

STATE OF WISCONSIN : CIRCUIT COURT : MILWAUKEE COUNTY
BRANCH 8

STROH DIE CASTING COMPANY,

Plaintiff,

VOLUME XIX (a.m.)

v.

Case No. 639-887

MONSANTO COMPANY,

Defendant.

May 10, 1991

Honorable Michael J. Barron
Circuit Judge Presiding

A-P-P-E-A-R-A-N-C-E-S

RIORDAN, DRIVELLO, CARLSON, MENTKOWSKI, STEEVES by
DONALD CARLSON AND JOHN PENDERGAST, appeared on behalf of the
Plaintiff.

BORGELT, POWELL, PETERSON, FRAUEN by JOSEPH McDEVITT
and KIRKLAND AND ELLIS by ANDREW RUNNING appeared on behalf
of the Defendant.

* * *

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I N D E X

<u>WITNESS</u>	<u>EXAMINATION</u>	<u>PAGE</u>
William Papageorge	Cross (Mr. Carlson)	3319

1 P-R-O-C-E-E-D-I-N-G-S

2 THE COURT: All right. We are ready to
3 resume the cross-examination of Mr. Papageorge.

4 MR. CARLSON: Thank you, Your Honor.

5 CROSS-EXAMINATION (con't)

6 BY MR. CARLSON:

7 Q Good morning, sir.

8 A Good morning.

9 Q You have before you Exhibit 21, I believe?

10 A Yes.

11 Q You recognize that as a May 27, 1970, memo?

12 A I do.

13 Q Is that from you?

14 A Yes.

15 MR. CARLSON: I don't have a record that
16 this is in evidence. I would offer Exhibit 21 as a
17 Monsanto document.

18 MR. RUNNING: No objection.

19 THE COURT: So received.

20 (Exhibit No. 21, previously marked for
21 identification, was received into evidence.)

22 MR. CARLSON:

23 Q Mr. Papageorge, we had talked about the concept of
24 the kind of pressure that Monsanto had felt during
25 the times that PCB decisions were being made. Do

1 you remember that as a subject?

2 A Yes. The expression "pressure" is your term.

3 Q Well, actually it was Mr. Running's term a few days
4 ago, wasn't it?

5 A As it related to a specific type of pressure.

6 Q Yes. If you would be kind enough to look at the
7 second paragraph on Exhibit 21. At the bottom of
8 that paragraph is there -- I'm sorry -- There's an
9 indication that agencies in the Netherlands and
10 Sweden are most likely to seek a ban or regulation
11 of the use of PCBs?

12 A I see that, yes.

13 Q That currently is at least a kind of pressure
14 your company was feeling that was coming from
15 overseas?

16 A No, sir. I don't describe it as such. Our market
17 in those two countries was limited. It really had
18 no great impact on our thinking.

19 Q I see. So whether or not the Netherlands and
20 Sweden were thinking about banning your product
21 didn't have an impact on your thinking?

22 A Well, it had an impact. Not too significant.

23 Q I see. I'd like to have you look at
24 Plaintiff's 860. Would you be kind enough to
25 identify that for us.

1 A This is a copy of a Monsanto memorandum which I
2 authored.

3 Q The date of that, sir?

4 A June 10, 1971.

5 Q I would offer Exhibit No. 860, Your Honor.

6 MR. RUNNING: No objection.

7 THE COURT: So received.

8 (Exhibit No. 860, previously marked for
9 identification, was received into evidence.)

10 MR. CARLSON:

11 Q In this particular document if we looked at page
12 two, there's reference to what was occurring in
13 Japan regarding PCBs?

14 A There is.

15 Q And in Japan the response to the PCB situation was
16 very abrupt?

17 A Yes.

18 Q And the use of all Aroclor 1242 type fluids has been
19 terminated in NCR capsules for copy paper?

20 A Yes.

21 Q And then if we turn to page three we see that,
22 "Legislation effective January 1972 in Sweden will
23 ban the use of PCBs except under license."

24 A Yes.

25 Q And then if we turn to page four, we find that

1 Congressman Ryan of New York had introduced a
2 bill which was referred to the committee on
3 interstate and foreign commerce. The bill would
4 prohibit the introduction or delivery for
5 introduction into commerce of the chemical
6 compound known as a polychlorinated biphenyl, did he
7 not?

8 A That's what it says.

9 Q Now, certainly you were aware of the information
10 that was coming out of Japan regarding the pressure
11 not to use the PCB 1242?

12 A I was aware of the government's regulation, yes.

13 Q And you were aware of the fact that the ban that you
14 thought was coming in Sweden had, in fact, developed
15 as referenced on page three?

16 A Yes.

17 Q And now you found that in the United States
18 Congressman Ryan was introducing a bill which would
19 prohibit the introduction or delivery for
20 introduction into commerce of all polychlorinated
21 biphenyls?

22 A Yes, sir.

23 Q On page four under Public Relations there's
24 reference to the Chemical and Engineering News, and
25 at the bottom of that paragraph it references that,

1 "Although the bill does not mention Monsanto, a
2 lengthy speech by Ryan on the floor of Congress
3 revived old charges against PCB and Monsanto made at
4 a news conference last year. Only limited news
5 coverage has resulted."

6 Certainly your company thought that this
7 was some sign of pressure to help you or guide you
8 or influence you in making decisions regarding PCBs,
9 didn't it?

10 A Well, these were bits and pieces of information that
11 were taken into consideration as we developed our
12 program.

13 Q Now, even by January 15 -- I'm sorry -- June 15,
14 1971, if we turn to page 14, we find that the plant
15 exit losses -- that would be total plant under
16 Section "B" of Krummich, K-r-u-m-m-r-i-c-h, you
17 still had plant exit losses averaging 21 pounds a
18 day?

19 A Yes. And that was for the month of May.

20 Q Right. And this is 1971?

21 A That is correct.

22 Q With a range of 11 to 61 pounds a day?

23 A Yes.

24 Q Another kind of pressure your company can feel
25 when making decisions is how the public is reacting

1 in terms of letters you receive regarding
2 information about your products that's available, is
3 that true?

4 A That's another kind of information that is
5 considered and is part of the decision making
6 process.

7 Q And Exhibit 910 is an example of a kind of letter
8 coming from the public which was asking you not to
9 manufacture and sell PCBs because of their effect
10 on the environment, isn't that also true?

11 A Well, may I take a little time to read this.

12 Q Surely.

13 A I have finished reading it.

14 Q And it is the kind of information that your
15 company would receive from the public regarding what
16 the public thought about the continued use of the
17 chemical?

18 A This is a sample of that type of information,
19 yes.

20 Q And this particular letter was dated February 24 of
21 1969?

22 A It is.

23 MR. CARLSON: I would offer Exhibit 910,
24 Your Honor.

25 MR. RUNNING: No objection.

1 THE COURT: Did you say, "No objection"?

2 MR. RUNNING: No objection.

3 THE COURT: So received.

4 (Exhibit No. 910, previously marked for
5 identification, was received into evidence.)

6 MR. CARLSON:

7 Q In the center of the letter -- By the way, this is a
8 letter written by a Charlene Arbogast?

9 A Yes.

10 Q And she points out in the body of the letter just
11 starting at about the middle that, "DDT drugs --
12 which she perceives rightly or wrongly -- is far
13 less dangerous than PCB, and DDT have been kept off
14 the legal market by governmental agencies.

15 "But the control of the chemical industry
16 is far different from the control of the drug
17 industry. My question is this, why can't you
18 exercise self-control and caution and remove the
19 highly toxic products from the market until your
20 chemists develop safe replacements?"

21 Did I correctly read that?

22 A Yes. That's exactly what Monsanto did.

23 Q After other people had pointed out the problems?

24 A Well, I don't believe that it's after. It's along
25 with this lady's comments.

1 Q You certainly didn't remove the product from the
2 market; that is 312, from the market prior to having
3 the replacement available, did you?

4 A No. There was no need to.

5 Q The answer to that question is, no, you did not?

6 MR. RUNNING: I object, Your Honor, this
7 is harassment.

8 MR. CARLSON: It's not meant to be
9 harassment. I move to strike the voluntary
10 comment.

11 THE COURT: It's a little difficult to
12 strike a comment. I can strike something from
13 evidence, but I can't strike a comment.

14 MR. CARLSON: I move to -- I move to
15 strike from evidence the comment.

16 THE COURT: What he says -- Mr. Running,
17 that is not evidence.

18 MR. CARLSON: I'm sorry. I was talking
19 about the witness, not Mr. Running.

20 THE COURT: That part of the answer
21 after the word "no" is stricken. The balance will
22 stand.

23 MR. CARLSON:

24 Q Mr. Papageorge, I'd like to show you what has been
25 marked now Plaintiff's 911. Would you be kind

1 enough to review that for us.

2 A I have read it.

3 Q This is a memo from who?

4 A Thomas or Tom C. Ford.

5 Q And who is Tom Ford?

6 A He at that time was a member of Monsanto's press
7 relations department.

8 MR. CARLSON: Your Honor, we would
9 offer Exhibit 911 into evidence as a Monsanto
10 document.

11 MR. RUNNING: No objection.

12 THE COURT: So received.

13 (Exhibit No. 911, previously marked for
14 identification, was received into evidence.)

15 MR. CARLSON:

16 Q With regards to the concept of pressure, if we look
17 at the body of this particular letter in the third
18 paragraph there's reference to the story that broke
19 out in the United States?

20 A Well, there's a reference to a Dr. Risebrough's
21 work.

22 Q Would you be kind enough to read that paragraph for
23 us.

24 A Certainly. "This story first broke in the U.S. when
25 the work of a Dr. Risebrough at the University of

1 California in Berkeley was reported in the
2 San Francisco Chronicle. Although the writer gave
3 us four days to handle an inquiry, one member of the
4 organic management panicked and started stalling on
5 our answer, hence the February 24 story had nothing
6 from us.

7 "This generated a similar story in the
8 San Francisco Examiner (clippings enclosed) and some
9 Los Angeles media, plus three "nut" letters from the
10 West Coast.

11 "Since then we have handled lengthy
12 interviews with several West Coast government
13 agencies and a "canned editorial" based on the
14 Chronicle story appeared in several papers (see
15 Gainesville, Florida, clipping)."

16 Q Is one of the nut letters as referenced in that
17 paragraph one of the letters that we have introduced
18 into evidence as Exhibit 910?

19 A Well, I don't quite know how to use the expression
20 "nut letter" since it's not my expression. I don't
21 find that kind of description fitting this kind of
22 letter. I read this letter. It's a sincere letter
23 from a concerned person.

24 Q So the nut letters that Mr. Ford is referencing
25 you're not too sure what those are?

1 A No, I don't.

2 Q Is the letter that's Exhibit 910 from someone in
3 California, the West Coast?

4 A Yes, it is.

5 Q From Oakland, California?

6 A Yes.

7 Q But her letter certainly isn't a nut letter, is
8 it?

9 A Not to me.

10 THE COURT: What's the date on that?

11 MR. CARLSON: I'm sorry. The date is
12 June 9, 1969.

13 THE COURT: Okay.

14 MR. CARLSON:

15 Q Would you be kind enough to turn to the second
16 page.

17 A I have it.

18 Q When we look at the second page there is reference
19 to this DDT situation that you and I discussed
20 yesterday, is there not?

21 A I recall discussing DDT. I don't recall a situation
22 that fits with the statement that refers to
23 California here.

24 Q No. Not in California. Now we are in Wisconsin.

25 A Oh, oh. The first paragraph.

1 Q That's right.

2 A Yes, I remember our discussion.

3 Q And you recall that there were hearings in Wisconsin
4 on DDT?

5 A Yes.

6 Q And it was reported that, "After a lull the matter
7 came up again -- that is the matter of PCBs -- came
8 up again when the State of Wisconsin held hearings
9 to ban the use of DDT. The pesticides opponents did
10 not mention PCB, but our, in quotation marks
11 "friends" from the National Agricultural Chemicals
12 Association did drag in PCB as a red herring to take
13 pressure off DDT."

14 And then, "(Clippings of the testimony
15 enclosed). Needless to say, our Ag division has
16 thoroughly chewed out officials at NACA."

17 Did I correctly provide that information
18 from this exhibit to the jury?

19 A Yes, you did.

20 Q You did have an agricultural division?

21 A Yes.

22 Q And the agricultural division was watching what was
23 happening to DDT?

24 A I cannot speak for that division. It seems logical
25 that they would be interested in agricultural

1 chemicals.

2 Q I'd like to show you what's been marked
3 Plaintiff's 2028. Would you be kind enough to
4 review that for me.

5 A I have read it.

6 Q This is again another example of the kind of letter
7 your company was receiving from the public in 1969
8 asking that PCB not be manufactured?

9 A This is an example, yes.

10 Q Again, that's the kind of thing -- whether or not we
11 call it pressure, it is certainly information that
12 your company takes into account when making a
13 decision regarding a product, 'doesn't it?

14 A Certainly.

15 Q I would -- Before you do that, was the previous
16 letter that I mentioned to you that I just showed
17 you in your opinion a nut letter?

18 A Well, I personally don't use the expression "nut
19 letter", sir. So I just don't know how to answer
20 your question.

21 Q There is reference in the information your company
22 received from this individual that PCBs had been
23 found in the milk of nursing mothers?

24 A That's what she writes here, yes.

25 Q This was in February 1969?

1 A That's the date of the letter, yes.

2 MR. CARLSON: I would offer Exhibit 2028
3 into evidence, Your Honor.

4 MR. RUNNING: No objection.

5 THE COURT: So received.

6 (Exhibit No. 2028, previously marked for
7 identification, was received into evidence.)

8 MR. CARLSON:

9 Q Have you had a chance to look at Exhibit 17,
10 sir?

11 A Not yet.

12 Q Okay. Sorry.

13 A I have reviewed it.

14 Q And Exhibit 17 is a memorandum from yourself of
15 June 30th, 1970?

16 A There are two memorandums.

17 Q Okay. I'm sorry. It also has the February 29,
18 1970, memorandum?

19 A No, sir. I have a June 30, 1970; and a April 29,
20 1970.

21 Q Okay.

22 MR. CARLSON: Your Honor, I would offer
23 Exhibit 17 as Monsanto documents.

24 MR. RUNNING: I have no objection.

25 THE COURT: So received.

(Exhibit No. 17, previously marked for identification, was received into evidence.)

MR. CARLSON:

Q Only because I have it in this order, we'll take the latest memorandum first; that is, in looking at June of 1970 and the third paragraph of it, there was reference to, "E. John, J. Mason, W. Papageorge, yourself, and E. Wheeler held press conference with D. Krantz of St. Louis of Globe Democrat on PCBs. The article which was published on June 9 was not too favorable Monsanto." Did I correctly provide that information for the jury?

A You did.

Q And the information provided by the Globe Democratic on PCBs had to do with what subject, sir?

A I don't recall the specifics, but I do recall it was a general discussion on PCBs and their uses.

Q And it is true that as of the date of this memorandum your company was dealing with in St. Louis -- your home office, isn't it?

A Yes it is.

Q -- your corporate headquarters that is in your home city that there was adverse publicity about PCBs as of June, 1970?

A I only recall this one covered in this paragraph.

1 Q Certainly the information provided by the press to
2 the public regarding PCBs was a kind of pressure
3 your company felt to do something about PCBs,
4 wasn't it?

5 A Well, naturally it is considered. But just one
6 article which is attributed to one newspaper
7 reporter doesn't necessarily have too big of an
8 impact on the decision. It's one of several things
9 that are considered.

10 Q Sure.

11 A It isn't ignored, but it isn't that influential.

12 Q But along with the problems that you're having with
13 press out in California, information you're
14 developing from Sweden and the Netherlands and
15 Japan, all of these kinds of things are pressures
16 acting on your company to make a decision regarding
17 the product?

18 A Of course. The time is important here also.

19 Q Sure.

20 A This particular article appeared after Monsanto had
21 launched its withdrawal program, it's search for all
22 the things that were intended to make the use of
23 PCBs responsible.

24 Q And if we look at the bottom of this memorandum,
25 we'll see that Congressman Ryan of New York was not

1 satisfied with Monsanto's or the federal governments
2 actions regarding PCBs as of that time?

3 A Well, Congressman Ryan was dissatisfied for one
4 specific reason; and we could not comply with a
5 request that he made that we could not comply
6 with.

7 Q Okay. Did that request being the names of your
8 customers using PCBs?

9 A The names, the locations, the amounts, yes.

10 Q Would you be kind enough to look at Plaintiff's
11 Exhibit 858 for us.

12 A I have read it.

13 Q And this is a memorandum of yours dated April 1st of
14 1970?

15 A Yes.

16 MR. CARLSON: I would offer Exhibit 858
17 into evidence, Your Honor.

18 MR. RUNNING: No objection.

19 THE COURT: So received.

20 (Exhibit No. 858, previously marked for
21 identification, was received into evidence.)

22 MR. CARLSON:

23 Q Just a couple of things about this. There had been
24 some testimony earlier about a meeting in Duluth.
25 The meeting in Duluth is referenced about two-thirds

1 of the way down?

2 A I see the reference.

3 Q And in that particular reference it's noted that
4 obviously PCBs are being investigated by many
5 agencies.

6 A That's correct.

7 Q And there's also reference that scientists present
8 were concerned that limits on PCB in food would be
9 established prematurely?

10 A That is correct.

11 Q Now, as of April of 1970, your company was not
12 putting any warnings or stickers or anything on any
13 of your PCBs or your Pydraul products, were they?

14 A April 1970? No, they -- The labels were being
15 prepared then. Yes. Not yet.

16 Q I'd like to have you review Plaintiff's Exhibit 859
17 for us, if you would.

18 A I have reviewed it.

19 Q And this particular document can be described as
20 what?

21 A This is a copy of the July, 1971, status. And it
22 was published or dated August 25, 1971; and I was
23 the author.

24 Q Well, let's try to set this in terms of the
25 chronology of product development. By August of

1 1971, what was the status of 312?

2 A August '71 it was called 312-A.

3 Q 312-A was your terphenyl product?

4 A It did contain terphenyl, chlorinated terphenyl.

5 MR. CARLSON: I would offer Exhibit 859
6 into evidence, Your Honor.

7 MR. RUNNING: No objection.

8 THE COURT: So received.

9 (Exhibit No. 859, previously marked for
10 identification, was received into evidence.)

11 MR. CARLSON:

12 Q Would you be kind enough to turn to page three for
13 me.

14 A I have it.

15 Q And for item No. 3 -- And right now we are in an
16 excerpt from the preceding page that was applicable
17 to Europe?

18 A Yes.

19 Q And then on page three item No. 3 it references, "We
20 are under increasing pressure to give assurances
21 that our substitute products will not give similar
22 environmental problems." First of all, the phrase
23 "similar environmental problems" related to the
24 environmental problems of PCBs?

25 A Yes.

1 Q And in the 312 setting, the 312-A was a substitute
2 product for the 312?

3 A Yes.

4 Q And what premarket environmental testing of the
5 terphenyl did your company have at the time it was
6 put on the market?

7 A As I remember, they had some animal studies of the
8 acute and subacute types. And then --

9 Q I'm sorry.

10 A And by this date there were biodegradation studies
11 underway.

12 Q Underway. But the market -- Strike that. But
13 PCTs were marketed beginning where in the 312-A
14 product?

15 A I don't recall the exact date. February, March,
16 '71.

17 Q And there were no biodegradation studies done with
18 the PCTs prior to their being used as a substitute
19 for the PCBs in the hydraulic fluid, isn't that
20 true?

21 A That is correct.

22 Q If you were going to market the terphenyls as a
23 substitute product in 1977, what kind of premarket
24 testing do you think your company should do?

25 MR. RUNNING: Objection. Relevance, Your

1 Honor.

2 THE COURT: All right. Let's go in
3 chambers. I'm sure Mr. Carlson wants to be heard on
4 this.

5 (Whereupon, the following proceedings were
6 held outside the presence of the jury in chambers.)

7 THE COURT: Let the record show the Court
8 is in chambers with counsel for both sides relative
9 to the objection made by Mr. Running. Let's hear
10 from Mr. Running first.

11 MR. RUNNING: Your Honor, my first and
12 more basic objection is that premarket testing that
13 would have been done in 1977 is not relevant to any
14 issue in this case. The product, as we pointed out
15 in previous chamber discussions, was first marketed
16 in the 50's, and Stroh first bought it in 1965.

17 And a lot happened in analytic technology
18 and in this area of biodegradation testing. The
19 biodegradation test for detergents were not
20 developed until the mid-60's. Those were the first
21 tests done for that matter.

22 Moreover, Mr. Carlson has deliberately
23 chose 1977 as the date for his question for a
24 reason and that is because TSCA was passed in 1976.
25 And we are getting then into the matter that we

1 addressed a couple of days ago and that is whether
2 or not there's any probative value to delineating
3 the premarket notification and testing requirements
4 of that statute which as we pointed out was passed
5 four years after this product was taken off the
6 market by Monsanto.

7 So those are our objections.

8 THE COURT: At least taken off in the
9 hydraulic fluid area.

10 MR. RUNNING: Yes. This product.

11 THE COURT: All right. Mr. Carlson.

12 MR. CARLSON: A couple of things. First
13 of all, with regards to the basic question on what
14 kind of testing should be done in 1977, that has to
15 go to a number of things, one of which is the
16 terphenyl because I think we are going to find that
17 by the response we'll be able to demonstrate that
18 the terphenyl products should have gone through a
19 series of tests that he would acknowledge prior to
20 its being used as a substitute for the biphenyl
21 product.

22 The terphenyl product also contains PCBs
23 by testimony I think from everybody that addressed
24 the subject now. It also is a product which does
25 not break down in the environment. We are going to

1 be able to demonstrate that Monsanto knew this, used
2 the product as a substitute knowing that if they
3 continued to use it for a long-term they were going
4 to have the same environmental impact with PCTs as
5 they had with the PCBs. So for that proposition
6 alone, I think that it's probative.

7 Additionally, I think we can demonstrate
8 through this witness prior to my even referencing
9 TSCA that there was certainly kinds of testing that
10 could have been done during the period of time PCBs
11 were continued to be marketed that would be
12 tantamount to premarketing testing.

13 That is the basic issue; that is, can a
14 company which develops a product, develops a product
15 years ago in the 30's continue to manufacture and
16 market that product through time periods where there
17 have been changes in technology, changes in
18 awareness, and not do any testing on its product
19 during that period of time and simply say, "I
20 didn't -- or we didn't have to do it to start with
21 thus we don't have to do it now?"

22 I think that's a basic issue for the jury
23 to resolve along with all the other issues. So it's
24 relevant on the question of what the chemical
25 companies can do and should have done. And I think

1 what we'll be able to demonstrate is they could have
2 done that and should have done that both in the
3 1960's and 1970's.

4 MR. RUNNING: I have one other point. Mr.
5 Carlson's explanation for line of inquiry raised one
6 other point; and that is, he's talking as if Stroh
7 has been damaged by polychlorinated terphenyls.
8 PCTs have never been regulated by the Federal
9 Government. There isn't a 50 part per million ban
10 on PCTs as there is for PCBs.

11 Dr. Peterson has testified that there's
12 been no testing for PCTs at the Stroh plant. So Mr.
13 Carlson is assuming as a predicate for his relevance
14 arguments that Stroh suffered damage from PCTs. The
15 only arguable damage is that as a contaminant, and
16 Mr. Papageorge testified to this. PCTs contained
17 about 1 percent PCBs.

18 But this line of inquiry about premarket
19 testing certainly doesn't show they were damaged in
20 that regard because there was a reduction 100 fold
21 in the level of PCBs, and any arguments he would
22 make about whether there should have been premarket
23 PCBs testing have already been addressed in his
24 examination.

25 MR. CARLSON: One other point; and that

1 is, Mr. Papageorge repeatedly has talked about the
2 company taking the responsible approach. He
3 testified to it orally. It shows up in writing on
4 some of their documents. "We took the responsible
5 approach."

6 I suspect or submit that the credibility
7 of that particular conclusion on the witness's part
8 is certainly subject to challenge. And using a
9 product, putting it on the market, that they did no
10 testing at all on it with regards to whether or not
11 it's going to persist in the environment or
12 potentially cause the same problems, which their own
13 internal documents will show later on, will
14 demonstrate certainly that this goes to the question
15 of whether or not they acted responsible.

16 THE COURT: I agree with Mr. Running.
17 There's already in admission in the last five
18 minutes of testimony that they put PCTs on the
19 market without premarket testing. I don't think you
20 need anymore to go into 1977.

21 MR. CARLSON: Okay.

22 THE COURT: They said they didn't put
23 labels on that stuff. There is an indication that
24 biodegradation testing was still in the formulation
25 stage and they marketed in February of 1971 without

1 any premarket testing. Now to go into 1977 just
2 doesn't make any sense.

3 MR. RUNNING: Thank you.

4 (Whereupon, there was a change of
5 reporters.)

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1 THE COURT: The objection is sustained.

2 MR. CARLSON:

3 Q Mr. Papageorge, I'd like to have you look at
4 Plaintiff's Exhibit No. 36. Would you be kind
5 enough to review that for me?

6 A I have reviewed it.

7 Q And it is a document dated October 19th of 1970?

8 A It is.

9 Q And who is it from, sir?

10 A From Elmer P. Wheeler.

11 Q And who is it addressed to?

12 A To me.

13 MR. CARLSON: And this, Your Honor, we
14 would offer as Exhibit No. 36.

15 MR. RUNNING: No objection.

16 THE COURT: So received.

17 MR. CARLSON:

18 Q One of the problems with PCBs was the fact that they
19 did not biodegrade in the environment, isn't it?

20 A One of the characteristics of PCBs is the way you
21 described it. They do not degrade readily. Some of
22 the higher chlorinated.

23 Q And that is what allows them to be persistent in the
24 environment, that they don't biodegrade?

25 A Yes.

1 Q And if they're persistent in the environment, they
2 can hang around long enough to be taken up by or get
3 into the food chain?

4 A If the creatures that would eat that food were
5 nearby, yes.

6 Q Now, the question or the importance of biodegrading
7 was known to Monsanto back in the fall of 1970,
8 wasn't it?

9 A I need some help with the word importance. It was a
10 known piece of information for some of the PCBs, the
11 lower chlorinated ones. It did explain some of the
12 findings that were being reported, so in that way,
13 it was important.

14 Q If we look at the October 19, 1970 memoranda, we'll
15 find that about the center of the page, "The
16 premises on which the more costly needed data
17 include," and this goes through a list of
18 information. No. 1 is, "The determination that the
19 chlorinated terphenyls can and will be found in
20 environmental samples."

21 That was one of the things that -- one of the
22 kinds of needed data that was important to the
23 company?

24 A Well, keep in mind these are premises.

25 Q I understand.

1 A They were case conditions in which a program was
2 being designed.

3 Q Okay. The second thing here is "Biodegradation of
4 the chlorinated terphenyls is virtually impossible."
5 That is what is written here by Elmer Wheeler, isn't
6 it?

7 A That's a premise, not a fact.

8 Q But that was his premise?

9 A Yes.

10 Q And that was the premise that your company operated
11 under prior to using the terphenyl as a substitute
12 in the 312 product, because you had not done any
13 premarket biodegradation studies?

14 A The premise had nothing to do with the use of the
15 material. The premise listed here had to do with
16 designing a study program.

17 Q And it's noted that biodegradation of the
18 chlorinated terphenyls is virtually impossible?

19 A That's what the premise was.

20 Q And No. 3 was "escape to the environment cannot be
21 prevented in all proposed applications, including
22 disposal of products containing them," correct?

23 A Again, that's a premise.

24 Q And then the third thing that is referenced is "The
25 lower chlorinated biphenyls," lower chlorinated

1 being three and four?

2 A Those are considered, yes, amongst those.

3 Q "May be biodegradeable, that is, metabolized in the
4 mammalian species." That's what he references
5 there?

6 A That's what it says.

7 Q "With more toxic effects than the higher chlorinated
8 PCBs, or at least at lower levels of insult." That
9 is also what Elmer Wheeler wrote as a premise as of
10 October 19, 1970?

11 A Yes, another worst case condition.

12 Q And if the lower chlorinated PCBs were biodegrading
13 in the 312 product, that would leave the 5 and
14 higher PCBs for detection, wouldn't it?

15 A That's what one would expect, yes.

16 Q Yet with this knowledge as given to us by Mr.
17 Wheeler in 1970, you did not tell your 312 customers
18 that this product contained the five chlorinated
19 PCBs that was being found to be persistent in the
20 environment, isn't that true?

21 A You're talking about three or four percent in the
22 products?

23 Q Well, I think you can double that to 7 or 8 percent
24 if we look at your document, can't we?

25 A No, that is the total PCB. I'm talking about five

1 or higher chlorinated. That is three or four
2 percent.

3 Q In the 1242, the five chlorinated PCB is between 7
4 and 8 percent in a typical run, correct?

5 A That's true. That is the PCB.

6 Q That is the PCB. You have other fluids in there.
7 You have petroleum oils and everything else?

8 A Fifty percent is other fluids, yes.

9 Q As far as you know, we didn't have to clean up any
10 problems because of petroleum oils in our premises?

11 A Oh, I don't know that. It depends where they were
12 going.

13 Q I see. Would you be kind enough to look at Exhibit
14 862 for us. We don't have to spend a lot of time on
15 this one. The document is a September 8, 1970
16 memorandum?

17 A Yes.

18 Q And this particular memorandum is written by
19 yourself?

20 A Yes.

21 Q And on the second page, it's referenced that with
22 regard to Europe, "The Norwegian government has
23 reportedly introduced controls whereby PCB will be
24 placed on a restricted list. All users will have to
25 be registered and will also need a permit to use

1 PCBs. We're seeking copies of the control
2 regulations."

3 That was information that you had available in
4 September of 1970, correct?

5 A That is correct.

6 Q And the Norwegian government did not distinguish
7 between a 1242, 1248, 1254, 1260 Aroclor, did it?

8 A No, they did not.

9 Q Nor did the Swedish government? The Swedish
10 government didn't either, did it?

11 A That's true.

12 THE COURT: You don't want that one
13 received?

14 MR. CARLSON: Oh, I do. I just lost
15 track. I would offer Exhibit 862. Thank you.

16 MR. RUNNING: No objection.

17 THE COURT: Received.

18 MR. CARLSON:

19 Q I'd like to show you Plaintiff's Exhibit 906. Do
20 you recall that there was a newspaper article
21 regarding PCBs?

22 A I recall seeing this newspaper article, yes.

23 Q You recall the incident, don't you?

24 A I believe I do.

25 Q It had to do with a situation where fish meal that

1 had PCBs in it were eaten by hens?

2 A Yes.

3 Q And the PCBs were then showing up in the eggs of the
4 hens?

5 A Yes.

6 Q And the eggs had to be scrapped?

7 A They were scrapped. I don't know about had to be.

8 Q A lot of them were scrapped, weren't they?

9 A Well --

10 THE COURT: Is that a statement or a
11 question?

12 MR. CARLSON: That was a question. I
13 thought he would agree with me.

14 THE COURT: He didn't say one way or the
15 other. The question was, a lot of them were
16 scrapped?

17 THE WITNESS: I don't know how to define a
18 lot. There must be millions and millions of eggs in
19 this country, and 60,000 may not be alive, when
20 compared to the total.

21 MR. CARLSON: I'd like to show you what's
22 been marked as Plaintiff's Exhibit No. 16.

23 THE COURT: 16?

24 MR. CARLSON:

25 Q Yes. Thank you. I'm going to go on to this. Mr.

1 Running points out that we probably have talked
2 about this before. It was in June of 1968. There
3 was indication that your company had information
4 that PCBs had been found in Lake Michigan?

5 A That is correct.

6 Q I'd like to show you what's now been marked as
7 Plaintiff's Exhibit No. 918. This particular
8 document is a copy of a newspaper story that was run
9 in Dayton, Ohio, on October 30th of 1970?

10 A That's what I read here, sir.

11 Q And do you recall the specific problem that is
12 referenced here, that is, PCBs getting into the milk
13 of dairy herd?

14 A Yes, I do.

15 Q And the problems that some of the dairy farmers were
16 having with regard to the PCBs that were present in
17 their cow's milk?

18 A Yes.

19 Q And the herds were put out of production as a result
20 of that, weren't they?

21 A I need some help with your expression, put out of
22 production.

23 Q They couldn't sell the milk for human consumption?

24 A For awhile, yes.

25 Q I'd like to show you what's now been marked as

1 Plaintiff's Exhibit No. 921. This is a May 8th,
2 1969 document?

3 A It is.

4 Q Is that written by Tom Ford?

5 A It is.

6 THE COURT: Did you want 918 in evidence
7 or not?

8 MR. CARLSON: Sure. I'll offer Exhibit
9 918.

10 MR. RUNNING: No objection.

11 THE COURT: So received.

12 MR. CARLSON:

13 Q Exhibit 921 was to Howard Bergen, William Richard,
14 and Elmer Wheeler?

15 A Yes.

16 Q And this particular memorandum has to do with what
17 subject, sir?

18 A I don't recall ever seeing this before, so let me
19 read a little bit of it.

20 Q Surely.

21 A This appears to be an attempt to communicate to the
22 people to which this was addressed, some comments
23 regarding the hearings held in the State of
24 Wisconsin on DDT.

25 Q And it had to do also with the question, whether or

1 not the PCBs were also being implicated?

2 A There is reference to PCBs as a result of that
3 conference, yes.

4 MR. CARLSON: I would offer Exhibit No.
5 921, Your Honor.

6 MR. RUNNING: No objection.

7 THE COURT: So received.

8 MR. CARLSON:

9 Q Now, Howard Bergen, what position did he hold at the
10 company as of that time?

11 A As of that time, he was the director of the business
12 group that was responsible for industrial fluids,
13 some of which contained PCBs.

14 Q These folks would be fairly high level management?

15 A I think so, yes.

16 Q Let's take a look, if we could, sir, at some of the
17 information that is provided. Some of these folks
18 had apparently been over in Sweden, according to the
19 memo?

20 A All three of them.

21 Q Were they over there in Sweden on the PCB problem?

22 A Yes.

23 Q And while they were over there, they had PCB
24 problems over here?

25 A PCB was brought up as a topic of discussion, yes.

1 Q First of all, in the second paragraph, there is
2 reference to the fact that Wisconsin was holding the
3 DDT hearings, correct?

4 A Correct.

5 Q And then it was felt by the company representative
6 that the chance of the, in quote, "opposition," end
7 of quote, bringing PCB into the picture was slim.
8 Who was the opposition?

9 A The people that felt that PCBs should not be found
10 in the environment.

11 Q And then there is reference to what we didn't count
12 on were our, in quotation marks, "friends," end of
13 quotation marks. Who were your friends?

14 A I can't speak for Mr. Ford. I assume that these are
15 people who would understand PCBs or their uses,
16 their effects, and so on.

17 Q Actually, what the friends were in this particular
18 memorandum were the agricultural chemical group that
19 was involved in those hearings, wasn't it?

20 A One could read that into it, yes.

21 Q And then in the third paragraph, there is reference
22 to receiving a call from a Madison advising that a
23 Francis Coon of the Wisconsin Alumni Research
24 Foundation Laboratory was testifying that a lot of
25 the residue found in Coho salmon was really PCB, and

1 it was made by Monsanto, correct?

2 A That is what is written, yes.

3 Q Mr. Ford, what position did he hold in the company?

4 A Mr. Ford was a member of Monsanto's press relations
5 department.

6 Q And he thought that this was a witness for the
7 opposition, but it turned out he was testifying for
8 the DDT task force, which was being assisted by the
9 National Agricultural Chemical Association, correct?

10 A That's what is written here, yes.

11 Q And then there were some other witnesses scheduled
12 to testify, including people from Shell in the
13 United Kingdom?

14 A That's what it states.

15 Q And then there is reference to the fact that
16 although they only had partial information, the
17 development was obviously disturbing, since
18 Minckler, Robson, and Springgate were also
19 unavailable. He went over to the agricultural
20 division to discuss the problem. The problem at
21 that point was what?

22 A The association of PPB's with DDT and what effects
23 were observed for DDT in the environment.

24 Q And then Stu Daniels, who is Stu Daniels?

25 A A Monsanto employee at a high level in the

1 organization of the agricultural division of
2 Monsanto.

3 Q Placed an immediate call to an official of NACA,
4 National Agricultural Chemical Association?

5 A That's correct.

6 Q And read him the riot act about dragging in one
7 chemical to help defend another, etc., correct?

8 A That's what it says.

9 Q And then if we take a look at the second page, there
10 was a witness testifying for the Agricultural
11 Chemical Association, and we find that she was
12 saying that the high residues of DDT were not
13 factual, since most of this was actually PCBs,
14 right?

15 A I don't see a reference to a witness. I see --

16 Q I'm sorry. It was the person from the NACA was
17 commenting on the strategy of a witness.

18 A Strategy of the testimony which may include many
19 witnesses.

20 Q I see. The strategy of the testimony. What does
21 that mean?

22 A What they plan to present by their comments.

23 Q Do you recall the slogan on the front of your annual
24 report?

25 A I don't know what you're after.

1 Q Strategies and action.

2 A I don't remember that.

3 Q Okay. In any event, there was apparently a strategy
4 developed by the Agricultural Chemical Group to cast
5 blame on the industrial chemical people, and
6 specifically PCBs.

7 A I don't read that in that comment.

8 Q In looking at a particular paragraph, it references,
9 "I talked later that evening to a PR gal from NACA
10 who was in Madison. She said strategy of the
11 testimony was to show that analytical methods being
12 used were not accurate, that the high residues of
13 DDT were not factual, since much of this was PCB,
14 etc. She said testimony was on analysis only with
15 witnesses drawing no conclusions on PCB," and then
16 there is a reference, "Of course, a man on the
17 witness stand cannot stop with just a statement.
18 Coon was cross-examined all day Wednesday."
19 Correct?

20 A That's what it says, sir. This is the first I've
21 seen this document, so --

22 Q Okay. I think that is a fair comment, and that is,
23 when you took the role that you took with regard to
24 PCBs, even though you were given a lot of
25 information, you certainly couldn't have been given

1 everything your company had developed, right?

2 A Well, if everything means every piece of paper and
3 every note, that is true.

4 Q Nobody is trying to hold you to know everything that
5 predated 1970, at least I'm not, but there was a lot
6 that went on in the 1966, 1970 timeframe that you
7 did not know about, correct?

8 A Oh, I'm sure there is.

9 Q I'd like to have you look at Exhibit No. 3. This
10 goes back to 1969, does it not, early 1969?

11 A It does.

12 THE COURT: Let's get the exact date.

13 MR. CARLSON:

14 Q March 6, 1969, and the first thing that we find
15 is --

16 A May I read it first?

17 Q Oh, I'm sorry, surely.

18 A I have reviewed it.

19 Q Thank you. The particular memorandum was carboned
20 on to a number of people, including an H. Bergen?

21 A Yes.

22 Q Who was H. Bergen?

23 A He is the director of the business group I just
24 described.

25 Q And P. Park, who was that?

1 A He is a Monsanto attorney.

2 Q Employed by Monsanto directly, or as outside
3 counsel?

4 A He's a Monsanto employee.

5 Q Now, first of all, the reference, or there is
6 references to the Risebrough work that appeared in
7 1968, correct?

8 A That is correct.

9 Q And in March of 1969, we again find that your
10 company referenced the fact that PCBs were "a
11 pollutant, widely spread by air, water, therefore,
12 an uncontrollable pollutant." That says March of
13 1969?

14 A Well, they're excerpting from Dr. Risebrough's
15 article.

16 Q And your company wasn't agreeing with that
17 information, as of March, '69, was it?

18 A No, but it was reading it and trying to understand
19 it. It wasn't disagreeing and wasn't agreeing,
20 either.

21 Q Well, by this time, you knew it had been found in
22 Sweden, you knew it had been found in Britain, you
23 knew it had been found in the United States. You
24 knew that it was being found in fish, you knew that
25 it was being found in birds. Don't you think that

1 by that point, you agreed that it was a pollutant?

2 A Well, yes, but the sentence says widely spread by
3 air, water, therefore, an uncontrollable pollutant.

4 It is controllable.

5 Q Well, if it gets into Lake Michigan, you can't put a
6 boundary and say, we are only going to get out a
7 hundred yards, can you?

8 A No, but you're not supposed to get into Lake
9 Michigan in the first place. That's what control is
10 all about.

11 Q Nor was it supposed to get into the Mississippi
12 River?

13 A True.

14 Q Now, if we go through the information provided here,
15 we find that the "Environmental Defense Fund was
16 attempting to write new legal precedents in
17 conservation law by hearings and court action. In
18 the Wisconsin case, water quality standards are at
19 issue.

20 "A substance shall be regarded as a pollutant
21 if its use results in public health problems or in
22 acute or chronic injury to animals, plants, or
23 aquatic life. Wisconsin is one of seven states
24 which now have federally approved water quality
25 standards."

1 Did I correctly read that information to the
2 jury?

3 A You did.

4 Q If we go through here -- strike that.

5 The kind of information that is being developed
6 by your company is certainly the kind of pressure
7 that your company was feeling when making decisions
8 about PCBs, wasn't it?

9 A Well, that is information that is assembled,
10 reviewed, and every attempt is made to understand it
11 and see how it all fits in with Monsanto's programs.

12 Q And then further down, it's references "These people
13 in EDF, Environmental Defense Fund, are saying we
14 must not put stress on any living thing through a
15 change in air or water environment, eagles, plant
16 life, anything which lives or breathes."

17 By the way, you agree with that personally,
18 don't you?

19 A Yes.

20 Q "This group is pushing hard on the extension of the
21 word harmful. They claim enzyme inducer activity is
22 the real threat of DDT and PCBs, and are using these
23 arguments to prove that very small amounts of
24 chlorinated hydrocarbons are," in quotation marks,
25 "harmful," end of quotation marks, correct?

1 A That's what is written.

2 Q And certainly, this kind of push by these groups was
3 another kind of pressure your company was feeling
4 when making decisions about PCBs, isn't that true?

5 A That is another source of information, yes.

6 Q If we turn to Page 2, just under the center of the
7 page, there is a section entitled "Where does this
8 leave us?" Do you see that?

9 A I see it.

10 Q Then in the second paragraph, there is a reference
11 to steps that can be taken, and would you be kind
12 enough to read that for us?

13 THE COURT: Out loud?

14 MR. CARLSON:

15 Q Yes.

16 A Do I have the right -- the one that says we can take
17 steps?

18 Q Yes, sir?

19 A "We can take steps to minimize pollution from our
20 own chlorinated biphenyl plants. We can work with
21 our larger customers to minimize pollution, we can
22 continue to set up disposal and reclaim operations,
23 we can work for minimum exposure in manufacture and
24 disposal of capacitors, transformers, and heat
25 transfer systems and minimize losses from large

1 hydraulic users."

2 Q Now, it is true, sir, that the Stroh Company has
3 previously been identified as not one of the large
4 hydraulic users, isn't that true?

5 A That is correct.

6 Q And it's also true that Stroh was not one of your
7 larger customers, correct?

8 A That's correct.

9 Q And in fact, for large companies like Outboard
10 Marine -- strike that.

11 For large companies like General Motors in the
12 Chevrolet Division, a program was developed whereby
13 Chevrolet in fact did drain their hydraulic machines
14 and returned their fluids to you, isn't that true?

15 A At what point in time, sir?

16 Q I don't remember. Do you? I think it's about '72.

17 A That paragraph describes the actions that could take
18 place fairly quickly to get the bigger potential
19 sources of losses, and it was perceived to be a big
20 step in the right direction.

21 Eventually, the General Motors units were
22 drained, but it was several years after the date of
23 this document.

24 Q That's right. This was a 1969 document. It was
25 probably about '71 or '72 when General Motors

1 drained all of their material.

2 A I don't remember the date.

3 Q You do recall that you did take back their material
4 for incineration, though?

5 A They were listed amongst the companies that returned
6 material for incineration, that is correct.

7 Q And that was worked into a price deal with them on
8 the price of the replacement fluid?

9 A That I don't know anything about.

10 Q The account representative, do you have an account
11 representative that specifically had as an account,
12 General Motors, assigned to that account, only?

13 A I don't know that it had that specific title. There
14 were several General Motors locations. Their
15 supervisor in St. Louis was the person to whom they
16 all reported. He would be the logical one to have
17 the dialog necessary with the General Motors
18 management.

19 Q It was the account representative that worked out
20 the deal with General Motors under which they were
21 draining their hydraulic machines, die cast machines
22 of the PCB fluids, wasn't it?

23 A I don't know that.

24 Q You have seen the call reports on the Stroh Company,
25 have you not?

1 A I have seen some, yes.

2 Q You haven't seen any which indicates that Monsanto
3 advised Stroh that it would be appropriate for us to
4 bring our machines back in 1970 or '71 or '72, have
5 you?

6 A No, there was no need to do so.

7 Q The question is, have you seen such a call report?

8 A No, because it never happened.

9 Q That's right.

10 THE COURT: All right. We are not going
11 to take a full break because of going home early,
12 but it's an appropriate time now that anyone who
13 wishes to use the restroom, fine. Let's resume in
14 less than 10 minutes, though.

15 (Whereupon, a recess was taken.)

16 THE COURT: Resume the cross-examination.

17 MR. CARLSON:

18 Q Mr. Papageorge, we go back to Exhibit 3, with
19 reference that there was the concept to minimize
20 losses for large hydraulic users. Do you see that
21 section?

22 A I do.

23 Q Right under that there is reference to small
24 hydraulic users?

25 A There is a reference, yes.

1 Q And would you just read that for us, please?

2 A The whole paragraph or just --

3 Q Just that sentence.

4 A "But we can't easily control hydraulic fluid losses
5 in small plants."

6 Q Before you took your position with regard to PCBs --

7 THE COURT: Excuse me. When you say you,
8 are you talking about him, personally?

9 MR. CARLSON:

10 Q Yes, you personally. Before you personally took
11 your position with regard to PCBs, which I believe
12 you were appointed to help on in 1970?

13 A That's correct.

14 Q Had you been in a die cast facility?

15 A Yes.

16 Q Did you have studies that were made available to you
17 on how die cast facilities handled their fluids?

18 A I don't know what you mean by studies.

19 Q Well, where there had been reports to you saying we
20 are selling fluids to die cast facilities, die cast
21 facilities use these fluids for these applications,
22 spent fluid is handled in these ways, here is how
23 the companies dispose of it, here's how they collect
24 it, were there reports that Monsanto had developed
25 on that subject?

1 A There were bulletins describing the use of hydraulic
2 fluids in systems, and the systems all had common
3 characteristics, tanks, pipes, connections, hoses,
4 pumps, and they were the major piece of equipment
5 which all of this serviced, so there was a
6 similarity between systems, but there was no one
7 document that addressed die casting machines as
8 such.

9 Q And there was no one document that addressed the
10 question of how die cast companies handled their
11 fluids after or when they were disposing of it?

12 A A document specific to die casting? I don't recall
13 one.

14 Q You did sell hydraulic fluids specifically for die
15 cast company applications, didn't you?

16 A Can you help me with the word specific? You mean
17 the fluid was specific just for those machines?

18 Q No. No, that those kinds of companies were a
19 specific category of customer of Monsanto's?

20 A Oh, yes.

21 Q Do you have Exhibit 14 up there? I think what we'll
22 do is I'll have Mr. Pendergast do the honor of
23 looking for that, while I ask you some questions on
24 another document. John, would you also find Exhibit
25 15 up there?

1 MR. PENDERGAST: That one I got.

2 MR. CARLSON: You've got 15?

3 MR. PENDERGAST: Yup.

4 MR. CARLSON:

5 Q Mr. Papageorge, Exhibit 15 is an October 29, 1969
6 memorandum?

7 A It is not what I would call a typical Monsanto
8 memorandum. It's an executive summary.

9 MR. CARLSON: I would offer Exhibit No. --
10 I'm sorry, it's in evidence, Your Honor.

11 MR. CARLSON:

12 Q Regarding this particular document, there is as a
13 title, as a problem, "The contamination of ecosystem
14 with polychlorinated biphenyls"?

15 A That is correct.

16 Q And then it's referenced in the problem definition
17 and the timing that Monsanto confirmed in mid 1969
18 that the work of Widmark and Jensen was adequate and
19 that the PCB problem was worldwide, correct?

20 A I didn't get the middle part of your paragraph.

21 Q Monsanto, by mid 1969, had confirmed Widmark and
22 Jensen's work, as well as others?

23 A No. Widmark and Jensen confirmed their findings.
24 Monsanto had yet to confirm.

25 Q If we look at the problem definition and timing, the

1 last sentence reads, "Monsanto confirmed PCBs in mid
2 1969 and confirmed the adequacy of work by Widmark
3 and Jensen and others."

4 A I see that now, yes.

5 Q So by mid 1969, Monsanto had confirmed that PCBs
6 were an environmental problem?

7 A Yes.

8 Q But you didn't tell your customers of this until at
9 least a year later, those customers buying your 312
10 fluid?

11 A I don't believe it was that much later.

12 Q Well, the first time you told the customer of the
13 312 fluids, that there was even PCBs in the fluid
14 was a little sticker that was put on in May of 1970?

15 A I recall a letter that went to the customers in an
16 earlier time than that in which the Widmark Jensen
17 work was mentioned, and it was even more specific
18 than this paragraph. It covered the type of PCB
19 that was discovered and present, and in that
20 document, as I recall, the Pydraul products were
21 mentioned.

22 Q And you told the customers the Pydraul products that
23 had PCBs were the 1254 and 1260?

24 A I don't remember the exact words. I thought it said
25 that some of the pydrauls had the higher

1 chlorinated, but some did not.

2 Q Okay. Well, we'll go into the letter specifically
3 later. In any event, if we continue on, the extent
4 of the problem was in fact, or the seriousness of
5 the problem was identified by Monsanto in this
6 executive summary, correct?

7 A Well, there are some items under that topic, yes.

8 Q And then if we go on to Page 2, we find the topic of
9 political and public emotion?

10 A That's there, yes.

11 Q And political emotion is a kind of pressure your
12 company feels when handling decisions about what to
13 do with marketing of a product, isn't it?

14 A Well, the political ramifications are considered,
15 and there are many actions a company can take. One
16 of them is to revise programs, the other is to
17 communicate better, so that the item being discussed
18 is better understood.

19 Q And when we talk about political emotion, that can
20 also be a kind of pressure that can lead to the
21 discontinuing of manufacturing or making a product?

22 A Well, it depends on the extent of that political
23 interest.

24 Q All right, and in this case, that was one of the
25 things that led you to discontinue manufacturing the

1 Pydraul 312 with PCBs?

2 A No, I can't say that.

3 Q One of the things that led you to stop making the
4 Pydraul 312 that contained the PCBs was the legal
5 responsibility that you could suffer?

6 A I have no evidence that the legal question
7 influenced that decision.

8 Q Well, at least in this document, the effect on
9 Monsanto references, as Item No. 2, legal
10 responsibility, does it not?

11 A It does. That is not limited just to pydrauls.

12 Q I understand. We are talking about PCBs?

13 A Yes, sir.

14 Q Then if you look further down on Page 2, there is
15 reference to the effect on customers and ultimate
16 consumers, correct?

17 A I see that, yes.

18 Q And it affects die casters and other hot metal
19 working industries, correct?

20 A That is correct.

21 Q And on Page 3, we go on to possible control of
22 contamination, and this is a subject that you and
23 Mr. Running discussed. That is, "industrial fluids,
24 plastics, coatings, and adhesives are very
25 difficult, if not impossible to control, substitute

1 products needed," correct?

2 A You read it correctly.

3 Q And in fact, you did develop a substitute product
4 for the Pydraul 312, did you not?

5 A Eventually, yes.

6 Q And one of the reasons that you developed the
7 substitute product for the 312 was because the
8 industrial fluids were difficult if not impossible
9 to control?

10 A I would suggest that they were more likely falling
11 in the category of difficult, but certainly not
12 impossible to control, as compared to paint and
13 adhesives and plastics.

14 Q With regard to the control of industrial fluids, if
15 in fact they could be controlled, if Monsanto
16 thought that industrial fluids could be absolutely
17 controlled, why stop making the stuff? Why stop
18 making 312?

19 A Well, we were fortunate in our research program to
20 find an acceptable alternate material. That --

21 Q I'm sorry. I didn't mean to interrupt you.

22 A And the acceptable alternate material performed
23 well, and it was available, so why not substitute,
24 and at that point --

25 Q I'm sorry.

1 A And at that point, you don't have the issue of PCBs
2 any longer in the product line.

3 Q If the PCBs weren't a problem, you wouldn't need a
4 substitute?

5 A Will you help me with the word problem? In what
6 way?

7 Q Any sense of the word. In the sense of escape, in
8 the sense of human health problems, in the sense of
9 environmental damage it caused. If in fact the 1242
10 wasn't a problem, you wouldn't have to spend any
11 money going about making a replacement?

12 A Well, even in a well-controlled hydraulic fluid
13 system using a Pydraul 312, for example, which
14 prevents entry into the environment and harm to the
15 worker, as long as one has another material that
16 isn't associated with any emotions or
17 misunderstandings, you might as well use the new
18 material.

19 Q But the new material you used, the terphenyl had not
20 been tested for biodegradability, correct?

21 A Not yet. That's true.

22 Q And in fact, you categorized the terphenyl simply as
23 a stop gap, while you continued to work on another
24 product, right?

25 A It was a good step forward.

1 Q So now you've got a stop gap product you used that
2 you haven't tested for biodegradability, you've got
3 a situation where you recognize that the industrial
4 fluids are at least very difficult to control, and
5 it was the problem with the five chlorinated PCB
6 that was causing damage to the environment.

7 The fact of the matter is that the reason you
8 stopped making the 1242 Pydraul 312 was because it
9 was causing damage to the environment, isn't that
10 right?

11 A I don't know of any evidence that definitely points
12 out that Pydraul 312 was causing damage to the
13 environment.

14 Q Well, you know --

15 A I just don't know that.

16 Q You know that the Pydraul 312 with the 1242 Aroclor
17 was biodegrading so that when you looked at it, in a
18 fish, for example, it looked like 1248 to 1254,
19 1260, right?

20 A If it gets into an environment that has the bacteria
21 and the oxygen and the sunlight, and all of the
22 things it takes to degrade it.

23 Q And it was the five chlorine in the 312 that was
24 causing the problems or at least a lot of the
25 problem?

1 A I don't associate the effect on birds, for example,
2 and the presence in fish, of the higher
3 chlorinatedbiphenyls, specifically to the Aroclor
4 312.

5 Q You mean Pydraul 312?

6 A I'm sorry, Pydraul 312.

7 Q You do associate it with one of the components, one
8 of the component PCBs in the mixture, don't you?

9 A I associate it with the higher chlorinated
10 components, but I don't know where they came from.

11 Q Well, you know today where some of those came from.
12 You know that it came from the degraded 1242?

13 A Some of them very likely from degraded 1242. Again,
14 though, I can't take the next step and say it came
15 from Pydraul 312. I don't have any information that
16 tells me that.

17 Q I guess we'll get into that a little bit later.
18 Have you gone through the learned treatises that we
19 had filed in this matter or a list of them?

20 A I'm confused at the expression, learned treatises.

21 Q Well, I guess then you haven't.

22 THE COURT: It's really more of a legal
23 definition, sir, that permits attorneys without
24 bringing in authors of a particular publication to
25 have those admitted into evidence, assuming they're

1 relevant, without the necessity of bringing in that
2 author to identify them.

3 There are certain procedural rules that have to
4 be followed by the attorneys which I'm not going to
5 bore you with, but suffice it to say that this case
6 has had more than all the rest of the cases I've had
7 combined. Usually you'll get four or five or six of
8 them in a case. There's got to be 250 in this case.

9 MR. CARLSON:

10 Q We'll go back. All I wanted to find out was whether
11 or not you had an opportunity to read the study that
12 was done in 1963 and the effect of 1242, the Aroclor
13 on a particular bird that was studied?

14 A I don't recall such a document. No.

15 Q Let's go on. We've talked about this a little bit
16 before. I've had marked as 2031, which is actually a
17 cut down to appropriate size, the approximate size
18 of the Monsanto sticker. Do you recognize Exhibit
19 2031, sir?

20 A I do.

21 MR. CARLSON: I'd offer Exhibit 2031 into
22 evidence, Your Honor.

23 MR. RUNNING: No objection.

24 THE COURT: So received.

25 MR. CARLSON:

1 Q Now that is about the size of the sticker that was
2 used?

3 A It's close, yes.

4 Q Except the lettering was red?

5 A That is correct.

6 Q Now, the lettering of the label on Pydraul, itself,
7 was red?

8 A Yes.

9 Q Now, when these stickers were made up, were they
10 made up in-house? Did you do them in your own
11 company, in one of your -- do you have a section of
12 the company that makes these up, or do you have them
13 done outside?

14 A They're done by an outside printing company.

15 Q And then when these were done up, did you actually
16 see the finished product that was completed?

17 A Certainly.

18 Q And were they on gum labels, is that what they were?

19 A Yes.

20 Q And the gum labels, they were distributed where?

21 A They were distributed to each plant in Monsanto that
22 packaged products that contained PCBs.

23 Q These plants were located where?

24 A In the United States. It was Sauget, Illinois,
25 Anniston, Alabama, and the John F. Queeny plant in

1 St. Louis. In Europe, it was in Newport, Wales.

2 That's it.

3 Q Does your company also have distribution centers
4 where product was inventoried?

5 A Certainly.

6 Q And did you have a distribution center in Chicago?

7 A I don't know.

8 Q Do you know where the closest distribution center
9 from Milwaukee was?

10 A No, I don't.

11 Q I didn't hear you indicate that you had sent those
12 stickers out to the distribution centers.

13 A The distribution centers were sent labels to cover
14 those containers in inventory that did not have it
15 affixed to them. After they did that, then the new
16 material coming in had the label, the label affixed
17 back at the plant.

18 Q And where were these labels to be affixed?

19 A Close, right near the large label, with the product
20 label.

21 Q Would it cover any part of the product label?

22 A Oh, no.

23 Q You put it right on the larger product label?

24 A If it did overlap a little bit, it was not to cover
25 any message that was on the product label.

1 Q No, I didn't mean that. Was there some spot on the
2 larger label that you could put this? In Wisconsin
3 we have license plates, we put a tag on it every
4 year. What I was trying to find out, did you take
5 this little label and put it right on the larger
6 label?

7 A We did not tell the supervisor of the packaging
8 operation exactly where to put it. We left it up to
9 his good judgment, just so it was visible to the
10 user.

11 Q And this particular label did not use any -- strike
12 that.

13 Do you know what signal words are in terms of
14 providing warnings or cautions?

15 A I'm sorry, what was the word?

16 Q Signal words?

17 A Signal words?

18 Q Yes, like caution, hazard, danger?

19 A Oh.

20 Q You know what those kinds of words are?

21 A Yes. In fact, that word appears on the product
22 label.

23 Q On this sticker?

24 A Not this environmental sticker, no.

25 Q And the product label does not contain any

1 information about proper disposal?

2 A That's correct.

3 Q And the label does not provide any -- strike that.

4 You also developed a label for your Aroclor 1242
5 which was sold as a straight Aroclor, didn't you?

6 A Yes.

7 Q And in that particular label, you provided specific
8 disposal information, didn't you?

9 A At what point in time?

10 Q Sometime in the early 1970s?

11 THE COURT: I want to make sure I
12 understand.

13 MR. CARLSON: Sure.

14 THE COURT: We are not talking about
15 Pydraul 312? You're talking about Aroclor 1242?

16 MR. CARLSON: That's right. Which is a
17 component of Pydraul 312.

18 THE COURT: That's what I assumed. I
19 wanted to make sure of that.

20 THE WITNESS: I'm trying to recall the
21 timing.

22 MR. CARLSON:

23 Q This will probably help, because you can read your
24 coatings. I'm going to show you what's been marked
25 as Plaintiff's 692 and ask you to identify that for

1 information about proper disposal?

2 A That's correct.

3 Q And the label does not provide any -- strike that.

4 You also developed a label for your Aroclor 1242
5 which was sold as a straight Aroclor, didn't you?

6 A Yes.

7 Q And in that particular label, you provided specific
8 disposal information, didn't you?

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15 Pydraul 312? You're talking about Aroclor 1242?

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17 component of Pydraul 312.

18 THE COURT: That's what I assumed. I
19 wanted to make sure of that.

20 THE WITNESS: I'm trying to recall the
21 timing.

22 MR. CARLSON:

23 Q This will probably help, because you can read your
24 coatings. I'm going to show you what's been marked
25 as Plaintiff's 692 and ask you to identify that for

1 us.

2 A This is copy of a label affixed to containers of
3 Aroclor 1242, electrical grade, and as best I
4 recall, this label was used, starting in late 1971.

5 Q Late 1971?

6 A Correct.

7 MR. CARLSON: I would offer Exhibit 692
8 into evidence, Your Honor.

9 MR. RUNNING: No objection.

10 THE COURT: So received.

11 MR. CARLSON:

12 Q With regard to this particular label, and I do want
13 to make sure that we are careful about this. This
14 label did not go on drums of Pydraul 312, did it?

15 A No, it did not.

16 Q But this label did go on drums of Aroclor 1242,
17 which was almost 50 percent of the Pydraul 312?

18 A That is correct.

19 Q And this label for the Aroclor 1242 customer on the
20 right side provided information about waste
21 disposal, did it not?

22 A There is a section that covers that, yes.

23 Q Would you read that to us, please?

24 A "Waste disposal. Used polychlorinated biphenyl
25 fluids may be returned freight prepaid for proper

1 incineration at 3 cents per pound. Ship to

2 Supervisor Department A-246, Monsanto Company,

3 Sauget, Illinois, 62201."

4 Q Thank you. This particular label also provides
5 specific information about some of the kinds of harm
6 that the Aroclor 1242 can do, doesn't it?

7 A I'm having difficulty, when you say some of the
8 kinds of harm.

9 Q Okay. With regard to the statement that appears on
10 the center of the label, why don't you just read
11 that for us out loud?

12 A The one that starts, if clothing becomes soaked?

13 Q I'm sorry. This product contains.

14 A "This product contains polychlorinated biphenyls
15 which some studies have shown may be persistent, an
16 environmental contaminant, and possibly injurious to
17 certain forms of birds, aquatic, and animal life.
18 Extreme care should be taken to prevent any entry
19 into the environment through spills, leakage, use,
20 disposal, vaporization or otherwise. Contact your
21 Monsanto representative regarding reclamation of
22 used fluid."

23 Q Now, is there any information with regard to the
24 damage that the 312 -- I'm sorry, that the 1242
25 Aroclor may cause that was not known to your company

1 by mid 1969?

2 A By mid 1969, the information that was known as it
3 affected some reported studies, was the effect of
4 the higher chlorinated biphenyls, as best I recall.
5 That was the state of the knowledge in 1969.

6 Q There is no mistake, is there, that the Aroclor
7 1242, that label that we are looking at right now,
8 is the same Aroclor 1242 that was in our Pydraul
9 312, correct?

10 A That is correct.

11 Q And your company does say that the Aroclor 1242 can
12 cause the kind of damage that is listed on that
13 label, correct?

14 A Yes. In 1971.

15 Q And that is because the Aroclor 1242 had the five
16 chlorinated PCB? That's also true, isn't it? Five
17 chlorinated and higher?

18 A By 1971, we had additional information from the
19 chicken studies that Monsanto had conducted.

20 Q By 1969, you knew that Risebrough had concluded that
21 PCBs had damaged the, what was it, Brown Pelican or
22 the Falcan?

23 A He suspected that that was the problem.

24 Q That was his conclusion, wasn't it?

25 A Well, he also had DDT there, also, so I forget the

1 exact words that Dr. Risebrough used in his
2 conclusions.

3 Q It would be fair to say that that would be one of
4 the studies that found that the PCBs were, could
5 potentially damage some forms of birds?

6 A That was a study, yes.

7 Q And Dr. Risebrough did not distinguish between a
8 five chlorinated or four chlorinated or seven
9 chlorinated, did he?

10 A I don't recall the specific reference to each of
11 those types of PCBs. I do know five and higher. I
12 have some difficulty remembering the reference to
13 four chlorinated.

14 Q Now, would you be kind enough to take a look at
15 Exhibit 210, which has been received in evidence?
16 Have you seen that particular study before?

17 A No, I haven't.

18 Q Was there a department in Monsanto that had the
19 responsibility for keeping abreast of the
20 information being developed on the company's
21 products that was appearing in the literature?

22 A Yes.

23 Q You can go ahead and read it. I just wanted to fill
24 in some time there. Let me perhaps move this along.
25 Would you be kind enough to turn to Page 299. If

1 you look at the preceding page, there is reference
2 to discussion. On Page 299, right above the word
3 summary, there is a passage relating to chlorinated
4 biphenyl?

5 A I see that reference, yes.

6 Q Would you read that to us please?

7 A The last sentence?

8 Q Yes.

9 A It states, it reads, "Chlorinated biphenyl causes
10 extensive kidney damage and ascites is probably a
11 secondary result."

12 Q Did you have enough chance to read at least the
13 preliminary aspects of the study, so that you
14 understood why that work was being done?

15 A No, I didn't get a chance to read enough of that.

16 Q Are you aware of the fact that there was reports of
17 some epoxy coatings causing damage to birds that was
18 being studied back in 1963?

19 A No, I was not.

20 Q This kind of information, however, would have been
21 available to the Monsanto people charged with
22 monitoring the literature referencing your product?

23 A This kind of information?

24 Q Yes.

25 A Normally, yes.

1 Q Now, you have -- let's switch on. Let's go to
2 Exhibit 14, if we could. I think you have that.

3 A I have it.

4 Q And Exhibit 14 is what document, sir? Can you just
5 identify it for us?

6 A The first page is a copy of a memorandum authored by
7 Elmer P. Wheeler, addressed to P.B. Hodges, to which
8 is attached a document entitled "Minutes of Aroclor
9 Ad-hoc Committee, First Meeting."

10 Q Mr. Running had asked you about some meetings that
11 were held regarding PCBs. Is this the same
12 committee?

13 A We talked about several committees on PCBs in
14 Monsanto. This is certainly one of them. This is
15 the smaller group.

16 MR. CARLSON: Your Honor, I would offer
17 Exhibit No. 14 into evidence.

18 MR. RUNNING: No objection.

19 THE COURT: So received.

20 MR. CARLSON:

21 Q Let's take a look. This was, first of all, the
22 minutes of the Aroclor Ad-Hoc Committee First
23 Meeting, correct?

24 A Correct.

25 Q And one of the objectives that was agreed to by the

1 committee was to submit recommendations for action
2 which will -- and what was the first objective?

3 A "Permit continued sales and profits of Aroclors and
4 terphenyls."

5 Q And when was this committee -- when did that first
6 meet? Is it the same date as the date of the
7 memorandum, September 5?

8 A The date of the minutes.

9 Q So that was the first objective and the second
10 objective was what, sir?

11 A You want me to read it?

12 Q Would you please?

13 A "Permit continued development of uses and sales."

14 Q Now, at the time of this particular September 5
15 meeting, your company had not done any
16 biodegradation studies of the Aroclors, had you?

17 A This is certainly late in 1969. I believe the
18 laboratory was getting underway. They may have had
19 some underway at the time.

20 Q No results?

21 A No results yet.

22 Q But without the results of the studies, the
23 committee, as an objective, wanted to find ways to
24 permit the continued sales and profits of the
25 Aroclors?

1 A Well, that's what they had recommended.

2 Q Then if we look at the background discussion of the
3 problem, we see some information referable to the
4 1254 and 1260 Aroclors, correct?

5 A There is a reference.

6 Q And then there is also reference to the Aroclor 1242
7 has not yet been incriminated for these possible
8 reasons, and then it goes down and lists three
9 possible reasons, correct?

10 A Yes.

11 Q "The nature of uses of the 1242 minimizes
12 environmental contamination." That was a possible
13 reason, correct?

14 A That's what it states.

15 Q In looking at the presence of the 1242 that was
16 found in water, do you remember all of the studies
17 that were done outside Anniston and Queeny and the
18 Fox River, and all of that? There was a lot of 1242
19 being found in the water, wasn't there?

20 A Well, I wouldn't characterize it as a lot. There
21 was some Aroclor 1242 identified in waterways near
22 industrial plants.

23 Q So that the fact that 1242 hadn't been yet
24 incriminated, wasn't because it wasn't present,
25 simply? It simply at that point had been degraded

1 to some extent so it wasn't recognized?

2 A If it isn't present, it can't be detected.

3 Q Sure. It can be detected. You may think it's

4 something else. You may think it's 1254 or 1248.

5 A I understand if originally it was a 1242, and the

6 conditions were such that it degraded, and a long

7 time later, a sample is taken, it will be observed

8 by the chemist as being similar to some higher

9 chlorinated type of PCB.

10 Q Go ahead.

11 A That is the premise on which much of this work took

12 place, yes.

13 Q And that is in fact what your company had learned,

14 in fact had occurred?

15 A In the laboratory they demonstrated that. It has

16 never been demonstrated out in the open environment.

17 Q Although it has been demonstrated, hasn't it, that

18 in water where 1242 has been found, you look at the

19 fish liver and it looked like 1254, do you remember

20 that study?

21 A Yes, that is through the fish and whatever it ate,

22 yes.

23 Q So if you looked at the fish and it has -- it looks

24 like 1254, and it came out of water that had 1242,

25 it would be a fairly natural conclusion that

1 something happened to the 1242 to make it look like
2 a 1254?

3 A Under those conditions that you described, yes.

4 Q And in fact, your company could have done
5 biodegradation studies to understand this more
6 thoroughly as early as 1962, couldn't you?

7 A I don't believe the methodology for conducting
8 laboratory biodegradeable studies was available in
9 1962.

10 Q In your deposition, you do recall that you testified
11 that in the early '60s, the protocol for doing the
12 biodegradation studies that could have been
13 applicable to the Aroclors was available in the
14 early '60s, correct?

15 A I said that, but I was thinking '65ish or so.

16 Q Well, you said early '60s, and you actually said
17 '62, didn't you?

18 A Yes. It's about that time.

19 A It was about that time the technology was being
20 developed or in use. It wasn't really available for
21 broad use in industrial chemicals.

22 Q But it was being used in the detergent industry?

23 A That is true.

24 Q And the protocol applicable there was also
25 applicable to here, if you wanted to use it?

1 A With modifications, yes.

2 Q If your company wanted to have done the studies, you
3 could have done the studies in the '60s?

4 A Well, that is -- they could have with knowledge that
5 such a procedure existed and with the changes that
6 had to be made to make it suitable, yes, they could
7 have adjusted the whole procedure.

8 Q This whole concept of what happened to 1242 could
9 have been understood by 1966, for example?

10 A That is hindsight, yes.

11 Q Chemical manufacturers, you do believe have an
12 obligation to know the properties of its products
13 before they put them on the market, don't you?

14 A They know some of the properties, not each and every
15 property.

16 Q Well, the concept of biodegrading was a fairly
17 important concept because of the situation that
18 existed with regard to detergents that got into the
19 waterway?

20 A It developed as an important consideration, yes.

21 Q But your company didn't do any degradation work with
22 regard to your products that you knew were in the
23 waterways as early as 1966 from Jensen, until, as I
24 understand it, your studies were underway in
25 September of 1969?

1 A That is correct.

2 Q Now, the biggest use of the 1242 Aroclor was in
3 capacitors?

4 A Yes.

5 Q And was your company thinking that fluid in the
6 capacitors was getting into the water?

7 A We had no -- we had no information that these fluids
8 were ending up in the public waterways.

9 Q Well, you knew that they were getting into fish,
10 somehow?

11 A At what point in time again?

12 Q Well, we go all the way to Jensen again. He found
13 200 pike that he found PCBs in?

14 A I don't know that that was Aroclor 1242 or something
15 similar.

16 Q I understand that. You knew that PCBs were in the
17 water?

18 A The higher chlorinated ones, yes, we were convinced
19 eventually, that they were.

20 Q And you knew that in die cast facilities, there was
21 the opportunity for water and hydraulic fluids to
22 mix?

23 A The possibility is there, and if not controlled, it
24 would have happened, yes.

25 Q And if the water and hydraulic fluid is going to

1 mix, there was the possibility that some would get
2 into the waterways?

3 A If they're not controlled, no pit, sumps, or
4 trenches are provided, certainly.

5 Q Even under the clarifier systems that were used,
6 PCBs could get into the waterways?

7 A Well, I'd have to know more details about the
8 specific clarifier system and the opportunity to get
9 into the waterways.

10 Q In any event, knowing that water and the hydraulic
11 fluids had the potential for mixing, your company
12 could have looked at whether or not the hydraulic
13 fluid was going to biodegrade in or by 1966? That
14 is true, was it not?

15 A Just the fact that they might mix doesn't
16 necessarily lead one to consider testing for
17 biodegradeability. It has to get out there where it
18 could biodegrade. That means it's out of control.

19 Q And we've gone through the memos before. Your
20 company knew that some of this stuff was getting
21 into the sewers, being washed down the drains. Your
22 own memorandum show that, doesn't it, that they
23 thought it was harmless?

24 A Those small amounts. It's a matter of quantity.

25 Q Sure, and now you know that the stuff is in the

1 water, into the environment, and you didn't do any
2 studies until 1969, right?

3 A Well, you make it sound like we knew there were
4 rivers of fluid flowing into the environment. I
5 can't accept that, and intellectually, that didn't
6 happen.

7 Q It happened in your own plant, because you had \$700
8 pounds a day going into the river.

9 A Yes, that is about a drum.

10 Q Sure. No, that is about two drums. It's about --

11 A About 600 some pounds to the drum.

12 Q And we had previously looked at Exhibit 32. I don't
13 want to belabor it with you. In your own
14 Engineering Department -- strike that. In your own
15 Industrial Hygienist's Medical Department, you were
16 corresponding with customers who were telling you
17 they were putting the PCBs into the water?

18 MR. MCDEVITT: What exhibit is that?

19 MR. CARLSON: 32.

20 (Whereupon, the above-pending question was
21 read back by the court reporter.)

22 THE WITNESS: I have read the document.

23 MR. CARLSON:

24 Q And in responding to an inquiry from Chicago to
25 Maddock Tool Company, it was referenced that if

1 small quantities of materials are accidentally
2 spilled into the receiving stream, there would
3 probably be no harmful effect. It's on the bottom
4 of the page?

5 A I see it. Yes, that's what it states.

6 Q And then if on the other hand, a great deal of
7 material is spilled, some readily identifiable
8 damage might enuse, correct?

9 A Yes.

10 Q Right above that, it indicates that toxicity on
11 those exposed in the water really isn't known, since
12 they have no tests on aquatic animals, correct?

13 A You have paraphrased it.

14 Q Fairly, haven't I?

15 A Yes, that's what it tries to convey.

16 Q And this goes back to 1960?

17 A It does.

18 THE COURT: New area?

19 MR. CARLSON: Yes.

20 THE COURT: This is it. I've got a long
21 calendar Monday, including watching a videotape all
22 through lunch hour. Let's shoot for two o'clock and
23 hope that we are ready for you by then. Have a good
24 weekend.

25 (Whereupon, the proceedings were adjourned.)