. That's all I'm asking for.

18 A. There were levels picked for testing

19 that were assumed, without any good

20 data, to be the kind that would show

21 results and the fish would survive long

22 enough to make the study meaningful.

23 Q. Right.

REGIONAL REPORTING SERVICE, INC.

1 A. As it turned out, the levels selected

2 resulted in the hundred percent kill

3 that's referred to here. So this study

4 was not productive.

5 Q. Do you know what the level was of PCBs

6 that the fish were fed that produced a

7 hundred percent kill?

8 A. I believe, the way I read it, is that

9 the two lines at the end, just above

10 Dr. Hunt's signature, tell you the

11 levels at which they all died.

12 Q. You mean you are referring to the part

13 that says, "At levels of one to ten

14 parts per million for both 1242 and 1254

15 for fifty fish per level all died"?

16 A. Yes.

17 Q. Do you know how long the fish were fed

18 or exposed to one to ten parts per

19 million of Aroclor 1242 and 1254?

20 A. I do not.

21 Q. Do you know if Monsanto reached any

22 conclusions as to the toxicity of PCBs

23 to fish as a result of this study

REGIONAL REPORTING SERVICE, INC.

1 conducted by IBT?

2 A. Not from this study, no.

3 Q. Do you know if there were any subsequent

4 fish toxicity tests conducted by IBT for

5 Monsanto?

6 A. Not by IBT.

7 Q. Were there any fish toxicity tests

8 conducted by anyone else for Monsanto?

9 A. Yes.

10 Q. Who did that?

11 A. I'm trying to remember the name of the

12 laboratory up in the New England area.

13 At the moment I can't recall the name of

14 it.

15 Q. Okay. When did they do those studies?

16 A. It was after these studies proved

17 failures. We found a laboratory up in

18 the New England area to replace the

19 studies with.

20 Q. Okay.

21 A. As I remember, they were good studies.

22 I forget the name of the lab.

23 Q. You mean good, meaning they produced

REGIONAL REPORTING SERVICE, INC.

1 reliable data?

2 A. Yes.

3 Q. And do you know what the results were of

4 those studies?

5 A. As I recall, PCBs were found in the

6 tissues, but the fish survived and

7 reproduced and all. There was no visual

8 bad effect noted.

9 Q. Do you know what the levels of PCBs were

10 that the fish were exposed to on those

11 studies?

12 A. I don't remember today, no.

13 Q. Do you know if Monsanto ever reached any

14 conclusions as to the toxicity of PCBs

15 to fish as a result of any studies that

16 were done for Monsanto?

17 MR. PECK: Object to the form of

18 the question, no foundation.

19 A. The impression Monsanto was left with

20 was that PCBs are not considered highly

21 toxic to fish.

22 Q. What do you mean by highly toxic?

23 A. They do not result in fish kills.

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1 Q. These are based on the studies that were

2 done by the lab in New England?

3 A. That's one of their pieces of

4 information.

5 Q. Were there any other pieces other than

6 the fish toxicity study that had been

7 done by IBT and by the lab in New

8 England?

9 A. I don't know of any formal studies, no.

10 Q. Do you know of any informal studies that

11 were done on the toxicity of PCBs to

12 fish?

13 MR. PECK: By Monsanto, Jack?

14 MR. ATKIN: By or for Monsanto.

15 A. No.

16 Q. Do you know if Monsanto ever did PCB

17 toxicity testing on the fish in the

18 bodies of water in and near Anniston,

19 Alabama?

20 A. Toxicity studies, no.

21 Q. If we can go back to Levinskas One for a

22 second. In Roman numeral II -- Not

23 Roman numeral. Number two, which

REGIONAL REPORTING SERVICE, INC.

1 says --

2 MR. ATKIN: Off the record for a

3 second.

4 (Discussion held off record.)

5 Q. In number two, it says, "Yours and

6 Otis's views of the significance of the

7 toxicity data developed to date on the

8 three Aroclors in the rats, dogs, and

9 chickens. I think we are surprised, in

10 parenthesis, and disappointed, question

11 mark, at the apparent toxicity at the

12 levels studied."

13 Did you ever have any discussions

14 with Dr. Wheeler or anyone else at

15 Monsanto about the fact that Monsanto

16 was surprised and disappointed at the

17 apparent toxicity of PCBs at the levels

18 studied?

19 A. Well, of course, I had many a discussion

20 regarding toxicity studies. I don't

21 personally recall any reference to

22 surprise and disappointment. It's just

23 new data.

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1 Q. Okay.

2 A. That's the flavor, if you will, I was

3 left with regarding our discussions.

4 Q. Okay. Let me ask you to take a look, if

5 you could, at what has been previously

6 marked as Levinskas Three for

7 identification in Dr. Levinskas'

8 deposition in this case.

9 A. I have read the exhibit.

10 Q. Have you ever seen this before?

11 A. Yes. Sometime ago, though.

12 Q. Not in the recent past?

13 A. That is true.

14 Q. Okay. This refers to a study done on

15 PCB toxicity on leghorn chickens,

16 correct?

17 A. Yes.

18 Q. And it discusses duplicating a study

19 that had been done previously but

20 changing the levels of ppm, parts per

21 million, in the diet.

22 A. Yes.

23 Q. Do you know what the results were of the

REGIONAL REPORTING SERVICE, INC.

1 prior leghorn chicken study that was now

2 being duplicated?

3 A. I don't remember now. I would have to

4 see the reports.

5 Q. Do you know why the study was being

6 duplicated?

7 A. Well, I'm under the impression that

8 they're looking for -- to establish a

9 no-effect level.

10 Q. What do you mean by a no-effect level?

11 A. This is the -- a level which the test

12 creature is exposed to but no adverse

13 effects are noted.

14 Q. Now, that is apparently what is

15 reflected in the last sentence of the

16 second paragraph, where Dr. Wheeler

17 states we would hope that we might find

18 a higher no-effect level with the sample

19 as compared to the previous work; is

20 that right?

21 A. That is correct.

22 Q. Do you know whether the second study in

23 fact resulted in a higher no-effect

REGIONAL REPORTING SERVICE, INC.

1 level compared to the previous study?

2 A. I have forgotten. I would have to see

3 the reports.

4 Q. Okay. Let me show you what was marked

5 at the Levinskas deposition as Levinskas

6 Four for identification. That's a

7 March-August 1971 progress report

8 prepared by Mees Litschgi,

9 L-i-t-s-c-h-g-i, Hinchey, H-i-n-c-h-e-n,

10 and Tucker.

11 A. I have scanned the exhibit.

12 Q. Okay. You received a copy of this

13 exhibit, correct?

14 A. Yes.

15 Q. Not of the exhibit, of this report?

16 A. Yes.

17 Q. Okay. And it discusses the results of

18 the two-year toxicity studies of PCBs on

19 albino rats, correct?

20 MR. PECK: Object to the form of

21 the question.

22 A. Yes. But I didn't hear the first part

23 of your question.

REGIONAL REPORTING SERVICE, INC.

1 Q. What I said was this report discusses

2 the results of the two-year toxicity

3 study of PCBs on albino rats.

4 MR. PECK: Object to the form of

5 the question.

6 A. No. It discusses the findings of PCB in

7 the tissues from the tested animals.

8 Q. Okay. Did you have any involvement with

9 this study other than --

10 A. I was monitoring the results and

11 prodding to speed up the procedure a

12 bit.

13 Q. Do you recall the results of the study?

14 A. Not at this moment, no.

15 Q. Well, one of the results is -- If you

16 look in the third paragraph under

17 summary, it says, "PCB residues were

18 observed in all the tissues at all

19 levels fed one, ten, and a hundred parts

20 per million and at each sacrifice

21 interval." And then it goes on to

22 state --

23 Well, first of all, let me ask you

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1 about that. Do you recall discussing
2 that result with anyone from IBT?
3 A. I didn't with IBT, no.
4 Q. Do you recall discussing that result
5 with anyone from Monsanto?
6 A. Well, this was a general topic of
7 discussion. I don't recall any specific
8 individuals.
9 Q. Okay. What do you recall about the
10 general topic of discussion regarding
11 the results of this study?
12 A. That test animals exposed to certain
13 levels exhibited a PCB content in their
14 tissues higher than the feeding level,
15 which indicated what was then referred
16 to and still is as bio-accumulation.
17 Q. What do you mean by that?
18 A. It accumulates in the biological system.
19 And I don't want to confuse by using
20 that term to the phenomena that is
21 created in nature, where the higher up
22 the food chain living creatures are
23 classified at, the higher the residual

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1 amount of PCB in their tissues. This is
2 a single step in the feeding process,
3 where the creature exposed still builds
4 it up in its tissues.
5 Q. Okay. Do you recall any discussions at
6 Monsanto concerning the fact that the
7 residual -- I'm sorry -- that the
8 residue levels found in the tissues of
9 the animals fed one, ten, and a hundred
10 parts per million of Aroclor 1260
11 continued to build up over the entire
12 two year duration of the study, about
13 the bio-accumulation that you were just
14 talking about?
15 A. Well, it did for some of them at certain
16 levels. If you will note, there are
17 some exceptions also listed here.
18 Q. Do you recall discussions about that,
19 about the bio-accumulation effect of
20 PCBs?
21 A. Yes, that was part of our general
22 discussions.
23 Q. What do you recall about those general

REGIONAL REPORTING SERVICE, INC.

1 discussions?
2 A. The only recollection I have is that
3 this is expected in a biological system,
4 especially that has fat involved in its
5 tissues.
6 Q. Why is it expected?
7 A. Because the material is fat soluble.
8 And once it finds its way into that part
9 of the test animal's body, it stays put.
10 It's again, inert, unreactive.
11 Q. Now, on the second page of this
12 document, in the first full sentence on
13 that page, it says, "Alteration of the
14 homolog," h-o-m-o-l-o-g, "distribution
15 of all products was also observed."
16 Do you know what that means? Do
17 you have an understanding of what that
18 means?
19 A. Yes.
20 Q. What do you understand that to mean?
21 A. This is really describing
22 biodegradation, where the lower
23 chlorinated PCBs, when digested, are

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1 destroyed to the point where they are no
2 longer PCBs; therefore, the instrument,
3 the analytical instrument can't identify
4 them as a PCB. So this is why the
5 result is observed as an alteration of
6 the distribution.
7 Q. Okay. That's all I have on that
8 document.
9 Now, I'll ask you -- I'll ask you
10 to take a look for a second at Levinskas
11 Five, if you could. I want you to read
12 the whole thing. I'm going to ask you
13 about one thing.
14 But before I do, let me just ask
15 you this: Did you ever review these
16 reports that were sent to Monsanto from
17 IBT?
18 A. Yes.
19 Q. Then I'd ask you to take a look at this,
20 if you could. And I'm only going to be
21 asking you about page four, one of the
22 results of the study.
23 A. I've glanced at the report.

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- 1 Q. Okay. And this reports on a study done
2 by IDT to determine the potential
3 teratogenic effects of Aroclor 1254 in
4 albino rats, correct?
- 5 A. That is correct.
- 6 Q. And you recall seeing this before?
- 7 A. Yes.
- 8 Q. Did you review this in the recent past?
- 9 A. No.
- 10 Q. Do you know what teratogenic means?
- 11 A. I believe I do.
- 12 Q. What do you think it means?
- 13 A. I'm going to call it a malformed fetus
14 or creature.
- 15 Q. Okay. On page four of the report, right
16 before the signature line, signatures,
17 it says, "Twelve percent of the fetuses
18 examined from females administered
19 thirty milligrams per kilogram had
20 caudal renal ectopia." Do you know what
21 caudal renal ectopia is?
- 22 A. If I took a guess, it would have
23 something to do with the kidney system.

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- 1 Q. That's the extent of your understanding?
- 2 A. Yes.
- 3 Q. Do you recall any discussions at
4 Monsanto about the results of this
5 report?
- 6 A. That I was involved in?
- 7 Q. Yes, or that you heard.
- 8 A. If I had heard it, I didn't grasp the
9 full significance as a medical person
10 would.
- 11 Q. Okay. Do you recall whether this ever
12 raised any concerns at Monsanto about
13 the toxicity of PCBs?
- 14 A. Not particularly, no.
- 15 MR. ATKIN: Moving right along.
- 16 MR. PECK: Can we take a break?
- 17 (A break was taken.)
- 18 Q. Okay. Let us have you take a look, if
19 you could, at what has been previously
20 marked as Levinskas Six for
21 identification. That's the November
22 12th, 1971, report to Monsanto Company
23 from IBT, IBT number B-7298, two-year

REGIONAL REPORTING SERVICE, INC.

- 1 chronic oral toxicity with Aroclor 1260
2 in albino rats.
- 3 MR. PECK: It looks like Six is
4 just kind of the executive
5 summary posted from the rest
6 of the report.
- 7 MR. ATKIN: Right. Well, again,
8 this is all I have. Yeah, I
9 think we had talked about
10 that before. It is the same
11 exhibit. This was the
12 exhibit that we used?
- 13 MR. DAVIDSON: Right.
- 14 MR. PECK: Yours is cut off. This
15 copy is not. It's the same
16 exhibit. It's just not cut
17 off on the right.
- 18 A. Oh, you mean on -- I was looking at the
19 bottom. Okay. I have reviewed the
20 exhibit.
- 21 Q. Okay. And when was the last time you
22 reviewed this exhibit?
- 23 A. Years ago. I don't recall exactly when.

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- 1 Q. Okay. On the second page, in the last
2 paragraph, it states, "Histologic
3 examination of the livers from T-3 group
4 revealed several animals with vacuolar
5 change," v-a-c-u-o-l-a-r, change.
- 6 Do you have an understanding what
7 that means?
- 8 A. Not really, no.
- 9 Q. The last sentence on that page states,
10 "Focal hypertrophy and focal hyperplasia
11 were also found in the livers from
12 animals fed Aroclor 1260."
- 13 Do you know what focal hypertrophy
14 means?
- 15 A. No.
- 16 Q. Do you know what focal hyperplasia
17 means?
- 18 A. No.
- 19 Q. When you got the copies of these
20 reports, did you ask anyone to explain
21 to you what that terminology meant?
- 22 A. Not the specific terminology, no.
- 23 Q. Do you recall any discussions at

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1 Monsanto about the results of this
2 study?
3 A. In general, yes.
4 Q. What do you recall?
5 A. I recall really that this report was
6 telling us or telling the reader that
7 exposure to Aroclor 1260 resulted in
8 enlarged livers.
9 Q. And did Monsanto reach any conclusions
10 about the toxicity of Aroclor 1260 as a
11 result of this study?
12 A. Yeah. The fact that at high levels of
13 the higher chlorinated type of PCB, you
14 can get liver effects.
15 MR. PECK: In rats?
16 MR. ATKIN: Huh?
17 MR. PECK: In rats?
18 MR. ATKIN: Are you testifying
19 here today? That's
20 completely improper. If you
21 want to ask the witness
22 questions after we're
23 through, you are welcome to

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1 do so. But you're not going
2 to testify at this
3 deposition.
4 MR. PECK: Well, it was unclear
5 what the question was.
6 MR. ATKIN: No, no, no. If he
7 didn't understand the
8 question, he could have asked
9 me. You're not to testify
10 here. That's improper.
11 Q. Let's take a look, if we would, at
12 Levinskas Seven for identification
13 purposes. And this is again apparently
14 an executive summary report to IB -- It
15 says report to IBT research. It's
16 actually a report to Monsanto from IBT
17 on the toxicity and reproduction study
18 with Aroclor 1242 on white leghorn
19 chickens dated June 7th, 1973, IBT
20 number J-1291.
21 MR. PECK: It also appears to be
22 missing the final signature
23 page, right?

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1 MR. ATKIN: Correct.
2 A. I have read the exhibit.
3 Q. Okay. And did you in fact read this
4 exhibit in or about June 1973?
5 A. Yes.
6 Q. Okay. And is this the study that you
7 were telling us about earlier, about the
8 white leghorn chickens that discussed
9 the hatchability -- the effect of PCBs
10 on the hatchability of eggs in white
11 leghorn chickens?
12 A. This is the -- Yeah. This reflects the
13 study of the effects of Aroclor 1242 on
14 the hatchability at the higher level.
15 Q. Okay. For the -- At the higher level,
16 meaning the group that was fed ten parts
17 per million?
18 A. That is correct.
19 Q. Do you recall any discussions at
20 Monsanto about the results of this
21 study?
22 A. Yes.
23 Q. What do you recall?

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1 A. I recall that, as we just said, the
2 higher feeding level of Aroclor 1242 to
3 white leghorn chickens affected their
4 hatchability of their eggs.
5 Q. Okay. And is that -- Was that also the
6 conclusion that Monsanto reached
7 regarding the toxicity of Aroclor 1260
8 as a result of this study?
9 MR. PECK: Object to the form of
10 the question.
11 A. 1260?
12 Q. I'm sorry. 1242.
13 A. 1242 at that higher level.
14 Q. Yes.
15 A. With this test animal, this bird.
16 Q. Thank you. Let us take a look at what
17 has been previously mark as Levinskas
18 Eight at Dr. Levinskas' deposition.
19 This is a -- Actually -- No. Let us
20 skip over Levinskas Eight. Okay? We
21 are not going to take a look at that
22 now. Let's take a look at --
23 Oh, I see. It had been marked as

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part of it. The second part of Levinskas Eight. How many pages do you have there, two?

A. Two, the title page and transmittal.

Q. Okay. The second part of Levinskas Eight was this two-page document, which actually has the summary, the exhibit, the introduction and the executive summary.

MR. PECK: So you are now showing DSW 03662 --

MR. ATKIN: 8 and DSW 036629.

MR. PECK: Which is continuing from 036626 and 27?

MR. ATKIN: Right.

A. I have read the exhibit.

Q. Okay. Now, this report begins in the introduction, "At the request of Dr. Levinskas of the Monsanto Company, additional sections of liver from a two-year chronic oral toxicity study of Aroclor 1260 in rats were processed into H and E stain sections and evaluated by

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light microscopy."

Do you know why Monsanto asked IBT to look at additional sections of liver from a study that had been done previously?

A. No. This was a toxicologist's request. I don't know the basis for it.

Q. Okay. If you look at the summary, it states, "In conclusion, Aroclor 1260 appears to be slightly tumorigenic at levels of a hundred parts per million when fed continuously in the diet for two years." Do you see that?

A. Yes.

Q. Okay. Did you ever become aware at any point in time that Monsanto -- Dr. Levinskas specifically asked IBT to change the words "slightly tumorigenic" in this report to noncarcinogenic?

A. Yes, I did.

Q. When did you become aware of that?

A. I don't remember the exact year. About five years ago.

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Q. Is that --

A. Five or eight years ago.

Q. How did you become aware of it?

A. Well, I was preparing myself for a deposition, as best I recall, and I saw some documents that I hadn't seen before that covered that subject.

Q. Okay. That was in another PCB case?

A. Yes.

Q. So you were unaware of that at the time, in other words; is that right?

A. That is right.

Q. Okay. And obviously you don't recall any discussions about that in or about 1975; is that right?

A. That is correct.

Q. Okay. Do you have any understanding why -- I know you only became aware of it approximately five to -- What did you say, five to eight years ago, somewhere in that time frame?

A. (Witness nods head affirmatively.)

Q. Do you have any understanding from any

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conversations with anyone at Monsanto as to why Dr. Levinskas asked IBT to change the language "slightly tumorigenic" to does not appear to be carcinogenic in certain studies that were done by IBT for Monsanto?

MR. PECK: Object to the form of the question.

A. I have an understanding. I don't know how valid it is. To me it makes sense.

Q. What is your understanding?

A. There were three studies underway at the time, one with Aroclor 1242, another with 1244, and then there was Aroclor 1260.

As I understood it, the results of the studies were pretty much alike. The concluding statements for two of them were noncarcinogenic. The third one for some reason, that I can only guess at -- and I don't want to guess -- ended up with a reference to the formation of tumors, tumorigenic. And Dr. Levinskas

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1 could not see the reason for the
2 difference in statements based on the
3 similar data and was seeking some
4 uniformity in conclusion statements.
5 Q. What do you base that understanding on?
6 A. Just by reviewing the documents that
7 were available to me many years ago.
8 Q. Did you ever talk to Dr. Levinskas about
9 it?
10 A. No, no.
11 Q. Okay. Do you know if IBT ever refused
12 to adopt any changes that Monsanto
13 proposed to any of the reports that were
14 submitted by IBT?
15 A. I have no idea of what transpired during
16 that review period.
17 Q. Okay. Did you ever become aware, sir,
18 of the fact that in or about 1975
19 Dr. Kimbrough published the results of
20 her toxicity study of PCBs?
21 A. Yes.
22 Q. And that she concluded that in fact
23 Aroclor 1260 did cause some liver tumors

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1 in rats?
2 A. That was her initial conclusion, yes.
3 Q. And her findings, in fact, were
4 confirmed by a Dr. Squires, the head of
5 the tumor pathology branch of the
6 National Cancer Institute; isn't that
7 right?
8 A. I don't know if they were confirming.
9 He is the one that arrived at those
10 findings, and Dr. Kimbrough stated his
11 findings.
12 Q. Monsanto asked IBT to examine the
13 lesions observed by Dr. Squires and
14 Dr. Kimbrough to determine if they were
15 carcinogenic, right?
16 A. Well, they were -- They asked for a
17 review of those slides. I don't know
18 that they used the word "carcinogenic."
19 They were asked to give an opinion.
20 Q. Okay. And what opinion did they give?
21 A. I don't remember the toxicology
22 terminology they used.
23 (Discussion held off record.)

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1 Q. Okay. I'll ask you to take a look, if
2 you could, at what was marked as
3 Levinskas Thirteen for identification at
4 Dr. Levinskas' deposition.
5 A. I have read the exhibit.
6 Q. Okay. Now, who was Dr. Roush?
7 A. Dr. Roush was, at this point in time, in
8 April of '75, the Monsanto Company
9 medical director.
10 Q. Okay. And you received a copy of this
11 letter, correct?
12 A. Yes.
13 Q. Okay. And when was the last time you
14 looked at this document?
15 A. This multi-year period I tried to guess
16 at earlier, five to eight years, maybe
17 ten.
18 Q. You haven't reviewed it in the recent
19 past?
20 A. That is true.
21 Q. Okay. Now, in the first sentence of
22 this letter, Dr. Calandra says to
23 Dr. Roush, "I fully appreciate that the

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1 meeting on PCBs today was not completely
2 satisfactory and that many nagging
3 questions remain."
4 Were you at that meeting referred
5 to?
6 A. Yes.
7 Q. Do you recall what was discussed at that
8 meeting?
9 A. It was a discussion on the findings by
10 pathologists of liver samples from
11 Dr. Kimbrough's studies and Industrial
12 Bio-Test studies.
13 Q. Do you know what Dr. Calandra meant when
14 he said that the meeting wasn't
15 completely satisfactory?
16 MR. PECK: Object to the form of
17 the question, calls for
18 speculation.
19 A. He was referring to the fact that the
20 two laboratories -- or the
21 representatives of the two laboratories
22 left the meeting still disagreeing as to
23 the findings.

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1 Q. Okay. Now, at the end of the page four
2 summary -- I'm sorry -- at the end of
3 the four-page summary, one, two, three
4 four -- or is it five -- the last thing
5 he says -- number five, it says,
6 "Bio-Test studies on PCBs meet the
7 scientific standards of toxicology and
8 pathology, and we are prepared to assist
9 Monsanto in any adversary situation in
10 or out of government."

11 Do you know what Dr. Calandra
12 meant by that?

13 MR. PECK: Object to the form of
14 the question.

15 Q. Did you have an understanding -- Did you
16 have an understanding when you got this
17 letter as to what Dr. Calandra meant by
18 that?

19 MR. PECK: Object to the form of
20 the question.

21 A. I had an understanding, yes.

22 Q. What was it?

23 A. That he would join Monsanto individuals

REGIONAL REPORTING SERVICE, INC.

1 in any discussions on this subject
2 brought on by anyone.

3 Q. Brought on by anyone? Did you interpret
4 that to mean litigation also?

5 A. Yeah. I can see that as a possibility.

6 Q. Okay. Did Monsanto ever ask IBT to
7 assist it in any adversary situation in
8 or out of government?

9 A. I'm not aware of any such requests.

10 Q. Okay. Was it part of Monsanto's
11 agreement with IBT that IBT would be
12 prepared to assist Monsanto in any
13 adversary situation in or out of
14 government?

15 A. I don't know of any agreement of that
16 type.

17 Q. Okay. Is it possible to extrapolate
18 human carcinogenic effects from animal
19 toxicity studies?

20 MR. PECK: Object to the form of
21 the question, no foundation
22 for this witness to testify
23 about.

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1 A. I'm not qualified to have an answer to
2 that.

3 Q. Do you have an opinion on that subject?

4 MR. PECK: Object to the form of
5 the question, no foundation
6 for this witness to testify
7 on that issue.

8 A. I have an opinion. And this is just a
9 layman's viewpoint --

10 Q. Yeah.

11 A. -- of a highly technical field, that
12 test animals commonly used might be a
13 fair indicator of what could happen to
14 humans, but there is always a question
15 mark that follows the results obtained
16 in terms of good or bad or what have
17 you.

18 Q. Did Monsanto ever reach a conclusion,
19 one way or the other, whether PCBs can
20 cause cancer in humans?

21 A. Yes, they did reach a conclusion.

22 Q. And what was that conclusion?

23 A. That they do not cause cancer. And that

REGIONAL REPORTING SERVICE, INC.

1 is based on their forty years of
2 experience.

3 Q. Okay. And do you know whether the EPA
4 or any other governmental authority has
5 concluded that PCBs can cause cancer in
6 humans?

7 A. I know of no such entity that has
8 arrived at that conclusion.

9 Q. Do you know whether the EPA has listed
10 PCBs as probable human carcinogens?

11 MR. PECK: Object to the form of
12 the question, no foundation
13 for this witness.

14 A. I have not kept up to date. I don't
15 know what EPA is thinking today.

16 Q. Was Mr. Wright the person at IBT
17 responsible for the rat and dog studies
18 on PCBs that were done for Monsanto?

19 A. On the rat and what kind of study?

20 Q. Dog.

21 A. Not while I was involved. I never saw
22 the man.

23 Q. Do you have an understanding as to what

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1 Mr. Wright was responsible for at IBT in
2 connection with the studies that were
3 done for Monsanto?
4 A. Now, I can only speak for the PCB
5 studies.
6 Q. Okay. That is what I'm talking about,
7 the PCB studies.
8 A. Because there were many studies
9 conducted for Monsanto.
10 Q. No. The PCB studies. Do you have an
11 understanding of what Mr. Wright's role
12 was in the PCB studies that were
13 conducted --
14 A. It is my understanding he was not
15 involved.
16 Q. Did Mr. Wright work for Monsanto before
17 joining IBT?
18 A. I am told he was.
19 Q. You don't have any independent knowledge
20 about that?
21 A. That is true.
22 Q. Do you know -- Do you have an
23 understanding as to how Mr. Wright came

REGIONAL REPORTING SERVICE, INC.

1 to be employed by IBT?
2 A. No, I don't.
3 Q. Do you have an understanding as to
4 whether Mr. Wright ended up leaving IBT
5 and returning to work for Monsanto?
6 A. I understand that's what happened.
7 Q. Do you know Mr. Wright personally?
8 A. Yes.
9 Q. Did you ever work with him?
10 A. Yes.
11 Q. Did you ever work with him in connection
12 with the PCB studies that were done by
13 IBT for Monsanto?
14 A. No.
15 Q. What did you work with him in connection
16 with?
17 A. I forget the exact chemicals, but at one
18 point in time I was responsible for many
19 different Monsanto chemicals, and
20 Mr. Wright was involved with some
21 studies with them. I don't remember the
22 specific chemicals today.
23 Q. Is this before or after he worked for

REGIONAL REPORTING SERVICE, INC.

1 IBT?
2 A. I don't know the dates he worked for
3 IBT, but this was starting at about the
4 1974 or '75 period.
5 Q. Okay. Well, that was after IBT had
6 concluded its toxicity testing of PCBs
7 for Monsanto?
8 A. At least those that I was involved with.
9 I don't know if they started others.
10 Q. Did you ever become aware that
11 Mr. Wright was criminally indicted?
12 A. I read in the local newspapers, yes.
13 Q. When did you read that?
14 A. Golly, 1980, '81, somewhere in there.
15 Q. Do you know why he was indicted?
16 A. No.
17 Q. Have you ever heard that it was for
18 falsifying data in connection with IBT
19 studies?
20 MR. PECK: Object to the form of
21 the question.
22 A. I did not get that from the articles I
23 read.

REGIONAL REPORTING SERVICE, INC.

1 Q. Have you ever heard that?
2 A. I've never discussed it with anybody.
3 No, I have never heard.
4 Q. So as we sit here today that's the first
5 time you have ever heard of this?
6 A. Of what?
7 Q. Of Mr. Wright being indicted for
8 falsifying data in connection with
9 studies that were done by IBT.
10 A. I heard he was indicted, but I don't
11 know what for. That's it.
12 THE VIDEOGRAPHER: Can I get a
13 quick tape change?
14 MR. ATKIN: Yes, you can.
15 (Discussion held off record.)
16 Q. Have you ever heard that part of the
17 reason that Mr. Wright was indicted was
18 for falsifying data in connection with
19 toxicity studies on TCC in albino rats
20 for Monsanto?
21 A. I never heard that.
22 Q. Okay. Have you ever heard that
23 Dr. Calandra and Dr. Keplinger were also

REGIONAL REPORTING SERVICE, INC.

1 indicted?

2 A. Yes.

3 Q. When did you hear that?

4 A. In the same newspaper articles.

5 Q. Did you ever have any discussions with

6 anyone at Monsanto about the fact that

7 Mr. Wright, Dr. Calandra, and

8 Dr. Keplinger had been indicted?

9 A. No, no. That never came up.

10 Q. Okay. Did you ever hear that

11 Mr. Wright, Dr. Calandra, and Dr. Morano

12 were convicted?

13 A. I believe I have, but I'm not certain.

14 Again, my information came from the

15 local press.

16 Q. You had no other information about these

17 indictments or convictions other than

18 what you saw in the local press?

19 A. That's right.

20 Q. Have you ever heard from anyone that at

21 his trial Mr. Wright refused to answer

22 questions about the PCB studies that

23 were done by IBT for Monsanto?

REGIONAL REPORTING SERVICE, INC.

1 A. I never heard that.

2 Q. Have you ever heard from anyone, sir,

3 that the raw data for the IBT PCB

4 studies was falsified?

5 A. No.

6 Q. Are you aware, sir, that Mr. Smith

7 testified under oath that he signed two

8 Aroclor reports for Monsanto that

9 contained false data?

10 MR. PECK: Object to the form of

11 the question, asks this

12 witness to improperly comment

13 on another witness'

14 testimony.

15 A. If my memory serves me right, I was

16 present at a trial when Mr. Smith

17 testified. And as best I recall, he did

18 make some statement like that.

19 Q. Which trial was that?

20 A. Golly, I forget the name of it. It was

21 down in Texas.

22 Q. How long ago did it take place?

23 A. Fifteen years ago, ten years ago.

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1 Q. Was it a PCB case?

2 A. Yes.

3 Q. Monsanto was a defendant?

4 A. Yes.

5 Q. And you testified at that trial on

6 behalf of Monsanto?

7 A. I did.

8 Q. Mr. Smith has also testified in another

9 case that Mr. Wright forged his name to

10 one of the PCB studies that was done by

11 IBT for Monsanto. Have you ever heard

12 of that?

13 MR. PECK: Object to the form of

14 the question.

15 A. No. I don't associate Mr. Wright with

16 any of the PCB studies I was involved

17 with.

18 Q. Okay. Have you ever heard from anyone

19 that approximately seventy percent of

20 the animals which died during the course

21 of the IBT studies were too badly

22 decomposed to be included in the study

23 results?

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1 A. Which studies are these?

2 Q. The rat studies.

3 A. PCB studies?

4 Q. Yes.

5 A. No way, no. I didn't see that anywhere.

6 Q. And you never heard of it?

7 A. That's true.

8 Q. If in fact seventy percent or more of

9 the animals in a study are too badly

10 decomposed to be included in the study

11 results, that would skew the study

12 results, wouldn't it?

13 MR. PECK: Object to the form of

14 the question, no foundation

15 for this witness to answer

16 the question.

17 A. I'm not qualified to comment one way or

18 the other on that.

19 Q. You have no opinion on it?

20 A. No opinion.

21 Q. Okay. Have you ever heard from anyone

22 that Dr. Fancher was ashamed to publish

23 the work done in the IBT studies?

REGIONAL REPORTING SERVICE, INC.

1 A. Wanted to change?
 2 Q. No. Was ashamed to publish the work
 3 done in the IBT studies.
 4 A. I never heard that.
 5 Q. Okay. Were the IBT studies done -- PCB
 6 studies done for Monsanto submitted to
 7 Monsanto's attorneys for their review
 8 before they could be published?
 9 A. There was a report -- I'm trying to
 10 remember just which one. There was a
 11 report which Mr. Wheeler was proposed as
 12 a co-author, and Mr. Wheeler sought the
 13 advice of a Monsanto attorney
 14 regarding --
 15 MR. PECK: You haven't done it
 16 yet. But I would remind you
 17 not to, in the course of your
 18 discussion, disclose any
 19 attorney-client confidences.
 20 THE WITNESS: Yeah.
 21 MR. PECK: Go ahead.
 22 THE WITNESS: See, I don't know
 23 the difference in

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1 attorney-client --
 2 MR. PECK: Anything the attorney
 3 told Mr. Wheeler that you may
 4 know about, don't disclose
 5 that.
 6 Q. Yes. And I'm not asking you that. I'm
 7 just asking you whether you know whether
 8 Monsanto's attorney reviewed the IBT
 9 studies before they were published.
 10 A. All I'm aware of is one report that was
 11 offered to an attorney for review.
 12 Q. Okay. That's the only one you're aware
 13 of?
 14 A. That's all I'm aware of.
 15 Q. Did you visit the IBT labs and observe
 16 the conditions of the animals in the
 17 labs?
 18 A. Yes, several times.
 19 Q. Do you know if Mr. Wright ever visited
 20 the IBT labs after returning to work for
 21 Monsanto?
 22 A. I do not.
 23 Q. Do you know if Mr. Wright, after he

REGIONAL REPORTING SERVICE, INC.

1 returned to work for Monsanto, continued
 2 to be involved in the Aroclor studies
 3 that IBT was doing for Monsanto?
 4 A. I don't associate Mr. Wright with any
 5 PCB studies.
 6 Q. Okay. Have you ever heard that Monsanto
 7 paid Mr. Wright's legal fees in
 8 connection with the charges that were
 9 brought against him?
 10 A. I have not.
 11 Q. Were the IBT Aroclor studies the only
 12 chronic toxicity studies conducted by
 13 Monsanto regarding PCBs?
 14 MR. PECK: Object to the form of
 15 the question.
 16 A. Those were the only chronic studies that
 17 I'm aware of.
 18 Q. Now, if the data and conclusions of the
 19 IBT studies were falsified, the results
 20 wouldn't be reliable, would they?
 21 MR. PECK: Object to the form of
 22 the question, assumes facts
 23 not in evidence.

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1 A. I find that hard to answer, because I
 2 can see falsification that would not
 3 change conclusions. It's the
 4 conclusions that are quite important in
 5 any report of this type.
 6 Q. Any conclusions in any report of this
 7 type are based on the data; isn't that
 8 right?
 9 A. They should be, yes, sir.
 10 Q. So if the data is falsified, then the
 11 conclusions aren't reliable, are they?
 12 MR. PECK: Object to the form of
 13 the question. This witness
 14 isn't qualified to discuss
 15 the conclusions of these
 16 subjects, no foundation.
 17 Sorry.
 18 A. I'm not a toxicologist. So I don't
 19 really have an understanding of what
 20 data, if falsified, would result in an
 21 erroneous conclusion.
 22 Q. Okay. Did Monsanto ever have any other
 23 laboratory repeat the IBT chronic

REGIONAL REPORTING SERVICE, INC.

toxicity studies?

A. Not to my knowledge.

Q. Okay. Do you know why not?

A. No, I don't.

Q. Okay. Did Monsanto ever conduct any PCB studies on primates?

A. I understand there was some work involving primates, but that's the extent of my knowledge.

Q. Did you ever hear that those studies showed that higher animals were more susceptible to PCBs at lower doses than rats?

A. I heard nothing about those reports other than something was going on.

MR. ATKIN: I think I'm done.

Thank you very much.

MR. PECK: We may have one question.

MR. ATKIN: Sure.

EXAMINATION

BY MR. PECK:

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Q. Mr. Papageorge, let me show you what was marked as Plaintiffs' Exhibit Seventy-one previously in your deposition. Do you see in that document there is discussion of a finding of dibenzylfurans in Santowax R? Do you see that reference?

A. Yes.

Q. Let me ask you. Is Santowax R a chlorinated product?

A. No.

Q. Is Santowax R used to make polychlorinated biphenyls?

A. No.

Q. Do you know if the finding of dibenzylfurans was ever confirmed in Santowax R?

A. Initially Dr. Mieuire, who is mentioned here, thought that he spotted dibenzylfurans in Santowax R. And after several weeks of further study, he concluded that he had misidentified it. And as I remember, there was some

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reports that he -- or publications that he put out describing what he thought it was and the fact that he had made an error in his conclusions and that he had modified his findings.

But in any case, this is not the chlorinated dibenzylfurans. This is not the toxic material that everybody is concerned about. Santowax R is a terphenyl. It's used to make an Aroclor, but not a PCB kind of Aroclor.

MR. PECK: Thank you.

MR. ATKIN: I have a question about that.

FURTHER EXAMINATION

BY MR. ATKIN:

Q. Did you review this document with Monsanto's counsel when we took a break before?

A. Yes.

MR. ATKIN: Thank you. I have nothing further.

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(The deposition concluded at 3:33 p.m.)

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1 I do hereby certify that the witness
2 whose attached deposition was taken before me
3 was by me first duly cautioned and sworn to
4 tell nothing but the truth in the cause
5 aforesaid; that the testimony contained herein
6 was by me reduced to writing in the presence
7 of said witnesses by means of stenography and
8 afterwards transcribed by means of computer
9 aided transcription. The foregoing is a true
10 and accurate transcript of the whole of the
11 testimony given by said witness, as aforesaid.

12 I do further certify that I am not
13 connected by blood or marriage with any of the
14 parties or their attorneys or agents and that
15 I am not an employee of any of them, nor
16 interested in the matter of controversy.

17 IN WITNESS WHEREOF, I have hereunto set
18 my hand and affixed my notarial seal at
19 Gadsden, Alabama, County of Etowah, this 2nd
20 day of June 1998.

21 Deborah Salers Garrett
22 Certified Shorthand Reporter
23 Registered Professional Reporter
Notary Public, Alabama-at-Large
My Commission expires: 3-7-2001

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