

1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
BEAUMONT DIVISION

CECIL SCOTT, ET AL

VS.

MONSANTO COMPANY

*
*
*
*
*
*
*

CIVIL ACTION
NO. B-84-1103-CA

September 3, 1987

Volume XV

BEFORE THE HONORABLE JOE J. FISHER
UNITED STATES DISTRICT JUDGE, AND A JURY

Reported by:

C. Frank McMillan
Federal Court Reporting Co.
P. O. BOX 2664
Beaumont, Texas 77006
(409) 839-2518

A P P E A R A N C E S

ATTORNEYS FOR PLAINTIFFS:

MR. DAVID M. LACEY
MR. MICHAEL A. POHL
MS. SUSAN BAKER
Gilpin, Pohl & Bennett
1300 Post Oak Boulevard
Houston, Texas 77056

MR. THOMAS HENDERSON
MR. ANTONIO PYLE
Henderson & Goldberg
1030 Fifth Avenue
Pittsburgh, Pennsylvania 15219

MR. BENTON MUSSLEWHITE
609 Fannin, Suite 517
Houston, Texas 77002

ATTORNEYS FOR DEFENDANT:

MR. ROBERT A. HALL
MR. ROBERT A. JONES
MR. JONATHAN SHOEBOOTHAM
Woodard, Hall & Primm
4700 Texas Commerce Tower
Houston, Texas 77002

MR. TANNER T. HUNT, JR.
MS. CHERYL D. OLESEN
MR. WALTER CRAWFORD
MR. MARK FREEMAN
Wells, Peyton, Beard, Greenberg,
Hunt & Crawford
P. O. Box 3708
Beaumont, Texas 77056

ALSO PRESENT:

Mr. William Papageorge, Corporate
Representative for the Monsanto
Chemical Company.

INDEX

WITNESS: DR. SHERISH JOSHEE

Reading from Deposition

PAGE

2321

WITNESS: DR. THOMAS SHARP

Reading from Deposition

PAGE

2321

WITNESS: DR. GEORGE LEWIS

Reading from Deposition

PAGE

2322

WITNESS: ROSE MARILYN STUMPE

Direct Examination by Mr. Musslewhite

Cross Examination by Mr. Shoebbotham

Redirect Examination by Mr. Musslewhite

PAGE

2326

2346

2353

WITNESS: WILLIAM B. PAPAGEORGE

Direct Examination by Mr. Hall

Cross Examination by Mr. Musslewhite

PAGE

2360

2406

WITNESS: A.J. CUTSHAW

Reading of Video Deposition

Showing of Video Deposition

PAGE

2456

2461

1 motions that we would like to make to the
2 court at this time.

3 THE COURT: The Court will assume that
4 the motions are made and taken under
5 advisement, subject to the motions.

6 MR. JONES: Your Honor, may I --

7 THE COURT: Subject to motions, the
8 defendant may proceed.

9 MR. JONES: Your Honor, may I go ahead
10 and file the motions themselves, Your Honor?

11 THE COURT: Yes, sir.

12 All right. Who do you have first?

13 MR. HALL: Mr. Papageorge, Your Honor.

14 THE COURT: Mr. Papageorge, would you
15 come forward?

16

17

18

GEORGE PAPAGEORGE,

19

HAVING BEEN DULY CAUTIONED AND SWORN TO TELL THE
20 TRUTH, THE WHOLE TRUTH AND NOTHING BUT THE TRUTH,
21 TESTIFIED AS FOLLOWS:

22

23

THE COURT: You may proceed, Mr. Hall.

24

MR. HALL: May it please the Court.

25

DIRECT EXAMINATION

BY MR. HALL:

Q Would you please state your name.

A William B. Papageorge.

Q Where do you live, Mr. Papageorge?

A St. Louis County, Missouri.

Q How old a man are you, sir?

A 64.

Q Would you please tell us what the facts are concerning your educational background?

A Following graduation from high school, I attended Washington University in St. Louis, received a bachelor of science degree in chemical engineering in 1943.

After service in the military, I returned to that same university and worked on a master of science degree in chemical engineering and was awarded that degree in 1947. I also took courses toward a doctor of science degree at Oklahoma A&M, in the period 1947 to 1951.

Q Where did you go to work after you got out of college?

A I went to work with Phillips Petroleum Company in Bartlesville, Oklahoma.

Q And over what period of time did you work

1 with Phillips?

2 A From 1947 until 1951.

3 Q And what was your job there?

4 A I worked in the research department on
5 problems dealing with oil well drilling fluids,
6 and in secondary recovery of the older oil wells,
7 and then I was assigned the task of designing oil
8 refining equipment.

9 Q When did you go to work for Monsanto?

10 A In 1951.

11 Q Where was your employment with Monsanto?

12 A At the larger plant in the St. Louis,
13 Missouri area.

14 Q At the what?

15 A St. Louis, Missouri area.

16 Q What was your first job there sir?

17 A I was assigned to their engineering
18 department designing equipment to be used in the
19 manufacture of chemicals.

20 Q Would you been good enough to tell the jury
21 what jobs you held at Monsanto while you were
22 employed there, what your duties were?

23 A Well, they were quite varied after -- it
24 covered a period of about 35 years. The first 19
25 of those were in manufacturing, supervising

1 production, departments, supervising maintenance
2 and construction teams, back into engineering as
3 a superintendent.

4 I got involved with warehousing
5 distribution, shipping, generation of utilities,
6 distribution of utilities. Then I was assigned
7 to a plant in Illinois where I was a general
8 superintendent of manufacturing.

9 Finally I was appointed plant manager of the
10 plant in Anniston, Alabama; and that was the
11 plant where I first became significantly involved
12 with PCBs, in Anniston.

13 Following five years of service at that
14 plant, and this takes us to 1970, I was assigned
15 to return to St. Louis and work on matters
16 relating to the PCB enviromental issue that had
17 occurred at that time. I stayed with that
18 assignment until 1976.

19 From 1976 until December 31st of 1986, I was
20 involved with enviromental issues, occupational
21 workplace health issues, and product safety
22 issues.

23 Q So, from the years 1965 through 1976, you
24 were working with PCBs; is that correct?

25 A Yes, sir, that's correct.

1 Q When did you retire from Monsanto?

2 A December 31st, 1986.

3 Q How are you presently employed?

4 A I'm self-employed at the moment.

5 Q In what capacity?

6 A I am serving as a consultant to Monsanto on
7 PCB matters and also to a North Carolina law firm
8 on PCB matters.

9 Q Mr. Papageorge, so far as you know, is there
10 anybody alive today, either currently employed by
11 Monsanto or a past employee of Monsanto, who has
12 more knowledge than you do concerning Monsanto's
13 involvement with PCBs?

14 A I don't know of any.

15 Q Okay, sir. Let me ask you just a few
16 questions about my client, Monsanto.

17 How long has Monsanto been in business?

18 A Since 1901.

19 Q And where are its main offices located?

20 A In St. Louis County, Missouri.

21 Q Without going into any great detail, could
22 you give us just a general statement of types of
23 businesses that Monsanto is engaged in?

24 A It's quite varied. They make agricultural
25 chemicals pesticides. Lasso, Roundup are two of

1 the more popular ones. These make fibers that
2 are used in carpeting, draperies such as appear
3 in this courtroom.

4 They make aspirin, the world's biggest
5 producer of aspirin. They make the ingredient
6 that's in Tylenol.

7 They are very big in plastics; for example,
8 the plastics used in automobiles. The dashboard
9 is a good example or even the safety glass in the
10 windshield has a sheet of plastic between the two
11 glass pieces. That is a Monsanto product.

12 They make rubber chemicals that end up in
13 such things as automobile tires. They make a lot
14 of plastics, as I have said. I think I have run
15 out of ideas.

16 Q Okay. About how many plants does Monsanto
17 operate?

18 A About 50 in the United States, and I believe
19 it's close to 70 worldwide.

20 Q And lastly, about how many folks does
21 Monsanto employ?

22 A 52,000.

23 Q Now, during the course of your employment
24 with Monsanto, Mr. Papageorge, have you become
25 familiar with the process by which PCBs are

1 produced?

2 A Yes, I have.

3 Q Now, bearing in mind that I'm no chemist and
4 the jurors are not chemists either, could you
5 give us an explanation, hopefully, that we can
6 understand of how you make PCB?

7 A I will try. We start with two ingredients
8 that I believe most people have heard of:
9 benzene and chlorine.

10 The benzene is exposed to high temperature
11 and pressure, and it makes biphenyl. This
12 biphenyl is kept molten because of the heat. You
13 take chlorine and bubble it through this molten
14 tank full and that is when the chlorinated
15 biphenyl is made.

16 Q When you refer to the chlorine or
17 chlorine -- how do you pronounce it -- that's
18 used, is that the same chlorine that's put in
19 swimming pools, hot tubs? Is that the same
20 chemical?

21 A Yes, it is.

22 Q When PCB gets made, what does it look like?

23 A Well, it's a clear liquid; and since there
24 are many types of PCBs, they range from something
25 about the consistency of water to the more

1 viscous materials that have the consistency of --
2 let me call it molasses.

3 I say it's like water. The thinner ones are
4 water white. The thicker ones have a tinge of
5 yellow to them when they are produced.

6 Q What do PCBs smell like?

7 A To me, they -- I would describe it as
8 somewhat medicinal, household disinfectant type
9 odor.

10 Q Where did Monsanto produce PCBs?

11 A In the United States, it was at Anniston,
12 Alabama. And Sauget, Illinois.

13 Q Did Monsanto ever produce any PCBs in the
14 State of Missouri?

15 A No.

16 Q When did Monsanto first start making PCBs?

17 A Middle 1930's.

18 Q Could you tell us briefly how Monsanto got
19 into the PCB business?

20 A Monsanto acquired a plant in Anniston,
21 Alabama, that was owned and run by a Swann
22 Chemical Company in about 1935.

23 Q Was Swann Chemical making PCBs at the time
24 Monsanto bought it?

25 A Yes, sir.

1 Q How long had Swann been making PCBs?

2 A Since 1929.

3 Q When did Monsanto stop making PCBs?

4 A 1977.

5 Q Could you tell us so that we can understand
6 some of the evidence that had been introduced
7 here, what different names Monsanto used for its
8 PCB products?

9 A Monsanto was using the trademark Aroclor
10 followed by numbers to describe the Monsanto
11 product. It also used the word Thermonol to
12 describe PCB heat transfer fluids.

13 It use the name Pydraul to describe the
14 industrial hydraulic fluids that had PCBs in
15 them. I can't recall any other trade names at
16 the moment.

17 Q Well, you mention Aroclor, followed by a
18 number. Now we have seen some things here in
19 evidence, I think, like Aroclor 1242. What does
20 1242 mean?

21 A The 12 says that this is a PCB mixture. The
22 42 says that in this total mixture, 42 percent of
23 it by weight is chlorine.

24 Q Does Aroclor mean anything, or is it just a
25 trade name?

1 A It comes from two words: Aromatic, which
2 describes certain kinds of chemicals; and
3 chlorine. So, Aroclor comes from those two
4 words.

5 Q Another word that has been used in the
6 testimony thus far is Inerteen. What is
7 Inerteen?

8 A Oh, Inerteen is a Westinghouse trademark of
9 fluids used in electrical equipment.

10 Q Who makes Inerteen?

11 A Well, certainly Westinghouse made some of
12 it; and to their specifications and
13 instructions, Monsanto made some of it.

14 Q Now, I believe another word that had been
15 used is Pyranol. Are you familiar with that?

16 A Yes, I am.

17 Q What is it?

18 A Pyranol is the General Electric trade mark
19 for liquids used in electrical equipment, very
20 much like the Westinghouse Inerteen.

21 Q And who made the Pyranol?

22 A General Electric made some Pyranols and
23 Monsanto made Pyranols for General Electric.

24 Q A when Monsanto made the Pyranol for General
25 Electric, who told Monsanto what to put in the

1 mixture?

2 A Oh, General Electric did.

3 Q Do you know what PCBs were used for during
4 the 40 or so years that Monsanto produced them?

5 A Well, certainly the electrical equipment use
6 we just talked about. The heat transfer
7 industrial fluids, industrial hydraulic fluids,
8 in sealants and caulking that is used around
9 skyscraper glass buildings, in carbonless copy
10 paper. This is the paper where you can make a
11 copy without a piece of carbon required.

12 As a softening agent in plastics to keep
13 them from being brittle. As an ingredient in
14 high grade paints and varnishes. As an
15 ingredient in some special rubber, synthetic
16 rubbers.

17 Q Well now, the testimony in this case, has
18 talk about PCBs being used in transformers; and
19 that's certainly one use for them, was it not,
20 sir?

21 A That is.

22 Q Could you tell us why PCBs were used in
23 transformers.

24 A The purpose of a liquid in a fluid in
25 transformers is two-fold: One is to keep the

1 electricity from jumping from one part of the
2 transformer to the other. So, the liquid has to
3 be insulating. It does not conduct electricity.

4 Another important feature with PCBs is that
5 this fluid will not burn in the event an arc does
6 happen inside that transformer.

7 Q Are those characteristics that you just
8 outlined the same reasons that you would use PCBs
9 inside a capacitor?

10 A Yes, sir.

11 Q Don't give us any technical definition, but
12 what is a transformer. What does it do?

13 A A transformer is an electrical device that
14 is used to either lower the voltage of an
15 electrical system or increase the voltage in an
16 electrical system.

17 Q Why would it be particularly important for a
18 transformer to have fluid inside it that wouldn't
19 catch on fire?

20 A Well, the intent is to avoid that situation
21 in a building or a situation where people are
22 involved, such as this courtroom. This building
23 has -- probably somewhere in this building there
24 is a PCB transformer. Commercial buildings,
25 office buildings, supermarkets, motels, hotels,

1 anywhere there are people that could be hurt from
2 a fire.

3 Q Can you tell us, Mr. Papageorge, about what
4 percentage of the transformers in the United
5 States of American were filled with PCB fluid?

6 A At the most, 5 percent.

7 Q What were the other 95 percent of the
8 transformers filled with?

9 A Well, many of them were filled with mineral
10 oil; and there were some that were filled with
11 gases, like nitrogen, and some were just air
12 filled.

13 Q If they were filled with those last three
14 things you just mentioned. Would they have PCBs
15 in them?

16 A No.

17 Q Let me ask you one question about that fire
18 feature, fire-resistant feature you were talkiung
19 about.

20 Are you familiar with a study that had been
21 conducted that deals with the comparative fire
22 risk of transformers that have PCB fluid versus
23 those that do not?

24 A Yes, I am.

25 Q And who did that study?

1 A It was a Mr. Boyken and Mr. Casmirian and a
2 Mr. Freeman made a risk analysis.

3 Q And about when was that done?

4 A I believe in about 1985.

5 Q Was that study published?

6 A Yes, sir.

7 Q And what were the results of that study?

8 A As I recall, the study indicated that under
9 the same conditions, switching from a PCB fluid
10 to a mineral oil fluid, the risks of having a
11 fire increase 300 to a thousand times.

12 Q Mr. Papageorge, when Monsanto first started
13 producing goes PCBs back in 1935, were the people
14 at Monsanto aware that if you got too much PCBs
15 on your skin, you could have some skin problems?

16 A Yes, sir.

17 Q Back in 1935 were the people at Monsanto
18 aware that if you breathed the fumes from PCBs
19 for an extended period, you could develop some
20 situations where your liver would be affected?

21 A That was known, yes, sir.

22 Q Now, could you tell us when Monsanto first
23 learned that PCBs were staying in the environment
24 rather than breaking down and disappearing?

25 A That happened in 1967.

1 Q And how did that information come to
2 Monsanto's attention?

3 A Monsanto representatives in Europe heard
4 about an article that was published by the
5 University of Stockholm in Sweden in which the
6 investigators who were looking for DDT in various
7 samples, spotted what they said looked like a
8 PCB.

9 Q Why was that development or discovery of any
10 particular significance to Monsanto?

11 A Because some of the samples these
12 investigators, researchers were looking at
13 represented situations where we never expected
14 PCBs to be present, such as the hair of a small
15 child, feathers of a museum eagle and pineneedles
16 from a forest. Those were surprising to us.

17 Q After that information came to Monsanto's
18 attention in 1967, what did Monsanto do in
19 connection with its PCB products?

20 A Well, eventually we did several things. I
21 think the most significant one was that we --
22 Monsanto chose to stop the sale of PCBs to those
23 uses that Monsanto thought would lend to easy
24 disposal into the environment. We call those the
25 "open uses," and restricted the sales only to the

1 electrical equipment where we visualized a steel
2 container holding that fluid and not letting it
3 escape.

4 Q Does that mean that you no longer sold it
5 for purposes of adding it to paint or using it in
6 carbonless copy paper?

7 A That is true.

8 Q And would it be equally accurate to say you
9 restricted to use like in a transformer,
10 capacitor or in a hydraulic piece of equipment?

11 A That's correct.

12 Q What -- well, tell us what else Monsanto did
13 when they learned that PCB was staying in the
14 environment?

15 A Well, we initiated animal toxicity studies
16 that were unique for an industrial chemical.
17 This is the first time that we know that anyone
18 had tried this. These tests are usually reserved
19 for pharmaceuticals or food and drug types of
20 chemicals, but they were industrial chemicals.

21 Nevertheless, studies were started on animal
22 testing to find out is there a harm if the
23 material is in the environment. We also informed
24 all of our customers we had on record of what we
25 understood about this PCB enviromental issue. We

1 added the new information on labels. We reviewed
2 all of our sales bulletins and literature and
3 changed it accordingly.

4 We offered our customers a chance to send
5 back any fluid that he could not use in his
6 process any longer for two purposes: We could
7 either try to reclaim it, clean it up, and try to
8 reuse it or destroy it by high temperature
9 burning.

10 Q You mentioned that Monsanto initiated some
11 toxicological studies. Are you familiar with a
12 company known as Industrial Biotest Laboratories?

13 A Yes, I am.

14 Q What line of work was IBT in?

15 A They were an independent laboratory that
16 tested chemicals and drugs and pesticides, to get
17 them to show us what effects they might have on
18 animals.

19 Q When did Monsanto first start using the
20 services of IBT?

21 A 1958.

22 Q And what type of a service did IBT render to
23 Monsanto?

24 A They would take samples of our chemicals and
25 treat the animals, either by feeding mostly, or

1 through the skin or through breathing and note
2 what effect different types or different levels
3 of feeding would have on the animals.

4 Q Now, you are telling me about things that
5 have been done other than just with PCBs, I
6 gather; is that correct?

7 A That's for all chemicals, yes, for many
8 chemicals.

9 Q Why would Monsanto need to hire or want to
10 hire an independent testing lab to test its
11 chemicals?

12 A Well, at one point in time, Monsanto didn't
13 have enough studies to support its own
14 laboratory. And this is one way to get the
15 results quickly.

16 Q Mr. Papageorge, did you ever have occasion
17 to go to IBT labs where it kept its animals and
18 did its work?

19 A Yes, I have.

20 Q Do you recall when you went to IBT's labs?

21 A I don't recall the specific dates, but it
22 was in the period 1970 and 1971, about three or
23 four times. It was about every six months or to
24 eight months period.

25 Q Would you tell the jury what you saw when

1 you went to IBT's labs?

2 A I saw what I would call a world-class type
3 of laboratory. It was modern. The staff struck
4 me as being quite professional. The equipment
5 that they had available to them would be the envy
6 of most laboratories. They had modern analytical
7 equipment and the likes.

8 I was privileged to go into the animal
9 testing areas. I, in fact, was allowed to walk
10 into these rooms where I saw the cages of rats,
11 not only of Monsanto's PCBs studies but studies
12 being conducted for other companies.

13 I recall going even into the one room where
14 the Beagle dogs were located and some dogs were
15 allowed to roam freely for their exercise period
16 and I was able to pet a few of them.

17 I didn't -- I saw what I thought was a very
18 impressive laboratory.

19 Q You have heard testimony in this case, have
20 you not, Mr. Papageorge, about some terrible
21 conditions there where animals were decomposing
22 and being eaten by other animals and things of
23 that ilk?

24 A Yes, I heard that.

25 Q Did you see anything close to that when you

1 were there?

2 A No, no. I find that very surprising.

3 Q Now, are you familiar with the problems that
4 IBT had with the United States Government,
5 specifically the Food and Drug Administration?

6 A I believe I'm familiar as much as I can be
7 reading in the newspapers and journals.

8 Q Did you follow the trial when Dr. Paul
9 Wright was tried by the government?

10 A Somewhat, yes, uh-huh.

11 Q Were you able to determine whether the Paul
12 Wright trial and that prosecution had anything to
13 do at all with PCBs?

14 A Oh, yes. I determined it had nothing to do
15 with PCBs.

16 Q Now, so far as you know, sitting in that
17 witness chair right today, did IBT -- so far as
18 you know -- ever submit any false data to
19 Monsanto on PCBs?

20 A Not to my knowledge.

21 Q By the same token, so far as you know, has
22 Monsanto ever submitted any false data to the
23 United States Government or anybody else on PCBs?

24 A They did not.

25 Q Has the United States Government or any

1 agency of the United States Government ever
2 accused Monsanto of having submitted false data
3 on PCBs?

4 A No.

5 Q Now, I believe you said that Monsanto quit
6 making PCBs in about 1977, did you say?

7 A That's correct, uh-huh.

8 Q Why did Monsanto quit making PCBs in 1977?

9 A Our electrical equipment manufacturers, by
10 early 1977, had indicated that they were about
11 ready to manufacture the equipment with different
12 types of fluids; and having that information,
13 Monsanto then informed them that as of July or
14 September of 1977, we would terminate, we would
15 stop selling, making PCBs.

16 Q What did the electrical industry use as a
17 replacement for the PCB fluid?

18 A I understand that those that continued to
19 make the liquid-type, fire-resistant transformers
20 used a fluid called silicones; and in capacitors,
21 they had to go to a fluid that was not fire
22 resistant called dioctyl phthalate.

23 Q Now, when did the United States Government
24 forbid or prohibit any further production of
25 PCBs?

1 A 1979.

2 Q At my request, Mr. Papageorge, have you made
3 a determination as to what PCB products Monsanto
4 sold to the TVA power service shop at Muscle
5 Shoals, Alabama?

6 A I have.

7 Q Would you mind telling us what product
8 Monsanto sold to the TVA over there, when they
9 did it, and how much they sold?

10 A I was able to determine that deliveries of
11 PCB type fluids to TVA Muscle Shoals occurred
12 only in one case in 1966, 2,700 pounds of
13 Pyranol. This is the General Electric type of
14 transformer fluid was shipped, and that's the
15 equivalent of five steel drums, the 55-gallon
16 drums.

17 Q Before I get you to tell me about the other
18 shipments, let me -- I don't want interrupt your
19 train of thought -- and ask you to tell us what
20 type of containers did Monsanto sell PCB products
21 in, please, sir?

22 A They sold it in 5-gallon pails,
23 35-gallon-steel drums, 55-gallon-steel drums, in
24 railroad tank cars and occasionally by tank
25 truck, primarily when the customer had a pick-up

1 order where he would send his own truck to the
2 plant to be loaded.

3 Q What color were those 55-gallon drums?

4 A It depends on the period. Up until 1973,
5 they were black enamel drums with white tops and
6 bottoms.

7 Q And then what color were they?

8 A They were a high bright yellow.

9 Q All right, sir. Could you tell me what PCB
10 products Monsanto sold to the Ford Motor Company
11 over at Sheffield, Alabama and when they did it?

12 A In the period 1966 until 1969. That's all
13 the records would indicate. The shipments to
14 Ford Motor Company at Sheffield were 286,000
15 pounds of Pydraul 312. That's the industrial
16 hydraulic fluid.

17 And in addition to that, there were 12,912
18 of Pydraul 135. That last amount equals about 26
19 drums, 55-gallon drums. The larger amount, the
20 286,000, I could not determine whether that was
21 drums or -- only drums or tank cars. It's my
22 considered opinion that that reflects perhaps a
23 tank car to fill the system initially and drums
24 for make-up purposes later.

25 Q All right, sir. And the Westinghouse

1 capacitor plant at Bloomington, Indiana, over
2 what period of time do your records show that
3 Monsanto sold what PCB product to Westinghouse
4 there?

5 A Well, our records start in 1958. There is
6 evidence that Westinghouse received material
7 prior to that, but our records have been -- are
8 gone.

9 But from 1958 until termination of sales in
10 1977, it's a little bit over 43 million pounds of
11 PCB fluids shipped to Bloomington, Indiana.

12 Q Were you able to determine about what
13 percentage of that was Inerteen?

14 A It was a .3 percent was Inerteen.

15 Q Now, the material that was shipped to
16 Westinghouse, would that have been shipped in
17 railroad cars?

18 A In this period of time, it's railroad cars,
19 yes, sir.

20 Q But going back for a minute to TVA over
21 there at Muscle Shoals, would any of the 2,700
22 pounds of Pyranol have been shipped in railroad
23 cars?

24 A No.

25 Q Mr. Papageorge, are you familiar with

1 various labels that Monsanto put on its PCB
2 containers which it sold over the years?

3 A Yes, I am.

4 Q I have set in front of you there at the
5 witness stand some copies of some labels, Mr.
6 Papageorge, I would appreciate it if you would
7 get them out.

8 A I have them.

9 Q Have you looked through these labels?

10 A Yes, I have.

11 Q This is not anywhere close to all of the
12 labels that Monsanto has used on its PCB
13 products, is it?

14 A Oh, no.

15 Q But are the ones that I have set before you
16 a fairly representative sample of the labels that
17 were used over the period of time that we
18 produced them?

19 A Yes, they are.

20 Q What is the first one that you have there?
21 What is it marked?

22 A The first one is marked Defendant's Exhibit
23 265 and 266.

24 Q Now, I have got enlargements of that label
25 that the jury can see and I'm going to get Mr.

1 Ellis here to help me set those up. I want to be
2 sure I get the right one. Is that the right one?

3 A Yes, that is the right one.

4 Q For the record, that's Exhibit 266-A.

5 Now, this enlargement has the label over on
6 the left side; is that correct?

7 A That's correct.

8 Q And then it has the warning or the
9 cautionary language enlarged over here on the
10 right so the jury can see it. Is that correct?

11 A That's correct.

12 Q Now, I don't want to waste my time or yours
13 or the jury's and or the Judge's by having you
14 read every one of these labels, so I'm not going
15 to do that. But I am going to ask you, just once
16 for the record, to read the cautionary part about
17 getting it on your skin and breathing it.

18 A I will do that.

19 The label says "Avoid prolonged breathing of
20 vapors or mists."

21 And further down it refers to skin. "If
22 skin contact occurs" -- I'm sorry. Up above
23 that, it says, "Avoid contact with eyes or
24 prolonged contact with skin."

25 And then goes further to say "If skin

1 contact occurs, remove by washing with soap and
2 water."

3 Q Okay, sir. Thank you very much.

4 Now, over what period of time was this type
5 of a label used on the Monsanto PCB products?

6 A That's -- that label was used in the middle
7 30's to the early 1940's.

8 Q Is this basically the label that Swann was
9 using when you-all bought them?

10 A Yes, it is.

11 Q What is the next label that you have there,
12 sir?

13 A I have here what has been marked as
14 Defendant's Exhibit 282 and 283.

15 Q Now, what specific PCB product would that
16 have been put on?

17 A This particular example refers to Aroclor
18 1242.

19 Q Now, I may have missed it, but has the
20 testimony in the case been that 1242 was what was
21 used at Westinghouse?

22 A I believe it is, yes, sir.

23 Q Okay. Now, I can't see from where I'm
24 standing, is there anything different about the
25 warning language on 283-A than the one that we

1 just looked at?

2 A No. The message is the same.

3 Q It's just put on a different product; is
4 that correct?

5 A Well, the only difference is that this is
6 the first time that the Monsanto logo appears and
7 the name "Aroclor 1242."

8 Q What's the next label you have, sir?

9 A That's Defendant's Exhibit 285.

10 Q Before I forget it, that one that we just
11 looked at, over what period of time was it used?

12 A That was from the early 40's until the
13 middle 50's.

14 Q Okay, sir. And then when we go to 285, is
15 that any different than the one we just looked
16 at?

17 A Well, it's different in that it now includes
18 weight information of the container.

19 Q You mean here (indicating)?

20 A Yes. But the message on vapors and skin
21 contact is the same, and it does refer to the
22 same product.

23 Q And over what period of time did Monsanto
24 use that on its PCB containers.

25 A This type of label was used from the middle

1 50's to 1970.

2 Q Thank you. What is the next exhibit you
3 have?

4 A I have here exhibit -- Defendant's Exhibit
5 286.

6 Q And could you tell me what that is, sir?

7 A This is a paragraph that was put on the
8 containers when Monsanto became aware of the
9 enviromental issue relating to PCBs.

10 Q I don't have a blowup of that and it's very
11 short. Would you mind reading it, please?

12 A I will. It says "This product contains
13 polychlorinated biphenyls which some studies have
14 shown may be an enviromental contaminant.
15 Extreme care must be taken to prevent any entry
16 into the environment through spills, leakage, use
17 disposal, vaporization or otherwise."

18 Q And when was that label used?

19 A About May of 1970.

20 Q Well, actually I said "label." It's not a
21 label. Was it just pasted on with the labels or
22 what?

23 A Well, this example I just read you appeared
24 later on revised product labels. This particular
25 copy was used as a -- a sticker on a label to

1 products already in the warehouse with the old
2 label in place.

3 Q What is the next exhibit number that you
4 have there, Mr. Papageorge?

5 A I have Exhibit 362.

6 Q And what product does that relate to?

7 A This relates to Pydraul 150.

8 Q Did you say that Pydraul was the stuff that
9 is used in the hydraulic applications?

10 A Yes, it is.

11 Q Is the warning aspect on this label any
12 different than the ones we have already seen?

13 A No, it isn't.

14 Q And over what period of time did you use
15 that label?

16 A From the middle 1950's to the 1970's.

17 Q We have only got one or two more.

18 What is the next one you have there?

19 A I have Exhibit No. 20.

20 Q And what is it, sir?

21 A This is an example of a label that was used
22 on a 5-gallon pail, and this shows how the
23 enviromental statement I just read was included
24 on the labels after 1970.

25 Q This part over here (indicating)?

1 A Yes, that is it.

2 Q But insofar as warning about the skin and
3 breathing, that is all the same as the other?

4 A It is.

5 Q Okay, sir. What is the next one that you
6 have there?

7 A Exhibit No. 21.

8 Q And over what period of time was Exhibit 21
9 used?

10 A This was 19 -- late 1970 to about 1972.

11 Q I believe we have two parts of this on the
12 enlargement.

13 You said that was used when?

14 A Late 1970 until about 1972.

15 Q Okay, sir. And what is the next one that
16 you have there?

17 A I have Exhibit 274 and 275.

18 Q Now, was the warning on this particular
19 exhibit in more than one language?

20 A Yes, sir.

21 Q Do you recall how many languages it was
22 printed in?

23 A There were seven languages.

24 Q Is there anything on the warning aspect of
25 this label that is different than what we have

1 already seen?

2 A Yes. This warning label now includes
3 references to use where it may come into contact
4 with food, animal feed stuffs, pharmaceuticals.

5 Q And what is the last exhibit that you have
6 there?

7 A Exhibit 335, and 336.

8 Q Over what period of time was that label
9 used?

10 A This label was the same as the previous
11 label, 1973 to 1977.

12 Q And this just relates to a different
13 product; is that right?

14 A Yes, it does.

15 Q But the warnings are the same?

16 A Yes.

17 Q I can see how you put a label on a 55-gallon
18 drum or a 5-gallon pail. But did Monsanto put a
19 label on a railroad car that it would send to a
20 customer?

21 A It depends on what period of time we are
22 talking about.

23 Q Well, from that answer, I gather there was a
24 time when they did and when they didn't. When
25 did they not put a label on it?

1 A Well, prior to 1972, we did not as a
2 practice apply labels on tank cars for any
3 chemical, any product.

4 Q Well, if you didn't put a label on a tank
5 car and you sent a tank car of PCB fluid to a
6 place like Westinghouse, how were the people at
7 Westinghouse supposed to get the warning that
8 would have otherwise have been on the label?

9 A Well, by the time a customer was in the
10 business long enough where the customer is buying
11 material by the tank car, certainly that customer
12 has received all of Monsanto's information on the
13 product and the proper methods for handling it
14 and what precautions are appropriate.

15 And this starts from the beginning sample
16 that we might send them to the point where they
17 might buy it in drums to test it out a little bit
18 more. They might get a truck full, tank truck
19 full and finally they go into the large use with
20 tank car shipments. By that time, the large
21 customers are quite sophisticated on how to use
22 that chemical.

23 Q Well, I will get into the literature that
24 you sent to them in just a minute. But when did
25 you say that Monsanto started putting a label on

1 the tank cars?

2 A 1972.

3 Q Why did Monsanto start doing that in 1972?

4 A We just decided that that was a good way to
5 improve communications.

6 Q Did they only start putting it on tank cars
7 with PCBs, or did Monsanto start putting labels
8 on tank cars with all of their products at that
9 time?

10 A We started the program to put it on all tank
11 car shipments.

12 Q Now, Mr. Papageorge, are you familiar with
13 the -- I'm not talking about labels, now; but I
14 talking about the written literature that
15 Monsanto distributed to the people who bought
16 PCB products?

17 A Yes, I am.

18

19 THE COURT: I think maybe we will take
20 a recess now.

21 MR. HALL: Thank you, Your Honor.

22 THE COURT: Ladies and gentlemen, we
23 are going to stand recess for 20 minutes.
24 Please return in 20 minutes.

25

1 (WHEREUPON AT 2:50 P.M., COURT WAS IN RECESS
2 UNTIL 3:18 P.M., AT WHICH TIME THE FOLLOWING
3 PROCEEDINGS WERE HAD AND DONE.)
4
5

6 THE COURT: You may be seated.
7 You may continue.
8

9 BY MR. HALL:

10 Q Mr. Papageorge, before we took the recess,
11 you were referring to some literature that
12 Monsanto sent to its PCB customers, were you not,
13 sir?

14 A Yes, I was.

15 Q I asked you to select just three or four
16 examples of that literature that we might show
17 the jury. Do you have that with you there, sir?

18 A I have some literature here.

19 Q All right, sir. What's the first one?
20 What's the exhibit number on the first one that
21 you have?

22 A It's Defendant's Exhibit No. 10.

23 Q 10?

24 A 10. Yes, sir.

25 Q Could you tell us very briefly what that is?

1 A This is a bulletin entitled Aroclor
2 plasticizers and it contains a lot of general
3 technical information on the use of Aroclors as
4 plasticizers. These are plastic softeners.

5 Q Now, what customers would this document have
6 been sent to?

7 A Primarily the plastics companies.

8 Q Okay, sir. Now, I have had enlarged here so
9 that the jury could see it the language that
10 deals with the safe handling of the material. Do
11 you know what page on Exhibit 10 that is located
12 on?

13 A Yes. I have found it. It's on Page 49.

14 Q Did you have a paper clip on that page?

15 A Yes, sir

16 Q Stick it back on there because I'm going to
17 offer this into evidence and I want the jury to
18 be able to read it when they go into the jury
19 room and they can find it if you leave that paper
20 clip on there.

21 I don't want to go through the trouble of
22 reading this stuff out loud, but I will just ask
23 you: Is there anything in this information that
24 wasn't on those labels that we looked at a while
25 ago, of any significance?

1 A No. They still refer to vapors and skin
2 contact.

3 Q All right, sir. When was that Exhibit 10
4 being used by Monsanto?

5 A This exhibit was first used in 1960, late
6 1960 up until early 1970.

7 Q Now, how did that type of a document get to
8 the customer?

9 A When it's initially printed, Monsanto mails
10 to those customers that it has on its records a
11 copy. In addition to that, the regional sales
12 offices get extra copies for distribution to
13 others who might be interested in these products.
14 And also, the salesmen carry several copies in
15 their briefcases. As they make their calls, they
16 drop off copies as appropriate.

17 Q What's the next item of literature you have
18 there?

19 A I have Defendant's Exhibit 105.

20 Q And what is it called?

21 A This is entitled the proper handling of
22 Aroclors and their mixtures in the electrical
23 industry.

24 Q Now, when was that one used by Monsanto?

25 A This started in early 1960 and was in use up

1 through the middle -- I'm sorry -- late '60's.

2 Q Can you find the page in that document where
3 it talks about keeping it off your skin and out
4 of your body?

5 A Yes, I have. It's Pages 98 and 99.

6 Q Is there a clip on that one?

7 A Yes, there is.

8 Q Is there anything in this message that is
9 different than the safety messages we have
10 already discussed off of the labels?

11 A Not significantly, no. They still refer to
12 skin and inhalation, vapors.

13 Q Okay, sir. What is the next exhibit that
14 you have there?

15 A I have Exhibit 1139.

16 Q What is it?

17 A This is an one page toxicity and safe
18 handling document for the product Pydraul 150.

19 Q Now, what was this used for?

20 A This is used, again, to share with users,
21 customers of Pydraul 150 or potential customers,
22 people that might be interested in using this
23 product.

24 Q Okay, sir. When was this document used by
25 Monsanto?

1 A This says from 1963 up until we terminated
2 sales of PCBs for this kind of use in 1971.

3 Q Is this the type of literature that a
4 salesman would hand out?

5 A Yes. This is an example of a type.

6 Q And what is the next exhibit that you have?

7 A I have exhibit, Defendant's Exhibit 1234,

8 Q Now, this is a different type of document
9 than what we have seen before, is it not, sir?
10 This is an inspection and maintenance guide; is
11 that correct?

12 A Yes, sir.

13 Q What use is made of this document?

14 A This document is designed to give to
15 transformer manufacturers who use PCBs in
16 building their transformers.

17 Q What page is the cautionary language set out
18 in?

19 A Page 7.

20 Q Is this language on Page 7 over here
21 (indicating)?

22 A I don't see it on Page 7.

23 Q Look at Page 43.

24 A 43 -- that message on the placard is the
25 same as what appears on Page 43.

1 Q When was this document in use?

2 A This document was in use in from 1972 until
3 1975.

4 Q Does it add anything to what the jury has
5 already seen?

6 A No, other than the enviromental statement
7 this time.

8 Q When you say -- and what, do you have one
9 more exhibit there?

10 A Yes. I have Exhibit No. 9, Defendant's
11 Exhibit No. 9.

12 Q And what is that document?

13 A This is a revision of the previous document.
14 It is also an inspection and maintenance guide
15 for transformer Askarels.

16 Q Is it sent to the same type of people?

17 A Yes.

18 Q And when was it used?

19 A This is 1975 until 1976.

20 Q Is there anything different about this one
21 than what we have already seen?

22 A Not -- no, sir.

23 Q And lastly, was is the next one?

24 A That is all I have.

25 Q That is all you have?

1 A Yes.

2 Q Okay. So, now, Mr. Papageorge certainly
3 this little sampling you have here is not all of
4 the technical bulletins or the manuals that
5 Monsanto published on its PCBs, is it?

6 A No. Is this is a small sample.

7 Q Is this the type of literature that Monsanto
8 furnished to people like Westinghouse, TVA, and
9 Ford?

10 A Of this -- examples we saw, yes, but not all
11 copies don't go to each of those.

12 Q All right, sir. Let me ask you about -- I'm
13 going to step down and show you a couple of
14 things here.

15 You have been here for the entire trial of
16 the case, have you not?

17 A Yes, I have.

18 Q Were you here when Dr. Teitelbaum testified
19 last week?

20 A Yes, I was.

21 Q Do you remember Dr. Teitelbaum testifying
22 about these safe practice data sheets?

23 A I do.

24 Q And he had some criticism to make of those,
25 did he not, sir?

1 A Yes, he did.

2 Q Are they Monsanto documents?

3 A No, they are not.

4 Q Whose documents are those?

5 A Those are Westinghouse Company documents.

6 Q Let me move to another topic, if I may.

7 So far as you know, based on the years you
8 have spent there at Monsanto dealing with the PCB
9 matters, what human health effects or health
10 problems can be caused by exposure to PCBs?
11

12 MR. MUSSLEWHITE: Your Honor, I don't
13 believe he had been offered as a doctor or
14 has expertise as a medical doctor and I
15 would say I would object to that.

16 THE COURT: I don't consider it a
17 medical question.

18 MR. MUSSLEWHITE: All right.

19 THE COURT: He has already testified
20 that he knows more about PCBs than anybody
21 in the country, and I think he should
22 know -- if he knows that it affects the
23 health. All right.

24 MR. HALL: Are you scared to answer
25 after that --

1 THE WITNESS: I will attempt it,
2 depending, of course, on the level, the
3 amount.

4 THE COURT: I may have been a little
5 too broad with the comment.

6 THE WITNESS: Depending on the amount
7 that the worker might get, one has to look
8 for skin irritation, redening of the skin is
9 a symptom that the amount is getting to a
10 point where it's unacceptable.

11 I was also informed by our medical
12 department as a plant manager to be looking
13 for situations where excessive exposures
14 might create harm or have an effect
15 internally in the body, primarily on the
16 liver.

17
18 BY MR. HALL:

19 Q In carrying out the duties for Monsanto that
20 you have described in this PCB matter, did you
21 have dealings with governmental bodies?

22 A Oh, yes.

23 Q Tell us a few of the governmental bodies
24 that you dealt with in that regard.

25 A Oh, there were many. In the federal

1 government, of course, it included the
2 Environmental Protection Agency, the Food and
3 Drug Administration, the U.S. Department of
4 Agriculture, the Department of Commerce, the
5 Department of Interior, the Tariff and Trade
6 Commission, the Office of Science and Technology,
7 the Counsel on Environmental Quality, the National
8 Institute of Occupational Safety and Health, the
9 Occupational Safety and Health Administration,
10 Fisheries and Wildlife. Those are examples of
11 federal offices and, of course, there were many
12 state environmental agencies that I have dealt
13 with.

14 Q The allegation has been made in this case to
15 the jury here that Monsanto undertook to
16 forestall or delay or hinder in some way the
17 government regulation of PCBs.

18 Let me ask you this, Mr. Papageorge, did you
19 in contacting those government agencies in doing
20 your work, did you ever seek to forestall the
21 regulation of PCBs by the United States
22 government?

23 A Never.

24 Q Do you know what a building code is?

25 A Yes, sir.

1 Q What is it?

2 A A building code is a set of standards that
3 must be met to satisfy a community requirement
4 regarding the distance from the road and the type
5 of plumbing and the type of electrical fittings.
6 It's all intended to primarily aim at safety.

7 Q So far as you know, do any of the building
8 codes in the United States require, or did they
9 require the use of PCBs?

10 A Yes. The National Electric Code was the
11 principal code which was referred to in many city
12 codes.

13 Q Do you have any knowledge as to how
14 profitable an item PCBs were for Monsanto?

15 A I would classify PCBs as a little bit below
16 average product in terms of how profitable it
17 was.

18 Q Was Monsanto, I believe we heard testimony
19 and see if you agree with it, was Monsanto the
20 only producer of PCBs in the United States?

21 A Yes, it was.

22 Q Why didn't anybody else produce them?

23 A Well, Monsanto had priced PCBs at that point
24 where anyone else attempting to get into the
25 business found it unattractive when they had to

1 consider what it would take to build a plant and
2 get the necessary facilities in place and
3 shipping it and advertising and all.

4 The price was just not attractive enough for
5 a new supplier.

6 Q Did Monsanto sell any of its PCB products to
7 the United States government?

8 A Oh, yes, certainly.

9 Q To which branches of the government?

10 A Oh, I don't recall all of them. I do recall
11 the Navy.

12 Q What did the Navy use them for?

13 A Onboard ships, transformers, capacitors, and
14 the Corps of Engineers in the Army installations,
15 the General Service Administration in all the
16 government buildings such as the one we are in.
17 They are good, big customers.

18 Q I wanted to ask you one question and I'm a
19 little bit confused on. When you were telling me
20 how much PCB product Monsanto sold to
21 Westinghouse here at Bloomington, what kind --
22 what kind of product was sold? Was it one of the
23 specific Aroclors?

24 A Yes. The largest amount was the Aroclor
25 1242 until --

1 Q Well, when you -- pardon me. Go ahead.

2 A Until 1971 when Aroclor 1242 was replace by
3 Aroclor 1016.

4 Q Well, when you said that three tenths of 1
5 percent with Inerteen awhile ago, what did you
6 mean?

7 A I was referring to a mixture of PCBs and
8 chlorinated benzenes which was called Inerteen
9 PPO.

10 Q I just very one or two more questions for
11 you.

12 The attorney for the plaintiff earlier
13 today, Mr. Pohl, was asking some witness about
14 this document which is, I believe, a letter from
15 Mr. Wheeler there at Monsanto to Dr. Francher, I
16 think.

17 And the language there says something about
18 getting this document into the hands of the
19 lawyers and your name is mentioned, I believe, in
20 that same paragraph.

21 Can you give us any enlightenment on what is
22 involved here about getting this document into
23 the hands of the lawyers?

24 A Well, at that time, Elmer Wheeler was
25 proposed to be one of the co-authors of that

1 paper along with Dr. Francher and others at
2 Industrial Biotest Laboratories. There would be
3 many co-authors.

4 When an employee of Monsanto is listed on a
5 paper that is going to be publicly published,
6 there is a procedure within Monsanto that certain
7 groups that have an interest in this subject,
8 including attorneys, review the document to get
9 the proper clearance from Monsanto.

10
11 MR. HALL: Judge Fisher, I wanted to
12 offer into evidence these labels and these,
13 this literature, this technical literature
14 and these blowups but I don't want to stand
15 here and read off this long list of
16 exhibits.

17 Could I do that after court?

18 THE COURT: You can do it later.

19 MR. HALL: Thanks a lot. I pass the
20 witness, Your Honor.

21 MR. MUSSLEWHITE: May I have just a
22 moment to get my papers together?

23
24 CROSS EXAMINATION

25 BY MR. MUSSLEWHITE:

1 Q Mr. Papageorge, I don't think we have met
2 formally.

3 A That's correct.

4 Q Is it Papageorge or Papageorge?

5 A Whichever pleases you, sir. I'm accustomed
6 to both.

7 Q All right. Sounds like what they call me.

8 My name is Benton Musslewhite. I'm one of
9 the attorneys for the plaintiffs. I want to ask
10 you a few questions, if I may.

11 A Sure.

12 Q Since you have offered your opinion here
13 about what PCBs do and do not cause, I think you
14 will agree it's not as harmless as table salt,
15 wouldn't you, sir?

16 A There again we are talking about quantities
17 and what type of exposure and what -- what
18 effects would be expected.

19 Q Well, you would agree that if someone put
20 out a press release saying it's as harmless as
21 table salt, that would be a little misleading,
22 wouldn't it, sir, without further explanation?

23 A That's -- yes, I agree to that.

24 Q All right. As a matter of fact, it causes
25 more than just liver dysfunctions or liver

1 disease and skin problems, doesn't it?

2 A I'm not aware of any other effects.

3 Q Doesn't --

4 A Reproduction in chickens.

5 Q How about killing you? Does it kill you?

6 A Well, that's because the liver is affected
7 and damaged to the point where it can't function
8 anymore.

9 Q Then it can cause death, can it not?

10 A Yes.

11 Q I believe, as a matter of fact, Mr.
12 Papageorge, I want to hand you what is Exhibit,
13 Plaintiffs' Exhibit 2501, a copy of it. And I
14 would like to pass -- we will pass copies to the
15 jury.

16
17 MR. MUSSLEWHITE: Could you borrow one
18 from --

19
20 BY MR. MUSSLEWHITE:

21 Q I have got, in that exhibit, as you can see,
22 is a letter from you to Mr. H. R. Ford. Who is
23 Mr. H. R. Ford?

24 A Mr. Ford was a regional sales manager for
25 Monsanto.

1 Q Dated March 18, 1975. And I believe what
2 you are saying in the first page is that you are
3 responding to some questions that have been asked
4 about PCBs products; am I correct?

5 A That's correct.

6 Q And you turn to the next page and we get a
7 little bit different picture of what PCBs can
8 cause, don't we, when we read that next page?
9 Let me just goes through it quickly, if I may.

10 Does Inerteen have permanent effects on the
11 human body? First paragraph, the polychlorinated
12 biphenyls in Inerteen can have permanent effects
13 on the human body.

14 You agree with that, don't you, sir?

15 A Yes, sir.

16 Q The length of time or period of exposure
17 necessary to develop symptoms depends on the
18 degree and the amount of exposure and it goes on.

19 Then further down, the potential toxic
20 effects in humans from excessive exposure to
21 polychlorinated biphenyls include injury to the
22 liver and chloracne.

23 Then it goes on to talk about what has
24 happened in animals, then -- excuse me, just a
25 minute, Your Honor.

1 MR. MUSSLEWHITE: Your Honor, to save
2 time, I'm going to skip over the rest of the
3 questions --

4 THE COURT: What document are you
5 interrogating the witness about?

6 MR. MUSSLEWHITE: Yes, sir.

7 THE COURT: What is this document, Mr.
8 Musslewhite?

9 MR. MUSSLEWHITE: This document? The
10 No. 2501, Your Honor. I'm just about
11 through. I'm trying to find my place.

12 THE COURT: What is it?

13 MR. MUSSLEWHITE: It's a document that
14 Mr. Papageorge wrote to someone at Ford.

15 THE COURT: All right.

16 MR. MUSSLEWHITE: I mean, a man by the
17 name of Ford --

18
19 BY MR. MUSSLEWHITE:

20 Q Now --

21 "QUESTION NO. 3: Since Inerteen affects
22 birds and other animals, if there is no real
23 effects to human beings, how do you explain it to
24 employees in such a way that they'll understand
25 why it can kill a bird and not a human?

1 "ANSWER: There is a potential real effect
2 to humans, including death as discussed in the
3 answer to Question 1."

4 You agree with that, don't you, sir?

5 A I do.

6 Q "Due to differences in metabolism of food in
7 birds and humans and particularly the difference
8 in the reproduction process in birds and mammals,
9 including humans, birds are particularly
10 sensitive to many chlorinated hydrocarbons,
11 including polychlorinated biphenyls."

12 And it goes on to discuss further the things
13 that exposure to PCBs can cause. Now, you don't
14 disagree with any of those statements in there
15 since that is your letter, do you?

16 A No, I do not disagree.

17 Q Now, I want you to remember this letter when
18 we come to some of these warnings in just a
19 moment, if you will.

20 A I will.

21 Q I would like to talk about some other things
22 for a moment.

23 The amount, the fact that you sold, you have
24 given some sales volumes to TVA and to Ford and
25 Westinghouse -- let's take TVA, for example.

1 A lot of times, isn't it true that Monsanto
2 would deliver PCB products to a place like TVA
3 without actually selling it to them; isn't that
4 true?

5 A Yes, that's true.

6 Q In other words, if some other in between
7 entity would buy the product and then deliver --
8 buy it from you and deliver it to, say, TVA or
9 Ford and the records that you are speaking about
10 are only direct sales that you are talking about;
11 isn't that correct? Isn't that true?

12 A Yes.

13 Q All right.

14 A Uh-huh.

15 Q Also, you talked about, and it's certainly
16 true that other companies manufactured
17 transformers of the type that might be purchased
18 and used at TVA or Ford or other places, other
19 plants around the country; isn't that correct?

20 A That's correct.

21 Q And that again, you are not including those
22 transformers that might have PCB fluids in them
23 in your statement about the direct sales to those
24 plants; is that correct?

25 A That's correct.

1 Q So, you are not here trying to tell the jury
2 that that's all the PCBs that were ever out there
3 in either TVA, Ford or Westinghouse, are you?

4 A No, I'm not.

5 Q And as a matter of fact, you mentioned
6 something about benzene. Benzene, they do not
7 use benzene in capacitors, do they? They use
8 PCBs only; am I correct about that?

9 A That's correct.

10 Q All right. So, the benzene, the statement
11 about the benzene would be irrelevant to the
12 Inerteen -- and let's clear that up, too, for the
13 jury.

14 All of the PCBs in Inerteen, whether the
15 addition or the blend that was added by
16 Westinghouse or whether it was added by Monsanto,
17 the PCBs in that product, Inerteen product, were
18 manufactured by Monsanto; is that correct?

19 A That's correct.

20 Q And, so, we are clear about that.

21 All of the PCBs so far as you know in the
22 United States, wherever they might be, in
23 whatever product they might be in and in whatever
24 way they might be in a particular product or in a
25 particular plant, those PCBs as far as you know,

1 were manufactured by Monsanto; isn't that true,
2 sir, in the United States?

3 A To the best of my knowledge, unless they
4 were imported. That I don't know.

5 Q I believe you have heard the testimony
6 already that there were very little, if any,
7 imports into the United States of PCBs; isn't
8 that correct?

9 A That is correct.

10 Q You mentioned one of the reasons that
11 Monsanto is the only manufacturer of PCBs in the
12 United States, you said that it was difficult for
13 anyone to compete with Monsanto; is that correct?
14 I mean, that is, that they could not out price
15 you, undercut you on price?

16 A That's correct.

17 Q That's true because when you bought the
18 product from Swann Chemical Company, you bought
19 the patent along with it, did you not, or got the
20 patent rights, the rights to manufacture it
21 exclusively for a period of time?

22 A I'm not aware of any patent that refers to
23 the manufacture of PCBs.

24 Q You are telling the jury that Swann didn't
25 have a patent on the product and that it went for

1 some period of time after Monsanto took over the
2 rights to manufacture the product for the period
3 of time normally provided in patents?

4 A I have never seen a patent.

5 Q All right. In any event, at the time you
6 bought Swann, they were the only manufacturers of
7 PCBs in the United States?

8 A That's correct.

9 Q And Monsanto, whether you did or didn't have
10 a patent as you stated, continue to be the only
11 manufacturer of that product in the United
12 States?

13 A That's correct.

14 Q Now, Mr. Papageorge, who employed you to act
15 as consultant in this case?

16 A Monsanto Company.

17 Q Didn't you testify on your deposition that a
18 law firm out in North Carolina employed you to be
19 a consultant in this case?

20 A I was also a consultant at that time for
21 this law firm.

22 Q What is that law firm? What is name of that
23 law firm?

24 A Smith, Helms, Muscle and Moore.

25 Q I notice they were on some pleadings. Have

1 they been here during the trial, as far as you
2 know, any of those lawyers?

3 A No.

4 Q Do you know a Mr. Peck in that law firm?

5 A No.

6 Q If I told you that there's a Mr. Peck in
7 that law firm, you heard the testimony of Mr.
8 Smith that a Mr. Peck, a lawyer by the name of
9 Mr. Peck, is the one that came by and told him he
10 just happened to be in the vicinity of his home
11 and wanted to admonish him that he might ought to
12 talk to his lawyer before he said anything bad
13 about PCB products.

14 You don't know whether that is the same Mr.
15 Peck that is with this North Carolina law firm
16 that employed you to be a consultant in this
17 case?

18 A I do not know of a Mr. Peck of any
19 connection.

20 Q Who have you dealt with over there in North
21 Carolina?

22 A Mr. David Moore and Mr. Gerard Davidson.

23 Q How many lawyers in that law firm?

24 A Oh, I have no idea.

25 Q A large law firm, isn't it, as far as you

1 know?

2 A As far as I know.

3 Q Now, you have testified quite a number of
4 times, haven't you, sir?

5 A If for depositions, you mean, or trial.

6 Q Depositions or in court.

7 A About a couple of dozen times.

8 Q And always generally speaking it's been
9 pertaining to the PCB product, hadn't it, sir?

10 A Yes.

11 Q I notice the way you look at the jury, did
12 any of the lawyers suggest that you look at the
13 jury when you testify?

14
15 THE COURT: I think that's an improper
16 question. Ask a proper question.

17 MR. MUSSLEWHITE: Let me rephrase it.

18

19 BY MR. MUSSLEWHITE:

20 Q In testifying, for example, in the Badax
21 case, you talked about in that case a lot of, a
22 lot of the warnings that were given within your
23 own internal documents, did you not? Do you
24 remember testifying in the Badax case?

25 A I don't recall the specifics, but the

1 subject appears appropriate, yes.

2 Q Okay. In that case, I think you were asked
3 about some internal documents that dealt with
4 the --

5
6 MR. MUSSLEWHITE: May I approach the
7 witness, Your Honor?

8 THE COURT: Surely.
9

10 BY MR. MUSSLEWHITE:

11 Q One is Plaintiffs' Exhibit 31. If you will
12 take a look at this and if you can identify that
13 for the jury, Mr. Papageorge.

14 A This appears to be a copy of a Monsanto
15 internal document.

16 Q All right.

17 A Entitled the Standard Manufacturing Process
18 for Aroclors.

19 Q All right. Thank you.

20 Now, if you will please, sir, Exhibit 38?

21 A Exhibit 38 is a copy of a Monsanto internal
22 document entitled standard manufacturing process
23 for Pyranols and Inerteens.

24 Q All right. Now, I want you to keep one, I
25 think. If you will look before I go back to the

1 podium, the statement on the bottom is pretty
2 much the same? Is that pretty much the same
3 there?

4 A Yes, it is.

5 Q All right. Keep one and I will have one to
6 go along with you.

7 In that document, in those documents they
8 talk about a lot of -- if you will be turning
9 through there and look at them and you are
10 probably as familiar enough with them that you
11 don't need to but they talk about the protections
12 that should be afforded the Monsanto employees
13 that are involved in the manufacturing of the
14 Aroclor products; is that correct?

15 A That's correct.

16 Q And they -- without belaboring the Court and
17 the jury, we have had a lot of testimony about
18 it, but it talks about showers, supervised
19 showers and certain types of clothing.

20 Can you just give us the warnings that those
21 internal documents give with respect to the
22 Monsanto employees?

23
24 THE COURT: I think we have gone over
25 that, Mr. Musslewhite.

1 MR. MUSSLEWHITE: All right. Without
2 reading them, but we are talking about
3 footwear and shoes and gloves and respirator
4 and barrier creams and that kind of thing.
5

6 BY MR. MUSSLEWHITE:

7 Q So, as far as you know, for example, in 1967
8 didn't a group from Westinghouse come to see you
9 in Anniston, Alabama?

10 A Yes.

11 Q When you were in charge of the plant in
12 Anniston?

13 A Yes, they did.

14 Q And they were a group of people from
15 Westinghouse; is that correct?

16 A That's correct.

17 Q During that visit to your plant down there,
18 you did not give them those kind of warnings, did
19 you, sir?

20 A Certainly we did.

21 Q To the Westinghouse people?

22 A Yes. We shared all of our practices with
23 them and took them a tour of the plant and showed
24 them everything we had.

25 Q Didn't you testify, do you remember when we

1 took your deposition, Mr. Papageorge?

2 A Yes, I do.

3 Q And you testified that you did not give them
4 that information because that kind of information
5 would have to come from the medical department?

6 A That doesn't sound right at all. The
7 medical department does not necessarily have to
8 approve the fact that we use rubber gloves or
9 have rubber booties or --

10 Q Well, do you have a copy of your deposition?

11 A No, I don't.

12

13 THE COURT: I don't think you need to
14 go into that.

15 MR. MUSSLEWHITE: I won't --

16

17 BY MR. MUSSLEWHITE:

18 Q In your deposition, isn't it true that you
19 testified that:

20 "QUESTION: It was true for you as people
21 that at this meeting with Westinghouse --

22 "ANSWER: Yes.

23 "QUESTION: You-all were not authorized to
24 tell Westinghouse more or go beyond what the
25 medical department had already said about safe

1 handling and toxicology, correct?"

2 And your answer was:

3 "ANSWER: That is correct."

4 A That's right.

5 Q Well, the medical department, as you may
6 know and I think you will agree to save time, are
7 only allowed the kind of warnings you have seen
8 that have been here today and not the kind that
9 you had in these standard manufacturing process
10 bulletins for Aroclors?

11 You will agree with that, won't you?

12 A I'm confused, sir.

13 Q All right.

14 A The medical department tells us what to
15 avoid. The management at the site decides how or
16 what to do to avoid it, how to go about it.

17 Q At the site of your own plant you are
18 speaking of?

19 A Yes.

20 Q Now, read down at the bottom. It doesn't
21 say in this document: Confidential information,
22 this process is the property of Monsanto Company
23 and the recipient is responsible for its
24 safekeeping.

25 Now, we are talking about the internal

1 document for the manufacture of PCBs by your
2 company.

3 It contains confidential information of
4 Monsanto Company which must not been reproduced,
5 revealed to unauthorized persons or sent outside
6 the company without proper authorization.

7 Now, that was standard on those internal
8 documents, wasn't it, sir?

9 A That is correct.

10 Q And that, again, is consistent with, again
11 what you testified on your deposition at Page
12 295:

13 "QUESTION: And if there were to be
14 something more detailed or more specific" -- this
15 is a question -- "than what was set forth in the
16 technical bulletins" -- you have seen the
17 technical bulletins on the board here today --
18 "that would have to come from the professionals
19 in the medical department to professionals at
20 Westinghouse.

21 "ANSWER: Yes.

22 "QUESTION: Did you make any contact with
23 the medical department about this visit" --
24 talking about the visit to Anniston -- "and the
25 problems that existed at Westinghouse?

1 And your answers was:

2 "ANSWER: No."

3 Is that correct?

4 A That is correct.

5 Q So, the truth is: The medical department
6 was responsible for the information that went out
7 to the customers basically; am I correct?

8 A Not all information.

9 Q Well the information that was contained in
10 the technical bulletins; am I correct, and that
11 kind of information?

12 A Only the toxicity and safe handling
13 portions.

14 Q I'm talking about toxicity and safe
15 handling.

16 A Oh, I understand now. Yes.

17 Q And you-all would not give anymore
18 information than that. Generally speaking, you
19 would refer that to the medicine department; am I
20 correct?

21 A That's correct.

22 Q Now, so, those warnings that we have talked
23 about day, I'm not going to take the time to go
24 through each one, but they do not have any
25 warning about liver disease anywhere in them. I

1 didn't see it, did you?

2 A That's correct.

3 Q They do not have any warning that if you, if
4 a person were to get enough exposure that they
5 might die from exposure to PCBs, did it, sir?

6 A That's correct.

7 Q And as a matter of fact, I don't know
8 whether I have the right one. There is one of
9 those that we saw up here that had this, had the
10 bare bones statement that it does not cause acute
11 toxicity; isn't that correct, one of the
12 warnings?

13 A That's correct, also. Yes.

14 Q All right. And the warnings, also -- when
15 he talks about do not -- says avoid -- when it
16 says "avoid prolonged breathing," it doesn't tell
17 the person what prolonged means, does it? It
18 doesn't define "prolonged"?

19 A It does not.

20 Q And when it says repeated contact, it
21 doesn't define to the person whether it means
22 once or twice or over a long period of time, many
23 many, times a day? It doesn't define "repeated"
24 either, does it?

25 A That's correct.

1 Q You are not an expert in warnings, are you,
2 sir?

3 A I don't know how to respond to that.

4 Q Well, you are not what we call sometimes a
5 human factor engineer or an industrial hygienist?
6 Are you an industrial hygienist yourself?

7 A No, I'm not.

8 Q In any event, to move on to something else
9 and make this very short on this point, the point
10 is is that the warnings that are contained within
11 your internal documents, the documents about the
12 manufacture of the Aroclor product by Monsanto,
13 the employees that are going to be involved in
14 that process, about what they should do to
15 protect themselves, the barrier creams and all of
16 the other without me repeating that, you are
17 familiar with what I'm talking about, that is not
18 contained in any of these warnings or any of the
19 documents that you have seen here today that were
20 put out by Monsanto to its customers, is it, sir?

21 A Sir, I'm -- I have to confess confusion. I
22 don't know that we both have the same definition
23 of warning.

24 Q Let me restate my question.

25 A Uh-huh.

1 Q If you want to turn and I don't want to take
2 the time, the Court wants to move along, but you
3 are familiar with the statements of what the
4 workers at Monsanto that are involved in the
5 manufacture of Aroclor products should do to
6 protect themselves.

7 You are familiar with that, barrier creams,
8 respirators --

9 A Those aren't warnings. Those are
10 instructions on how to avoid harm.

11 Q Pardon me. I apologize. Maybe I'm using
12 the wrong word. We will use instructions.

13 A All right.

14 Q Okay.

15 A Okay.

16 Q And those instructions, so far as you know,
17 are not contained in any of the literature,
18 whether you call it a technical bulletin or
19 whatever you call it, that you have seen that was
20 sent out by Monsanto to its customers that were
21 going to be handling the product as a raw
22 material and may be using it in their own
23 manufacturing process?

24 A That's correct.

25 Q All right.

1 Q Now, let's talk a little bit about the
2 Washington situation. I mean, I believe you have
3 testified in your deposition, didn't you, sir,
4 that you and -- from 1970 until 1972 went to
5 Washington about once a week; is that correct?

6 A It averaged that, yes.

7 Q Averaged that. And then you would go to
8 Washington about once a month or thereabouts from
9 1972 to 1976? That's average?

10 A That's, that's correct.

11 Q What you were going to Washington for was
12 to, weren't you to try to help Monsanto to keep,
13 to be able to keep manufacturing PCBs; is that
14 correct or not? Wasn't that part of your job?

15 A I never felt that as being my objective. My
16 objective was to help the government understand a
17 chemical that none of them had heard of.

18 Q Well, let me ask you this: I think I heard
19 you testify under your oath, didn't I, Mr.
20 Papageorge, awhile ago that, to the effect,
21 something to the effect that you never tried to
22 forestall any efforts by the Congress.

23 Did I hear you testify to that, to regulate
24 PCBs?

25 A That's correct, yes.

1 Q Well, didn't you testify in 1972 and 1973
2 before Congress concerning the discharge
3 regulation that was tied to shrimp sensitivity?

4 A Correct.

5 Q You testimony against that, didn't you, sir?

6 A That's correct.

7 Q As a matter of fact, that did not because of
8 your testimony and others, that did not take
9 effect until sometime in the 1980's; isn't that
10 true?

11 A Well, it's true that it did not take effect.
12 I don't personally --

13 Q I will rephrase the question. It did not
14 take effect until the 1980's?

15 A That's correct.

16 Q And what you were doing, you were testifying
17 against a Bill that would have something to do
18 with the discharges from these plants. And the
19 way they were going to try to control the
20 discharges of toxic PCBs into the environment was
21 by using what they call shrimp sensitivity; am I
22 correct, sir?

23 A That's correct.

24 Q And you testified against that Bill, didn't
25 you, sir, or that attempted regulation?

1 A I did.

2 Q All right.

3 A Yes.

4 Q You don't call that forestalling, though? I
5 will withdraw that.

6 A I was seeking regulation that was based on
7 solid science, not on one sensitive creature.

8 Q Well, isn't it a fact, Mr. Papageorge, that
9 in 1966 when we had the Swedish situation and in
10 1968 the Yusho incident that Congress started
11 getting hot and heavy about PCBs and namely
12 Congressman Ryan? Do you remember Congressman
13 Ryan?

14 A I remember Congressman Ryan, yes.

15 Q As a matter of fact, Congressman Ryan wrote
16 some pretty critical letters to Monsanto, didn't
17 he?

18 A Yes, he did.

19 Q As a matter of fact, you were copied with
20 letters, were you not, of Monsanto's replies to
21 Congressman Ryan?

22 A I was.

23

24 MR. MUSSLEWHITE: And I'm going to, if
25 I can, approach the witness, Your Honor, and

1 give you a copy, if I may. This is
2 Plaintiffs' Exhibit 2258, Your Honor.

3
4 BY MR. MUSSLEWHITE:

5 Q Now, we will turn first to the April 28,
6 1970 letter, that is 2220, of Congressman Ryan --
7 or to Congressman Ryan from Mr. Mason. Who is
8 Mr. Mason?

9 A Mr. Mason at that time was an assistant
10 general manager of the organic division of
11 Monsanto Company.

12 Q I see. He copied you because you would
13 naturally be interested since it was one of your
14 jobs to deal with the PCB problem; isn't that
15 true, sir?

16 A That is true.

17 Q On the second page it says, at the top
18 paragraph, first full paragraph: We have been
19 investigating the relationship -- and this is
20 from Monsanto to Congressman Ryan -- of PCB to
21 the environment since 1968.

22 We can only assume that the other
23 manufacturers of PCB materials are doing
24 likewise. And down the next paragraph.

25 It should be emphasized that the apparent

1 PCB problem relates only to the possible effects
2 on some species of birds. Manufacturing and use
3 experience for 30 years. Earlier animal toxicity
4 studies and interim reports on current extensive
5 toxicological studies with various species of
6 animals indicate that there is no threat to the
7 public health.

8 That is not a correct statement, is it, Mr.
9 Papageorge? That is not a fair or true
10 statement, is it, sir?

11 A I don't see any unfairness in it.

12 Q Well, about this time you had started your
13 IBT studies; is that correct?

14 A About which time, sir?

15 Q 1970.

16 A Oh, they were well on their way.

17 Q Well on their way.

18 A In 1970.

19 Q And were you referring to the IBT studies
20 when you mentioned animal studies there or was he
21 or do you know? If you don't know, it's all
22 right.

23 A The reference to interim reports on current
24 extensive toxicological studies are those
25 studies.

1 Q Well, when Dr. Kimbrough came out with her
2 findings of cancer in rats and rodents in 1975,
3 that kind of put everything into a tizzy, didn't
4 it? I mean, were you involved in the effort to
5 prepare for the conference that was going to take
6 place in Chicago concerning PCBs?

7 A No. That was an EPA conference. I was
8 asked to participate on a panel and I did.

9 Q Did you have anything to do with hiring Mr.
10 Pour, Dr. Pour, Parvis Pour?

11 A I did not.

12 Q And you were not there for the earlier trips
13 over to see Dr. Kimbrough's slides; is that
14 correct?

15 A Not those trips, no.

16 Q All right. Did Mr. Roush ever discuss with
17 you those slides?

18 A Yes, he did.

19 Q Did he ever tell you that Dr. Kimbrough's
20 slides showed cancer in rodents and rats?

21 A Eventually, yes.

22 Q Did he tell you that before you and him and
23 others went to Washington, and Mr. Calandra or
24 Dr. Calandra went to Washington, D. C. in
25 November of 1975?

1 A Yes, he did. In fact, we talked about it
2 with each of the agencies.

3 Q But you didn't tell the agencies about the
4 fact that people such as Dr. Richter had
5 diagnosed, had looked at those slides and
6 determined that they were carcinogenic, did you,
7 sir?

8 A That's not true.

9 Q You did tell them that?

10 A We told them that our investigation by
11 looking at Dr. Kimbrough's slides confirmed her
12 findings. We didn't -- at that point --

13 Q Confirmed whose findings?

14 A Dr. Kimbrough's findings with her slides
15 were confirmed by the study that Monsanto had
16 made by looking at her slides, also, through Dr.
17 Richter and Dr. Gordon.

18 Q Well, let's be sure we are understanding.
19 Are you saying that you were telling the
20 government agencies that your findings, that
21 IBT's study, as well as Dr. Kimbrough's study,
22 showed carcinogenicity in rats and rodents?

23 A No. That is not what I'm saying.

24 Q Well, let's clarify it.

25 A I'm saying that Dr. Kimbrough's results of

1 finding carcinogenic effects were true. The IBT
2 studies, using the same chemical, did not show
3 that effect and we went and looked and didn't see
4 those results.

5 So, there was a difference in results from
6 the two tests using the same chemical.

12
7 Q Well, what I'm trying to ask you is what you
8 told the governmental agencies when you went
9 there in 1975. Did you tell the governmental
10 agencies that Dr. Kimbrough's study had shown
11 carcinogenicity in the rats and rodents?

12 A Yes. And they knew it.

13 Q Did you tell them that Dr. Richter had
14 looked at those slides at the request of IBT and
15 found and confirmed what Dr. Kimbrough had found?

16 A Yes.

17 Q All right. Did you tell them about any of
18 the inhouse studies going on at Monsanto other
19 than, on Monsanto's own inhouse studies at that
20 time?

21 A In 1975.

22 Q Yes, sir.

23 A I don't recall if there were any active
24 studies going on at the time, but we did share
25 with them IBT studies, the results of the recent

1 evaluation of those studies.

2 Q All right. And did you come back from that
3 trip with the conviction that the handwriting was
4 on the wall and that Congress was getting ready
5 to pass TSCA?

6 A Not from that trip, no, sir.

7 Q Well, it was in the mill at that time,
8 wasn't it, sir? The Bill had been offered? It
9 was being discussed?

10 A That is true. But the agencies we saw, most
11 of them weren't even involved with that Bill.

12 Q Well, did you see any congressmen on that
13 trip?

14 A No.

15 Q You did see some congressmen on some of the
16 trips, didn't you, some of your weekly or monthly
17 trips to Washington?

18 A Only in hearings to which we were invited.

19 Q Let me try to make this short and sweet.

20 Mr. Papageorge, up until that trip when I
21 suggest to you that you saw the handwriting on
22 the wall, you and Monsanto were doing everything
23 that you could to keep the Bill which became TSCA
24 from being passed, weren't you? You were
25 opposing that Bill?

1 A That's not true.

2 Q That's not true?

3 A No, sir.

4 Q Now, all during this time and when was it
5 you got this indemnity from your customers?

6 A That indemnity became effective in about
7 January, 1972.

8 Q All right. Now, the purpose of that
9 indemnity, that doesn't help the poor old person
10 out here working in these plants that have been
11 exposed to the raw material at all? That
12 indemnity, the purpose of it is to protect
13 Monsanto, isn't it?

14 A That's one of the purposes.

15 Q What it says is, if you want our product
16 anymore now that we have got all of these studies
17 coming out that are causing problems and Congress
18 is looking into this, if you want our product
19 anymore, you are going to have to indemnify us.

20 Isn't that what it says, basically?

21 A Yes.

22 Q "Us" meaning Monsanto?

23 A Yes.

24 Q And incidentally, back on the warnings, if I
25 may, you are not here testifying today that any

1 of these people that are plaintiffs here in this
2 case that you know of have any personal knowledge
3 that they were ever warned of skin problems,
4 liver problems, the possibility they might die or
5 any adverse health effects if they were exposed
6 over a long period of time to PCBs, are you?

7 A I have no information regarding that.

8 Q All right. And you don't, you are not even
9 here to say what, any personal knowledge about
10 what people in Westinghouse or TVA or Ford did
11 about any documents or technical bulletins you
12 might have sent them?

13 A That's correct.

14 Q But going back, if I may.

15 The -- you said that, something about
16 Monsanto being the first company, you believed,
17 to try long term studies on some of their
18 industrial chemical products?

19 A I did say that.

20 Q But the truth is, isn't it, sir, is that the
21 long-term animal studies is not anything new.
22 They were doing that back in the '30's; am I
23 correct, sir? You are not trying to tell the
24 jury that they weren't doing long-term studies on
25 animals to see what kind of adverse health

1 effects might be created by long-term exposure to
2 certain types of products, are you?

3
4 THE COURT: I don't think you need to
5 go back that far. I don't think we need to
6 go back that far.

7 MR. MUSSLEWHITE: All right. Okay. I
8 will strike that question. Thank you, Your
9 Honor.

10 THE COURT: How much more?

11 MR. MUSSLEWHITE: I'm going to try to
12 speed it along, Your Honor. I can see you
13 want me to move on.

14
15 BY MR. MUSSLEWHITE:

16 Q But you mentioned and so we can clear up
17 that point so I can go on, there is no question
18 that long-term studies with animals, animal
19 studies had been taking place with drugs and
20 other products for a long time, hadn't they, sir?

21 A That's what I said, sir: Drugs, food
22 additives and the like, but not industrial
23 chemicals.

24 Q Well, but they could have done it because
25 the process, the method of doing it was

1 available, wasn't it?

2 A Oh, certainly, yes.

3 Q All right. That's all. I want to be clear.

4 I want to clarify something about
5 alternative products. There is no question about
6 it that there have been alternative products
7 particularly transformer type products and so
8 forth all during the time that you were selling
9 PCBs; am I correct, Mr. Papageorge?

10 A Yes.

11 Q As a matter of fact, you mentioned about
12 this study that showed 3,000 to 1 or whatever it
13 was, I can't remember the figure, do you know of
14 any unusual incidents of fire in the capacitors
15 and transformers since you have quite selling the
16 PCB products?

17 A I do not and I don't expect it.

18 Q All right.

19

20 MR. MUSSLEWHITE: If I can review my
21 notes, Your Honor, I'm trying to move along
22 and get through.

23 If I could quickly, Your Honor, get
24 some documents into evidence and it will
25 save time if I kind of move through them

1 quickly if the Court doesn't mind.

2 May I approach the witness?

3 THE COURT: Let's proceed.

4 MR. MUSSLEWHITE: All right. I will go
5 ahead and proceed.
6

7 BY MR. MUSSLEWHITE:

8 Q All right. The first one is 2428.1 and it's
9 dated February 2nd, 1972 and it's a letter to you
10 from Mr. R. T. Richards.

11 And then the next one is 2431.1 and that is
12 your response to that letter, is it not?

13 A It is.

14 Q And what it is, it's a letter from Texaco in
15 1972 asking you basically what -- what PCBs were
16 all about. I mean, what's in them and so forth;
17 isn't that correct?

18 A That's correct.

19 Q And, in effect, you are telling him you
20 can't tell them what's in it, do you not, Mr.
21 Papageorge?

22 A I'm trying to find that wording.

23 Q Well, let me just, without you and I getting
24 into any argument about it, what this shows is
25 that Mr. Richards who is responsible for such

1 matters apparently at Texaco, is writing you
2 because he doesn't know what's in those PCBs or
3 in those Aroclors; isn't that true?

4 A That is true.

5 Q And I could go on and on and I don't have
6 time. I have got a whole list of incidents like
7 the letter from Ford Motor Company asking what
8 was in the product that they received that had
9 PCBs in it.

10 But isn't it true that, that plants all over
11 the country up through the middle, early 70's,
12 middle 70, mid-70's still were writing in to find
13 out about these products because they hadn't been
14 told. They hadn't been told what was in them,
15 what was toxic about them or what they should do
16 about them as far as their own employees were
17 concerned; isn't that true, Mr. Papageorge?

18 A There were members of companies who were
19 writing those letters. This does not mean that
20 someone in that company had not received that
21 information and for some reason did not share it.

22 Q Well, there is no doubt about it. You will
23 agree that Monsanto as the manufacturer of PCBs
24 had the responsibility to tell the world about
25 the toxic effects of their products, if any,

1 didn't they, sir?

2 A That's correct.

3 Q As with any manufacturer?

4 A That's correct.

5 Q And you have heard testimony here already
6 where other people from Monsanto said that when
7 they bought raw materials from other chemical
8 companies, they expected those chemical companies
9 to tell them about the hazardous nature of those
10 products --

11 A That's correct.

12 Q -- and everything they knew about it and how
13 they could protect their own workmen? Do you
14 agree with that?

15 A That's correct.

16 Q And the truth is, isn't it, Mr. Papageorge,
17 you and I could go back and forth all afternoon.
18 The Judge is not going to let me do it, but the
19 truth is you-all did not tell your customers who
20 you knew were going to have their employees
21 working with the PCB products about the
22 precautions you were taking with your own
23 Monsanto employees, did you, sir?

24 A The precautions we were taking, sir, was to
25 avoid skin contact and breathing and that's what

1 our labels told anyone involved. Now, how to do
2 it varies from plant to plant.

3 Q Pardon me, sir?

4 A Monsanto is in no position to guess as to
5 what other chemicals a particular customer may
6 have at his site. The respirator we would
7 recommend --

8 Q May I interrupt you because we're trying to
9 save time.

10 A Certainly.

11 Q I don't mean to be rude.

12 A No, I'm trying to clarify what I perceived
13 to be a misunderstanding, sir.

14 Q Well, I just want to make it clear.

15 A Uh-huh.

16 Q You had internal documents that required
17 certain instructions, as you call them, with
18 respect to those who would work around PCB
19 products and you did that because you knew that
20 if these workmen didn't do that, they might have
21 skin problems and serious liver problems and
22 might even die from being exposed to PCB
23 products; isn't that true?

24 A That's correct.

25 Q All right. And the simple matter of it is

1 when you get it right down to the nuts and bolts
2 of this, the bottom line is you didn't
3 transmit -- you didn't have any kind of
4 comprehensive organized program to transmit that
5 same kind of information to the plants that you
6 were selling your product to and making money off
7 of them and knew that their employees were going
8 to be working around that PCB, you didn't do it,
9 did you, sir, you had no comprehensive program?

10 A No, because we rely on our sophisticated
11 customers to develop their own programs based on
12 their specific conditions.

13 Q Well, is this letter from Texaco --

14
15 THE COURT: Let's avoid that type of
16 questioning you are asking.

17 MR. MUSSLEWHITE: You are right, Your
18 Honor. I'm sorry. I get carried out.

19 THE COURT: Leave out argument.
20

21 BY MR. MUSSLEWHITE:

22 Q Does this letter from the Texaco man seem
23 like that is a sophisticated person that is
24 writing, is responsible at this Texaco plant for
25 protecting his people from PCBs writing a letter

1 like that? Does that sound like he is
2 sophisticated?

3 A Well, I'm encouraged the fact that this
4 individual took it upon himself to do some
5 studying in an area that he obviously had no
6 background.

7
8 MR. MUSSLEWHITE: I want to ask a
9 couple of questions and I'm going to be
10 through, Your Honor. I hope it's just two.

11

12 BY MR. MUSSLEWHITE:

13 Q Insofar as testing products are concerned,
14 you are here to represent Monsanto in this case,
15 aren't you, sir?

16 A Yes, I am.

17 Q Okay. And whatever you say is going to be
18 on behalf of Monsanto. I want you to know that
19 when I ask the question. Is that okay? Is that
20 a fair deal?

21 A As far as I can answer it.

22 Q Do you believe that when you put out a
23 product that you know from, let's say, this PCB,
24 you bought the company from Swann, you knew that
25 they already had problems, health problems with

1 their own workers when you bought that company
2 manufacturing PCBs, do you believe that it's fair
3 and right and proper and good practice to go
4 ahead and manufacture that product and put it out
5 into the market and make guinea pigs out of those
6 that are going to be exposed to it without first
7 yourself testing for its long-term adverse health
8 effects? Do you believe that is fair and proper
9 and right?

10
11 DEFENSE ATTORNEY: Your Honor, I'm
12 going to object to that form of the
13 question. It's a plain and simple jury
14 argument.

15 THE COURT: I think it's argument.
16 Objection sustained.

17 MR. MUSSLEWHITE: All right.

18
19 BY MR. MUSSLEWHITE:

20 Q Well, you didn't -- you have already
21 testified, have you not so -- this is not
22 argument. This is a question -- you have already
23 testified and I believe, haven't you, if not, I
24 want to be sure it's in the record that you
25 didn't do --

1 THE COURT: It's not a question if you
2 are commenting about whether he has already
3 testified about it.
4

5 BY MR. MUSSLEWHITE:

6 Q Isn't it true you didn't attempt any
7 long-term testing for chronic effects for
8 long-term exposure with animals, didn't start
9 that until 1969? You never did it before 1969?

10 A That's correct.
11

12 THE COURT: Is that all?

13 MR. MUSSLEWHITE: I have one other
14 question, Your Honor.
15

16 BY MR. MUSSLEWHITE:

17 Q And today, if someone calls Monsanto and
18 says, I believe you have just testified there are
19 still PCBs probably around this courthouse; is
20 that correct or maybe transformers?

21 A It's probably in a piece of equipment or in
22 the ballast units of the florescent lighting
23 overhead.

24 Q What you are saying is a lot of it is still
25 out in this environment in the United States?

1 A That's correct.

2 Q If today somebody called Monsanto and said
3 that we have got -- we have determined that PCBs
4 are in the transformers that we are around and
5 the liquids that's being gotten into our system
6 somehow or another, today would you do as you
7 heard Mr. Bishop do and tell them it's no more
8 serious than table salt or would you tell them it
9 might kill you? What would you do?

10 A What would I do, sir, or what would
11 Monsanto?

12 Q If you were going to advise the person that
13 called him --

14
15 THE COURT: You are asking him to
16 express an opinion about somebody else's
17 testimony?

18 MR. MUSSLEWHITE: No, sir. I'm asking
19 him what he would do if he were at Monsanto
20 and --

21 THE COURT: You are back to table salt
22 and I thought we had gotten off of that.

23 MR. MUSSLEWHITE: All right. I will
24 withdraw the question, Your Honor, and
25 restate it this way and I will be through,

1 Your Honor.

2
3 BY MR. MUSSLEWHITE:

4 Q Would you warn people that called in if you
5 were still at Monsanto and had that
6 responsibility to handle those inquiries, would
7 you tell them that this product can cause
8 cancers, it can kill you and it can cause serious
9 other health disorders? Would you do that, Mr.
10 Papageorge?

11 A I don't personally know about the cancer
12 bit, depending on what amount is involved, we
13 would caution him about exposures that could lead
14 to these serious effects.

15
16 MR. MUSSLEWHITE: Thank you. No
17 further questions.

18 THE COURT: Anything further, Mr. Hall?

19 MR. HALL: I have no questions, Your
20 Honor.

21 THE COURT: All right. Mr. Papageorge,
22 you may step down.

23 THE WITNESS: Thank you.

24 THE COURT: Who do you have next?

25 MR. SHOEBOOTHAM: Your Honor, for our