

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF KENTUCKY

COMMERCIAL UNION INSURANCE COMPANY,)

Plaintiff,)

vs.)

ROCKWELL INTERNATIONAL CORPORATION,)

Defendant and Third-Party)

Plaintiff,)

vs.)

THE HOME INDEMNITY COMPANY, et al.,)

Third-Party Defendants.)

Civil Action

No. C-88-0873-L-J

DEPOSITION OF WILLIAM B. PAPAGEORGE
Taken on behalf of the Plaintiff

May 5, 1993

WALLER REPORTING, INC.
515 OLIVE STREET, SUITE 1506
ST. LOUIS, MO 63101
(314) 621-2571

COPY

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QUESTIONS FOR CERTIFICATION

Page 110, Line 14: "QUESTION: Could you generally tell me with respect to Aroclor 1268 the types of operations such an Aroclor would have been used in or used for?"

Page 111, Line 9: "QUESTION: Would Monsanto have any records of the names of customers to whom Aroclor 1268 was sold?"

Page 112, Line 15: "QUESTION: Can you tell me if Aroclor 1268 disintegrates or degrades when exposed to liquid hydrocarbons?"

Page 112, Line 24: "QUESTION: "If Aroclor 1268 remains in a closed system would it present any risk of injury to people?"

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Defendant and Third-Party) No. C-88-0873-L-J
Plaintiff,)
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vs.)
)
THE HOME INDEMNITY COMPANY, et al.,)
)
Third-Party Defendants.)

DEPOSITION OF WILLIAM B. PAPAGEORGE, produced,
sworn, and examined on behalf of the Plaintiff on
May 5, 1993, between the hours of nine o'clock in the
forenoon and five o'clock in the afternoon of that day,
at the law office of Husch & Eppenberger, 100 North
Broadway, Suite 1300, St. Louis, Missouri 63102, before
ALICIA A. CARTER, a Registered Professional Reporter and
Notary Public within and for the State of Missouri.

A P P E A R A N C E S

The Plaintiff was represented by
Mr. Charles S. Cassis of the law firm of Brown, Todd &
Heyburn, Sixteenth Floor, Citizens Plaza, Louisville,
Kentucky 40202.

The Defendant and Third-Party Plaintiff was
represented by Mr. J. Anthony Goebel of the law firm of
Wyatt, Tarrant & Combs, Citizens Plaza, Louisville,
Kentucky 40202, and by Mr. William D. Weinreb of the
law firm of Shea & Gardner, 1800 Massachusetts Avenue,
N.W., Washington, D.C. 20036.

WALLER REPORTING, INC.

WATER_PCB-SD0000070314

1 The Third-Party Defendant was represented by
2 Mr. Gene F. Price of the law firm of Alagia, Day,
3 Trautwein & Smith, 2000 Waterfront Plaza, 325 West Main
4 Street, Louisville, Kentucky 40202.

5 The Witness and Monsanto were represented by
6 Mr. Gerard H. Davidson, Jr. of the law firm of Smith,
7 Helms, Mulliss & Moore, 300 North Greene Street,
8 Suite 1400, Greensboro, North Carolina 27420.
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1 IT IS HEREBY STIPULATED AND AGREED by and
2 between counsel for the Plaintiff and counsel for the
3 Defendants, that this deposition may be taken in
4 shorthand by ALICIA A. CARTER, a Registered Professional
5 Reporter and Notary Public, and afterwards transcribed
6 into typewriting, and to be read and signed by the
7 witness.

8 o-0-o

9 WILLIAM B. PAPAGEORGE,
10 of lawful age, being produced, sworn, and examined on
11 the part of the Plaintiff, deposes and says:

12 DIRECT EXAMINATION

13 QUESTIONS BY MR. CASSIS:

14 Q. If I -- Is it Dr. Papageorge?

15 A. No. I'm a dropout. I didn't quite make
16 it.

17 Q. Okay. We'll call you Mr. Papageorge. Will
18 you please state your full name for the record?

19 A. William B. Papageorge.

20 Q. And are you here pursuant to a notice to
21 take your deposition, Mr. Papageorge?

22 A. I am.

23 Q. In order to try to save time, let me cut
24 through a lot of questions and ask you if you would give
25 me your home address, home phone number, your work

1 address and that type of thing, just so I don't have to
2 keep asking those questions.

3 A. Sure. I work out of my home which is
4 321 Pebble Valley Drive, St. Louis, Missouri, 63141,
5 telephone area code 314/878-3513.

6 Q. And you are presently employed with
7 Monsanto Company?

8 A. No, I'm retired.

9 Q. Oh, you're retired. And when did you
10 retire?

11 A. My last working day was December 31, 1986.

12 Q. Do you do any consulting work for Monsanto?

13 A. I do. Well, indirectly, I should say.

14 Q. Okay. Do you do consulting work for anyone
15 else?

16 A. For a law firm.

17 Q. Okay. Mr. Papageorge, tell us, if you
18 would, your educational background.

19 A. I earned a Bachelor of Science degree in
20 chemical engineering from Washington University in
21 St. Louis, Missouri in 1943, a Master of Science in
22 chemical engineering from the same university in 1947.
23 I also have credited 12 hours toward a Doctor of Science
24 degree from Oklahoma State University.

25 Q. Okay. Any other formal schooling?

1 A. I don't know how to define formal. I did
2 attend courses at Washington U. that were, I'm going to
3 call them, continuing education type in chemical
4 engineering that led to my applying for Professional
5 Engineer registration in the state of Missouri. I also
6 attended courses at Washington U. that were business
7 oriented types, did not lead to any degree. Then I
8 attended some formal type courses at the American
9 Management Association in New York City, again, business
10 oriented courses.

11 Q. Is it fair to say that during your work
12 over the past many years that you've also attended
13 seminars and given various seminars on various
14 engineering matters?

15 A. Yes.

16 Q. Okay. I'm not trying to pin you down to
17 any particular because I know there are numerous,
18 numerous, numerous ones.

19 A. I probably couldn't recall them all anyway.

20 Q. Okay. Would you tell me your -- And,
21 again, I'm trying to save a lot of time without going
22 into too much detail. Tell me, you graduated from
23 college in 1947?

24 A. Yes.

25 Q. And you went to work for Monsanto in 1951?

1 A. Yes.

2 Q. What did you do between 1947 and 1951?

3 A. I worked for Phillips Petroleum Company in

4 Bartlesville, Oklahoma.

5 Q. As a chemical engineer?

6 A. Yes.

7 Q. Okay. Then you went to work for Monsanto

8 in 1951?

9 A. Yes.

10 Q. All right. And tell me, if you would,

11 Mr. Papageorge, if you could just give me in a

12 chronological order your positions with Monsanto from

13 1951.

14 A. I'll try.

15 Q. Okay.

16 A. The dates I might be off a little.

17 Q. Sure.

18 A. But the sequence I think I can recall. I

19 started out as a process engineer in the engineering

20 department at the plant located in St. Louis, Monsanto's

21 plant.

22 Q. That's the Queen City plant or Queeny

23 plant?

24 A. John F. Queeny plant. I was then -- This

25 was 1951. About 1953 or '54 I was made an assistant

1 supervisor in a chemical producing plant. In 1954 or so
2 I was a supervisor of another unit that produced
3 chemicals. In about 1956 I was appointed a maintenance
4 supervisor in charge of a group of mechanics, journeyman
5 involved with the installation of small new projects in
6 the plant. 1957 or so I was made superintendent of the
7 maintenance department, which was the department
8 responsible for not only new construction, but repairs
9 and maintenance of the existing equipment. In 19 --
10 about 1959 or '60 I was appointed a superintendent in
11 the plant engineering department which was called the
12 technical services department. I supervised the
13 activities of engineers and technicians that ranged from
14 half a dozen to a couple dozen, depending on the work
15 load, responsible for the technical support of the
16 producing departments. In 1962 or so I was made the
17 general superintendent of warehousing, distribution,
18 utilities. All of these assignments were still at the
19 John F. Queeny plant.

20 Q. That's in St. Louis?

21 A. In St. Louis. In 1965 I was transferred to
22 the W. G. Krummrich plant, K-r-u-m-m-r-i-c-h, in Sauget,
23 Illinois, S-a-u-g-e-t --

24 MR. CASSIS: Off the record.

25 (Whereupon, a discussion was held off the record.)

1 A. -- as a general superintendent of
2 manufacturing assigned a responsibility for a portion of
3 the products that were produced at that plant. In 1965
4 I was transferred to the Monsanto plant in Anniston,
5 A-n-n-i-s-t-o-n, Alabama, as the plant manager. In 1970
6 I was appointed manager-environmental control involved
7 with the evolving PCB environmental issue.

8 Q. That was in 1970?

9 A. Yes, January 1970.

10 Q. And how long did you stay in that position?

11 A. I had the responsibilities for the
12 environmental issue relating to PCBs until February
13 1976. My job evolved where instead of being devoted --
14 my time being devoted exclusively to PCBs, I began
15 getting involved with other products manufactured and
16 distributed by Monsanto.

17 Q. And that's with respect to environmental
18 issues?

19 A. Environmental and safety issues of products
20 and so on, yes.

21 Q. And were you in that position until you
22 retired?

23 A. No. I had a slightly different position.

24 Q. Go ahead.

25 A. All right. The job of

1 manager-environmental control was re-titled to
2 manager-environmental protection. Someone felt that I
3 could protect it better than I could control the
4 environment, I guess, but the environment was the same.
5 As I picked up additional products relating to safety
6 and the environment, the job title was changed to
7 manager of product acceptability, and I held that title
8 until 1977. In 1977 I was appointed a director of
9 environmental operations for one of Monsanto's operating
10 units. There were several at the time. My initial
11 assignment was to the unit referred to as the Monsanto
12 Intermediates Chemical Company. In 1983 I was -- with
13 the company reorganization I was a director of
14 environmental operations for Monsanto Industrial
15 Chemicals Company. In 1985 following another
16 reorganization I was appointed manager-occupational
17 health, which is the title I had upon retirement.

18 Q. Okay. During the period of 1965 to 1970
19 when you were at Anniston, Alabama, as plant manager?

20 A. Yes, sir.

21 Q. What did that plant do?

22 A. Oh, it manufactured -- I'm trying to recall
23 just how many. I'm going to have to estimate a bit
24 here.

25 Q. Sure.

1 A. A couple dozen products, which Monsanto
2 distributed, sold.

3 Q. Were any of those products -- did any of
4 those products contain PCBs?

5 A. Yes.

6 Q. Okay. How about the Sauget, Illinois,
7 plant? Did any of those products involve PCBs?

8 A. Not the product group assigned to me, no.

9 Q. But there were some products out of there,
10 but not assigned to you?

11 A. Correct.

12 Q. Okay. Tell me a little more, if you would,
13 Mr. Papageorge, about your job, beginning in January
14 1970 to 1976 as environmental -- manager-environmental
15 control, helping Monsanto with the evolving issue of
16 PCBs. Tell us what you did.

17 A. I served primarily as the communications
18 focal point at which any information relating to PCBs in
19 the environment would flow, and I would share that kind
20 of information, of course, within Monsanto, the various
21 parts of Monsanto that would be interested and were
22 involved and responsible. I would also communicate with
23 customers, not every customer, but on occasion. I would
24 communicate with regulatory agencies, both at the local,
25 state and federal level. I would be communicating with

1 the universities and private laboratories relating to
2 PCB matters.

3 Q. Now, would that -- would those particular
4 involvements with customers and universities and the
5 various people about which you've told us, would that
6 include a gathering of information as well as the
7 dissemination of information?

8 A. Yes, definitely.

9 Q. Now, you said that you had contact with
10 some of the customers, but not all of the customers with
11 respect to PCB problems; is that correct?

12 A. That is correct.

13 Q. Were you also in -- I take it you were also
14 in contact with your sales people, that is, the Monsanto
15 sales people who dealt with customers regarding PCBs and
16 those problems, if any, that arose out of the
17 manufacture of PCBs?

18 A. Yes, definitely.

19 Q. And tell us a little more how that -- if
20 you would, articulate a little more how that worked.

21 A. There is, of course, the person-to-person
22 contact.

23 Q. Sure.

24 A. The marketing people would always arrange
25 to drop by the St. Louis office, and since the

1 environmental issue related to PCBs was the topic of the
2 day, so to speak, they would drop by, and we would have
3 that one-on-one kind of discussion.

4 Q. Let me interrupt just a minute. When did
5 it sort of become topic of the day, if you will? I take
6 it before January 1, 1970?

7 A. Yes. I don't know that there is any one
8 day that it -- It sort of started in late 1966 with the
9 information that came out of a laboratory in Sweden
10 relating to the presence of PCBs in some samples. The
11 initial interest was in the analytical technology. What
12 technology is appropriate? How good are the answers?
13 How reliable are they? And then it evolved from the
14 analytical chemist out to the marketing man eventually
15 so that by 1970 the marketing people were informed that
16 "These materials were being found, and they are in our
17 products. Here's what you tell the customer."

18 In addition to the face-to-face, of course,
19 there were opportunities throughout the periods of time
20 when I would be invited to attend marketing meetings.
21 The salesmen would be called in to a seminar kind of
22 session, and I would be on their program to bring them
23 up to speed. I would, of course, be in indirect
24 communications to them through their managers, their
25 supervisors. On occasion I would get a telephone call

1 with a specific inquiry that I would, of course, try to
2 answer over the telephone and sometimes would follow up
3 with a written memorandum to this marketing person or a
4 letter to the customer at the request of the Monsanto
5 marketing person.

6 Q. Did you coordinate the activities of the --
7 well, of the marketing people as well as the managers
8 with respect to the dissemination of information about
9 PCBs to the customers?

10 A. I don't quite know how to define
11 coordinating. I was very involved in the information
12 that was made available to the managers and the
13 marketing people. How it was disseminated was left up
14 to the managers primarily. If he wanted to hold a group
15 meeting or if he wanted to make a circuit and personally
16 sit down with his marketing team or whether he wanted to
17 do it by memorandum, that was up to him, depending on
18 his particular situation regarding the geography that he
19 was responsible for throughout the country, throughout
20 the world, really, and the type of product line he was
21 responsible for and so on. So I guess the coordination
22 that I was involved with had to do with the type of
23 information that was made available to them.

24 Q. Okay. In other words, they wouldn't tell
25 the customer something about PCBs unless it was sort of

1 coordinated through your office either directly or
2 indirectly?

3 A. Yes, as it relates to the environment.

4 Q. That's correct. Most of us, I think, are
5 familiar with PCBs and polychlorinated biphenyls as an
6 ingredient in some of the chemicals that Monsanto
7 manufactured. And with that in mind, Mr. Papageorge,
8 how many products approximately did Monsanto manufacture
9 that contained PCBs?

10 A. Oh, I've never counted them.

11 Q. Is it fair to say many?

12 A. Yes, I suppose so. It depends how the
13 categories are broken down. If you go just by types,
14 like hydraulic fluids.

15 Q. I'm going to get to that in a minute.

16 A. It would be one.

17 Q. Go ahead. We'll take hydraulic fluids.

18 A. Hydraulic fluids. Geez, as best I recall
19 there might have been ten of them. That's an estimate
20 on my part.

21 MR. GOEBEL: Excuse me. Ten types?

22 A. Ten different hydraulic fluids, different
23 recipes or formulas. And that would -- that kind of
24 situation existed for the other uses. Other types of
25 products that Monsanto had in heat transfer, there might

1 be half a dozen of those. Dielectric fluids in
2 transformers and capacitors, there might have been
3 through the years another dozen or so.

4 Q. (By Mr. Cassis) So there are a lot of
5 different kinds of products that Monsanto manufactured
6 that contained PCBs?

7 A. Yes.

8 Q. Some were used in transformers, some were
9 used in hydraulic fluids, and some were used in other
10 manners as you've described?

11 A. Yes.

12 Q. What are Aroclors?

13 A. Aroclor was Monsanto's trademark to
14 describe the PCB mixture that resulted from its
15 manufacturing process after it was created and distilled
16 and ready to be packaged and sold.

17 Q. So it's a type of PCB?

18 A. Well, it's a mixture of PCBs. It was never
19 a situation where a pure PCB was marketed.

20 Q. Okay. Now, you told us already that
21 Monsanto manufactured, sold and -- and sold hydraulic
22 fluid that contained PCBs; is that correct?

23 A. That is correct.

24 Q. And is Pydraul one of those hydraulic
25 fluids?

1 A. Pydraul was the Monsanto trademark used to
2 describe that product line, yes, sir.

3 Q. And Monsanto manufactured and sold Pydraul?

4 A. Yes.

5 Q. Okay. Now, you told us earlier that when
6 you were at the Anniston, Alabama, plant, that you were
7 involved in the manufacture and sale of chemicals
8 containing PCBs. Do you recall that?

9 A. Yes.

10 Q. Were you involved -- Did any of your other
11 positions involve the manufacture or sale of PCBs prior
12 to the Anniston, Alabama, job, the positions in which
13 you --

14 A. Is your question limited just to PCBs
15 themselves or products containing?

16 Q. Products containing PCBs. I apologize.

17 A. Products containing. When I was the
18 general superintendent of distribution, warehousing and
19 utilities at the John F. Queeny plant in St. Louis in
20 the '63, '64 period, one of the units under my
21 supervision was an operation at which products were
22 blended from many ingredients. On occasion that unit
23 would be producing the Pydraul products. After they
24 were blended, they would be packaged and ready for
25 shipment by that unit. So that was the involvement I

1 had prior to '65.

2 Q. Was that your first experience with PCBs?

3 A. Oh, I had experience as part of the
4 maintenance team that maintained transformers and
5 capacitors and electric switches.

6 Q. Okay. When was that?

7 A. When I was a maintenance supervisor. I
8 installed -- or I shouldn't say I installed. I was
9 supervising the installation of some of this kind of
10 equipment.

11 Q. So that was beginning in 1956?

12 A. '56 or so, yes. As well as installing,
13 say, a pump in a heat transfer system which contained
14 PCBs in it. And then later when I was the
15 superintendent of the warehousing, distribution and
16 utilities, the utilities department supervised the
17 operation that included transformers for electrical
18 distribution.

19 Q. Tell us, if you would, Mr. Papageorge, some
20 of the uses that the chemicals or substances that
21 contain PCBs were used for?

22 MR. GOEBEL: I'm sorry. I didn't get that.
23 Could you repeat that?

24 Q. (By Mr. Cassis) Some of the uses that PCBs
25 were used for. What were they used in or for, if you

1 get down to just sort of a basic question?

2 A. As we indicated, they were an ingredient in
3 mixtures that were sold as industrial hydraulic fluids,
4 and I use the word "industrial" because we don't want to
5 confuse that with automotive and hydraulic fluids and so
6 on. They were used in systems in which heat was
7 transferred from the source, the oil or gas flame to the
8 use point. They were used as a heat transfer component
9 inside transformers and capacitors where the heat
10 generated by the electrical energy in these units would
11 be dissipated through this oil which contained PCBs.
12 They were also used in paints and varnishes, in caulking
13 materials around windows such as those in this building.
14 They were used in vacuum pumps. That's the liquid
15 that's in the pump that helps create the vacuum in the
16 system. They were used as a solvent in the carbonless
17 copy paper application where the ink is encapsulated in
18 microcapsules. PCBs was the solvent. I'm sure there
19 are other uses, but they don't come to mind at the
20 moment.

21 Q. Okay. I think that's fine. In your
22 position as plant manager in Alabama, did you have any
23 involvement in the disposal of or cleaning of PCB
24 containing chemicals?

25 A. Yes, sir.

1 Q. And what was that?

2 A. Well, there is -- when we manufactured the
3 PCBs, there were always opportunities for collecting PCB
4 materials such as the clay that we'd use to refine the
5 PCBs, a bed of clay, and PCBs would flow through it and
6 pick up impurities. That clay had to be disposed of.
7 There were opportunities on occasion when you had a
8 spill where we might use either this clay or sawdust to
9 soak up the spillage. That would be disposed of. We
10 had at the plant a pond which received the waste water
11 from the PCB producing unit, and this pond would
12 accumulate PCBs, and occasionally we'd have to take a
13 backhoe and dig out the bottom of the pond and get rid
14 of that sludge which contained PCBs. Now, at the plant
15 all of this was put on a landfill that was on plant
16 property.

17 Q. Okay. Did you have any other experience
18 with disposal of PCBs? That's not a very good question.
19 Let me see if I can articulate a little bit. In your
20 position from 1970 to 1976 what experience did you have
21 with disposal of PCBs either with customers or with
22 Monsanto itself?

23 A. Oh, well, my experience there was one of
24 responding to inquiries regarding the acceptable methods
25 for disposing of PCB contaminated materials. Depending

1 on the time and the technology that was known to be
2 effective, I would try to respond. The message was one
3 of, by all means, do not get it in water because it's
4 difficult to control once you get it in water.

5 Q. Now, you say the message was. The message
6 to whom?

7 A. To the inquirer, the person inquiring.

8 Q. That would be customers?

9 A. It would be either a customer or a Monsanto
10 plant or a Monsanto marketing man or a university
11 professor, an EPA representative.

12 Q. Okay. I'll get into something a little
13 more specific later on. Were you ever involved at all
14 with containing spills or the cleanup of PCBs?

15 MR. GOEBEL: During what time period?

16 Q. (By Mr. Cassis) During 1970 to -- Well, at
17 any time. Strike that. At any time.

18 A. A spill and a cleanup. I don't recall any
19 involvement with an incident of that type.

20 Q. Okay. Now, I asked you generally, and you
21 told us what your responsibilities as
22 manager-environmental control was during the '70s, and
23 you told us generally about how you went about carrying
24 out your responsibilities as manager of that unit. Now,
25 can you tell me in discharging your duties did you

1 familiarize yourself with studies about the impact of
2 PCBs on the environment and on any alleged health
3 problems?

4 A. Oh, yes. That was one of my
5 responsibilities.

6 Q. Tell us generally without going into a lot
7 of details of all the studies and things of that nature
8 what you did to familiarize yourself.

9 A. Initially it was a matter of, I'm going to
10 call it, playing catch-up in early 1970. So I consulted
11 with the individuals that were -- that had been
12 involved, such as the analytical chemists with
13 analytical technology. I also contacted within Monsanto
14 the representatives in Monsanto's corporate medical
15 department because they were very interested in the
16 effects of PCBs on living creatures. I made
17 arrangements with Monsanto's librarians, they are the
18 custodians of the journals and so on that Monsanto
19 subscribed to, when they scan the contents of the
20 journals, to tip me off when an article appeared about
21 PCBs, and they'd send me a copy. I attended as many
22 seminars and meetings as I could as time would allow
23 that covered the subject of PCBs. I made it a point to
24 contact representatives of academia and the regulatory
25 agencies to just sit down and talk. "What do you hear?"

1 "What do you know?" "What journals have you looked at?"
2 "What articles have appeared?" And also the customers,
3 some customers had the resources where they would be
4 tuned in quite well, and I would share with them what I
5 had heard and ask them what they had heard.

6 Q. During the period of time in the '70s you
7 said that customers would tell you what they have heard
8 and what's going on in the field; is that correct?

9 A. Yes.

10 Q. Okay. Were there also any federal
11 regulations promulgated with respect to PCBs during the
12 '70s?

13 MR. GOEBEL: Excuse me. I'm going to
14 object to the form of the question. He said "some
15 customers," not "customers."

16 MR. CASSIS: Fine.

17 MR. GOEBEL: All right.

18 Q. (By Mr. Cassis) I'll accept "some."

19 A. Regulations in the '70s. Yes, there were,
20 of course, several proposals in the early '70s. Some of
21 these proposals with modification were eventually
22 approved as final regulations.

23 Q. Were you familiar with the federal
24 government promulgating regulations relating to the use
25 of PCBs in hydraulic fluids beginning in 1976?

- 1 A. Yes, I am.
- 2 Q. And what did those regulations provide for?
- 3 A. I don't recall the specifics any longer,
4 but they did in '76, as I remember.
- 5 Q. Beginning in '76?
- 6 A. Beginning in '76. I'm not certain of the
7 time anymore, but I do recall an FDA concern of PCBs in
8 hydraulic fluids in the food-pharmaceutical industry.
- 9 Q. Were you familiar with the Toxic Substance
10 Control Act?
- 11 A. Yes, sir. That was finally passed in '76.
- 12 Q. And what did that deal with, in general?
- 13 A. Well, in general it dealt with so-called
14 toxic materials and specifically mentioned PCBs.
- 15 Q. Were there articles written in the press
16 during this period of time about PCBs?
- 17 A. Yes, many.
- 18 Q. And were there articles written in the
19 scientific journals relating to concerns about PCBs --
- 20 A. Yes.
- 21 Q. -- during this period of time?
- 22 A. What period again? Early '70s?
- 23 Q. Early '70s.
- 24 A. Yes.
- 25 Q. And, again, during the period of time when

1 the federal government's promulgating regulations
2 beginning in 1976?

3 A. Certainly.

4 Q. When you discussed with some of the
5 customers of Monsanto the topic of PCBs, was this also
6 during the time that the scientific articles and
7 press -- and articles in the press appeared, during that
8 period of time?

9 MR. GOEBEL: I'm going to object to the
10 relevancy, unless you can establish it was with a
11 customer that I represent, Rockwell.

12 MR. CASSIS: Fine. Objection noted.

13 Q. (By Mr. Cassis) Go ahead and answer.

14 A. Yes.

15 Q. Okay. Did you ever communicate directly
16 with anybody at Rockwell that you can remember?

17 A. No.

18 Q. Now, you told us earlier you communicated
19 with your marketing department regarding developments
20 with respect to PCBs; is that correct?

21 A. Yes.

22 Q. Is the marketing department and sales
23 department sort of the same?

24 A. Yes. Uh-huh.

25 Q. So when we talk about marketing and sales,

1 we can say that they are kind of together, same?

2 A. I think for our purposes they have the same
3 meaning, yes.

4 Q. And you also communicated with your
5 manufacturing departments within Monsanto; is that
6 correct?

7 A. Certainly.

8 Q. Okay. Did you communicate with your
9 research and development department?

10 A. Yes.

11 Q. How about the legal department?

12 A. Yes.

13 Q. How about labeling department?

14 A. Yes.

15 Q. How about public relations?

16 A. Yes.

17 Q. How about shipping and distribution?

18 A. Oh, yes.

19 Q. How about the medical department?

20 A. Yes.

21 Q. Any other department?

22 A. Engineering department.

23 Q. Engineering department. I left that out.

24 Now, what was the lake -- I'm sorry -- the labeling
25 group in Monsanto?

1 A. This was a group that was charged with the
2 responsibility for being the custodian of all
3 information relating to labels of Monsanto's products.
4 They were also the group that was charged with making
5 certain that the design of the labels met Monsanto's
6 standards and industry standards, and they were also the
7 group that would be the focal point for placing orders
8 with printing shops for the production of labels.

9 Q. And you would communicate and review with
10 the labeling department the types of labels that were
11 put on products?

12 A. At what point in time?

13 Q. During the period of time certainly
14 beginning in January 1, 1970.

15 A. Oh, in 1970 I started communicating with
16 them as it related to PCB products and their labels.

17 Q. Okay. And why was that?

18 MR. GOEBEL: Excuse me. Can I get a
19 clarification?

20 MR. CASSIS: Sure.

21 MR. GOEBEL: Your question was --

22 MR. CASSIS: Go ahead and get a
23 clarification.

24 MR. GOEBEL: Your question was did you
25 communicate and review the labels. And I think he just

1 said he communicated with the labeling department. And
2 I want to make sure that he didn't actually review the
3 labels during the time period we're talking about.

4 Q. (By Mr. Cassis) Let me ask you this
5 question, you already told us earlier that you had
6 communicated with the labeling department, right?

7 A. Yes.

8 Q. Were you involved in any way with the
9 approval of any of the labels during -- beginning
10 January 1, 1970, to 1976?

11 A. I was one of several that reviewed and
12 approved labels as it related to PCB products.

13 MR. CASSIS: Thank you. Is that clarified?

14 MR. GOEBEL: Yes.

15 Q. (By Mr. Cassis) All right. Now, what was
16 the -- You said you coordinated with the medical
17 department concerning PCBs. What -- Beginning January
18 1, 1970, why did you do that?

19 A. Well, I was certainly interested in the
20 reports the medical department was getting from the
21 contract testing laboratory which was conducting studies
22 to determine the effects on test animals of different
23 quantities of PCB in their diets. I was also
24 communicating with the medical department regarding any
25 reports they might have received regarding studies

1 conducted by others.

2 Q. And were you also interested,
3 Mr. Papageorge, in the information that the medical
4 department might be disseminating to customers?

5 A. Oh, certainly.

6 Q. And did you consult with the medical group
7 with respect to disseminating information to Monsanto's
8 customers regarding PCBs?

9 A. Yes.

10 Q. And did they begin doing this in 1970?

11 A. Oh, the medical department has always done
12 this, from back in the '30s. So it's just a matter of
13 what new information was available and what new
14 inquiries they were receiving and what new customers
15 were brought onboard. So the message would change with
16 the knowledge available.

17 Q. Okay. But certainly beginning in January
18 of 1970 you were directly involved in that process as
19 manager of environmental control involving PCB issues?

20 MR. DAVIDSON: Directly involving what
21 process?

22 Q. (By Mr. Cassis) In the meeting with the
23 medical department with respect to information that was
24 disseminated to their customers.

25 A. I was involved as a recipient of

1 information from professionals in that field. In no way
2 did I play the role of a medical doctor or toxicologist.

3 Q. I didn't mean that. Let me see if I can
4 articulate a little bit better. Beginning in January of
5 1970 when you took over this job of coordinating -- or
6 manager of the environmental problems dealing with PCBs,
7 you then became directly involved with, in consultation
8 with the medical department who disseminated information
9 to the customers about PCBs?

10 A. Or I would get information from them and
11 disseminate it myself.

12 Q. Fine. Who was your, what I'll say,
13 supervisor or boss, if you will, while in your role as
14 environmental manager? Who did you report to?

15 A. It changed through the period of time.

16 Q. Okay.

17 A. I started out with Mr. Howard Bergen,
18 B-e-r-g-e-n.

19 Q. And who was he?

20 A. He was the director of the business group
21 in Monsanto that was responsible for the PCB products in
22 industrial fluids like hydraulic fluids, electrical
23 fluids, heat transfer fluids.

24 Q. Okay. And you would provide him
25 information; is that correct?

1 A. Certainly.

2 Q. And he would disseminate the information
3 that you would provide to him on occasion?

4 A. On occasion, yes, sir.

5 Q. Okay. Who else besides Mr. Bergen? You
6 said there were different people at different times.

7 A. Yes. Following Mr. Bergen, I don't recall
8 the exact timing here, but at one time I was reporting
9 to Mr. -- I call him Wink. I don't know what his formal
10 first name is, Wink Corey, C-o-r-e-y. And, finally, I
11 was reporting to a Robert Potter, P-o-t-t-e-r.

12 Q. Was Mr. Bergen most of the time, was he the
13 one in that job -- Strike that question. What was
14 Robert's last name, Robert --

15 A. Potter, P-o-t-t-e-r.

16 Q. Okay. Was he there when you first started
17 as manager, environmental manager?

18 A. Who?

19 Q. Mr. Bergen.

20 A. Yes, he was the one that selected me for
21 the job.

22 Q. Did you have -- How often did you have
23 discussions with Mr. Bergen? Daily?

24 A. Initially it was daily. My office was
25 right next to his. We shared the same secretary. But

1 as time went on and the subject had really crystallized
2 pretty well, I would suggest it became one of about once
3 a week, roughly.

4 Q. Okay. You told us earlier about the
5 Swedish study that you became aware of?

6 A. I did.

7 Q. Do you recall that?

8 A. Uh-huh.

9 Q. When did you first become aware of that
10 study?

11 A. When did I personally become aware of it?

12 Q. Yeah.

13 A. In late 1969.

14 Q. Was that the first study, Mr. Papageorge,
15 that confirmed that PCBs were being found in the
16 environment?

17 A. That's the first reported study, yes, sir.

18 Q. Okay. And then there were some subsequent
19 studies, of course?

20 A. Oh, yes.

21 Q. What did these studies -- What were the
22 concerns of those studies, if you recall?

23 A. We're talking now about the Swedish
24 studies?

25 Q. Swedish and then the other studies in the

1 late '60s.

2 A. Well, again, it's an evolving situation.
3 The initial concern was what is this material that the
4 analytical chemist is detecting in the samples? Is it
5 truly a PCB or is it something else?

6 Q. Uh-huh.

7 A. Then the concern became one of okay, we
8 have established that they are PCBs. Now, are we
9 certain of the quantity that we're reporting? Is the
10 amount present an accurate reflection? And along with
11 that, there was a question raised about now that we have
12 detected them in the environment, what harm, if any, is
13 being created? Subsequent studies were reported in
14 which PCBs were implicated, really, along with DDT as
15 affecting the reproduction of birds, more specifically
16 the pelicans off of Southern California. And then there
17 was a study at Cornell University that indicated the
18 peregrine falcon reproduction might be affected. There
19 were reports that an incident in the North Sea affecting
20 sea birds and seals might be related to PCBs.

21 As time went on, the conclusion, as I
22 recall, that was reached was that in the case of the
23 birds, it was DDT that was the culprit. And the North
24 Sea incident, which got a lot of publicity at the time,
25 was attributed to, as best I recall, to inability of the

1 creatures to find enough food, nourishment following
2 some severe sea storms.

3 Q. Were you familiar with the Yusho incident?

4 A. Yes, I am.

5 Q. And when was that reported?

6 A. That occurred in 1968.

7 Q. Tell us what the Yusho incident was.

8 MR. DAVIDSON: May I interrupt here?

9 MR. CASSIS: Okay.

10 MR. DAVIDSON: You asked when was it
11 reported. He told you when it occurred.

12 THE WITNESS: Yes.

13 MR. DAVIDSON: Do you want to clarify that?

14 Q. (By Mr. Cassis) When did you say it
15 occurred?

16 A. 1968.

17 Q. And when did you find out about it?

18 A. That's better because I don't know when it
19 was officially -- I first heard of it when I took
20 the manager-environmental control job in January of
21 1970.

22 Q. Okay.

23 A. And I followed that incident through the
24 1975 meeting that EPA conducted in Chicago, November.

25 Q. And that was an incident that involved

1 PCBs, did it not?

2 A. Yes.

3 MR. CASSIS: Okay. And off the record just
4 a minute.

5 (Whereupon, a discussion was held off the record.)

6 MR. CASSIS: Let's go back on the record.

7 Q. (By Mr. Cassis) Tell us, if you would,
8 what concerns you had in your capacity as environmental
9 manager about the Yusho incident.

10 A. Well, my concern related to the fact that
11 PCBs were involved. PCBs were found in this rice bran
12 oil intended for human consumption, as well as other
13 chemicals. My concern then zeroed in on did the
14 symptoms of people who consume this oil relate to PCBs
15 or were they due to the other chemicals present in the
16 oil.

17 Q. So there was a concern of alleged human
18 health problems from exposure to PCBs?

19 A. Yes.

20 Q. Now, when did -- Strike that. Did Monsanto
21 notify its customers of concerns with respect to the
22 presence of PCBs in the environment?

23 MR. GOEBEL: Could you clarify? What date
24 are you speaking of?

25 MR. CASSIS: Well, let me -- That's what I

1 was going to ask him and then do the date. Let him
2 answer the question, then we'll go with the date.

3 MR. GOEBEL: All right. I'm sorry. Could
4 you read back the question?

5 (Whereupon, the reporter read from the record as
6 follows: "QUESTION: Now, when did -- Strike that. Did
7 Monsanto notify its customers of concerns with respect
8 to the presence of PCBs in the environment?)

9 Q. (By Mr. Cassis) Let me add to it, and the
10 alleged health effects, if any, as a result of the
11 presence of PCBs in the environment?

12 A. Yes.

13 Q. All right. Now, when did Monsanto first
14 start notifying its customers?

15 A. The first letter addressing PCBs in the
16 environment was sent to customers, as best I recall, in
17 1969. I believe it was March of '69.

18 Q. All right. And did it subsequently notify
19 customers on a periodic basis?

20 A. Yes, as new developments would occur, there
21 were letters sent out.

22 Q. Okay. Did Monsanto also put out press
23 releases?

24 A. Yes.

25 Q. And do you recall when those -- Strike

1 that. Were those press releases put out -- Strike the
2 question. When I asked you if periodic letters and
3 periodic press releases were put out, you said yes.
4 Okay. And you said they began in March of 1969. Did
5 they -- Did those continue through the time at least
6 that you were manager of environmental affairs?

7 A. Yes.

8 Q. And did it continue after that to your
9 knowledge?

10 A. Yes.

11 Q. Okay. Now, you told us that they sent out
12 letters to customers and various personnel. Did
13 Monsanto personnel ever make any trips to Monsanto's
14 customers to specifically discuss PCBs with the
15 customers?

16 A. Oh, yes.

17 Q. You told us real early in your deposition
18 that you were involved in meetings with the marketing
19 people and the sales people about the information
20 disseminated; is that correct?

21 A. That is correct.

22 Q. Now, was the information about which you
23 were concerned with and about which you discussed with
24 these people, was that some of the information that
25 was -- that some of the sales people took out on their

1 personal trips to the customers?

2 A. Yes.

3 Q. Okay. Who would make these trips? I might
4 be being -- I may be redundant in my question because
5 you said sales people and marketing people.

6 A. Yes.

7 Q. Let me see if I can rephrase it, articulate
8 a little bit better. Did you ever make any of these
9 trips to any of the customers?

10 A. I did. I made a few, yes.

11 Q. And was this during from the period 1969
12 through at least 1976 or would that be beginning in
13 January 1970?

14 A. January 1970 would be the beginning of the
15 period during which I on occasion would go with other
16 Monsanto representatives to customers.

17 Q. You didn't make all the trips?

18 A. Oh, I couldn't, no. Uh-uh.

19 Q. When you participated in one of these
20 efforts or one of these visits to the customers with one
21 of the marketing people, what would you tell them or
22 what would you discuss?

23 A. It depended on the audience and my
24 perception of how familiar they were with these
25 chemicals. If appropriate, I would describe the

1 chemistry and briefly the manufacturing process. I
2 would also bring them up to date on what uses PCBs were
3 involved in. I would then bring them up to speed
4 regarding Monsanto's analytical program, analytical
5 development program, the involvement of regulatory
6 agencies. Of course, starting in 1970 I was able to
7 tell them that Monsanto had withdrawn from some of the
8 uses to which PCBs were put.

9 Q. Did you ever discuss with the Monsanto
10 customers the importance of keeping PCBs out of the
11 environment?

12 A. Oh, yes, definitely.

13 MR. GOEBEL: I'm going to object to any
14 further questioning about his visits to customers. He's
15 already said he didn't communicate with Rockwell, and
16 that's what we're here on today. And I want to have an
17 objection to any further contacts with customers, none
18 of whom have been identified to be Rockwell or
19 representatives of Rockwell.

20 Q. (By Mr. Cassis) Fine. Did you discuss
21 with Monsanto customers the importance of keeping PCBs
22 away from water?

23 A. Yes.

24 Q. And why did you do that?

25 A. Principally because the mixture of PCBs and

1 water posed some very difficult technical problems in
2 terms of removing the PCBs from the water.

3 Q. Okay.

4 A. In order to avoid that situation, I would
5 advise the customers to just don't mix the two;
6 otherwise, you end up with a problem that's difficult to
7 cope with.

8 Q. Did you ever go to Europe to try to learn
9 more about the PCB problem?

10 A. I did, yes.

11 Q. And what was the purpose of that trip?

12 A. Well, really two purposes. One is for me
13 to get information as to what the European producers and
14 regulatory ministries were doing and thinking, and the
15 other was for me to share with them our perception of
16 the situation.

17 Q. Did you ever discuss with Monsanto
18 customers the information you learned from your European
19 trip and the incident concerning Yusho?

20 A. Every chance I got, yes.

21 Q. Okay. Did you recommend to customers
22 disposal and use techniques in order to keep PCBs out of
23 the environment?

24 A. I did.

25 Q. And did your marketing department send out

1 memoranda that you were involved in with respect to
2 disposal and use techniques in order to keep PCBs out of
3 the environment?

4 A. I did.

5 Q. Did you participate in drafting or
6 reviewing documents that were disseminated to Monsanto's
7 customers about PCBs?

8 A. Some documents. I can't speak for all
9 documents. I don't know.

10 Q. Okay. Beginning in 1970 when you took over
11 as manager of environmental issues dealing with PCBs,
12 was there ever any kind of a regular newsletter or
13 publication that was sent to Monsanto customers that
14 were purchasing products containing PCBs?

15 MR. GOEBEL: Same objection as the other
16 one.

17 MR. CASSIS: That's fine.

18 A. I don't recall a regular newsletter, no.

19 Q. (By Mr. Cassis) Was there any kind of
20 mailing effort to ensure the -- Strike that. Did you
21 have anyone that assisted you in your job in preparation
22 of various reports that were to be disseminated to
23 customers concerning PCBs?

24 A. Certainly.

25 Q. Who was that?

1 A. Well, it depended on the subject covered.

2 Q. Okay.

3 A. If it were, let's say, a report on the
4 toxicology testing, I would have a member of the
5 Monsanto corporate medical department prepare that kind
6 of document. If it were a procedure for analyzing for
7 PCBs in different kinds of samples, I would have a
8 member of the Monsanto analytical laboratory prepare
9 that kind of document.

10 Q. Now, you told us earlier that you
11 participated in drafting or reviewing documents that
12 were disseminated to Monsanto's customers about PCBs.
13 Were these documents sent to Monsanto's customers as a
14 part of Monsanto's regular course of business?

15 A. Yes.

16 Q. Okay. And it was -- And was it part of
17 Monsanto's custom, practice and habit to pass these
18 papers and documents to customers of record when they
19 were prepared?

20 MR. GOEBEL: Same objection as my earlier
21 objection.

22 MR. CASSIS: That's fine.

23 Q. (By Mr. Cassis) Go ahead.

24 A. Yes.

25 Q. Was there any kind of mailing effort to

1 ensure that Monsanto's customers received these reports
2 that you know of?

3 A. Are you talking about registered mail?

4 Q. No, not necessarily that, but did you have
5 like a regular list of customers that used PCBs that you
6 would send these reports to?

7 A. Certainly.

8 Q. And was the list used each and every time
9 that these reports were disseminated?

10 A. Corrected as we got information. We would
11 either add names or scratch names.

12 Q. And how often were these reports to
13 customers prepared?

14 A. Oh, there was no set period.

15 Q. Just periodic, then?

16 A. Periodic, depending on the new information
17 that was available.

18 Q. Was there any special effort in 1970 to
19 keep all of Monsanto's customers advised and appraised
20 of the PCB issues about which we have talked about here
21 this morning?

22 MR. GOEBEL: Same objection.

23 A. I would suggest that, yes, in early 1970
24 there was a massive mailing made to Monsanto's customers
25 of record, yes.

1 Q. (By Mr. Cassis) And did Monsanto provide
2 its customers with information regarding the disposal of
3 fluids containing PCBs during this period of time?

4 A. Yes, sir.

5 Q. In fact, didn't Monsanto let its customers
6 know that they would accept liquid PCB waste beginning
7 in the early 1970's?

8 A. Yes.

9 Q. Did you participate in that decision?

10 A. Yes.

11 Q. Tell us about that, if you would.

12 A. This had to do with the Monsanto program
13 for installing, constructing and operating an
14 incinerator capable of destroying PCBs that were no
15 longer useful. This program began in early 1970. The
16 unit was finally in operation in 1971. In the interim
17 Monsanto gave its customers the opportunity to send
18 their waste PCB liquids to Monsanto's plant. Monsanto
19 just stockpiled it until the unit was ready to operate.

20 Q. Did that include Pydraul?

21 A. Yes.

22 Q. Okay. Did Monsanto inform its customers
23 that its incinerator was available to its Monsanto
24 customers for its PCB liquid waste?

25 A. Yes.

1 Q. When was that information sent out?

2 A. As best I recall, it was about 1971 or so.

3 Q. And Monsanto did so in fact receive waste
4 from some of its customers for incineration?

5 A. Yes.

6 Q. Okay. We talked about labeling earlier.
7 Did Monsanto place labels on containers containing PCBs
8 which had warnings concerning PCBs entering the
9 environment?

10 MR. GOEBEL: I'm going to object to the
11 form of the question until you can -- I mean labels on a
12 lot -- We've talked about a lot of different products.
13 If you want to identify the kinds of product that
14 Rockwell consumed.

15 Q. (By Mr. Cassis) Were there labels put on
16 Pydraul products?

17 MR. GOEBEL: And I also want to object to
18 just Pydraul. Rockwell used certain kinds of Pydraul.
19 And I would ask that you clarify. If warning labels
20 were placed on Pydraul, I want to know which ones they
21 were placed on.

22 MR. CASSIS: Finished?

23 MR. GOEBEL: Yes.

24 Q. (By Mr. Cassis) Were warning labels placed
25 on Pydraul products?

1 A. Warning labels of what type?

2 Q. Warning -- Let's just take general --
3 Strike the question. Did Monsanto place labels on
4 containers containing chemicals which contained PCBs
5 concerning PCBs entering in the environment?

6 A. Yes.

7 Q. Okay. And when did that labeling first
8 take place?

9 A. In May of 1970.

10 Q. Okay. And did those products include
11 Pydraul?

12 A. Yes.

13 Q. And did it include all kinds of Pydraul?

14 A. All the Pydrauls that contained PCBs.

15 Q. So any Pydraul that contained PCBs had this
16 warning label on it?

17 A. Correct.

18 Q. Beginning in 1970?

19 A. Correct.

20 Q. Who prepared the language that was used in
21 the -- Strike that. Did you assist in the preparation
22 of the label that was used about which we have talked?

23 A. Yes.

24 Q. Okay. Did the label warn against allowing
25 substances containing PCBs to escape into the

1 environment?

2 A. Yes.

3 Q. Was it Monsanto's custom and practice to
4 put warning labels on all chemicals containing PCBs?

5 A. Yes.

6 Q. And that would include Pydraul?

7 A. Yes.

8 Q. All kinds of -- all types of Pydraul
9 produced by Monsanto?

10 A. With PCBs in them.

11 Q. With PCBs in them?

12 A. Correct.

13 Q. Did Monsanto have a procedure to ensure
14 that substances containing PCBs had these labels on it?

15 A. Yes.

16 Q. Did you see containers which were labeled?

17 A. Yes.

18 Q. Do you know whether any Pydraul containers
19 containing PCBs ever went out from Monsanto that did not
20 include a warning label?

21 A. Not to my knowledge, no.

22 MR. GOEBEL: After a particular date?

23 Q. (By Mr. Cassis) At any time.

24 A. Well, prior to 1970 they didn't have the
25 environmental label on them.

1 Q. Then beginning in 1970 did you ever see any
2 containers that went out from Monsanto that did not
3 include a warning label?

4 A. Of Pydrauls with PCBs?

5 Q. Of Pydrauls with PCBs.

6 A. I did not.

7 Q. And you've already told us that you
8 reviewed and participated in the labels that were
9 prepared and used by Monsanto; is that correct?

10 A. Correct.

11 Q. Did Monsanto put warnings on invoices it
12 sent to customers regarding the dangers with respect to
13 PCBs?

14 A. Yes.

15 Q. What generally did those warnings say?

16 A. The need to keep it out of the environment,
17 eventually also to avoid using it near food and
18 pharmaceuticals. In essence, that's what the statement
19 said.

20 Q. Did it have anything about the alleged
21 health hazards?

22 A. Yes, the harmful to some species of
23 wildlife or some such statement.

24 Q. And, again, when did that practice begin,
25 that is, with respect to the warnings on the invoices?

1 A. Oh, sometime in 1971.

2 Q. So, in other words, if a company that
3 purchased Pydraul containing PCBs received an invoice
4 for the product which they bought from Monsanto, that
5 invoice would have these warnings on it that we talked
6 about?

7 A. Yes, sir.

8 Q. And, again, you assisted in the drafting
9 and reviewing of the language that was used on the
10 invoices?

11 A. Yes.

12 Q. I may have asked you this question. If I
13 did -- I think I have, but just let me make sure. The
14 warnings about which we have talked that were placed on
15 invoices would have been sent to anyone purchasing
16 Pydraul containing PCBs?

17 A. Yes.

18 Q. In 1970 did Monsanto maintain a list of
19 customers who purchased hydraulic fluid like Pydraul
20 that contained PCBs?

21 A. Certainly, yes.

22 Q. And this list was kept in the ordinary and
23 regular course of business?

24 A. Yes.

25 Q. Did Monsanto discontinue selling some

1 products in 1970 and '71 that contained PCBs?

2 A. Yes.

3 Q. And what type products?

4 A. These are the products that were used in
5 situations that allow almost immediate entry into the
6 environment such as the paints and varnishes I mentioned
7 earlier, the carbonless copy paper, the caulking. It's
8 that kind of what we called at the time open uses.

9 Q. Did it discontinue the sale of Pydraul
10 containing PCBs?

11 A. Eventually.

12 Q. And when was that, if you know?

13 A. As I remember, that started in 1971.

14 Q. Okay. And do you know when that sort of
15 concluded, that is, selling of Pydraul containing PCBs,
16 a cessation of those sales?

17 A. About '72. Early '72 is the best I recall.

18 Q. And Monsanto -- did Monsanto continue to
19 sell products in 1970 to '71 which contained PCBs which
20 were in enclosed systems?

21 A. Yes.

22 Q. Such as transformers?

23 A. Yes.

24 MR. CASSIS: Off the record.

25 (Whereupon, a discussion was held off the record.)

1 Q. (By Mr. Cassis) Now, were there any
2 conditions or restrictions under which Monsanto sold
3 PCBs-containing substances during this period, that is,
4 1970 to 1972?

5 A. Were there any conditions?

6 Q. Let me see if I can rephrase it. Did
7 Monsanto require any kind of agreement with respect to
8 the purchaser with respect -- I'm sorry. Did Monsanto
9 require any kind of agreement with the purchaser --
10 Strike that question. I don't even want to ask that.
11 Okay.

12 MR. CASSIS: This would be a good time to
13 take a break.

14 (Whereupon, a short recess was taken.)

15 Q. (By Mr. Cassis) Mr. Papageorge, I'm going
16 to go through a series of documents here that I want to
17 ask you some questions on. The first few I might have
18 quite a few questions. Then after that I think we'll
19 get through pretty quick. I'm handing you what's been
20 marked as Exhibit 1, which is a letter dated February 9,
21 1970, and signed by Donald A. Olson. And I'd like for
22 you to take a look at that letter, please. Just take a
23 brief look at it or a long look at it, if you want. All
24 right. Now, if you'd take a look at the very first page
25 where it's marked Exhibit 1, not the letter itself, but

1 the front cover there, and let me ask you a background
2 question, if I might. You told us earlier in your
3 testimony that in 1970 Monsanto maintained a list of
4 customers who purchased hydraulic fluids like Pydraul.

5 A. I did.

6 Q. Do you recall that?

7 A. Yes.

8 Q. And then if you'll look at this particular
9 front cover, I want to ask you, is this a redacted list;
10 in other words, were there other customers' names on
11 this page, but for the purpose of producing this to us,
12 these customers names were eliminated?

13 A. That is correct.

14 Q. So the letter dated February 7, 1970, can
15 you tell us to whom it was sent on this redacted front
16 cover?

17 A. It was sent to the directors of purchases
18 at three Rockwell Manufacturing Company locations. One
19 of them is referred to as Pittsburgh Du Bois Division,
20 Du Bois, Pennsylvania. The other is 401 Newell Street
21 in Barberton, Ohio. And the third is Russellville,
22 Kentucky.

23 MR. PRICE: If I can interrupt. You said
24 February 7th. Did you mean February 9, 1970?

25 Q. (By Mr. Cassis) February 9, 1970. I

1 apologize, Mr. Papageorge. And Mr. Price, I apologize.

2 Have you ever heard of Rockwell Manufacturing Company?

3 A. Oh, yes.

4 Q. Did you hear of Rockwell Manufacturing at
5 the time you were environmental manager?

6 A. Yes.

7 Q. Did you -- I think you told us earlier that
8 you never visited any of the Rockwell facilities
9 yourself, did you not?

10 A. That's correct.

11 Q. Now, the letter that we're talking about
12 now, February 9, 1970, have you ever seen that letter
13 before?

14 A. Certainly.

15 Q. Okay. And did you see it at the time it
16 was sent?

17 A. Yes.

18 Q. Okay. Now, was it sent out as part of the
19 custom and practice of Monsanto to keep its customers
20 informed about developments concerning PCBs during that
21 time period?

22 A. Yes.

23 Q. Do you know of anyone at Monsanto that you
24 talked with that ever visited Rockwell's facilities
25 personally?

1 A. Yes.

2 Q. And who would that be?

3 A. Norman Johnson.

4 Q. Norman Johnson. And is he still with the
5 company?

6 A. No.

7 Q. Is he still alive?

8 A. Yes. To the best of my knowledge, yes.

9 Q. Do you know where he lives?

10 A. Not exactly. It's somewhere around the
11 Chicago area, as best I can recall.

12 MR. GOEBEL: Charlie, you asked him
13 "visited Rockwell." Rockwell Manufacturing?
14 Russellville Rockwell?

15 Q. (By Mr. Cassis) That visited the
16 Rockwell -- first of all, any of the Rockwell
17 facilities.

18 A. Yes.

19 Q. Do you know if he visited the Rockwell
20 facility at Russellville, Kentucky?

21 A. No.

22 Q. Do you know of anyone at Monsanto that
23 personally visited the Rockwell facility at
24 Russellville?

25 A. At this time I don't recall a specific

1 individual.

2 Q. Now, who was Donald Olson?

3 A. At what point in time?

4 Q. In February of 1970 do you know who --
5 Strike that. Do you know Donald Olson?

6 A. I do.

7 Q. Did you know him in February of 1970?

8 A. Yes.

9 Q. Do you know what his position was?

10 A. Yes.

11 Q. What was that?

12 A. He was a director of sales for the business
13 group in Monsanto that was responsible for the
14 industrial fluids.

15 Q. And did you have various meetings with him
16 and his staff with respect to PCBs and dissemination of
17 information to the customers that purchased these
18 particular products from Monsanto?

19 A. Yes.

20 Q. Okay. Now, can you tell us whether you or
21 your office prepared this letter or did Mr. Olson
22 prepare this letter?

23 A. A rough draft was prepared -- I'm trying to
24 recall the individuals. There were a group of
25 individuals that represented marketing, manufacturing,

1 medical. And I was a member of that group that prepared
2 a rough draft. That rough draft was then sent to
3 individuals like Mr. Olson, and he, in turn, made some
4 revisions and sent it back to the original group for
5 their comments. And after an exchange, this is the
6 final result of that effort.

7 Q. And you reviewed this final result?

8 A. I did, yes.

9 Q. Okay. It went out with your approval?

10 A. Yes.

11 Q. Now, the article attached, "Chemical Week"
12 dated October 29, 1969.

13 A. I see that.

14 Q. Was this article attached to the February
15 9th letter when it went out?

16 A. Yes.

17 Q. Okay. Was it part of Monsanto's custom and
18 practice to send these out to all Monsanto customers of
19 record that were purchasing products that contained
20 PCBs?

21 A. Yes.

22 Q. Okay.

23 MR. GOEBEL: "These" meaning that article?

24 MR. CASSIS: That's correct.

25 Q. (By Mr. Cassis) I think that's all I have

1 on that document. Did you -- Strike that. Or another
2 question. Did you actually send this letter out or did
3 Mr. Olson actually send it out? You stated earlier that
4 you had approved the final draft to be sent?

5 A. Yes.

6 Q. Okay. And you stated earlier to whom it
7 was sent to. Now, my question is did you actually send
8 the letter or did Mr. Olson send the letter?

9 A. Mr. Olson directed his manager,
10 Mr. Johnson, to send this letter to the Pydraul
11 customers.

12 Q. So Mr. Johnson would have been the one to
13 have sent that letter to the director of purchases,
14 Rockwell Manufacturing, Russellville, Kentucky?

15 A. Mr. Johnson's office. Not he personally.
16 His secretary and so on.

17 Q. That's correct. Now, let's go to Exhibit
18 No. 2.

19 A. I have reviewed the document.

20 Q. Now, again, looking at the front page, is
21 this a redacted list of Monsanto's customers who were
22 sent this letter?

23 A. It is.

24 Q. And does it show that director of
25 purchases, Rockwell Manufacturing, 400 North Lexington

1 Avenue, Pittsburgh, Pennsylvania, received a copy or at
2 least was sent a copy, and also director of purchases,
3 Rockwell Manufacturing, Russellville, Kentucky, 42276
4 was sent a copy of this letter?

5 A. It does.

6 Q. Now, I'm going to go through this one more
7 time, and then I'm not going to go through it on any
8 more of the letters. You had a list of all of the
9 customers who purchased hydraulic fluids that contained
10 PCBs, and for purposes of production of this particular
11 letter, you have redacted or taken off the names of
12 everyone other than the Rockwell addresses?

13 A. I personally didn't do that.

14 Q. No.

15 A. Legal department representatives did that.

16 Q. So what I'm saying, though, is the reason
17 this front cover has a lot of blank space is because of
18 the customers whose names have been redacted?

19 A. That is correct.

20 Q. Now, again, this letter is dated January 1,
21 1972. And are you familiar with this letter?

22 A. Yes, I am.

23 Q. Okay. Now, did you prepare this letter for
24 Mr. Bergen's group to send out or did -- Or tell us the
25 process about which this letter was prepared.

1 A. Mr. Bergen had a draft that he brought by
2 for me to review. I don't recall all the specifics, but
3 I do recall there were some changes that I proposed.
4 And this is the final result of at least the dialogue I
5 had with Mr. Bergen. I don't know who else he consulted
6 with.

7 Q. So did you have an opportunity to review
8 the final result of the letter?

9 A. Yes.

10 Q. And I take it this letter was sent out as
11 part of the custom and practice of Monsanto to inform
12 its customers about PCB developments?

13 A. Correct.

14 Q. Do you have any knowledge -- Strike the
15 question. As far as you know, did Rockwell stop using
16 PCBs in its Pydraul as this indicated?

17 MR. GOEBEL: I'll object to the form. I
18 don't think I understand. And this letter also does not
19 mention the word PCBs.

20 Q. (By Mr. Cassis) Go ahead and answer the
21 question.

22 A. I don't have any personal knowledge, no.

23 Q. Okay. It says in the last paragraph, "In
24 the meantime we will make every effort to contact each
25 of you, our customers, individually." Do you know

1 whether Monsanto did, in fact, contact each of its
2 customers concerning the contents outlined in this
3 letter?

4 A. Yes, they did contact them individually.

5 Q. Now, you told us earlier who Howard Bergen
6 was?

7 A. I did.

8 Q. And he was the director of the Specialty
9 Products Group to whom you reported?

10 A. Yes. My only hesitation, in 1972 the group
11 was called Specialty Products Group. Prior to that it
12 was called Functional Fluids Group, and it had several
13 different designations through the period of time I
14 reported to them.

15 Q. But this is the same Mr. Bergen to whom you
16 had direct and regular communications?

17 A. Yes.

18 Q. Where is Mr. Bergen now?

19 A. Deceased.

20 Q. Do you know when he died?

21 A. About three years ago.

22 Q. Okay. Again, I'll hand you what's been
23 marked as Exhibit 3, which is a March 15, 1972, letter,
24 again signed by Howard S. Bergen, and ask you to look at
25 that letter.

1 A. I have reviewed the document.

2 Q. Again, look at the front page, and tell me
3 to whom that letter was sent.

4 A. Rockwell Manufacturing, Russellville,
5 Kentucky.

6 Q. And, again, that is from the -- is a
7 redacted list of Monsanto customers who have been using
8 that particular product?

9 A. It is.

10 Q. Okay. Now, again --

11 MR. GOEBEL: Let me object. "That
12 particular product." There is an attachment, and you
13 haven't identified which product.

14 Q. (By Mr. Cassis) The products listed on the
15 letter of March 15, 1972, along with the enclosures.

16 A. Yes.

17 Q. Okay. Now, again, this letter was sent out
18 as a part of Monsanto's custom and practice to its
19 customers regarding the changeover from PCBs containing
20 Pydraul; is that correct?

21 A. That is correct.

22 Q. That's all. I'll hand you what's been
23 marked as Exhibit 4. Again, this is a letter from
24 W. E. Schalk, S-c-h-a-l-k, along with an enclosure.
25 And, again, can you tell me to whom this letter was

1 sent?

2 A. It was sent to director of purchases for
3 Rockwell Manufacturing Company at three locations,
4 Pittsburgh Du Bois Div., Du Bois, Pennsylvania,
5 401 Newell Street, Barberton, Ohio, and Russellville,
6 Kentucky.

7 Q. And, again, that's a redacted list of the
8 Monsanto customers?

9 A. It is.

10 Q. Tell us what that letter is, please.

11 A. This is a letter to customers of PCB
12 products that were used in the open uses we discussed
13 earlier, the paints, the varnishes, the caulking, the
14 carbonless copy paper, similar to the letter we
15 discussed previously that was sent to the customers of
16 Pydraul products that contained PCBs.

17 Q. Did you help prepare this letter also?

18 A. I did.

19 Q. Okay. Now, who was -- or I'm sorry -- who
20 is W. E. Schalk?

21 A. Mr. Schalk at the time was director of
22 sales for Monsanto's plasticizer marketing group.

23 Q. Do you know whether he's still at Monsanto?

24 A. No, he no longer is with Monsanto.

25 Q. Okay. Did you review the final of this

1 letter also before it went out?

2 A. I did.

3 Q. And this was a letter that was sent to the
4 customers that we talked about?

5 A. Yes.

6 Q. Okay. I hand you what has been marked as
7 Exhibit 5, an April 15, 1971, letter from C. Larry
8 Bradford. Okay. Again, Mr. Papageorge, to whom was
9 this letter sent?

10 A. This letter was sent to customers on record
11 at Monsanto of Pydrauls that contained PCBs.

12 Q. All right. Now, if you'd look at page 1,
13 to whom was -- on Exhibit 5, was this sent to Rockwell
14 Manufacturing, Russellville, Kentucky?

15 A. It was.

16 Q. And, again, this is a redacted list of
17 Monsanto customers; is that correct?

18 A. Yes.

19 Q. And have you ever seen this letter before?

20 A. Yes.

21 Q. Did you prepare the letter?

22 A. I reviewed it. I did not prepare it.

23 Q. Did you review it in final form before it
24 went out?

25 A. Yes.

1 Q. And is this the final form that you
2 approved that went out on April 15, 1971?

3 A. Yes, sir.

4 Q. Who is -- You told us who Larry Bradford
5 was. He was product manager of hydraulics and
6 lubricants; is that correct?

7 A. Yes.

8 Q. Where is he now?

9 A. I don't know.

10 Q. You don't know whether he's still with
11 Monsanto or not?

12 A. Well, he is not with Monsanto, but I don't
13 know where he is.

14 Q. I hand you what's been marked as Papageorge
15 Exhibit 6, which is a letter dated August 3, 1973, from
16 Cumming Paton, and ask you if you recognize that letter?

17 A. I do recognize it.

18 Q. Did you write the letter?

19 A. No.

20 Q. Did you review the letter and the
21 enclosures before it went out?

22 A. Yes.

23 Q. Okay. And did you review it in final form
24 along with the enclosures at the time or before it went
25 out to the customers?

1 A. Yes.

2 Q. And to whom was this letter and the
3 enclosures sent?

4 A. Again, the customers of Pydraul products
5 that contained PCBs.

6 Q. Okay. And this letter was sent to director
7 of purchases, Rockwell Manufacturing, Russellville,
8 Kentucky -- I'm sorry -- director of purchases,
9 hydraulic fluids, Rockwell Manufacturing, Russellville,
10 Kentucky, 42276?

11 A. Yes.

12 Q. And director of purchases, hydraulic
13 fluids, Rockwell Manufacturing, 400 North Lexington
14 Avenue, Pittsburgh, Pennsylvania, 15208?

15 A. Yes.

16 Q. And, again, the cover page of this letter
17 is from a redacted list of Monsanto's customers who were
18 sent the letter?

19 A. Yes.

20 Q. Let's look at that letter of August 3,
21 1973. You told us that you had reviewed the letter in
22 its final form before it went out; is that correct?

23 A. Yes.

24 Q. On the second paragraph where it talks
25 about "Recently the Food and Drug Administration

1 published in the Federal Register," do you see that
2 paragraph?

3 A. I do.

4 Q. Were you familiar with those regulations?

5 A. Yes.

6 Q. And you were familiar with them at the time
7 that they came out?

8 A. Yes.

9 Q. Okay. Now, look at the fourth paragraph,
10 if you would, of that letter. It says, "Proper disposal
11 of chlorinated materials requires high temperature
12 incineration. Monsanto has installed a facility at its
13 Sauget, Illinois, plant and has made this service
14 available to its customers. Information relating to
15 this service is attached to help you should you decide
16 to dispose of such materials in this manner." Do you
17 see that paragraph?

18 A. I do.

19 Q. Did Monsanto make its incinerator available
20 to its customers at this time?

21 A. Yes.

22 Q. And this is the same incinerator that you
23 told us about which started in 1970, was put into full
24 operation in '71?

25 A. Yes.

1 Q. Did customers use it?

2 A. Yes.

3 Q. Do you know whether Rockwell used it or
4 not?

5 A. I do not know.

6 Q. Was this for disposal of liquid products?

7 A. Yes.

8 Q. Going over to the attachment styled
9 "Incineration Service for Pydraul Fluids."

10 A. I have it.

11 Q. All right. Did Monsanto provide labels for
12 drums that were being sent for incineration of the
13 contents?

14 A. Yes.

15 Q. And why did Monsanto provide those labels?

16 MR. GOEBEL: Drums, you mean? You said
17 drums.

18 Q. (By Mr. Cassis) I'm sorry. Why did
19 they -- Did Monsanto provide labels for drums that were
20 being sent for incineration of the contents?

21 A. Yes.

22 Q. And why did Monsanto provide those labels
23 for the drums?

24 A. Well, we felt that the label had to be
25 quite specific about need for care and handling, had to

1 have the proper addressee on it to make certain that it
2 arrived at the proper destination, and rather than rely
3 on the hundreds and maybe thousands of potential
4 customers designing their own, we felt that this would
5 be most helpful.

6 Q. And that had to be on each drum?

7 A. Each drum, correct.

8 Q. I'll hand you what's been marked as Exhibit
9 7, and ask you if you have seen this before?

10 A. I don't recall seeing this document.

11 Q. Okay. Do you know who D. M. Hogan is
12 with -- or was with Rockwell International in 1975?

13 A. No. I said I don't recall. I did see this
14 document yesterday the first time.

15 Q. Do you know whether Rockwell International
16 ever sent PCB materials to Monsanto's Sauget, Illinois,
17 incinerator?

18 A. I do not know.

19 Q. I'll hand you what's been marked as Exhibit
20 8, which is a letter dated January 7, 1976, to Rockwell
21 International, D. M. Hogan. This appears to be the same
22 letter set out again at a later date; is that correct?

23 A. It's the same type of letter. I think,
24 yes, it reads the same.

25 Q. All right. It mentioned -- In both of

1 those letters it mentions askarel fluids?

2 A. Yes.

3 Q. What does askarel mean?

4 A. Askarel is a generic term used by the
5 electrical equipment industry to describe the liquids
6 that are used in electrical equipment that are fire
7 resistant.

8 Q. And does it contain PCBs?

9 A. At that time, yes.

10 Q. I'll hand you what's been marked as Exhibit
11 9, which is a letter to Rockwell International, Columbia
12 Aircraft Division, P.O. Box 1259, Columbus, Ohio,
13 Attention: G. Rips, dated July 28, 1976, and ask you,
14 do you know Mr. G. Rips?

15 A. I do not.

16 Q. Did you, yourself, ever have any dealings
17 with Rockwell International?

18 A. No.

19 Q. In Columbus, Ohio?

20 A. No.

21 Q. Did you ever talk with Mr. C. R. Field who
22 signed the letter concerning any communications he had
23 with the Columbus Rockwell plant?

24 A. I did have discussions with Mr. Field. I
25 don't recall Rockwell International specifically, no.

1 Q. All right. The first paragraph of this
2 letter says, "This will confirm our telephone
3 conversation concerning incineration of your Pydraul F-9
4 fluids."

5 A. I see that.

6 Q. Does Pydraul F-9 contain PCBs?

7 A. Yes.

8 Q. Do you know whether the Columbus plant sent
9 Pydraul to Sauget or not?

10 A. I do not.

11 Q. I'm handing you what's been marked as
12 Exhibit 10. Again, this is a letter to Mrs. B. J.
13 Faris, dated July 18, 1977. I think you told us that
14 you never had any dealings with the Colorado facility of
15 Rockwell; is that correct?

16 A. That is correct.

17 Q. Again, that mentions incineration of
18 askarel. Does askarel contain PCBs?

19 A. Yes.

20 MR. GOEBEL: At what time period?

21 Q. (By Mr. Cassis) During 1977, if you know.

22 A. Yes.

23 Q. Exhibit 11, can you identify this, please?
24 Please identify Exhibit 11.

25 A. This is a copy of the label provided by

1 Monsanto to its customers to be placed on the containers
2 of unusable material containing PCBs, liquid material
3 that was returned to Monsanto for disposal.

4 Q. Okay. Now, what was -- This, of course, is
5 a Xerox copy of the label, right? This is a Xerox copy
6 of the label?

7 A. Yes.

8 Q. Can you tell us what colors or color the
9 label was?

10 A. What we see here as a black background is a
11 red.

12 Q. And would you please read on the right hand
13 of that label where it states "Important."

14 A. "Important. This product contains
15 polychlorinated biphenyls (PCBs) which some studies have
16 shown may be persistent, an environmental contaminant
17 and, possibly, injurious to certain forms of bird,
18 aquatic and animal life. Prevent any entry into the
19 environment through spills, leakage, disposal,
20 vaporization, reuse of containers or otherwise. Spills,
21 leakages and waste product must be collected."

22 Q. All right. And also read now the caution
23 part of that label.

24 A. "Caution: Contains chlorinated
25 hydrocarbons. Harmful substance if taken internally or

1 if in prolonged contact with the skin. Causes
2 irritation of skin and eyes. During shipment avoid
3 spills and leakage into inland waterways and the sea.
4 Store away from food, animal feedstuffs and
5 pharmaceuticals. Keep container tightly closed. Do not
6 eat or smoke when using. Avoid breathing vapors, mist
7 or fumes. Do not wear contaminated clothing. Wash
8 product from skin with soap and water. Wash eyes by
9 flushing with water."

10 Q. All right. Now, you told us earlier in
11 your deposition that you helped prepare this; is that
12 not correct?

13 A. That is correct.

14 Q. And when was this prepared?

15 A. About 1970.

16 Q. Okay. And was this the same label that was
17 sent to the customers for returning for disposal
18 purposes?

19 A. The same label in what respect?

20 Q. In other words, Exhibit 11 is the label
21 which was sent to the customers?

22 A. Yes.

23 Q. You had some hesitation about that?

24 A. Yes, because the -- in 1970 the reference
25 to the department number was different, and it changed

1 three times, as I remember. This version we're looking
2 at is the last version, which existed in about 1975 and
3 on.

4 Q. Okay. During 1970 and '71, '72, in that
5 era, the label would be the same except for the
6 department number?

7 A. There might have been some additional
8 information in this reference here to animal feedstuffs
9 and the like. I don't recall because as new information
10 was gathered, Monsanto would revise its wording.

11 Q. So the exact Exhibit 11 here was in 1975?

12 A. Or thereabouts, yes.

13 Q. Or thereabouts?

14 A. Yes. This is the final version.

15 Q. But the others -- Strike that. This may
16 have been changed from the other labels which were
17 generated in 1971?

18 A. Yes.

19 Q. But only to the extent that you've told us,
20 that is, the department change and perhaps more
21 elaborate with respect to the caution?

22 A. That's correct.

23 Q. Other than that, it's the same?

24 A. Yes.

25 Q. That is, the caution section?

1 A. Yes.

2 Q. Okay. Exhibit No. 12, tell us what that
3 is, please.

4 A. This is a copy of an article that appeared
5 in the annual review of "Pharmacological Toxicology" in
6 1987.

7 Q. Have you seen this before?

8 A. I have.

9 Q. And when was this published?

10 A. 1987.

11 Q. That's all on that exhibit. I'll hand you
12 what's been marked as Exhibit No. 13 and ask you to
13 identify that, please.

14 A. This is a copy of a Monsanto report
15 entitled "Polychlorinated biphenyls, PCBs, A Report on
16 Uses, Environmental and Health Effects and Disposal."

17 Q. Let's go back to Exhibit 12 for a moment.
18 You said this was a 1987 publication?

19 A. I did.

20 Q. Do you know whether -- And this was by
21 Renate D. Kimbrough?

22 A. It is.

23 Q. Do you know whether she had an earlier
24 publication?

25 A. Oh, she had many publications.

1 Q. Concerning PCBs?

2 A. Yes.

3 Q. And when was her first publication?

4 A. As best I recall, I would suggest about
5 1974, '75.

6 Q. Was that the one in which Dr. Kimbrough
7 reported that Aroclor 1260 produced liver cancer in
8 rats?

9 A. I believe it is, yes.

10 MR. GOEBEL: I'm sorry. What was the
11 Aroclor?

12 MR. CASSIS: Aroclor 1260.

13 Q. (By Mr. Cassis) And Aroclor 1260 contained
14 PCBs?

15 A. Yes.

16 Q. Okay. Now, let's go back to Exhibit 13.
17 You have identified that?

18 A. Yes, I have.

19 Q. Okay. Do you know who prepared this
20 report?

21 A. A Monsanto individual by the name of
22 Dan Bishop was the person that served as the editor. I
23 personally do not know who his contributors were.

24 Q. Do you know when this was produced?

25 A. As best I remember, it was 1980, early

1 1980's.

2 Q. Do you know whether this was distributed to
3 Monsanto customers?

4 A. Yes, that was the intent.

5 Q. And you say about 1980?

6 A. Yes.

7 MR. GOEBEL: I'm going to make the
8 objection I made earlier. Unless you can have testimony
9 that it was sent to Rockwell, I would object to any
10 questions about it being sent to just generically
11 customers.

12 MR. CASSIS: That's fine.

13 Q. (By Mr. Cassis) As far as you know,
14 Mr. Papageorge, this was sent to Monsanto customers who
15 purchased products containing PCBs?

16 MR. GOEBEL: Same objection as I just made.

17 MR. CASSIS: That's fine.

18 A. Yes.

19 Q. (By Mr. Cassis) And you think 1980?

20 A. As best as my memory will --

21 Q. When did you leave Monsanto? When did you
22 retire?

23 A. The end of '86.

24 Q. So you were there when this document was
25 produced?

1 A. Yes.

2 Q. And disseminated to customers?

3 A. Yes.

4 Q. What was the fellow's name, Mr. --

5 A. Dan Bishop, B-i-s-h-o-p.

6 Q. Okay. Did you have input into this
7 document?

8 A. I was given a draft to review and, yes, I
9 did participate in commenting.

10 (Whereupon, a discussion was held off the record.)

11 Q. (By Mr. Cassis) Okay. Tell me the
12 composition of Pydraul F-200, if you know.

13 A. I don't remember it.

14 Q. Do you know if that particular -- Strike
15 that. Do you know who E. B. Tucker is?

16 A. E. S. Tucker.

17 Q. E. S. Tucker?

18 A. Dr. Scott Tucker was the analytical chemist
19 in Monsanto's research department who was in charge of
20 the development of PCB analytical methodology.

21 MR. CASSIS: I think that's all I have at
22 this time, Mr. Papageorge.

23 MR. GOEBEL: Could we take about five
24 minutes here, and I'll get my notes together. I'll be
25 ready to go back at it.

1 MR. CASSIS: Sure.

2 (Whereupon, a short recess was taken.)

3 MR. GOEBEL: Mr. Papageorge --

4 MR. CASSIS: I want to ask a couple more
5 questions real quick.

6 MR. GOEBEL: Go ahead.

7 Q. (By Mr. Cassis) Mr. Papageorge, who was
8 Elmer P. Wheeler?

9 A. Mr. Wheeler in the '70s was the assistant
10 director in the Monsanto corporate medical department.

11 Q. Did he have the same job in 1960?

12 A. Yes.

13 Q. And who was Mr. Richard Davis?

14 A. Mr. Davis was a member of the marketing
15 group in St. Louis that was involved with the marketing,
16 sales of hydraulic fluids containing PCBs.

17 Q. Okay. When was the hydraulic fluid
18 containing PCBs, or more specifically, Pydraul A-200
19 introduced to customers?

20 A. I don't recall the exact date. It's in the
21 '50s.

22 Q. Okay.

23 A. Middle 1950's.

24 Q. At the time that it was produced and sold
25 to customers, when the product itself was sent to the

1 customers, was there any warning label on the product
2 itself?

3 A. Yes.

4 Q. And what did that warning label say?

5 A. I don't recall the exact words. It
6 referred to the presence of chlorinated hydrocarbons and
7 cautioned against breathing the fumes and getting on the
8 skin. These types of statements were on the label.

9 Q. And why were those warnings put on the
10 label?

11 A. As to prevent harm to the worker who might
12 be handling this material.

13 Q. Was there any information that there was a
14 toxic hazard to using around -- Was there any -- Strike
15 the question. At the time it was introduced to the
16 customer in 19 -- I think you said in the '50s, you put
17 a warning label on there. You told us generally what
18 the warning label said.

19 A. Yes.

20 Q. Okay. Was there any information that
21 caused Monsanto to put that warning label on that
22 product?

23 A. Yes.

24 Q. And what was that?

25 A. Well, there was -- It was well known that

1 excessive breathing of fumes would cause severe chest
2 irritation, similar to symptoms observed in a severe
3 chest cold. It was also known that if this exposure
4 continued, the individual would have symptoms of the
5 condition called chloracne, and it was also known that
6 continued high exposure could result in harm to the
7 liver. These symptoms I described are from breathing.
8 Some of them are also a result of exposure through the
9 skin.

10 Q. Okay. Then I think you told us earlier
11 that the label was changed, the label that was put on
12 the product was changed in 1970 when you became manager
13 of environmental affairs; is that correct?

14 MR. GOEBEL: Is your question the A-200?

15 MR. CASSIS: Yes.

16 A. There was a change, yes.

17 Q. (By Mr. Cassis) And why was the change
18 made? This was a change on the label on the product
19 that was sent to the customer?

20 A. No. The label that was on the product in
21 the '50s and '60s.

22 Q. Okay.

23 A. Remained the same in '70. There was an
24 additional paragraph prepared that referred to the
25 environmental presence of PCBs and possible harm to

1 creatures in the environment and the need to prevent it
2 from entering into the environment.

3 Q. So then in the '50s and '60s we had the one
4 label which you told us about, and then in 1970 an
5 additional label or additional warning label was put on
6 the product which was sent to the customer concerning
7 the environmental concerns and the alleged health
8 hazards?

9 A. Correct.

10 MR. CASSIS: That's all I have.

11 CROSS-EXAMINATION

12 QUESTIONS BY MR. GOEBEL:

13 Q. Mr. Papageorge, my name is Tony Goebel. I
14 represent Rockwell International, along with
15 Mr. Weinreb. I believe from your testimony earlier
16 today we know that you never visited the Russellville,
17 Kentucky, Rockwell Manufacturing or Rockwell
18 International plant; is that right?

19 A. That is correct.

20 Q. And I believe you've never talked to anyone
21 about their operations at Russellville? And when I say
22 Russellville, I mean the Rockwell Manufacturing or
23 Rockwell International plant at Russellville, Kentucky.

24 A. If by anyone you mean Rockwell individuals
25 or --

1 Q. Did you ever talk to any Monsanto employees
2 or representatives who visited the Russellville facility
3 about the operations at the Russellville facility?

4 A. I don't recall whether the individuals in
5 Monsanto with whom I discussed customers, including
6 Rockwell, visited any Rockwell site. I don't recall
7 that.

8 Q. So you have no knowledge today about the
9 operations at the Russellville facility?

10 A. Oh, I don't know how you define knowledge.
11 I was aware that it was a die casting, metal casting
12 operation. I was aware of the use of Pydrauls. I was
13 informed it was a sophisticated customer. I have these
14 kinds of impressions, which I got talking to Monsanto
15 people who were familiar with the Rockwell situation.

16 Q. Pydraul was marketed under several
17 different formulas; is that correct?

18 A. That is correct.

19 Q. And these included Pydraul F-9, A-200, 312,
20 correct?

21 A. That is correct.

22 Q. And then there were some Pydrauls that did
23 not contain PCBs; am I correct?

24 A. That is correct.

25 Q. 50-E is one of those Pydrauls, is it not?

1 A. That is correct.

2 Q. Do you know what types of Pydrauls were
3 used at Russellville? When I say types, do you know
4 which formulas of Pydraul?

5 A. Yes, I believe I do.

6 Q. And how did you acquire that information?

7 A. I saw a summary prepared by Monsanto's
8 legal department of shipments to the Rockwell facility
9 at Russellville.

10 Q. And I must assume from what you saw that
11 Monsanto keeps records of the amount -- or the types of
12 Pydraul sent to its customers and the years it was used?

13 A. Yes.

14 Q. That information is readily accessible to
15 someone, and if we were to subpoena it, it could be
16 produced? It exists today?

17 A. I don't know how readily it's available,
18 and I don't know the legalities of availability under
19 subpoena. You'd have to contact the legal department.

20 Q. All right. Were you aware that at
21 Russellville there was a system in place for recapturing
22 and reclaiming the Pydraul?

23 A. I was not.

24 Q. And if there has been testimony that since
25 the plant was in existence from 1956 through the time

1 that they discontinued use of the Pydraul that there was
2 this reclamation system, you have no information which
3 would contradict that?

4 A. That is correct.

5 Q. Do you know when Rockwell removed Pydraul
6 from its die casting machines?

7 A. I do not.

8 Q. Let me go into some of the background
9 information that you testified about earlier. You
10 started working at Monsanto's Anniston, Alabama, plant
11 in 1965, and I believe you stayed there until around
12 1970?

13 A. That's correct.

14 Q. What kind of Monsanto products were
15 manufactured at that plant? And I guess I would like
16 the trade name of those products.

17 A. I'll try to remember. There were many.
18 There was the PCB products under the trademark Aroclor
19 followed by a number designation. There were also --

20 Q. Before you go on, do you recall which
21 Aroclors those were?

22 A. I believe I can, yes. Aroclor 1221, 1232,
23 1242, 1248, 1254, 1268. That's it.

24 Q. All right. Do you want to continue with --

25 A. They also manufactured chlorinated

1 terphenyls, which were also called Aroclors. There was
2 Aroclor 5442, 5460. There was a blend of PCBs and PCTs,
3 and that went under the designation Aroclor -- I've
4 forgot the number -- 4000 something. They manufactured
5 biphenyl, sodium hydroxide, chlorine, a product called
6 HB-40, phosphorous pentasulfide, parathion,
7 p-a-r-a-t-h-i-o-n, and niran, n-i-r-a-n. I suspect
8 there were others. I can't recall at the moment.

9 Q. Am I correct in understanding from your
10 answer that there is a difference between a PCB and a
11 chlorinated terphenyl?

12 A. Yes.

13 Q. And that's the first time I've heard you
14 mention a chlorinated terphenyl this morning. Perhaps
15 I'm mistaken, but would some of the Pydrauls have
16 contained chlorinated terphenyls?

17 A. For a brief period of time in 1971 some of
18 the Pydrauls were reformulated by removing the PCBs and
19 adding PCTs to give a fire-resistant characteristic.

20 Q. And what prompted the change from PCBs to
21 PCTs?

22 A. The desire to remove a material which was
23 shown to be found in the environment with questions
24 regarding its impact.

25 Q. That being PCBs?

1 A. Correct.

2 Q. And Monsanto made the decision that by
3 replacing PCBs with PCTs in its Pydraul fluids that it
4 was eliminating that risk?

5 MR. CASSIS: In some of its Pydraul fluids.

6 Q. (By Mr. Goebel) I'm sorry. In some of
7 them?

8 A. Yes. That is correct. And to buy time to
9 come up with a still better formula, which they did.

10 Q. Would the Pydrauls that contained PCTs in
11 1971 or thereabouts, would they have contained the -- or
12 have had present on the barrels the warning label that
13 you described earlier about the warning of the PCBs?

14 A. No. I suspect if I'm correct, I think
15 you're referring to the environmental statement.

16 Q. You described earlier a warning label that
17 you said Monsanto began putting on the PCB-containing
18 Pydraul fluids around 1970.

19 A. Correct.

20 Q. My question is would the PCT-containing
21 fluids have had that label present on them?

22 A. No. There was no information to support
23 such a paragraph.

24 Q. Would you explain that further? When you
25 say "no information," meaning that there was nothing

1 that you had at the time to indicate that PCTs were a
2 hazard to the environment?

3 A. Were even present in the environment, let
4 alone a hazard. Nobody found them in the environment.

5 Q. Well, did Monsanto consider PCTs at that
6 time a hazard to the environment?

7 A. No.

8 Q. And it didn't warn its customers about any
9 hazards associated with PCTs or fluids containing PCTs
10 because it didn't consider them to be hazardous?

11 A. I'd like to keep separate the environmental
12 impact versus the employee potential impact through
13 misuse. The employee statement still applied.

14 Q. The employee statement being the one that
15 you described after Mr. Cassis began questioning after
16 our break. I believe you described a warning label that
17 on inhalation and harm to the skin of the workers who
18 had come into contact with the fluid?

19 A. Yes.

20 Q. That's the -- How do you want to describe
21 that warning label or that label? You referred to it a
22 moment ago. The employee statement?

23 A. Well, it's a statement that refers to
24 employee exposure. It's a sort of an industrial hygiene
25 kind of statement.

1 Q. And then the environmental statement would
2 be the warning label that Monsanto put on its
3 PCB-containing fluids after 1970?

4 A. Correct.

5 MR. CASSIS: In 1970.

6 A. That's --

7 Q. (By Mr. Goebel) In 1970.

8 MR. CASSIS: That's correct.

9 A. Yes.

10 Q. (By Mr. Goebel) And I'm not a chemist, so
11 excuse me if I have to ask some very basic questions.
12 Are PCTs, then, chlorinated terphenyls? Is that what it
13 is?

14 A. Yes.

15 Q. Did Monsanto ever conclude that PCTs were a
16 hazard to the environment?

17 A. No, there was never any evidence found to
18 support that.

19 Q. You described a pond at the Anniston,
20 Alabama, plant. And I believe you were plant manager
21 during the years that we've talked about?

22 A. Yes.

23 Q. And that pond received the waste waters
24 from the plant which manufactured all these products
25 you've just described?

1 A. No, I didn't mean to imply that. It
2 received the waste waters from portions of the plant,
3 and that portion is the part of the plant in which PCBs
4 were manufactured.

5 Q. All right. Was it a lined pond?

6 A. It was lined with clay.

7 Q. And did you consider a pond lined with clay
8 to be an acceptable receptacle for waste waters which
9 included waste waters associated with the manufacture of
10 PCBs?

11 A. Yes. At the time, yes.

12 Q. And why is that?

13 A. Well, we knew that the clays were very good
14 materials for containing PCBs. In fact, we had found
15 that they were a good filter medium. And we knew
16 that -- Of course, I've forgotten the proper depth of
17 clay bed required, but once you had the proper depth,
18 there was no evidence of any seepage of water into lower
19 surfaces.

20 Q. Could you be more technical in explaining
21 to me why clay would prevent leakage into the lower
22 surfaces?

23 A. Oh, I don't know.

24 MR. CASSIS: He said with respect to the
25 depth and condition of the clay. You need to qualify

1 that. Don't try to get his place down in Alabama
2 likened to your situation up there in Kentucky.

3 MR. GOEBEL: Well, I'll object to your
4 remarks.

5 MR. CASSIS: Well, you can object all you
6 want. I know what you're trying to do. This man's an
7 expert. He is not an expert on clay ponds.

8 Q. (By Mr. Goebel) Well, he was able to
9 describe it pretty particularly. And my question is
10 explain in a more technical sense how clay can prohibit
11 the seepage into the underlying surfaces.

12 A. I don't know that I can explain it in a
13 very sophisticated way technically, but I'm aware that
14 PCBs have a characteristic of adhering to particulate
15 matter. And in my mind, to help me understand it, I
16 visualize it as almost like an electromagnet attracting
17 iron filings. The PCBs adhere to these particles, and
18 the clay of a proper mesh size would supply enough
19 particle surface, and if it's deep enough and the water
20 pressure is such that it isn't pushing too drastically
21 downward, the PCBs would adhere to the clay particles.
22 And we learned that over a period of time, and this is
23 over decades of use, after a certain period of time we'd
24 go in there and scoop up this contaminated clay and then
25 take it somewhere else and then re-line the clay bed and

1 drop in the crushed rock, which was part of this system
2 for neutralizing acid, and use it to really pretreat the
3 water before it went to the city sewer system.

4 Q. Well, so you would send the water in the
5 holding pond after it was treated to the city sewer
6 system?

7 A. That's where it would end up after a
8 holding period. I forget what period of time it was
9 held.

10 Q. And you thought that was an acceptable
11 means of disposal of that waste water that contained
12 PCBs?

13 A. Yes.

14 MR. CASSIS: At the Alabama plant.

15 THE WITNESS: At that time also, yes.

16 MR. CASSIS: That was in the '50s.

17 MR. GOEBEL: Excuse me. He's already
18 testified it was 1965 to '70.

19 MR. CASSIS: I apologize, Mr. Goebel.

20 Q. (By Mr. Goebel) You stated that in January
21 1970 you became manager of environmental control, and
22 that as a part of your responsibilities you caught up on
23 the PCB literature that was there and the studies that
24 had been done; is that correct? Is that a fair
25 characterization?

1 A. Yes.

2 Q. And that you provided that information to
3 the Monsanto sales representatives, and that you had
4 relied -- or that you had left it up to those sales
5 representatives to provide information to the customers,
6 Monsanto customers?

7 A. As one source of Monsanto information, yes.

8 Q. But you've testified that you don't recall
9 personally sending any information to Rockwell?

10 A. That is correct.

11 Q. Are there any records of any communications
12 that would have come from Monsanto sales reps to
13 Rockwell International?

14 A. Oh, I don't know personally of any records.
15 That doesn't mean they exist or don't exist.

16 Q. Would it have been discretionary with the
17 sales representatives as to what was communicated to the
18 customers?

19 A. Discretionary in terms of appropriateness.
20 For example, information regarding a heat transfer fluid
21 would not be relayed to a customer of hydraulic fluids.
22 So that's where his discretion would enter. On the
23 other hand, talking about analytical methods or what the
24 FDA might be doing or what Monsanto is doing, those
25 things would be shared openly.

1 Q. Well, not every bit of information you
2 provided to the sales representatives would go to each
3 of the customers; is that correct?

4 A. Not every. That's probably very correct,
5 yes, in the real world.

6 Q. And you have no record of actually what was
7 sent to the different customers of Monsanto?

8 MR. CASSIS: Objection. He's testified
9 what was sent to the customers of Monsanto.

10 Q. (By Mr. Goebel) You can go ahead and
11 answer.

12 A. The only record I have is the copies of the
13 written correspondence. What was communicated verbally
14 or what was communicated in writing and copies of which
15 were never sent to St. Louis, I have no record of.

16 Q. Did the different Aroclors contain
17 different levels of PCBs, is that a fair statement, or
18 different percentage of PCB composition?

19 A. No. More correctly is that the different
20 Aroclors contained different proportions of the types of
21 PCBs from the one chlorine type to the ten chlorine
22 type.

23 Q. I guess I understand that. Well, I guess
24 what I'm -- Would a -- Well, maybe I should have asked,
25 would the different Pydraul products used, there were

1 different products, different Pydrauls that had
2 different kinds of Aroclors; is that right?

3 A. That is correct.

4 Q. And the content of the particular Pydraul
5 formulation may have contained different amounts of
6 PCBs, different percentages of PCBs?

7 A. Yes. PCBs as a family would vary from
8 Pydraul to Pydraul. And within each Pydraul there was a
9 different mixture of one chlorine, two chlorine, three
10 chlorine, four chlorine and so on, PCBs.

11 Q. All right. And the Swedish study that was
12 done in 1969 concluded that there were presence of
13 Aroclors 1254 and 1260 in the environment; is that true?

14 A. That was their -- yes, their conclusion.

15 Q. And may I assume from that study that they
16 didn't detect a significant level of the other Aroclors
17 or do you know?

18 A. Well, let me try to describe that. What
19 this analysis showed was a pattern of peaks and valleys
20 on a chart.

21 MR. CASSIS: We're talking about the
22 Swedish study?

23 A. The Swedish study. Peaks and valleys on
24 the chart. Each of the peaks represents one of the
25 types of PCBs, like the two chlorine and the three

1 chlorine and the four chlorine and so on. This
2 fingerprint that they saw contained not only the two,
3 the three, the four, but also the five, six, seven and
4 eight chlorine. That fingerprint, although it was not
5 exact, was very close to what Aroclor 1254 would show if
6 put through the instrument. This is why they said it's
7 similar to 1254. I don't know if that helps any or not,
8 but this does not say that only the five, six and seven
9 was present. There were also, three, four and so on
10 present.

11 Q. (By Mr. Goebel) But it more closely
12 resembled the Aroclor 1254?

13 A. Yes.

14 Q. Or the 1260?

15 A. Yes.

16 Q. And those were the two Aroclors on which
17 you in 1969 thought there may be environmental problems?
18 It was related to those two Aroclors?

19 A. Correct.

20 Q. Mr. Cassis asked some questions about some
21 studies done in the early '70s relating to effects on
22 seals and the reproduction of birds. And you said that
23 there was a conclusion in one study that the culprit was
24 DDT? Do you recall that?

25 A. Yes. I thought I said the conclusion

1 regarding the birds, the peregrine falcon and the
2 pelicans finally were related to the DDT exposure.

3 Q. And you, I think, also said that the
4 inability of the seals to find enough food was also
5 another conclusion that was reached?

6 A. That's my understanding, yes. Uh-huh.

7 Q. Were you aware of any studies besides the
8 Swedish study that concluded that PCBs were the culprit?
9 I'm going to use your term.

10 A. I don't know that the Swedish studies
11 indicated they were culprits in anything. They were
12 just present.

13 Q. It didn't discuss the environmental hazards
14 of PCBs?

15 A. It did not, no.

16 Q. I guess then my question is, in the early
17 '70s were you aware of any studies, and I guess I'm
18 referring to those studies that you were referring to
19 when you were answering questions, that identified PCBs
20 as the culprit?

21 MR. CASSIS: Are you referring to Yusho,
22 the other ones that he talked about?

23 Q. (By Mr. Goebel) The ones that he talked
24 about.

25 A. As I mentioned earlier, there were early

1 preliminary conclusions that DDT and PCBs were both to
2 blame. It's later, and I would suggest maybe as much as
3 two years later, that the conclusions were raised --
4 were reached that DDT was the true culprit.

5 Q. And not PCBs?

6 A. Not PCBs. These are the studies that I
7 mentioned. Of course, other studies followed through
8 the years.

9 Q. You started to say something about the
10 Yusho incident and the concerns that were involved
11 because of the rice oil, and you said that -- and I
12 didn't get your conclusions about that. You started to
13 tell us what they were, and then there was another
14 question interposed. You said that some of the symptoms
15 of the people may have been related to other things than
16 PCBs?

17 A. I did.

18 Q. And what did you conclude about the Yusho
19 incident? Was it the other --

20 A. It wasn't my conclusion. It was the
21 conclusion of a panel of experts made in a meeting on
22 PCBs in Chicago, November of '75 in which the symptoms
23 attributed to that Yusho oil exposure were attributed to
24 chlorinated dibenzofurans, a different chemical.

25 Q. Than PCB?

1 A. Correct.

2 Q. You described the incineration service that
3 Monsanto put in place in the early '70s. Is it true
4 that there were other incineration services available in
5 the early to mid-1970's to incinerate PCB-containing
6 fluids -- fluids containing PCBs?

7 A. Yes.

8 Q. And so not every consumer of a fluid that
9 contained PCBs would have necessarily shipped them to
10 Monsanto for incineration?

11 A. That's true.

12 Q. You described the environmental statement
13 on the labels or it was an additional label on the
14 Pydrauls which contained PCBs after 19 -- or in 1970.
15 And do you have those -- Are copies of those labels
16 available? Does Monsanto have copies of those labels?

17 A. I've seen copies, yes.

18 Q. And would that label contain a reference to
19 the particular Pydraul formulas on which it was placed
20 or would it be a label, a generic label added to those
21 fluids containing PCBs?

22 A. It's a generic label that was affixed to
23 any product containing PCBs.

24 Q. Do you know which Pydraul fluids contained
25 the polychlorinated terphenyls in 1971?

1 A. Those that are designated with the "A"
2 following the number.

3 Q. So Pydraul F-9-A would be a terphenyl
4 product?

5 A. A terphenyl version, yes.

6 Q. Any others?

7 A. Other what?

8 Q. Any other Pydraul formulas besides the ones
9 with the "A" designation?

10 A. The "A" would contain the terphenyls.

11 Q. And that could be -- We know that there is
12 Pydraul 312 A?

13 A. Yes.

14 Q. And F-9-A?

15 A. Yes.

16 Q. And 50 A?

17 A. Yes.

18 Q. And A-200-A?

19 A. Correct.

20 Q. And those all would have been non-PCB
21 formulas, correct?

22 A. Correct.

23 MR. GOEBEL: Let's go off for a minute.

24 (Whereupon, a lunch recess was taken.)

25 Q. (By Mr. Goebel) Mr. Papageorge, let me ask

1 some questions about what you did to prepare for the
2 deposition today. When did you first learn about this
3 lawsuit involving Commercial Union and Rockwell?

4 A. I don't remember the exact date. I would
5 suggest in the past six months sometime.

6 Q. And how did you learn about it?

7 A. A Monsanto Company legal assistant called
8 me and asked me what dates I had available, and I at
9 that time gave them to her. That's my first contact.

10 Q. Other than talking to that legal assistant
11 for Monsanto, who else did you talk to in preparing for
12 the deposition?

13 A. Mr. Gerard Davidson.

14 Q. Anyone else?

15 A. No.

16 Q. Have you ever spoken to Mr. Cassis before
17 today?

18 A. No.

19 Q. Or anyone from his office?

20 A. No.

21 Q. Were you ever provided with any documents
22 from Mr. Cassis' office to review in preparation for
23 your deposition?

24 A. No.

25 Q. Have you ever spoken to anyone at

1 Commercial Union Insurance Company --

2 A. No.

3 Q. -- about this case?

4 A. No.

5 Q. Did anyone from Commercial Union provide
6 you with any documents to review?

7 A. No.

8 Q. Have you reviewed any documents other than
9 those that we have identified today as Exhibits 1
10 through 13, I believe it is?

11 A. There was one additional document that I
12 reviewed.

13 Q. Do you recall what it was?

14 A. This was the document prepared by
15 Monsanto's legal department showing the sales of Pydraul
16 to the Russellville location.

17 Q. Do you have a copy of that with you today?

18 A. I don't have it.

19 Q. Your attorney does?

20 A. I have to assume that.

21 Q. By the way, the counsel that's with you
22 here today, I assume he was retained by Monsanto to be
23 here for you?

24 A. That's my understanding.

25 Q. Your name has come up on several occasions.

1 How many depositions have you given on behalf of
2 Monsanto?

3 MR. CASSIS: Objection. What do you mean
4 his name's come up on several occasions?

5 MR. GOEBEL: Well, it's appeared in
6 Rockwell Corporation as a person with knowledge about
7 some of the things we have discussed today. I didn't
8 mean to imply --

9 MR. CASSIS: Yeah, I think he'd have
10 knowledge about it. He was the man in charge of all
11 this.

12 Q. (By Mr. Goebel) Well, my question is, on
13 how many occasions have you given depositions about the
14 matters we've talked about today?

15 MR. CASSIS: Objection.

16 A. Since 1973, about two dozen. I haven't
17 kept a score sheet.

18 Q. (By Mr. Goebel) Were you custodian of the
19 records that we have shown you today?

20 A. I am not.

21 Q. Do you know who is?

22 A. I believe it's somebody in Monsanto's legal
23 department.

24 Q. What has been the substance of -- Strike
25 that. Have you testified in cases where Monsanto has

1 been sued where it has been alleged that they failed to
2 warn about the dangers of PCBs?

3 A. Yes. I remember some allegations of that
4 type, yes.

5 Q. And in how many such cases have you given
6 testimony?

7 A. Oh, geez, I just don't recall. I'd be
8 guessing. I don't know. I'd have to go through the
9 list mentally.

10 Q. Well, you've given testimony in about two
11 dozen cases. So it would be something less than that?

12 A. Yes. Allegations of failure to share
13 information, about ten of them. That's a rough, very
14 rough estimate.

15 Q. And to your knowledge in all of those cases
16 has Monsanto taken the position that it did, in fact,
17 adequately warn about the dangers of PCBs?

18 A. Yes.

19 Q. To your knowledge has Monsanto ever taken a
20 different position than that?

21 A. Not that I know of.

22 Q. And if they did, it could subject them to
23 enormous liability, couldn't it?

24 MR. CASSIS: Objection.

25 MR. DAVIDSON: Object to that. Move to

1 strike. It doesn't quite seem relevant or in his area
2 of knowledge, information. What was alleged in a
3 lawsuit is not something he necessarily knows anything
4 about.

5 Q. (By Mr. Goebel) If you can answer the
6 question.

7 A. I just -- I don't have an answer. I don't
8 know.

9 Q. Have you ever testified in a case for
10 Monsanto regarding warnings given for Pydraul
11 formulations?

12 A. I believe that came up as an issue. I
13 don't recall it being that specific, however.

14 Q. Do you recall the name of that case?

15 A. Yes. I refer to it as the Stroh case.

16 Q. I'm sorry?

17 A. S-t-r-o-h.

18 Q. Was that the name of one of the parties
19 involved?

20 A. Yes.

21 Q. And that was a plaintiff in a case or do
22 you know?

23 A. Yes, plaintiff.

24 Q. And do you recall in what court that was
25 pending?

1 A. That was in, as I recall -- And I'm not too
2 certain of this. As I recall, it was a state court in
3 Milwaukee.

4 Q. Do you have a copy of the testimony you
5 gave in that case?

6 A. I do not.

7 Q. Do you recall any others involving warnings
8 that Monsanto allegedly gave to consumers of Pydraul
9 fluids?

10 A. I don't recall any other involving
11 Pydrauls.

12 Q. Have you ever testified in a case that
13 involved Aroclor 1268?

14 A. 1268?

15 Q. Yes, sir.

16 A. No.

17 Q. Has anyone connected with Commercial Union,
18 that is, any representatives, including their attorneys,
19 asked you or Monsanto, if you know, for documents?

20 A. No one has asked me, and I can't speak for
21 Monsanto.

22 Q. Are you aware the Rockwell personnel have
23 testified that no one at the Russellville plant learned
24 of environmental PCB contamination at the Russellville
25 facility until 1985?

1 MR. CASSIS: Objection. That's not what
2 the record says, and that's an unfair characterization
3 of the record.

4 Q. (By Mr. Goebel) You can go ahead and
5 answer.

6 MR. CASSIS: And let that objection be a
7 strong one on the record. Show it strong.

8 MR. DAVIDSON: Put it in bold.

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

10 Q. (By Mr. Goebel) Do you -- I'm sorry?

11 A. Okay.

12 Q. You're not aware. Was that your answer?

13 A. That's right.

14 Q. Do you have any personal knowledge that
15 Rockwell learned of PCB contamination at Russellville
16 before 1985?

17 MR. CASSIS: Same objection.

18 A. I can only rely on the information I got
19 from Monsanto representatives regarding that kind of
20 information.

21 Q. (By Mr. Goebel) That wouldn't be based on
22 your own personal knowledge. It would be based on what
23 someone else told you?

24 A. That is correct.

25 Q. And what was said? What did the

1 representative of Monsanto tell you?

2 A. Of course, I don't recall the exact words,
3 but the essence of that was that Rockwell was tuned into
4 the PCB issue, that they were a very sophisticated
5 company. They had resources to manage this kind of
6 issue. That's the kind of information I got from my
7 contacts.

8 Q. And can you give me the identity of those
9 people who made those statements?

10 A. Well, certainly Mr. Norman Johnson.

11 Q. And what was his position with Monsanto?

12 A. He was the manager in charge of marketing
13 the Pydrauls.

14 Q. And when did you have this conversation
15 with him?

16 A. Oh, from the period 1970 through '72.

17 Q. Who else?

18 A. I recall a conversation with another
19 individual, but I don't recall whether -- just who that
20 person was.

21 Q. I'm sorry. You may have answered this
22 question. Is Mr. Johnson still alive?

23 A. Yes. The last I heard, yes.

24 Q. My earlier question was -- Strike that.
25 You don't know when PCBs were released into the

1 environment at Russellville, do you?

2 A. I do not.

3 Q. Nor has anyone told you when they were
4 released?

5 A. That is correct.

6 Q. And you don't know when Rockwell discovered
7 that there had been releases?

8 A. That is correct.

9 Q. Do you know if Monsanto maintains files on
10 each of its current and former customers, purchasers of
11 PCB-containing fluids?

12 A. You used the current tense. You mean
13 today?

14 Q. Yes.

15 A. I do not know that.

16 Q. Well, in 1986 when you retired?

17 A. In 1986 I was aware that records of that
18 type were being retained in Monsanto's files.

19 Q. Do you know how they were kept? By
20 corporation, for instance, Rockwell International, or
21 any of its former corporations?

22 A. No, I do not know the system used.

23 Q. Have you seen anything in addition to the
24 to the documents we have reviewed today that would be in
25 a file kept regarding Rockwell International?

1 A. Oh, since I don't know what system of
2 filing was used, I just don't know what would have been
3 in a file of the type you describe.

4 Q. Could you give me the name of the custodian
5 of the records for Monsanto, the ones that we've talked
6 about today?

7 A. I have no way of knowing who is the current
8 custodian. All I know, it's somebody in Monsanto's
9 legal department.

10 Q. I want to refer you to Papageorge Exhibit
11 13, specifically the Bate stamp No. 5 at the bottom
12 right-hand corner.

13 A. I have it.

14 Q. Could you generally tell me with respect to
15 Aroclor 1268 the types of operations such an Aroclor
16 would have been used in or used for?

17 MR. DAVIDSON: Can we go off the record a
18 minute?

19 (Whereupon, a discussion was held off the record.)

20 MR. CASSIS: Make another objection.
21 Object to the question.

22 Q. (By Mr. Goebel) You can go ahead and
23 answer.

24 MR. DAVIDSON: Well, wait a minute. Don't
25 answer yet. I have reason to believe this is for the

1 purpose of another lawsuit. And on that grounds I'm
2 going to instruct him not to answer questions about 1268
3 unless it's involved in this lawsuit.

4 Q. (By Mr. Goebel) Well, is askarel a product
5 in which Aroclor 1268 can be found or was found?

6 A. No.

7 MR. GOEBEL: Well, certify the question.

8 MR. DAVIDSON: You don't have to answer.

9 Q. (By Mr. Goebel) Would Monsanto have any
10 records of the names of customers to whom Aroclor 1268
11 was sold?

12 MR. DAVIDSON: Object. Don't answer the
13 question.

14 Q. (By Mr. Goebel) Are you on the advice of
15 counsel not answering the question?

16 A. Yes.

17 MR. GOEBEL: Please certify the question.

18 MR. CASSIS: Are you trying to get to
19 something in another case? If you are, don't be doing
20 it. If you're not, you've got some legitimate
21 questions, we'll go along with it.

22 MR. GOEBEL: I don't have to explain why
23 I'm asking these questions.

24 MR. CASSIS: Well, if in good faith you're
25 not doing it. If it's got something to do with another

1 case, that's one thing. Go ahead and ask your
2 questions.

3 MR. GOEBEL: Well, is it my understanding
4 you will not let him answer any questions about Aroclor
5 1268?

6 MR. DAVIDSON: Not unless you demonstrate
7 to me that, and you all agree, that that's involved in
8 this lawsuit. I know you've got it involved in other
9 litigation and you want to ask questions about it. And
10 if Mr. Papageorge is deposed in that litigation, he will
11 answer questions about it, but I'm not going to let you
12 depose him here for that lawsuit. He wasn't prepared
13 for it, and I just don't think it's generally
14 appropriate.

15 Q. (By Mr. Goebel) Can you tell me if Aroclor
16 1268 disintegrates or degrades when exposed to liquid
17 hydrocarbons?

18 MR. DAVIDSON: Object. Instruct you not to
19 answer.

20 Q. (By Mr. Goebel) Based on advice of counsel
21 are you not answering the question?

22 A. That is correct.

23 MR. GOEBEL: Certify the question, please.

24 Q. (By Mr. Goebel) If Aroclor 1268 remains in
25 a closed system would it present any risk of injury to

1 people?

2 MR. CASSIS: Same kind of general objection
3 to those questions. Continuing and general.

4 MR. DAVIDSON: Object. I instruct you not
5 to answer.

6 Q. (By Mr. Goebel) You're refusing to answer?

7 A. On advice of counsel, yes.

8 MR. GOEBEL: Certify that one, too.

9 Q. (By Mr. Goebel) I'm going to try and take
10 these documents in the order in which you talked about
11 them this morning.

12 MR. DAVIDSON: Starting with 1 --

13 MR. GOEBEL: That would be the right --

14 MR. DAVIDSON: -- I assume?

15 Q. (By Mr. Goebel) You have Papageorge
16 Exhibit No. 1?

17 A. I do.

18 Q. You're familiar with that document, are you
19 not?

20 A. I am.

21 Q. Is the reference in the first paragraph to
22 the newspaper and magazine articles about PCBs, is that
23 the one on the Swedish study, as best you remember?

24 A. That was one of the studies referred.
25 There were, of course, others.

1 Q. Others that found Aroclors 1254 and 1260 in
2 the environment?

3 A. Yes.

4 Q. And this February 9, 1970, letter discusses
5 the presence of Aroclors 1254 and 1260 in the
6 environment, correct?

7 A. Well, more correctly, it discusses
8 materials identified as resembling Aroclor 1254 and 1260
9 as being found in samples taken from the environment.

10 Q. And it doesn't discuss PCBs resembling
11 other Aroclors as being present in the environment,
12 correct?

13 A. That is correct, at this time.

14 Q. And it also identifies those Pydraul
15 formulas in which those two Aroclors were found are
16 included in those particular formulas?

17 A. It does.

18 Q. And that's in the second paragraph of that
19 letter?

20 A. Yes.

21 Q. And in the third paragraph of that letter
22 it states that, "As your supplier of Aroclor 1254 and
23 1260 and formulated products containing 1254, we wish to
24 alert you to the potential problem of environmental
25 contamination as referred to in the newspaper and

1 magazine articles." It does not refer to any Aroclors
2 other than those two?

3 A. That is correct.

4 Q. And it additionally points out that there
5 are other Pydraul formulations which do not contain
6 those particular Aroclors?

7 A. It does.

8 Q. And we identified this morning some of the
9 Pydraul formulations that the Russellville plant used,
10 and I believe you testified it was F-9, A-200, 312?

11 A. Yes, I did.

12 MR. CASSIS: Wait. I want to object. He
13 said it included those. There were many others, many
14 others he said, that it also provided to Russellville.
15 So don't just limit it to that.

16 MR. GOEBEL: I disagree with you, Charlie,
17 but I will ask you, Mr. Papageorge --

18 MR. CASSIS: We'll just get that in on
19 redirect.

20 Q. (By Mr. Goebel) Are you aware of any other
21 PCB-containing Pydraul fluids other than 312, A-200 or
22 F-9 which were used at the Russellville manufacturing
23 facility?

24 A. I am aware that those three types of
25 Pydrauls were shipped to the Russellville plant. I do

1 not know where they were used.

2 Q. Fair enough.

3 A. Or if other Pydrauls were sent from other
4 locations. I don't know that.

5 Q. Well, are you aware of any other
6 PCB-containing Pydraul fluids other than the three you
7 just identified as being shipped to the Russellville
8 facility?

9 A. I am not.

10 Q. And in the very bottom of that page it
11 states that "PCBs with a chlorine content of less than
12 54 percent have not been found in the environment." Is
13 that a true statement at the time this letter was
14 written?

15 A. Yes.

16 Q. And it further states, "And appear to
17 present no potential problem to the environment." Was
18 that a true statement at the time?

19 A. At that time, yes.

20 Q. Am I to assume by this statement that the
21 Pydrauls listed in the numbered paragraph No. 1 on that
22 page, that is, 312, A-200, F-9 contained a chlorine
23 content of less than 54 percent?

24 A. Well, paragraph one states that they are
25 not formulated with Aroclor 54 and 1260.

1 Q. Fifty-four having 54 percent chlorine
2 content, and 1260 having 60 percent?

3 A. That is correct.

4 Q. Do you know when Monsanto stopped
5 manufacturing Pydrauls 312, A-200 and F-9?

6 A. Sometime in 1971.

7 Q. Let me hand you Papageorge Exhibit No. 4.
8 You're familiar with that document, are you not?

9 A. I am.

10 Q. And that's a letter which is similar to the
11 Exhibit 1, isn't it, except that it identifies different
12 trade names under which Aroclors 1254 -- Actually, it
13 identifies only the Aroclor 1254 and 1260 as the trade
14 names under which Monsanto sold chlorinated biphenyls
15 containing 54 percent and 60 percent chlorine?

16 A. That is correct.

17 Q. And at the bottom of that page it
18 identifies some other Aroclors that do not contain PCBs?

19 A. That is correct.

20 Q. Would those be the PCT formulas that we
21 talked about this morning?

22 A. Yes.

23 Q. In particular, which one would be the one
24 that was shipped to -- based on your knowledge, shipped
25 to the Russellville facility?

1 A. Oh, I don't know.

2 Q. Let me show you Papageorge Exhibit No. 2.

3 A. I have it.

4 Q. Polychlorinated terphenyls would be a
5 chlorinated component; is that right?

6 A. Yes.

7 Q. And this letter references polychlorinated
8 terphenyls as opposed to PCBs which you've already
9 testified to is something other than a terphenyl?

10 A. Yes.

11 MR. DAVIDSON: Could you read that question
12 back, please?

13 (Whereupon, the reporter read back the last question.)

14 Q. (By Mr. Goebel) Please refer to Papageorge
15 Exhibit No. 7.

16 A. I have it.

17 Q. To your knowledge was askarel used at the
18 Russellville facility?

19 A. I don't know.

20 Q. This -- Let me refer you to 7, 8, and 10.

21 A. I have them.

22 Q. Those letters all concern the incineration
23 of askarel fluids, correct?

24 A. That's what they refer to, yes.

25 Q. And you have no knowledge whether anyone at

1 the Russellville manufacturing facility would have had
2 any knowledge of what was going on at Golden, Colorado?

3 A. No, I'm in no position to know that.

4 Q. And these letters do not mention PCBs, do
5 they?

6 MR. CASSIS: Objection. It mentions
7 askarels.

8 A. Well, specifically PCBs are not mentioned.

9 Q. (By Mr. Goebel) Let me refer you to
10 Exhibit No. 10 which is -- I'm sorry -- Exhibit No. 9,
11 which is a letter similar to the ones we just looked at,
12 except there is a reference to Pydraul F-9.

13 A. I see that.

14 Q. Again, you have no knowledge whether anyone
15 from Russellville would have seen this letter or known
16 about incineration of Pydraul F-9 from the Columbus,
17 Ohio, plant?

18 A. I have no knowledge on that.

19 Q. And there is also no reference, specific
20 reference to PCBs in this letter, is there?

21 MR. CASSIS: Let me see that.

22 A. Well, I see a reference to chlorinated
23 biphenyls in the first paragraph on the second page.

24 Q. (By Mr. Goebel) And that's a reference to
25 askarel containing chlorinated biphenyls?

1 A. Yes.

2 Q. Not Pydraul F-9?

3 A. That's correct.

4 MR. GOEBEL: Let me hand you some documents
5 which will have to be marked as exhibits.

6 (Whereupon, a discussion was held off the record.)

7 (Reporter marked for identification Papageorge
8 Deposition Exhibit No. 14.)

9 Q. (By Mr. Goebel) Why don't you take a
10 minute to review what we've handed you which has been
11 marked as Exhibit 14, please.

12 MR. CASSIS: Does this have a date or
13 anything on it?

14 MR. GOEBEL: No.

15 (Whereupon, a discussion was held off the record.)

16 A. I have glanced through the document.

17 Q. (By Mr. Goebel) Are you familiar with that
18 document?

19 A. I have seen it in the past, yes.

20 Q. Do you know who prepared that document?

21 A. I do not.

22 Q. Do you know when it was prepared?

23 A. Very roughly, early '60s is as close as I
24 can come.

25 Q. Would you describe generally what it is?

1 A. This is a product brochure or bulletin
2 which describes the Monsanto product Pydraul F-9, its
3 properties and potential usage in gaskets and sealants
4 that could be used in systems in which this Pydraul F-9
5 is used.

6 Q. There is no mention in that document that
7 Pydraul F-9 contains PCBs, is there?

8 A. That is correct.

9 Q. And the only harms discussed are acute
10 harms from exposure to skin, the eyes and from
11 inhalation; is that true?

12 A. That is true.

13 Q. There is no mention that Pydraul poses a
14 danger to the environment in that document?

15 A. That is true.

16 Q. It does not say anything about disposal of
17 Pydraul, does it?

18 A. It does not.

19 Q. And on page 3 it states that it is safe to
20 use and that no special handling is required, does it
21 not?

22 MR. CASSIS: Have you provided these
23 documents to me in discovery?

24 MR. GOEBEL: These were provided -- Yes,
25 they were.

1 MR. CASSIS: Let the record show that the
2 documents he's using were provided to -- When were these
3 provided?

4 MR. GOEBEL: In that production --

5 MR. CASSIS: Do you have the Bates number
6 of those productions? What I want to get on the
7 record -- Just a minute. Do you have the Bates numbers
8 on these that were produced?

9 MR. GOEBEL: I don't know, Charlie, but I
10 know they were produced.

11 MR. CASSIS: Okay.

12 MR. WEINREB: I assume so.

13 MR. CASSIS: You assume so, because I don't
14 remember seeing them.

15 MR. WEINREB: You say "them." What are you
16 talking about?

17 MR. CASSIS: Documents you're about to use
18 with this witness.

19 MR. WEINREB: This right here?

20 MR. CASSIS: All the documents you're
21 getting ready to use with this witness.

22 MR. GOEBEL: I'm almost sure that you have
23 those documents.

24 MR. CASSIS: You're getting ready to use a
25 lot of documents -- I want this on the record. You're

1 getting ready to use a lot of documents.

2 MR. GOEBEL: Why don't we take them one at
3 a time?

4 MR. CASSIS: Has this one been produced to
5 me?

6 MR. GOEBEL: I'm almost positive, but there
7 may be an oversight.

8 MR. CASSIS: Let the record show any
9 document that he uses that was not produced, I object to
10 and move to strike from any reference in this
11 deposition. I don't remember seeing this document.

12 MR. GOEBEL: Would you read back my last
13 question, please?

14 (Whereupon, the reporter read from the record as
15 follows: "QUESTION: And on page 3 it states that it is
16 safe to use and that no special handling is required,
17 does it not?")

18 A. There is a reference to the no special
19 handling is required, and this refers to special
20 handling as it relates to liquids used in industrial
21 hydraulic systems. It's further amplified later on on
22 page 18 of the document under the section that refers to
23 toxicity and safe handling information.

24 Q. All right. And you've already testified
25 that there was no reference at all on the disposal of

1 Pydraul F-9?

2 A. No, because the emphasis is on reclaiming
3 which is section 9 of the article -- of the pamphlet.

4 MR. CASSIS: Thank you.

5 (Reporter marked for identification Papageorge
6 Deposition Exhibits Nos. 15 and 16.)

7 Q. (By Mr. Goebel) Let me hand you Exhibits
8 15 and 16. Why don't you take a moment and review
9 those, please.

10 A. I have reviewed them.

11 Q. You're familiar with those documents?

12 A. I have seen them before, yes.

13 Q. First of all, why don't you reference
14 Exhibit 15 and tell me what that is, please?

15 A. It's a copy of a letter, the letterhead
16 American Mutual Liability Insurance Company, authored by
17 a Mr. Stephen B. Logan, Louisville Branch Engineer,
18 addressed to Monsanto Chemical Company, and the letter
19 is dated August 29, 1960.

20 Q. And it's a request for information on
21 Pydraul F-200?

22 A. It is.

23 Q. There is actually no Pydraul F-200. It was
24 A-200, I believe.

25 A. That is the correct designation, yes.

1 Q. And it asks for whether there are any
2 health and fire hazards and the toxic hazards associated
3 with that product, does it not?

4 A. It does ask that.

5 Q. And is Exhibit No. 16 a response to that
6 letter?

7 A. It is.

8 Q. In the second paragraph of Exhibit 16
9 toward the middle of that paragraph it discusses the
10 hazards as being accidental ingestion of the fluid,
11 repeated skin contact and that exposure should be
12 avoided to prevent skin irritation, correct?

13 A. Yes.

14 Q. And in the following paragraph there is a
15 reference to hazards associated with inhalation of the
16 product, is there not?

17 A. Yes.

18 Q. This letter does not mention any
19 environmental dangers associated with Pydraul F -- or
20 I'm sorry -- Pydraul A-200?

21 A. No, those were not known in 1960.

22 Q. But they are not mentioned either?

23 A. That's true.

24 Q. There is also no reference to the fact that
25 Pydraul A-200 contained PCBs, is there?

1 A. Well, there is a reference to chlorinated
2 hydrocarbons which is the generic term for that type of
3 chemical.

4 Q. "That type of chemical" being?

5 A. Chlorinated hydrocarbon, which includes
6 PCBs.

7 Q. It could include other things?

8 MR. CASSIS: Let him finish his answer,
9 please. Don't be rude.

10 A. It does include a whole host of chemicals,
11 carbon tetrachloride, trichloroethylene, chlorinated
12 benzene, on and on, all of which have similar health
13 effects.

14 Q. (By Mr. Goebel) It does not identify
15 polychlorinated biphenyls as a component?

16 A. That is true.

17 Q. There are three attachments; is that
18 correct?

19 A. Yes.

20 Q. Are you familiar with those brochures on
21 Pydraul A-200?

22 A. I have seen them before. I don't remember
23 everything that's in them, but I have seen them.

24 Q. Is a fair characterization of these
25 attachments that any dangers associated with Pydraul

1 A-200 are with respect to skin contact or eye irritation
2 or inhalation of the product?

3 MR. CASSIS: I'm sorry. I don't understand
4 the question.

5 Q. (By Mr. Goebel) Let's take them one at a
6 time. The first attachment is "Monsanto Introduces ...
7 Pydraul A-200."

8 A. I see that.

9 Q. On the last page of that document in the
10 last paragraph it says, "Repeated or continuous skin
11 contact should be avoided and inhalation of the vapors
12 at elevated temperatures should be prevented. Pydraul
13 A-200 is only mildly irritating to the eyes (but can
14 cause pain) and like any other synthetic hydraulic
15 fluid, it exerts a solvent-type type action on the skin.
16 Where prolonged contact cannot be avoided, gloves should
17 be worn." Other than those hazards associated with skin
18 contact and inhalation, are there any other warnings on
19 the use or disposal of Pydraul A-200?

20 A. No, you don't need any other. If these are
21 met, you don't worry about greater exposures. This is
22 the early warning symptom control. If you control that,
23 you don't have to worry about the more hazardous
24 exposures. That's the intent of these kinds of
25 statements.

1 Q. We talked earlier about an employee
2 statement warning and an environmental warning.

3 A. Yes.

4 Q. This would fall in the category of an
5 employee statement warning of hazard associated with the
6 product?

7 A. Yes.

8 Q. There are no environmental warnings in this
9 particular brochure?

10 A. No, none were known; therefore, it could
11 not be communicated.

12 Q. Well, the fact is none were communicated?

13 MR. CASSIS: Tony, he's told you what his
14 answer is. Objection.

15 A. There were none to communicate.

16 Q. (By Mr. Goebel) Let's go through the
17 second attachment to the letter, and it's entitled
18 "Monsanto Fluids for Specialized Engineering."

19 A. I see that.

20 Q. Are you familiar with that document?

21 A. Yes, sir.

22 Q. Do you know when this document was
23 prepared?

24 A. I don't know.

25 Q. There is no warning about the potential

1 harm to the environment associated with the use of these
2 fluids, is there?

3 MR. CASSIS: You're speaking of the
4 attachment to this September 1, 1960, letter?

5 MR. GOEBEL: The one entitled "Monsanto
6 Fluids for Specialized Engineering."

7 MR. CASSIS: I know. That's the one
8 attached to the September 1, 1960, letter.

9 MR. GOEBEL: Right.

10 A. Well, again, at that time no effects or
11 presence in the environment were known; therefore,
12 nothing could be communicated in that vein.

13 Q. (By Mr. Goebel) Let's go to the third
14 attachment to the September 1, 1960, letter, which is
15 entitled "Know Your Hydraulic Fire Hazards."

16 A. I have it.

17 Q. Do you recognize that document?

18 A. I do.

19 Q. Do you know when it was prepared?

20 A. I do not.

21 Q. Why don't you describe that document
22 generally?

23 A. It's a document that describes the
24 fire-resistance properties of the Pydraul product line.
25 That's the principal purpose of this document.

1 Q. And it doesn't mention PCBs in it, does it?

2 A. No, it doesn't.

3 Q. And it doesn't have any warning about the
4 potential harm to the environment?

5 A. That is correct.

6 Q. You told me that the designation after some
7 of the Pydraul formulas with the letter "A" meant that
8 it contained polychlorinated terphenyls?

9 A. This is the "A" after -- at the tail end,
10 the very last.

11 Q. Yes.

12 A. Uh-huh. Yes.

13 Q. What did the designation "B" after such a
14 number or Pydraul formula stand for?

15 A. That designation, as best I recall,
16 referred to the formulations that, of course, didn't
17 contain any chlorinated chemical and contained a
18 phosphate ester as the fire-resistant ingredient.

19 Q. And what about formulas with the letter "C"
20 designation after the formula number?

21 A. "C" and "E" also had phosphate esters in
22 them.

23 Q. Are you aware of any -- Well, let me ask it
24 this way, this morning you said that you had received
25 the drafts of some of the letters that went out. And I

1 can go back and refer to them specifically. In
2 particular, I think, Exhibits 1, 2, and 3, there had
3 been drafts circulated before the letters were
4 finalized. Would -- Did anyone keep a copy of those
5 drafts?

6 A. I don't know.

7 Q. Did you?

8 A. No. I never keep rough drafts, no.

9 Q. Do you recall in particular what changes
10 you proposed to the initial draft of the letters?

11 A. No. That's 20 years ago. No, I don't
12 remember.

13 MR. GOEBEL: Give me just a minute. I
14 might be done. That's all I have. Thank you.

15 CROSS-EXAMINATION

16 QUESTIONS BY MR. PRICE:

17 Q. Mr. Papageorge, I'm Gene Price. I
18 represent Home Insurance, the third-party defendant in
19 this case. Very quickly -- I'll be much quicker than my
20 predecessors. Mr. Goebel asked you a couple questions
21 about some PCBs products which included some Aroclors of
22 various numbers and phosphorous pentasulfide. These are
23 all products manufactured by Monsanto which contain
24 PCBs. After 19 -- I'm sorry. You were going to say
25 something?

1 A. You mention phosphorous pentasulfide.

2 Q. Yes.

3 A. Does not contain PCBs.

4 Q. It does not contain?

5 A. No. I didn't want to mislead you.

6 Q. After May of 1971 did all these products
7 contain an environmental warning label on however they
8 were shipped in the package?

9 A. It's after May 1970 they had an
10 environmental statement on those products that contained
11 PCBs of any type, as long as they were chlorinated
12 biphenyls.

13 Q. Right. On Exhibit 14, which was given to
14 you by Mr. Goebel, on Section 9, page 17, I believe
15 there is a recommendation that was made by Monsanto in
16 this, I guess it was a brochure that was used in
17 marketing tests of Pydraul F-9 products. Could you look
18 in that first paragraph and read the third sentence,
19 please.

20 A. Read the third sentence?

21 Q. Yeah.

22 A. The one that starts with "Therefore"?

23 Q. Yes, sir.

24 A. "Therefore fluid recovery should be a
25 definite part of the maintenance program where fluid

1 losses are appreciable."

2 Q. Was that a recommendation on the part of
3 Monsanto to the customer to recycle or reclaim all the
4 Pydraul if there was, in fact, the prospect of some
5 serious losses of the product into the environment or
6 the work area?

7 A. Yes, definitely.

8 Q. And Exhibits 14, 15 and 16, to the best of
9 your knowledge, were all these letters, brochures,
10 whatever they are, were they all produced before the
11 Swedish study of 1966?

12 A. Yes. Yeah, at least a decade before.

13 Q. And certainly before your knowledge of the
14 Swedish study?

15 A. Yes.

16 Q. Which I believe you testified came in 1969?

17 A. Yes.

18 MR. PRICE: That's all I've got.

19 REDIRECT EXAMINATION

20 QUESTIONS BY MR. CASSIS:

21 Q. Yeah, I just have a few more questions.
22 Now benzofuran, that's a byproduct of PCB, is it not?

23 A. I have a little problem with the definition
24 of byproduct. Many people have different
25 understandings. It is an unwanted contaminant that

1 under certain conditions can be produced as the PCBs are
2 produced.

3 Q. All right. So they are certainly a
4 PCB-related product, if we don't want to call it a
5 byproduct?

6 A. Like I say, under certain conditions you
7 can get it, yes.

8 Q. Mr. Goebel asked you several questions
9 about the sales of product to Rockwell at Russellville
10 concerning some of the Pydraul that did not contain
11 PCBs. Do you recall that question?

12 A. Yes. I think I do, yeah.

13 Q. And you also testified that you had
14 reviewed the product which was shipped to Rockwell at
15 the Russellville facility over the years; is that not
16 correct?

17 A. That is correct.

18 Q. And isn't it true that the majority and
19 most of the product, the Pydraul shipped to Rockwell at
20 the Russellville facility there was -- contained PCBs?

21 MR. GOEBEL: Object to the
22 characterization.

23 Q. (By Mr. Cassis) Fine. Let him answer it.

24 A. Yes.

25 Q. Okay. Now, what relationship are PCTs to

1 PCBs, if you can answer?

2 A. I don't know that there is necessarily a
3 relationship. They have some common features, I guess I
4 could call them. They, of course, both contain
5 chlorine --

6 Q. Okay.

7 A. -- attached to carbons in the chemical
8 molecules. There is a relationship in that the benzene
9 or phenyl ring is associated with both of them. The
10 biphenyls have two of these rings, and the terphenyls
11 have three. That's as close as I can get to describing
12 the relationships.

13 Q. Okay. When Mr. Bergen, about whom you
14 spoke this morning, said in his letter of January 31,
15 1972, "We have decided to stop using polychlorinated
16 terphenyls as a component in our fluids. Our new fluids
17 will contain no chlorinated components," do you recall
18 that?

19 A. I do.

20 Q. Why did he advise customers who were using
21 that type of Pydraul that information?

22 MR. GOEBEL: Object to the state of mind of
23 the question.

24 Q. (By Mr. Cassis) Go ahead and answer.

25 A. At that point in time Monsanto's research

1 department had found that the substitution of phosphate
2 esters resulted in a very acceptable product. Since the
3 phosphate esters were now available to Monsanto as a
4 tailor-made product made in a special unit design form,
5 it was decided that Monsanto might as well use that
6 capacity and eliminate any reference to chlorinated
7 hydrocarbon, which --

8 Q. Would that have included the terphenyls?

9 A. Terphenyls and any chlorinated. The whole
10 idea was to get away from any chlorine containing
11 chemical.

12 Q. Which would be both PCBs and the PCTs?

13 A. Correct.

14 Q. Now, F-9, did that contain PCBs?

15 A. Yes.

16 MR. CASSIS: Okay. One last question -- Or
17 I think we have established that. That's all.

18 MR. GOEBEL: Off the record.

19 (Whereupon, a discussion was held off the record.)

20 RE CROSS-EXAMINATION

21 QUESTIONS BY MR. DAVIDSON:

22 Q. On the record. I had one question I wanted
23 to clarify. In the discussion with respect to the Yusho
24 incident in 1968 where you referred to -- or the
25 questions and your answers referred to PCBs being

1 involved, were those PCBs manufactured by Monsanto?

2 A. No.

3 Q. Do we know who they were manufactured by?

4 A. Yes.

5 Q. And who was that?

6 A. Kanegafuchi, the chemical producer in
7 Japan.

8 Q. I think there is one other matter I'd like
9 to clarify, and I'd like you to refer to what's been
10 marked as Exhibit 5, which was discussed earlier this
11 morning. At some point in time did Monsanto determine
12 that not only were Aroclor 1254 and 1260 appearing as
13 environmental contaminants, but that the lower
14 chlorinated materials might be as well?

15 A. Yes.

16 Q. And approximately when was that?

17 A. As best as I recall, late '70, early '71.

18 Q. All right. And did Monsanto, in turn,
19 decide to remove all polychlorinated biphenyls from
20 their Pydraul fluid?

21 A. Yes.

22 Q. And was that done and when?

23 A. As I remember, polychlorinated biphenyls
24 were removed from all of the Pydrauls in '71.

25 Q. Okay. And is Exhibit 5 a letter sent, a

1 general customer mailing that PCBs had been removed from
2 all Pydrauls?

3 MR. GOEBEL: I'm going to object to the
4 form. The document speaks for itself.

5 Q. (By Mr. Davidson) Okay. You can go ahead
6 and answer.

7 A. This document shows as of April 15th
8 Mr. Bradford informing customers that no PCBs were in
9 any Pydraul fluids sold as of that point in time.

10 MR. DAVIDSON: That's all.

11 MR. CASSIS: Go ahead. I don't have any
12 more questions.

13 MR. GOEBEL: I've got one more.

14 MR. CASSIS: I don't have any more
15 questions. I just want to get something straight for
16 the record.

17 RECROSS-EXAMINATION

18 QUESTIONS BY MR. GOEBEL:

19 Q. Okay. Are you aware of any other
20 correspondence in Monsanto's records that went to
21 Rockwell International, Rockwell Manufacturing or
22 Rockwell Standard other than the ones we've talked about
23 today?

24 A. No, I have not.

25 Q. You were just asked if Rockwell made a

1 decision to -- Strike that. You were just asked whether
2 the lower chlorinated materials were appearing as
3 contaminants in the environment, and that Monsanto made
4 a decision to remove those from its products. In any of
5 the documents we have seen today is there any warning
6 from Monsanto regarding the lower chlorinated biphenyls
7 or lower chlorinated materials other than their mention
8 in Exhibit No. 1?

9 MR. CASSIS: Objection.

10 Q. (By Mr. Goebel) And I'm going to --

11 MR. CASSIS: Whatever it says in Exhibit 1.
12 Whatever is there, is there. The document speaks for
13 itself.

14 MR. GOEBEL: Let me strike the question.
15 Start over. All right?

16 MR. CASSIS: Okay.

17 Q. (By Mr. Goebel) Your counsel asked if
18 whether Monsanto decided -- or whether the lower
19 chlorinated components appeared as contaminants in the
20 environment, and you said yes, correct?

21 A. I thought the question was a little bit
22 different.

23 Q. What -- We can have it read back.

24 A. Yes. I thought the question related to
25 were the lower chlorinated types of PCBs contributing to

1 the PCBs being found in the environment.

2 Q. Okay. And your answer?

3 A. And my answer was yes, it was determined in
4 late 1970.

5 Q. And the lower chlorinated components being
6 those with less than 54 percent chlorine content?

7 A. When initially produced, yes.

8 Q. All right. In any of the documents we have
9 seen today, is there any reference to chlorinated
10 components of less than -- with a content of less than
11 54 percent, other than in Exhibits 1 and 4?

12 MR. CASSIS: I'm going to object only to
13 the extent that if it is so reflected in the other
14 documents or the other exhibits about which he's
15 testified, then I don't want to be restricted, nor his
16 answer be restricted to that because to ask him to go
17 through every one of those documents now and to find
18 that I think is a little unfair to the witness.

19 A. Exhibits 1 and 4 refer to the state of the
20 knowledge as of early 1970. The conclusion that the
21 lower chlorinated mixtures of PCBs might be contributing
22 also to this higher chlorinated presence wasn't reached
23 until almost a year later. So it is not reflected in
24 any of these documents we have looked at today.

25 Q. (By Mr. Goebel) And the last word on the

1 lower chlorinated components is reflected in Exhibits 1
2 and 4?

3 MR. DAVIDSON: I'll object to that.

4 MR. CASSIS: As of that time.

5 A. It's not the last word.

6 Q. (By Mr. Goebel) The last word communicated
7 to Rockwell about lower chlorinated components is
8 reflected in Exhibits 1 and 4?

9 MR. CASSIS: Objection.

10 MR. DAVIDSON: You're limiting him to the
11 exhibits he's seen today?

12 MR. GOEBEL: He said he doesn't know of any
13 others.

14 MR. DAVIDSON: But that's the limit of your
15 question.

16 MR. GOEBEL: Well, if there are others,
17 we'd like to see them.

18 MR. DAVIDSON: You've never asked for them.

19 A. As far as the documents we have looked at
20 today, the answer to your question is yes. I don't know
21 of any other documents at this point in time that would
22 address the subject of the lower chlorinated types of
23 PCBs.

24 MR. GOEBEL: All right. You've agreed to
25 provide us with the documents that someone in your

1 office reviewed to prepare that list of types of
2 Pydrauls used and the dates shipped from Monsanto; is
3 that right?

4 MR. DAVIDSON: Well, first of all, it
5 wasn't prepared in my office. It was prepared by the
6 Monsanto law department, and it is a summary of existing
7 sales records to the Russellville facility. And, yes,
8 we'll be happy to produce those for you.

9 MR. CASSIS: Do you want to put the
10 stipulation on the record now or do you want to do
11 that -- We have agreed to a stipulation to --

12 MR. GOEBEL: -- which we'll do in writing.

13 MR. CASSIS: That's it.

14 THE REPORTER: Signature?

15 MR. DAVIDSON: Read.

16

17 _____
WILLIAM B. PAPAGEORGE

18 Subscribed and sworn to before me this _____ day
19 of _____, 1993.

20 My Commission expires: _____.

21

22 _____
[Notary Public]

23

24

25 AAC Commercial Union vs. Rockwell International, et al.

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 11 that -- We have agreed to a stipulation to --

12 MR. GOEBEL: -- which we'll do in writing.

13 MR. CASSIS: That's it.

14 THE REPORTER: Signature?

15 MR. DAVIDSON: Read.

16 William B. Papageorge

17 WILLIAM B. PAPAGEORGE

18 Subscribed and sworn to before me this 3rd day

19 of June, 1993.

JOSEPHINE S. NIBLOCK
 NOTARY PUBLIC STATE OF MISSOURI
 ST. LOUIS COUNTY
 MY COMMISSION EXP. JAN. 15, 1995

20 My Commission expires: _____

21 Josephine S. Niblock
 22 [Notary Public]

23 ORIGINAL

24
 25 AAC Commercial Union vs. Rockwell International, et :

WALLER REPORTING, INC.

STATE OF MISSOURI)
)
COUNTY OF ST. LOUIS)

I, ALICIA A. CARTER, a Registered Professional Reporter and a duly commissioned Notary Public within and for the State of Missouri, do hereby certify that pursuant to Notice there came before me at the law office of Husch & Eppenberger, 100 North Broadway, Suite 1300, St. Louis, Missouri 63102,

WILLIAM B. PAPAGEORGE,

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

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

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal May 18, 1993.

ALICIA A. CARTER
Notary Public, within and
for the State of Missouri

William B. Papageorge
NAME OF WITNESS

DEPOSITION CORRECTION SHEET

Page	Line	Should read:
11	4	- -, but the assignment was the same.
Reason for change:		Incorrect word.

Page	Line	Should read:
20	5	- - - automotive hydraulic fluids; -
Reason for change:		Clarification

Page	Line	Should read:
42	4	It did.
Reason for change:		
Clarification		

Page	Line	Should read:
72	15	polychlorinated biphenyls - -
Reason for change:		Spelling

Page	Line	Should read:
121	3	--- usage and gaskets ---
Reason for change:		Incorrect word

Page	Line	Should read:
136	4	- - - special unit designed for them,
Reason for change:		clarification

Page	Line	Should read:
1	1	1
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Reason for change:

William B Papazogor
SIGNATURE OF WITNESS