

COPY

IN THE UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

1 UNITED STATES OF AMERICA,)
2 Plaintiff,)
3 vs.)
4 PEPPER'S STEEL AND ALLOYS)
5 INC., FLORIDA POWER &)
6 LIGHT COMPANY, NORTON)
7 BLOOM, THOMAS A. CURTIS,)
8 WILLIAM PAYNE, FLORA B.)
9 PAYNE and LOWELL PAYNE,)
10 Defendants.)

11 PEPPER'S STEEL and ALLOYS,)
12 INC., and NORTON BLOOM)
13 Cross-Plaintiffs,)
14 vs.)
15 FLORIDA POWER &)
16 LIGHT COMPANY)
17 Cross-Defendant.)

Case Number
85-0571-CIV-SPELLMAN

18 FLORIDA POWER & LIGHT)
19 COMPANY,)
20 Cross-Plaintiff and Third)
21 Party Plaintiff,)
22 vs.)
23 PEPPER'S STEEL AND)
24 ALLOYS, INC., et al.,)
25 Cross-Defendants,)
and)
UNITED STATES FIDELITY)
AND GUARANTY COMPANY,)
et al.,)
Third Party Defendants.)

Deposition of Witness
WILLIAM B. PAPAGEORGE
Volume I
On Behalf of the Pepper's and Bloom

February 21, 1990

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Reported by:
CINDY KEAST PLOWMAN
General Shorthand Reporter
of

CLAYTON REPORTING COMPANY, LTD.

(314) 727-6503

WATER_PCB-SD0000060197

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370	52		52	Copy of Monsanto's PCB program, PSA 00167 thru 001686
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378	116	141	116	ANSI Guidelines for Handling & Disposal of Capacitor and Transformer-Grade Askarels Containing PCBs, #114858
379	150		150	Letter, T. Fair from W.B. Papageorge, 10-27-75, PSA 001694
380	158		158	Composite Exhibit, # 147039 thru 147043

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1 DEPOSITION OF WILLIAM B. PAPAGEORGE,
 2 produced, sworn and examined on the part of the
 3 Pepper's & Bloom, pursuant to Subpoena and Notice,
 4 and pursuant to the following stipulation, between
 5 the hours of nine o'clock in the forenoon and six
 6 o'clock in the afternoon of Wednesday, February 21,
 7 1990, at the Adam's Mark Hotel, Suite 855, 4th &
 8 Chestnut Streets, in the City of
 9 St. Louis, State of Missouri, before me,

6 CINDY KEAST PLOWMAN
 General Shorthand Reporter
 7 of

8 CLAYTON REPORTING COMPANY, LTD.,

9 a Notary Public in and for the County of Marion,
 10 State of Missouri, in a certain cause now pending in
 11 the United States District Court, Southern District
 12 of Florida, wherein UNITED STATES OF AMERICA is the
 13 Plaintiff and PEPPERS STEEL AND ALLOYS, INC., FLORIDA
 14 POWER & LIGHT COMPANY, NORTON BLOOM, THOMAS A.
 15 CURTIS, WILLIAM PAYNE, FLORA B. PAYNE and LOWELL
 16 PAYNE are the Defendants, PEPPER'S STEEL AND ALLOYS,
 17 INC., and NORTON BLOOM are the Cross-Plaintiffs,
 18 FLORIDA POWER & LIGHT COMPANY are the
 19 Cross-Defendants, FLORIDA POWER & LIGHT COMPANY is
 20 the Cross-Plaintiff and Third Party Plaintiff,
 21 PEPPER'S STEEL AND ALLOYS, INC., et al., are the
 22 Cross-Defendants, and UNITED STATES FIDELITY AND
 23 GUARANTY COMPANY, et al. are the Third Party
 24 Defendants.

25 A p p e a r a n c e s:

18 For Pepper's Keith, Mack, Lewis, Allison & Cohen
 19 and Bloom: Attorneys at Law
 20 111 N.E. First Street
 21 Suite 500
 22 Miami, Florida 33132-2596
 23 By: Mr. Loren S. Granoff
 24 AND
 25 Peterson & Bernard
 Attorneys at Law
 707 Southeast Third Avenue
 P.O. Drawer 14126
 Fort Lauderdale, Florida 33302
 By: Mr. Donald J. Fann

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(314) 727-6503

1 For Florida Coll, Davidson, Carter, Smith,
Power & Light Salter & Barkett, P.A.
2 Company: Attorneys at Law
3200 Miami Center - 100 Chopin Plaza
3 Miami, Florida 33131
By: Mr. Richard C. Smith

4 For Home Baker & McKenzie
5 Insurance Attorneys at Law
Company: 701 Brickell Avenue, #1600
6 Miami, Florida 33131
By: Mr. Landon K. Clayman

7 AND
Thornton, David, Murray,
8 Richard & Davis, P.A.
Attorneys at Law
9 2950 S.W. 27th Avenue, Suite 100
Miami, Florida 33133
10 By: Ms. Sheryl E. Berkowitz

11 For USF&G: Rivkin, Radler, Dunne & Bayh
Attorneys at Law
12 EAB Plaza
Uniondale, New York 11556-0111
13 By: Ms. Sarah A. Ramage

14 For Lloyd's: Mendes & Mount
Attorneys at Law
15 Three Park Avenue
New York, New York 10016
16 By: Ms. Elizabeth A. Nelson

17 For deponent Smith, Helms, Mulliss & Moore
and Monsanto: Attorneys at Law
18 300 N. Greene Street
Suite 1400
19 P.O. Box 21927
Greensboro, North Carolina 27420
20 By: Mr. Gerard H. Davidson

21 WILLIAM B. PAPGEORGE,

22 being produced, sworn and examined on behalf of the
23 Pepper's and Bloom, deposeth and saith:

DIRECT EXAMINATION

BY MR. GRANOFF:

Q. Mr. Papageorge, before we begin, my name is Loren Granoff, as you know. I represent Pepper Steel and Norton Bloom in this matter.

MR. GRANOFF: Let me just put on the record that I received a notification from Sheryl Berkowitz that she's on her way and will be arriving between ten-thirty and eleven and hopes that one or more counsel will accommodate her by allowing her to review their notes. I'm sure that won't be a problem but she asked me to make a request, and I've done it. All right.

Q. (BY MR. GRANOFF) Mr. Papageorge, your full name and where you live.

A. William B. Papageorge. I live in St. Louis County in Missouri.

Q. Your residence?

A. Oh, you want the address?

Q. Yes, sir.

A. 321 Pebble Valley Drive, St. Louis, Missouri, 63141.

Q. Okay. Mr. Papageorge, I'll be asking you a series of questions today. I believe some of my colleagues will also be asking you some questions.

1 We may go into tomorrow as well. As well, I'll be
2 having you identify certain documents that you may
3 have offered or have been generated by Monsanto, and
4 there are other documents as well, and we'll see if
5 you can identify them.

6 I understand that you have been through
7 the deposition process before; is that correct?

8 A. That is correct.

9 Q. So you basically understand that as I
10 ask a question that we need a verbal response of some
11 type. It will be a lot better for the court reporter
12 when she prepares the transcript and for the lawyers
13 and your lawyer here as they're looking at the
14 transcript. Instead of uh-huh and um-um's, a yes or
15 no may be -- a verbal response will identify it.

16 A. I understand.

17 Q. Okay. If there's any question I ask of
18 you that you don't understand, please tell me and
19 I'll attempt to rephrase it to make it clearer. Fair
20 enough?

21 A. Yes.

22 Q. Okay. How are you presently employed,
23 Mr. Papageorge?

24 A. I'm self-employed.

25 Q. And in what respect?

1 A. I try to serve as an engineering
2 consultant.

3 Q. And do you consult for or on behalf of
4 Monsanto Company?

5 A. Yes.

6 Q. In what respects? Could you identify,
7 since your retirement from Monsanto Company, which I
8 understand was December 31, 1986, the manner in which
9 you have consulted on behalf of Monsanto?

10 A. I have consulted with Monsanto in
11 engineering matters, environmental matters,
12 manufacturing, chemical manufacturing.

13 Q. And in respect to environment matters,
14 could you be more specific in the matters you have
15 consulted on behalf of Monsanto?

16 A. It's been primarily environmental issues
17 relating to polychlorinated biphenyls.

18 Q. As much as possible, we'll use the
19 initials PCBs which you are familiar with, I'm sure?

20 A. Yes.

21 Q. Okay.

22 (Said instrument was marked as
23 Defendants' Exhibit No. 1, 2-21-90, CKP.)

24 Q. (BY MR. GRANOFF) Now, we've got a
25 number of Bates stamps on here. I'm going to be

1 referring to the most bottom right-hand digits. It's
2 148 -- Bates stamped 148516.

3 Could you identify what has been
4 pencilled as Defendants' 1, sir?

5 A. This document is a copy of my curriculum
6 vitae.

7 Q. Okay. Is that current?

8 A. Well, it takes it up to the day of
9 retirement from Monsanto. To make it current, a line
10 should be added to indicate I'm self-employed since
11 then.

12 Q. Okay. Let me just ask you some
13 background questions based upon this CV. As a
14 chemical engineer by training, your entire adult life
15 was spent in employment with Monsanto Company,
16 correct?

17 A. No.

18 Q. Excuse me. But for Phillips Petroleum?

19 A. Yes.

20 Q. Okay. And Phillips Petroleum, you were
21 employed from 1947 to 1951. From 1951 forward, you
22 were employed by Monsanto Company?

23 A. That is correct.

24 Q. Okay. Now at one point in time -- you
25 can rely upon Defendants' Exhibit 1 or upon your

1 recollection -- did you have personal contact with
2 PCBs?

3 A. Would you help me with the word personal
4 contact?

5 Q. Sure. In other words, a physical
6 contact with the liquid itself.

7 Do you want me to rephrase it for you if
8 you're uncomfortable with it?

9 A. Did I have a personal contact? I didn't
10 put my hands in it.

11 Q. Some people have put their hands in it.

12 A. I understand. That's why I'm
13 wondering.

14 Q. In what circumstances then, in reference
15 with Monsanto Company, have you been in a work
16 environment where PCBs were present?

17 A. The earliest that I recall, other than
18 being a -- standing under a transformer which
19 contains PCB liquids, the earliest I recall is
20 observing the plant electricians servicing
21 transformers at Monsanto manufacturing plants in
22 St. Louis when I was the maintenance superintendent
23 at that plant.

24 Q. And approximately what year, what time
25 frame are you talking about? And again, please rely

1 upon any document you have.

2 A. 1957 to 1959.

3 Q. Before we get ahead of ourselves, let's
4 set some ground rules, and possibly you could
5 identify, when we talk about PCBs and polychlorinated
6 biphenyls, what are PCBs? And if you can do it in a
7 general -- as much layman's terminology as possible.

8 A. I will try.

9 Q. Thank you.

10 A. PCBs are a mixture of chemicals
11 belonging to a family of chemicals which are made by
12 subjecting a chemical called biphenyl to chlorine.
13 Chlorine combines with the biphenyl in a random way
14 to create polychlorinated biphenyls with different
15 amounts of chlorine, anywhere from one chlorine per
16 biphenyl up to ten chlorine per biphenyl. Is that
17 helpful?

18 Q. I think so. Would it be putting it more
19 into the usage that you probably are accustomed to,
20 and we as lawyers are becoming accustomed to, in
21 talking about PCBs, is it fair to say that PCBs is a
22 chemical compound which is used as a fire resistant
23 compound or liquid within electrical equipment?

24 A. That is one of the uses, yes.

25 Q. In the past, it's been one of the

1 primary uses for PCBs?

2 A. Yes.

3 Q. If not the primary use for PCBs?

4 A. - Yes.

5 Q. Talking about these, the amounts of
6 chlorine, is it my understanding -- Or strike that.

7 Do I understand correctly that Monsanto
8 was one of the primary manufacturers of PCBs in the
9 United States from 1929 until early 1970?

10 A. Yes.

11 Q. And in connection with PCBs, as I
12 understand, the trade name is askarel. Would that be
13 the generic -- I guess the overall generic name would
14 be termed askarels, correct?

15 A. Askarels is a generic term used by the
16 industry to describe the fire resistant liquid used
17 in the electrical equipment.

18 Q. And as the lawyers have learned about
19 this case they've heard certain names like Pyranol,
20 Inerteen. And I know there are others but those are
21 actual trade names; is that correct?

22 A. Those are trade names, yes.

23 Q. Okay. Did Monsanto produce overall
24 askarel generically and then the specific
25 manufacturers would stamp their own trade name to it?

1 In other words, G.E. may have Inerteen
2 or Pyranol and Westinghouse may have Inerteen or
3 Pyranol?

4 A. Monsanto made the PCB which was
5 one-ingredient askarels. Monsanto sold PCBs to
6 customers that used the PCBs in formulating their own
7 askarels. Also Monsanto custom-made the askarels
8 based on specifications offered or insisted upon by
9 the customers, such as General Electric and
10 Westinghouse, and the material would be labeled
11 Pyranol or Inerteen as appropriate before shipment.

12 Q. The custom-made liquids, as you've just
13 described, were these shipped directly from Monsanto
14 to manufacturers throughout the country?

15 A. Yes.

16 Q. Let's go back to -- I think you said the
17 earliest time when you were in an environment where
18 there was PCBs, you had contact with PCBs, was the
19 period of 1977 and 1979?

20 A. Yes.

21 Q. During that time frame, did Monsanto
22 require Monsanto workers to wear any protective gear,
23 and again, for those workers who were working with
24 PCBs?

25 A. There was a requirement for protective

1 gear but the requirement was the same for all
2 chemicals that the workers could potentially be
3 exposed to and limited and not specified as being
4 unique to PCBs. Such as, gloves, and safety glasses
5 or spectacles, clean clothing, and a change of
6 clothing, if the clothing should be contaminated.

7 Q. And possibly we're taking this out of
8 step, but just so it is clear, when I use the term
9 PCBs and I reference it to the 1957, 1959 time frame,
10 PCBs were not known as such by Monsanto at that time;
11 is that correct?

12 A. That's correct.

13 Q. It wasn't until the late sixties or
14 early seventies that the term PCB became more of an
15 awareness by Monsanto and others?

16 A. That is correct.

17 Q. For a number of year's, you were located
18 at the J.F. Queeney Plant?

19 A. Yes.

20 Q. Is that St. Louis?

21 A. Yes.

22 Q. And I'm sorry. Do you want to add
23 something?

24 A. No.

25 Q. Okay. I'm sorry. Then 1964 to

1 1970 -- '65, you were, looks like general
2 superintendent of manufacturing at the Krummrich
3 Plant?

4 A. That is correct.

5 Q. And as general superintendent, what were
6 your overall duties?

7 A. I was assigned the overall
8 responsibility for the manufacture of a group of
9 chemicals and I was one of five general
10 superintendents of manufacturing. So all the
11 products made, at that plant, were divided into five
12 groups and I had one of the groups as my
13 responsibility.

14 Q. Which group was that, sir?

15 A. Oh, I don't know that it had any unique
16 name. The chemicals were such things as phenol and
17 sodium sulfide, and some rubber chemicals.
18 And --

19 Q. Was -- Excuse me.

20 A. It's been so long I'd forgotten some of
21 them. It did not include PCBs.

22 Q. That was my next question. After your
23 stint as general superintendent at Krummrich, your CV
24 reflects that you became plant manager of the
25 Anniston, Alabama plant.

1 A. That's correct.

2 Q. That was the period from 1965 to 1970.
3 Could you give me your overall duties as plant
4 manager?

5 A. I think that all boils down to, I was
6 responsible for everything that took place at the
7 plant during that period of time.

8 Q. Were askarels present at the Anniston
9 Plant?

10 A. Yes.

11 Q. In what fashion? Where did you find or
12 where would you find askarels at the Anniston Plant?

13 A. They were manufactured at that plant as
14 well as present in the equipment that was used at
15 that plant.

16 Q. Did you have any experience -- Strike
17 that.

18 Do you recollect that your workers,
19 people who worked under you at the Anniston Plant
20 from 1969 to '70, that there were any particular
21 health problems associated with the contact with
22 askarels?

23 A. I know I was aware and I recall only one
24 incident in that four or five year period in which an
25 employee, who was one of the senior people there,

1 very experienced, was careless and got his hands
2 contaminated with PCBs, and as a result, he had a
3 severe case of what I'm going to call chapped hands,
4 red skin, and reached the point of even bleeding a
5 bit where he had to go to the dispensary for medical
6 attention. That is the only incident relating to
7 PCBs, askarels in my experience.

8 Q. Did you or did others draw some sort of
9 causal connection between this worker's contact with
10 askarel and this later rash or symptoms that he was
11 suffering from?

12 MR. SMITH: Object to the form,
13 compound, speculative.

14 Q. (BY MR. GRANOFF) You can answer. I'm
15 sorry.

16 A. Well, we were certain that was due to
17 the fact that the individual did not wear his issued
18 gloves which he knew he should be wearing for that
19 kind of operation that he was involved with.

20 Q. Was there a medical doctor at the --
21 assigned specifically to the Anniston Plant at that
22 time?

23 A. Yes.

24 Q. Do you recall his name; his or her name?

25 A. Dr. James Francis.

1 Q. And after this incident with this one
2 worker, was there a heightened awareness, on your
3 part, as plant manager, to make sure that workers
4 were following standard operating procedures to use
5 gloves and protective wear? Those workers, that
6 being who were working with askarel?

7 A. Well, certainly it brought my attention
8 back to the issue of proper use of the issue of the
9 equipment. I recall talking to the individual
10 personally. I went out into the plant during the
11 shift, the night shift that he worked and talked to
12 him and learned from him exactly what he did or did
13 not do.

14 I then reviewed with the supervision of
15 that unit the importance of reviewing during their
16 regular safety meetings to just reemphasize and point
17 out the example of what happens when you don't use
18 the equipment provided.

19 Q. Okay. The askarel that was being
20 manufactured at the Anniston Plant, was that heated?
21 In other words, was it at a certain high temperature?

22 A. Yes.

23 Q. Is there -- Strike that.

24 Was there specific protective gear for
25 those workers who were working with askarel when it

1 was in a heated state?

2 MR. DAVIDSON: Can we go off the
3 record a minute?

4 MR. GRANOFF: Sure.

5 (Discussion was held off the record.)

6 MR. GRANOFF: Let's go back on. I
7 want you to read back my question, then I'll try to
8 get into clarifying.

9 (The requested portion of the record was
10 read by the Reporter.)

11 Q. (BY MR. GRANOFF) Can you answer that,
12 sir?

13 A. The answer is, yes, there was.

14 Q. Could you describe what that equipment
15 or gear was?

16 A. Each employee was provided with the
17 clothing that I mentioned earlier, the hand
18 protection, safety shoes, as well as a respirator to
19 place over the nostrils and mouth in the event of
20 escape of fumes. Although, askarels when they're --
21 when I use the term, askarel, I'm talking about the
22 blended material ready for use in electrical
23 equipment which contains several components,
24 ingredients.

25 That material could be hot when it's

1 blended and ready for putting into the containers and
2 labeled. That operation in itself, with no leakage
3 or spillage, does not create a fume problem.

4 Q. I have used the term so far this morning
5 of askarel, I've used the term PCB. Just briefly,
6 what is the distinction between the two terms, so I
7 can be as clear as possible on this record today and
8 try to minimize confusion in a confusing area to a
9 non-technical person.

10 A. I'll try. The PCBs are available for
11 use in electrical equipment as a liquid, and the
12 liquid is clear liquid to a light amber color. I'm
13 trying to help you picture this. They are one
14 component in a mixture of several that together are
15 referred to askarels.

16 The amount of PCBs in askarel can vary
17 from let's say thirty percent to fifty percent. The
18 remaining seventy percent to fifty percent, in most
19 cases, is a blend of chlorinated benzene, three
20 chlorine benzene, four chlorine benzene, which looks
21 an all awful lot like lighter flood. It's light,
22 evaporates rapidly.

23 The combination of PCB plus this
24 chlorinated benzene plus some other materials that
25 are added to help preserve the purity of this mixture

1 to make it a good liquid for electrical purposes, is
2 referred to as the askarel.

3 Q. Okay. Did Monsanto, over the years,
4 from 1929 until early 1970, manufacturer different
5 concentrations of askarel? What I mean by that,
6 concentrations to the extent of different percentages
7 of PCBs within askarel?

8 A. Yes.

9 Q. And just so we can move this along,
10 there were a number of different names or
11 concentrations such as Araclor 1260?

12 A. We're now confusing askarel with PCB.

13 Q. Okay. I don't want to confuse it. If
14 you could describe, when I use the term Aroclor 1260,
15 what does that identify?

16 A. That describes a Monsanto product which
17 is a hundred percent PCBs and it's a mixture of the
18 various PCBs. The total chlorine in that mixture is
19 sixty percent by weight. That's where the sixty
20 comes from in the expression and digits 1260.

21 Q. Okay. What were the other
22 concentrations of chlorine that were manufactured by
23 Monsanto?

24 MR. SMITH: Time frame?

25 MR. GRANOFF: From 1929 until it

1 wasn't produced any more.

2 A. I'm trying to recall them all. There's
3 twenty-one percent, thirty-two percent, forty-two
4 percent, forty-eight percent, fifty-four percent,
5 sixty percent, and briefly, they also made that, as I
6 recall, seventy-two percent chlorine.

7 Q. (BY MR. GRANOFF) Were all of those --
8 Were all of those chlorine concentrations used as a
9 dielectric fluid at some time in electrical equipment
10 such as transformers?

11 MR. SMITH: Objection to the form,
12 lack of foundation, no reference to a time frame.

13 A. All but 1270. The seventy-two
14 percent -- seventy percent one was not used. It's a
15 solid. All others were liquids. And at one time or
16 another, they were used in electrical equipment early
17 either as is or in blends.

18 Q. (BY MR. GRANOFF) Your CV reflects that
19 in 1970 you assumed duties as manager, environmental
20 control of the organic division in St. Louis. Could
21 you describe what that job entailed?

22 A. I was responsible for coordinating
23 activities and information relating to the then
24 evolving PCB issue, PCBs as it impacted the
25 environment.

1 Q. How was it, in a corporate fashion, that
2 you got word down in Anniston, Alabama that, Bill, we
3 want you to come up to St. Louis to assume these new
4 duties?

5 A. Well, I was informed by my supervisor.

6 Q. Who was that, sir?

7 A. That was Raymond Stratmeyer. He
8 informed me that there was an issue that was becoming
9 quite important, that it seemed to indicate that PCBs
10 were being found in the environment. Since there
11 were two groups in Monsanto marketing PCBs, it was
12 believed that if one person could help coordinate so
13 the left hand knew what was right was doing, the
14 issue could be managed more responsibly. And I was
15 asked to go to St. Louis and interview for that
16 opening which was a new job that was being created.

17 Q. Who are the two groups?

18 MR. SMITH: Excuse me. I'd like to
19 put an objection on the record as to hearsay from
20 Mr. Stratmeyer.

21 MR. GRANOFF: Well, I never heard
22 such an objection. Okay. I've heard of it but it's
23 not well founded.

24 Q. (BY MR. GRANOFF) Who were the two
25 groups marketing PCBs in that time frame? Let's talk

1 about 1970 because I don't want to take it all the
2 way back to 1929. 1970.

3 A. There was one group that was referred to
4 as the functional fluids group which marketed the
5 liquid PCBs for use. I guess, in a general kind of
6 way, you can say in equipment, hydraulic fluids, heat
7 transfer fluid or any electrical equipment. There
8 was another group that sold the PCBs as an ingredient
9 to be added to plastics generally. That group was
10 referred to as the plasticizer group.

11 Q. Were you aware, back in 1970, which of
12 those two groups was selling more PCBs?

13 A. Yes.

14 Q. Which group was that, sir?

15 A. The functional fluids group.

16 Q. Would you have any idea, as we sit here
17 today and look back into 1970, what the percentage of
18 sales were? In other words, was the functional
19 fluids group selling eighty percent versus twenty
20 percent for the plasticizers?

21 And it's not a memory quiz. I'm not
22 going to ask you to do any rank guessing, but as best
23 as you can recollect.

24 A. Without having an exact number, I would
25 say it was sixty/forty, sixty percent to the

1 functional fluids and the other forty into this
2 miscellaneous plasticizer mix.

3 Q. Okay. As best you can recollect, what
4 was your reaction to the information back in 1969, I
5 assume, or 1970, when you were called by Stratmeyer,
6 that PCBs were becoming a very important issue?

7 A. As I recall, my initial reaction was one
8 of surprise really that they were being found in the
9 environment. And based on what I personally knew of
10 these materials, I found it hard to understand at
11 that time.

12 Q. I think you testified just a couple of
13 minutes ago that the creation of this new post in
14 1970, as manager of environment control, was being
15 done by Monsanto to manage the issue more
16 responsibly?

17 A. Yes.

18 Q. Was the issue -- In other words, the PCB
19 issue being addressed wasn't addressed by anyone at
20 Monsanto prior to the decision to name you as head of
21 environmental control or the manager of environmental
22 control?

23 A. It was addressed by several individuals,
24 depending on the particular expertise required to
25 respond to information or to seek data.

1 Q. Could you identify the individuals and
2 what duties those individuals had assumed up until
3 1970?

4 A. I think it would be better if, rather
5 than individuals, that I describe the functions
6 because there were several individuals within each
7 function.

8 Q. Fair enough.

9 A. For example, in the analytical chemistry
10 research group, that group designs methods for
11 analyzing for chemicals, they were very interested,
12 of course, in how to analyze for PCBs in different
13 kinds of samples, in water, in air, in fish tissue,
14 whatever was appropriate, so they were addressing
15 that particular area.

16 Another group in the research department
17 was addressing, looking for alternative materials
18 that would not persist in the environment. There was
19 a group in the medical department that were arranging
20 for studies to determine what effect these chemicals
21 would have on birds, mammals, fish. There was a
22 group in the manufacturing department that was
23 addressing the issue of how do we keep these
24 materials from going down the sewer or up the stack.
25 Those are the examples I can think of at the moment.

1 So it was fragmented.

2 Q. Yes. And I assume that you understood
3 your new job as of 1972 coalesced the research, the
4 and medical and manufacturing ends of Monsanto to
5 address this evolving PCB issue?

6 A. That is correct.

7 Q. Now, I believe you used the term
8 persistent in the environment in reference to PCBs?

9 A. Yes.

10 Q. Could you describe for me, in layman's
11 terms, as best you can anyway, what you mean by that?

12 A. What I meant by the term persistent is
13 the fact that some PCBs, when released into the
14 environment and finding their way into waterways or
15 soils or plants, would be found there for years after
16 the initial exposure.

17 Q. When you say some PCBs, are you talking
18 about particular concentrations as to the amount of
19 PCBs in an askarel or the level of chlorination?

20 A. I'm referring to the level of chlorine
21 present in each PCB. The PCBs with five or more
22 chlorines per biphenyl would resist degrading in the
23 environment. They would be identifiable long after
24 the initial spill or the initial release.

25 Q. You identified earlier certain

1 concentrations of chlorine that were manufactured by
2 Monsanto. I don't think I jotted all the numbers
3 down, but as far as the liquids, I think I understood
4 as high as the number 1260 and as low as 12.

5 A. 1221.

6 Q. Excuse me. 1221. In that range of 1221
7 to 1260 Aroclors, what was the more persistent
8 Aroclor that was found in the environment?

9 MR. SMITH: Objection to the form
10 for lack of foundation.

11 A. I don't know that I can answer the way
12 you worded your question.

13 Q. (BY MR. GRANOFF) Okay.

14 A. The persistent types of Aroclor are the
15 five chlorines, six chlorines, seven, eight, nine and
16 ten chlorines. Some of these are present in many of
17 the commercial mixtures that I described earlier by
18 percent chlorine. For example, Aroclor 1242, which
19 is forty-two percent chlorine, has in it some of
20 these persistent types of chlorines. I have
21 forgotten at the moment what percent. It's something
22 like ten percent of that mixture could be reasonably
23 classified as the persistent types.

24 The other ninety would, within
25 reasonable time -- and by reasonable, I'm going to

1 say a five, ten year period after the initial spill,
2 the analytical chemist would not find in it a sample.
3 But the five chlorines and above could very well
4 still be there and identifiable.

5 Q. Were the -- Did I cut you off?

6 A. No. I forgot your initial question.

7 Q. I'll try to go back a little bit. Were
8 the persistent Aroclors found in each concentration
9 from the spectrum of 1221, Aroclor 1221 through and
10 including Aroclor 1260?

11 A. 1221 did not have any. Starting with
12 1232, the persistent types could be found. The
13 higher the chlorine percentage, the larger the
14 quantity of the persistent types would be present.

15 Which reminds me, as I think here, there
16 was a modified PCB introduced in 1970, 1971 in which
17 these persistent chlorine -- persistent PCBs were
18 removed and that was referred to by Monsanto as
19 Aroclor 1016.

20 Q. Okay. Were the concentrations -- Strike
21 that.

22 Were the Aroclors 1232 through 1260 and
23 including 1260 used in electrical equipment such as
24 transformers, to your knowledge?

25 A. Yes.

1 Q. Now, you come back to St. Louis for your
2 new position as manager of environmental control. Is
3 there someone at that time, one person or more that
4 you went to in order to try to coalesce the
5 information, as fragmented as it may have been, to
6 try to put it all together? Did you have a direct
7 supervisor or someone who was going to show you the
8 ropes at that point?

9 A. Of course, I had a direct supervisor.

10 Q. Who was that?

11 A. Howard Bergen. But I personally sought
12 out the individuals who were very close to the
13 particular areas that I mentioned earlier, research,
14 analytical, medical, manufacturing, marketing, and
15 spent as much time as it took in a -- it's a
16 one-on-one tutorial with bulletins and pamphlets and
17 literature, newspaper clippings, whatever was
18 appropriate.

19 I started to collect all that for my own
20 education in the matter. That was done within
21 Monsanto in the period -- it really started late
22 December 1969 before I officially showed up on the
23 job, and it was quite intense the first three or four
24 months, but it continued from then until I was
25 released of the total assignment.

1 Q. So as of December of 1969, you were on a
2 learning curve in connection with PCBs and its
3 suspected environmental hazard?

4 A. Yes.

5 Q. Did you attempt to find out, beginning
6 in -- let's just say 1970, because that's when the CV
7 reflects you began your new position -- whether
8 anybody out there in the manufacturing community
9 anywhere in the United States had any knowledge about
10 this suspected PCB issue as a evolving environmental
11 issue? And if that's too vague, I'll clarify it.

12 A. When I -- when I arrived to take on
13 these new responsibilities in 1970, I was aware that
14 several, if not many, of the electrical equipment
15 manufacturers who used PCBs in their askarels had
16 been informed of an evolving PCB issue.

17 Q. How did you learn that information? How
18 did you gain access to that information?

19 A. Well, I was given a copy of a letter
20 that was mailed to some of them in which the author
21 attempted to summarize what Monsanto knew of the
22 issue at that time. This was issued in 1969, as I
23 recall, early 1969. That was an attempt to update
24 the key or the largest users of PCBs as to what was
25 evolving so they wouldn't be caught by surprise in

1 future times.

2 Q. When you say the largest users, do you
3 mean companies like General Electric, Westinghouse,
4 Allis-Chalmers, other transformer manufacturing
5 companies?

6 A. Yes. They were among -- in that list,
7 yes.

8 Q. Okay. So it was your understanding in
9 1970 that Monsanto had already provided information
10 to certain members of manufacturing communities in
11 connection with PCBs?

12 A. Yes.

13 Q. Okay. My question's a little bit
14 different than that though. When you get to your new
15 position in 1970, did you find out from any --
16 whether any other companies or laboratories or
17 entities had any information about this evolving
18 environment issue other than what had already been
19 disseminated by Monsanto?

20 A. I'm not aware of any company being aware
21 of this PCB issue other than Monsanto's customers
22 through that letter I talked about. But there were
23 laboratories that were active, government
24 laboratories as well as university laboratories.

25 Q. Did you initiate any direct contact with

1 any of these laboratories beginning in 1970?
2 Obviously if it's 1971, the question would still
3 stand the same way.

4 A. Yes. We -- and by we, I'm talking about
5 Monsanto representatives, I being one of several --
6 made contacts with these laboratories. At this point
7 in time, I don't recall who made this specific
8 contact, but we did make contacts with a laboratory,
9 for example, that was the fish pesticide laboratory.
10 At that time, I believe it was part of the Department
11 of Interior located in Columbia, Missouri, and
12 because we understood that one of their principle
13 investigators was studying the effects of PCB on
14 fish. This is fresh water fish.

15 We made a contact with the water
16 laboratories, which in 1970 were being transferred to
17 the newly formed DPA in Athens, Georgia and Deluth,
18 Minnesota who were studying the effects of PCBs on
19 aquatic life. We had a contact with an investigator
20 in California who was reporting to the popular
21 press -- this was Dr. Robert Risebrough in Berkley,
22 California, University of California, Berkley. He
23 had found PCBs in some samples he took relating to
24 pelicans off southern California and was suspecting
25 that the PCBs were causing the pelicans to suffer

1 reproduction problems.

2 We also made a contact with a
3 laboratory, a fish laboratory located in Gulf Breeze
4 Florida that, at that time, was part of the
5 Department of Commerce as I recall. They were
6 conducting studies of PCBs on marine life, saltwater
7 creatures, and had determined that very low levels of
8 PCBs were harmful to juvenile, young shrimp.

9 We also -- I had a contact with
10 investigators at Cornell University, Dr. Peacall,
11 David Peacall, who in his studies was suspicious that
12 the presence of PCBs was harming the peregrine falcon
13 population.

14 We had, through Monsanto European
15 representatives contact with the University of
16 Utrecht in the Netherlands. And later on, I was with
17 a group that personally visited that particular
18 laboratory as well as visited with the -- what was
19 called the government chemist in London that was a
20 top analytical individual in the British regulatory
21 system. It's not quite like a U.S. system.

22 That's all that comes to mind at the
23 present regarding other laboratories, entities
24 interested in the issue.

25 Q. All right.

1 MR. GRANOFF: Can we take around a
2 two minute break? I want to take a short break
3 because we have a lot of work to do today.

4 (Deposition stood in temporary recess.)

5 (Said instrument was marked as
6 Defendants' Exhibit No. 2, 2-21-90, CKP.)

7 Q. (BY MR. GRANOFF) Could you identify
8 what's been marked as Defendants' 2, please?

9 MR. SMITH: Does this have a PSA
10 number on it?

11 MR. GRANOFF: Bates number of
12 001394. It's a letter dated March 3, 1969 from
13 Monsanto Company.

14 A. This is a copy of a letter to customers
15 on Monsanto letterhead authored by Elmer P. Wheeler.

16 Q. (BY MR. GRANOFF) And have you seen this
17 letter before, sir?

18 A. Yes, I have.

19 Q. Are you familiar with the letter? Would
20 you like to take some time to review it?

21 A. I am familiar with it.

22 Q. Could you briefly describe the gist and
23 contents of this letter?

24 A. This letter is an attempt, on
25 Mr. Wheeler's part, to summarize Monsanto's knowledge

1 of the state of the environmental PCB issue as of
2 March of 1969.

3 Q. You said it was a letter to customers.
4 What do you mean by customers?

5 A. These are companies that purchased
6 Monsanto's PCB products and were listed as such on
7 Monsanto's records.

8 Q. I assume that you did not have a direct
9 input into the substance of this letter; is that
10 correct?

11 A. That is correct, uh-huh.

12 Q. When you began your new position in
13 1970, what was the -- what was your relationship with
14 Elmer P. Wheeler?

15 A. Mr. Wheeler was my principle contact in
16 the medical department regarding PCB toxicity
17 studies.

18 Q. Was this a medical doctor?

19 A. No.

20 Q. Do you know or have you -- Strike that.

21 Have you learned, at any time since you
22 first saw this March 3, 1969 letter, the manner in
23 which Monsanto was able to get the names of its
24 customers or purchases for PCB products?

25 In other words, was there a form mailing

1 list of some type that was utilized?

2 A. Yes. I'd call that -- It was a mailing
3 list by business groups broken into the various
4 products and it consisted of those customers who had
5 purchased these products for at least three years,
6 went three years back from the date of mailing. And
7 it was compiled from records in the order department.

8 Q. You say order?

9 A. Order department is the department that
10 services the customers' orders. It was compiled also
11 from the accounts receivable department. So we had
12 two types of entities there, one is the ship to
13 address and the other is the bill to address.

14 Q. Okay. I assume that if we were to look
15 at that list, as it existed in 1969, that we will see
16 names like Westinghouse and General Electric and
17 Allis-Chalmers, for instance, on that list?

18 MR. SMITH: Objection. Leading.

19 A. That's a good assumption.

20 Q. (BY MR. GRANOFF) Okay. Have you ever
21 had the opportunity to see the list that was utilized
22 by Mr. Wheeler back in 1969 to send out this March 3,
23 1969 letter?

24 A. I don't remember this particular list.
25 I could well have seen it because I've seen so many

1 in 1970.

2 Q. Okay.

3 A. When you say you saw many, you've seen
4 so many lists in 1970, what type of lists are you
5 talking about?

6 A. Customer lists that received different
7 mailings that occurred in 1970.

8 Q. Were utilities on the list that you
9 reviewed in 1970, utility companies?

10 A. Yes.

11 Q. How was it that utility companies were
12 on this list for correspondence that were eventually
13 sent to these companies?

14 A. On occasion, the utilities would order
15 the askarels delivered to their plants at different
16 sites for use in the equipment. Sometimes it was a
17 matter of topping off, very much like you add oil to
18 your car if the level gets a little low. And some of
19 them would conduct even more extensive maintenance
20 work. They would completely drain a unit and refill
21 them. So they have would have a need for fresh new
22 material.

23 Q. Have you reviewed any particular
24 documents in preparation for today's deposition?

25 A. Yes, I have.

1 Q. Have you reviewed any mailing lists, for
2 instance?

3 A. A mailing list? No.

4 Q. The documents that you have specifically
5 reviewed are documents that were provided to you by
6 Mr. Davidson?

7 A. Some of them, yes.

8 Q. And you reviewed documents that you
9 maintain in your -- at your home or in your
10 consulting business in connection with PCBs?

11 A. No. I did not. I don't have any.

12 Q. All right.

13 MR. DAVIDSON: For the record,
14 Mr. Granoff, we have reviewed documents produced by
15 Monsanto, furnished by Monsanto, to your client that
16 you indicated would be the subject of examination
17 here today, or myself, as well as a stack of
18 documents not produced by Monsanto but furnished by
19 you as indicated that might be subject to examination
20 today.

21 MR. GRANOFF: All right. I
22 appreciate that.

23 Q. (BY MR. GRANOFF) Going back now to the
24 utilities throughout the United States that may have
25 purchased askarels directly from Monsanto, do you

1 recollect whether one of those companies was Florida
2 Power & Light?

3 A. I recall seeing Florida Power & Light on
4 a list of customers.

5 Q. Are you saying by that that Florida
6 Power & Light was one of the customers that purchased
7 askarel directly from Monsanto in St. Louis?

8 A. Yes.

9 Q. Do you have a recollection of the time
10 frame that Florida Power & Light purchased askarels
11 directly from Monsanto?

12 A. Well, since I recall seeing that list in
13 early 1970, it would have to be prior to early 1970.
14 I do not recall any specific dates.

15 Q. All right. I think you said that what
16 was relied upon in compiling these customers lists
17 was customers which had purchased askarel for at
18 least a three year period?

19 A. Yes.

20 MR. SMITH: Object to the form of
21 the question. Mischaracterizing his statement.

22 Q. (BY MR. GRANOFF) I'm sorry.

23 A. Point of clarification. I'd like to
24 clarify this three year period that I described.

25 Q. Okay.

1 A. This does not mean that a customer
2 purchased material each of the three years.

3 Q. Okay.

4 A. What I meant -- intended to indicate
5 there is that individuals at Monsanto perused the
6 records as far back as three years to pick up any
7 additional customers that might have purchased
8 materials three years ago and did not purchase any
9 more. We wanted to make sure that we communicated
10 with them in the event they still had a drum of
11 material in their back lot.

12 Q. Okay.

13 (Said instrument was marked as
14 Defendants' Exhibit No. 3, 2-21-90, CKP.)

15 Q. (BY MR. GRANOFF) Could you identify
16 Defendants' 3, please, sir?

17 MR. SMITH: While he's reading, can
18 you give us a prefix number?

19 MR. GRANOFF: Oh, I'm sorry. PSA
20 001397, letter of February 18, 1970 on Monsanto
21 letterhead.

22 MR. SMITH: Two pages?

23 MR. GRANOFF: Yes. Two pages.

24 A. This exhibit is a copy of a letter
25 mailed in February of 1970 to customers of Monsanto

1 who manufactured electrical equipment in which PCBs
2 were used, and the author of the letter is Donald
3 Olson of Monsanto.

4 Q. As of February 18, 1970, you had assumed
5 your new position as manager of environmental
6 control; is that correct?

7 A. That is correct.

8 Q. Did you -- Do you recall any direct
9 input on this letter authored by Mr. Olson?

10 A. Yes. I was involved in reviewing the
11 drafts of this letter and similar letters.

12 Q. I believe you testified that this letter
13 was disseminated to customers of askarels
14 manufactured by Monsanto Company, that being
15 electrical equipment manufacturers?

16 A. Yes.

17 Q. Do you recollect whether their letter
18 was exclusive to electrical equipment manufacturers?

19 A. Yes.

20 Q. In other words, this is not a letter
21 that was sent out to all customers who purchased
22 Monsanto manufactured askarels over a number of
23 years?

24 A. No. They would have received a similar
25 letter with a different last paragraph.

1 Q. Let's talk then, speak to rather, the
2 last paragraph and the last two sentences. The
3 language reflects that, "we are notifying the
4 purchasers of such equipment of the potential
5 environmental contamination problem described in this
6 letter." That's correct, is it not?

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

8 Q. Do you know what was intended by that
9 clause of that sentence?

10 A. Well, the intent was that we wanted to
11 make certain that the purchasers of electrical
12 equipment containing PCBs were informed. Monsanto
13 had no way of getting a list of purchasers of that
14 equipment. It would have been an impossible task.
15 And we wanted to make certain that somehow they were
16 tuned in, and we use those last two sentences to
17 emphasize that to the receiver of that particular
18 letter.

19 Q. When you used the term purchasers of
20 such equipment --

21 A. -- Uh-huh.

22 Q. -- did you have in mind, for example,
23 utility companies?

24 A. That's one of the purchasers, yes.

25 Q. Do you recollect whether a separate

1 letter, at any time, was ever sent to purchasers of
2 the electrical equipment?

3 A. Some purchasers of the electrical
4 equipment that were on Monsanto's mailing list got a
5 letter.

6 Q. Was that letter written in the first six
7 months of 1970, as best you can recollect?

8 A. Pretty close to that, yes.

9 Q. Is it likely that Florida Power & Light
10 would have been issued a letter within the first
11 months of -- first six months of 1970 which described
12 the evolving PCB environmental issue?

13 MR. SMITH: Objection to the form.

14 A. Very likely, yes.

15 Q. (BY MR. GRANOFF) And this is a letter
16 that would have been issued by Monsanto Company?

17 A. Yes.

18 Q. In connection with the letter -- I don't
19 have it -- I don't think I have it in front of me
20 today, but maybe as I go through it, I might -- you
21 might be able identify it. In connection with the
22 letter that was sent to the purchasers such as
23 Florida Power & Light within the first six months of
24 1970, was that letter substantially -- did it
25 substantially reflect the -- what we have on this

1 Defendants' 3?

2 A. Yes.

3 Q. If you could turn to Page 2 of
4 Defendants' 3, please. The second paragraph, first
5 sentence, I'll read it verbatim just for everybody's
6 benefit here because I don't think they have it. "We
7 feel that all possible care should be taken in the
8 application, processing and effluent disposal of
9 these products to prevent them becoming environmental
10 contaminants." Is that a fair and accurate
11 representation?

12 A. Yes.

13 Q. Is it your recollection that that
14 particular sentence or a sentence to that effect was
15 contained within the letter that went to the
16 purchasers within the first six months of 1970?

17 A. Yes.

18 Q. In connection with the letter that was
19 sent to the purchasers, do you know who authored the
20 letter?

21 A. Are we going to limit this to the
22 dielectric application or to all PCB applications?

23 Q. Dielectric applications.

24 A. Dielectric? Mr. Olson.

25 Q. Mr. Olson?

1 A. Yes.

2 Q. Do you recollect what was meant by the
3 phraseology, application, processing and effluent
4 disposal? In other words, care should be taken in
5 the application, processing and effluent disposal.
6 What was meant by that phraseology?

7 A. It was an attempt to find the proper
8 words to cover all possible situations in which the
9 material could be found. And by application, we
10 meant as you use it in service. If it's in a unit,
11 don't let the unit leak. As you fill the unit, be
12 careful how you fill. In processing, in the event,
13 the customer makes his own blending with other
14 ingredients. Or the word processing could also mean
15 in taking it from a storage tank into the building,
16 the manufacturing building, and into the product;
17 that could be applied, referred to as processing.

18 Effluent disposal was intended to cover
19 both water effluent and air emissions, and it was
20 intended to cover solid waste like dirty rags and
21 soaked sawdust and what have you.

22 Q. Was -- Strike that.

23 Thank you. In connection with direct
24 sales that were made to Florida Power & Light of
25 askarel, do you know which facility within the

1 Florida Power & Light system was receiving the
2 askarel?

3 A. I don't at this point in time. I'd have
4 to look at that list again.

5 Q. All right. Was it your understanding
6 that utility companies, at the time that you began --
7 Strike that.

8 Was it your understanding that utility
9 companies, at the time Monsanto began issuing these
10 letters advising purchasers of Monsanto's askarel it
11 was an environment hazard, that environmental --
12 excuse me -- that utility company had their own
13 equipment repair center which which were receiving
14 askarel directly from Monsanto?

15 MR. SMITH: Objection to the form.

16 A. Not necessarily.

17 Q. (BY MR. GRANOFF) What does that mean?

18 A. To take the utility as an example, the
19 utility could order several drums of an askarel in
20 anticipation of needing that to service their
21 equipment. In some cases, the utility itself would
22 have the capability of doing its own servicing if the
23 job was a very small one that they were capable of
24 handling.

25 In other cases, they may hire a

1 contractor who's in the business of servicing these
2 units to come into the plant and do what is
3 appropriate and the material is available, it was
4 ordered directly from Monsanto.

5 Another way that the utility name could
6 appear on a Monsanto list would be for, as an
7 example, the General Electric or Westinghouse service
8 units they had to service, have many locations
9 throughout the country. They would order the
10 replacement liquid, so many drums to be shipped to a
11 utility. Bill General Electric, ship to Power &
12 Light Company. That's another way the Power & Light
13 Company's name would appear, the ship to list.

14 I thought I had another example. Those
15 are some of the ways in which material could arrive
16 at a utility. And how it was -- who used it
17 eventually, we are in no position to know.

18 Q. Well, I'm a little unclear then as to
19 your responsibilities. Was one of the options in
20 direct sale to utility, the potential for it, the
21 utility equipment repair center to receive the
22 askarel in a direct shipment?

23 MR. SMITH: Objection to the form,
24 speculation.

25 A. That is an option, yes.

1 Q. (BY MR. GRANOFF) In connection with
2 your position as manager of environmental control,
3 what impetus did you provide to this evolving PCB
4 issue in connection with involving groups such as
5 ANSI?

6 A. I don't know how to measure the impetus
7 I might have given. I did my best to get those
8 individuals that could contribute to the resolution
9 of the issue or better understanding of the issue to
10 talk to each other to communicate to initiate studies
11 or even make suggestions that we could pursue.

12 Q. Let me ask the question a different
13 way. We'll get to the ANSI C-107 Committee.

14 After you had an opportunity -- and I
15 think you said the first three to four months were a
16 very intensive learning time for you in 1970.

17 A. All right.

18 Q. Thereafter, did you believe that there
19 needed to be some coordinated uniform guidelines for
20 the handling and disposal of askarel, Askeral-soaked
21 materials?

22 A. Well, I too evolved and finally
23 concluded that a coordinated effort was needed.
24 Initially, my intent was to communicate to anyone
25 associated with the use, transfer, disposal of PCBs,

1 to do their best to keep it out of the environment in
2 hopes that each company or individual involved was in
3 the best position to come up with the solution to his
4 particular situation.

5 At that time, I could not see myself in
6 a position where I could advise the thousands of
7 possible customers and their plants just how to
8 ventilate their building or how to design their sewer
9 systems and the like.

10 But as time went on and the number of
11 customers became limited only to the dielectric
12 application, it became a situation where the
13 practices were a little bit more uniform and would
14 lend themselves to a standard approach to cope with
15 this problem.

16 MR. GRANOFF: Let's mark this,
17 please.

18 (Said instrument was marked as
19 Defendants' Exhibit No. 4, 2-21-90, CKP.)

20 Q. (BY MR. GRANOFF) Could you identify
21 Defendants' 4?

22 MR. GRANOFF: And for everyone
23 else, this is PSA 001656, a letter of September 1,
24 1970.

25 A. This is a copy of a letter which I wrote

1 back in September 1970 and addressed to a
2 Mr. Reinhardt at Moloney Electric Company.

3 Q. (BY MR. GRANOFF) It's a brief letter,
4 but could you even briefly state the gist of this
5 letter? And I believe there's an attachment as
6 well.

7 A. Well, the letter refers to my
8 understanding that the NEMA organization was going to
9 contact the ANSI group for the establishment of
10 handling standards. And it also refers to the fact
11 that I had composed two paragraphs summarizing the
12 PCB issue, as of September 1970, so that the
13 recipient of this letter could go to the ANSI board
14 of directors to convince them that this was a
15 worthwhile project for ANSI to sponsor.

16 (Whereupon Ms. Berkowitz entered the
17 deposition room.)

18 MR. GRANOFF: Just make a note of
19 Ms. Berkowitz's appearance. And Sheryl, do you have
20 a copy of the sequential numbering system?

21 MS. BERKOWITZ: Yes, I do.

22 (Said instruments previously marked as
23 Defendants' 1, 2, & 3 were re-marked as Exhibits No.
24 366 thru & including 368, 2-21-90, CKP.)

25 Q. (BY MR. GRANOFF) In connection with

1 the --

2 MR. GRANOFF: We have didn't 4. We
3 can mark that one.

4 (Said instrument was marked as Exhibit
5 No. 369, 2-21-90, CKP.)

6 Q. (BY MR. GRANOFF) Mr. Papageorge, in
7 reference to 369 and attachment, by September 1, 1970
8 had you concluded that the evolving PCB issue was in
9 fact a real issue to be confronted by Monsanto and
10 those who were using askarel?

11 MR. SMITH: Objection. Leading and
12 vague.

13 A. By 1970, I had concluded that the
14 presence of PCBs in undesirable locations was a
15 fact. And I'd concluded that proper methods of
16 handling were virtually dictated if the industry was
17 to continue to use PCBs in electrical equipment.

18 (Said instrument was marked as Exhibit
19 No. 370, CKP.)

20 Q. (BY MR. GRANOFF) Could you identify
21 what's been marked as Exhibit 370, please?

22 MR. SMITH: Is there a PSA number?

23 MR. GRANOFF: PSA 001671 through
24 001686 and it is Monsanto's PCB Program.

25 Q. (BY MR. GRANOFF) Can you identify No.

1 -- is it 370?

2 A. Yes. This is a copy of the statements I
3 made at what I refer to as the organization meeting
4 for ANSI NEMA Committee C-107 which took place
5 September 14 of 1971.

6 Q. (BY MR. GRANOFF) By September 1971, had
7 Monsanto instituted their own tests and evaluations
8 to determine whether the previous studies that had
9 found PCBs in the environment in fact were accurate?

10 A. Yes.

11 Q. And generally, could you tell me the
12 conclusions of Monsanto's own studies as of September
13 1971?

14 MR. DAVIDSON: With respect to
15 presence in the environment?

16 MR. GRANOFF: Yes, sir.

17 A. By 1971, as I indicated earlier, even by
18 a year before that, Monsanto studies confirmed that
19 the reports received from around the world regarding
20 identifying PCBs in various environmental samples
21 were correct and the types of PCBs identified were
22 correctly identified.

23 Q. By September 1971, had Monsanto's own
24 evaluations and analyses reflected that the presence
25 of PCBs posed a danger to the environment?

1 A. No. No. It was a matter of presence.

2 Q. Was there ongoing, as of September 1971,
3 evaluation and studies by Monsanto to determine
4 whether the presence of PCBs in the environment posed
5 an environmental danger?

6 A. There were no studies sponsored by
7 Monsanto that specifically addressed the situation
8 you just described in terms of effect on the
9 environment.

10 Q. As of September 1971, was Monsanto
11 collecting information from third parties which had
12 reflected the third parties' analysis or evaluation
13 of whether the presence of PCBs were posing a danger
14 upon the environment?

15 A. Yes.

16 Q. And can you recollect whether these
17 third parties' studies reflected that the presence of
18 PCBs were posing a danger to the environment?

19 A. I recollect two studies that described
20 an undesirable effect to the environment. One had to
21 do with the effect on young shrimp in the Gulf of
22 Mexico. And the other had to do with the effect on
23 salmon eggs in the Pacific Northwest. And I recall
24 also a reference to an incident that occurred in the
25 North Sea in which seals and birds were alleged to

1 have been affected by PCBs.

2 Q. Who was Mr. Benignus?

3 A. Mr. Paul Benignus was the marketing
4 manager in Monsanto who was responsible for the
5 dielectric product line that Monsanto sold.

6 Q. And -- Excuse me.

7 A. That's it.

8 Q. What was his relationship, if any, with
9 the ANSI NEMA C-107 Committee?

10 A. Mr. Benignus was not a member of the
11 NEMA organization but he was invited to participate
12 in the deliberations that a committee within NEMA
13 held regarding the sponsorship of a program to
14 establish proper handling methods for PCBs. He
15 served on a, what was called a steering committee,
16 for this particular effort, and he continued as an --
17 what I'm going to call unofficial member of that
18 group, in its deliberations and he held that same
19 sort of relationship when it became a part of the
20 ANSI program.

21 (Said instrument was marked as Exhibit
22 No. 371, 2-21-90, CKP.)

23 Q. (BY MR. GRANOFF) Can you identify
24 Exhibit 371, please?

25 MR. GRANOFF: And it's a PSA No.

1 000208 dated July 1971, PCB Bulletin. Excuse me.

2 It's No's. 208 through 215 composite.

3 A. This is a copy of a Monsanto bulletin
4 describing the handling, waste control and disposal
5 of PCBs.

6 Q. (BY MR. GRANOFF) Excuse me. Handling,
7 waste control and disposal?

8 A. And disposal, yes.

9 Q. Do you know who authored this
10 memorandum? Excuse me. Who authored this bulletin?

11 A. There were several of us involved. I
12 think the principle writer or the editor, if I can
13 call him that, the person who pulled it all together,
14 was Mr. Benignus.

15 Q. Do you recall whether you were involved
16 with the formation of this PCB bulletin of July of
17 1971?

18 A. Yes, I was involved.

19 Q. Who is the audience for this PCB
20 bulletin?

21 A. The intended audience was the dielectric
22 business -- industry.

23 Q. And who did that encompass? In other
24 words, was it the equipment manufacturers solely or
25 was it the purchasers of askarel?

1 A. It was, at that time, those customers
2 still purchasing PCBs.

3 Q. Did Monsanto, for purposes of issuing
4 this bulletin, utilize a customer list in order to
5 issue the bulletin?

6 A. Yes.

7 Q. Were utilities on that customer list?

8 A. I don't recall in 1971 that a utility
9 was on that list. I do not remember.

10 Q. You identified earlier a letter that was
11 issued probably within the first six months of 1970
12 to direct purchasers of askarel. Do you recall that?

13 A. Yes.

14 Q. Do you recall whether you used the same
15 list to send out the July 1971 bulletin as you
16 utilized for the list to send out to purchasers of
17 askarel within the first six months of 1970?

18 A. I believe this was a shorter list.

19 Q. You believe this, meaning?

20 A. 1971 was a list of current customers as
21 distinguished from the more extensive earlier list
22 which went back at least three years.

23 Q. So the intended recipients of the July
24 1971 bulletin would be based upon those customers
25 who, at that time, were current purchasers of

1 askarels from Monsanto?

2 A. Correct.

3 Q. That may or may not include a particular
4 utility such as Florida Power & Light?

5 MR. SMITH: Objection to the form.
6 Leading.

7 A. That is true.

8 Q. (BY MR. GRANOFF) In your position as
9 manager of environmental control, beginning in 1970
10 and going forward into 1971, when you had your, I
11 think, September 1971 -- when you had your first
12 organizational meeting for the ANSI C-107 Committee,
13 taking that time frame, did you, Bill Papageorge,
14 consider yourself on behalf of Monsanto as somewhat
15 of an educator to the industry and users of askarel
16 as to its presence in the environment and potential
17 as an environmental contaminants?

18 A. I don't know that I thought of myself as
19 an educator of industry although I fulfilled that
20 role when I was requested to and time permitted. I
21 would describe it more realistically by saying that I
22 felt myself as an educator of the sales
23 representatives who in turn called on the customer.
24 I made sure that he was up to date and then tried to
25 determine, as best I could, whether he did go out and

1 talk to the customer and carry the message forward.

2 And also I had him report back to me his
3 observations to help me kind of get a better picture
4 of what the real world was like.

5 Q. In a broader sense, though, did you find
6 that in contact with third parties, in other words,
7 people outside of Monsanto employment relationships,
8 that third parties were unaware of -- beginning,
9 again, we're looking at the time frame of 1970 to
10 September 1971 -- that third parties were unaware of
11 the presence of PCBs in the environment before you
12 were actually disseminating information to them?

13 MR. SMITH: Let me object to the
14 form of the question.

15 MS. RUMAGE: Join in the
16 objection.

17 MR. SMITH: Where does third
18 parties come from? There's not two parties yet.

19 MR. GRANOFF: Withdraw. We'll do
20 it again.

21 Q. (BY MR. GRANOFF) In the time frame from
22 1970 to September '71, did you find that in your
23 contact with purchasers of askarel manufactured by
24 PCB -- manufactured by Monsanto, that they were
25 unaware of the scope and extent of PCBs in the

1 environment?

2 A. Some of them were very much aware. In
3 fact, they were closer to it than I was early in
4 1970. There were others that were caught by
5 surprise, and what is all this? Suddenly they began
6 to hear things.

7 So I sensed they had the full spectrum
8 of understanding, from the very knowledgable,
9 sophisticated, to little concern that just heard
10 about it. In fact, they hadn't heard the expression
11 PCBs yet.

12 Q. What was the focus of the C-107
13 Committee?

14 A. The focus was to first gather together
15 the best information it had regarding the proper
16 methods of control to prevent escape into the
17 environment, and secondly to put it all in one
18 document, one source. And third to disseminate this
19 information as widely as practical.

20 Q. What was the method of selecting
21 attendees to serve on the committee?

22 A. The steering committee in NEMA devoted a
23 considerable part of a meeting they held in 1970 to
24 developing a potential list of participants. And the
25 intent was to refer not only to the manufacturers of

1 the equipment, but they wanted, of course, the users
2 of the equipment, which meant such entities as
3 utilities, as well as industrial concerns, such as
4 General Motors and Ford and U.S. Steel and what have
5 you.

6 And of course, government must be
7 represented not only as a regulatory entity but also
8 as a user, such as the Department of Defense, the
9 Corps of Engineers, as an example; the Department of
10 Transportation, and the like, Department of
11 Commerce.

12 And then the group was also interested
13 in gaining some inputs from the research, the
14 technical community, the various laboratories either
15 in governmental agencies or in universities.

16 Q. Were you initially chairman of this
17 Committee C-107? Strike that.

18 Were you the first chairman of the C-107
19 Committee?

20 A. That's correct, yes.

21 Q. And was the C-107 Committee then further
22 subdivided into working groups or subcommittees?

23 A. Yes.

24 Q. Could you describe those, please?

25 A. Two working groups were formed of the

1 committee, one group to address the use, manufacture,
2 transport of transformers, and the other to address
3 similar activities relating to capacitors.

4 MR. GRANOFF: Okay. Let's take
5 about five minutes so I can get my documents
6 organized for the next series of questions.

7 (Deposition stood in temporary recess.)

8 Q. (BY MR. GRANOFF) Before I get to some
9 of the substance of the C-107 Committee and what they
10 did, I need to go back and review some documents with
11 you that preceded C-107.

12 (Said instrument was marked as Exhibit
13 No. 372, 2-21-90, CKP.)

14 Q. (BY MR. GRANOFF) All right. Could you
15 identify Exhibit 372, which is a letter dated
16 September 15, 1970 with a PSA No. 001409? I'm going
17 to have to share this with you Mr. Papageorge.

18 A. This is a copy of a letter, Monsanto
19 letterhead, authored by James G. Bryant for customer
20 mailing.

21 Q. What was Mr. Bryant's position as of
22 September 1970?

23 A. He was the technical specialist located
24 in St. Louis in the group that marketed dielectric
25 fluids.

1 Q. In your position as manager of
2 environmental control, did you communicate with
3 Mr. Bryant in connection with the evolving PCB issue?

4 A. Yes.

5 Q. And though this is a brief letter, could
6 you just give the gist of the letter.

7 A. Well, it's informing the recipient of
8 the letter that the askarel fluids supplied by
9 Monsanto contained PCBs and that the FDA had
10 announced a guideline of PCBs, five parts in tissue
11 and two-tenths parts in milk. Therefore, control of
12 waste and spills is imperative. In no case should
13 the material be discharged into streams.

14 Q. I think you identified it as a
15 customer -- that you identified Exhibit 372 as a
16 customer letter, correct?

17 A. That is correct.

18 Q. Did you have any input in connection
19 with the draft of the substance of Exhibit 372?

20 A. I reviewed the pencilled draft and
21 agreed to the word it proposed.

22 Q. Do you know which customers were
23 targeted for the September 15, 1970 letter authored
24 by Mr. Bryant?

25 A. This is the list of customers that I

1 described earlier that went back at least three
2 years. Those customers had also received a February
3 1970 letter relating to PCBs.

4 Q. And does it also include the list of
5 purchasers of direct -- Strike that.

6 Does it also include the list of those
7 purchasers who directly bought askarels from Monsanto
8 and a letter that I think you described that went out
9 in the first six months of 1970?

10 A. Yes.

11 Q. Is it likely that Florida Power & Light
12 was sent a copy of the September 15, 1970 letter
13 authored by Mr. Bryant?

14 A. Very likely.

15 MR. SMITH: Objection for lack of
16 foundation.

17 MR. GRANOFF: And did you get the
18 response?

19 A. Very likely.

20 (Said instrument was marked as Exhibit
21 No. 373, 2-21-90, CKP.)

22 Q. (BY MR. GRANOFF) I'll have you
23 identify, if you can, 373, which is a letter dated
24 December 15, 1970 on Monsanto letterhead, and it has
25 a PSA No. of 001424. And I'll have to share it with

1 you.

2 MS. RUMAGE: Can you give me the
3 the date again?

4 MR. GRANOFF: 12-15-70.

5 A. This is a letter, Monsanto letterhead,
6 authored by Randall Graham, addressed to customers of
7 dielectric fluid containing PCBs.

8 Q. (BY MR. GRANOFF) And briefly, could you
9 describe the gist and contents of the letter? Of
10 course, take your time to review it if you need to.

11 A. Mr. Graham is asking the recipient of
12 this letter for information regarding the amounts of
13 solid waste material contaminated with PCBs that they
14 are disposing so that we can use that information to
15 consider the design and installation of a kiln which
16 would be designed to destroy the PCBs in that waste
17 matter.

18 Q. Is another name for kiln an incinerator?

19 A. Yes. I generally -- However,
20 incinerator could either -- apply to either solids
21 and liquids, where a kiln is generally thought of as,
22 at least of my understanding, as to solid material.

23 Q. Specifically for solids?

24 A. Yes.

25 Q. Who was Mr. Graham, as of December of

1 1970?

2 A. He was field representative from
3 Monsanto responsible for the dielectric PCB
4 containing liquids that Monsanto sold.

5 Q. What do you mean by field
6 representative?

7 A. He was the man that called on customers
8 and went to their plants and talked to their people
9 and, where possible, made plant tours, looked over
10 their facilities. I looked upon him really as my
11 extension of my eyes and ears out in the industrial
12 world.

13 MR. FANN: Manufacturer's rep? Is
14 that what it's like? I'm just trying to get it clear
15 in my mind.

16 THE WITNESS: He was really a
17 product representative, Monsanto's product. The
18 product was such that it didn't really need a
19 salesman. Each customer knew what it wanted but he
20 was the man that we would first talk to regarding
21 anything new in terms of pricing and delivery and
22 properties and so on.

23 Q. (BY MR. GRANOFF) Is Mr. Graham still
24 with Monsanto?

25 A. No.

1 Q. Do you know if he's still alive?

2 A. The last I heard he was, yes. It's been
3 awhile.

4 Q. Haven't any inclination as to where he
5 presently resides?

6 A. Best -- It's in the northeast somewhere.

7 Q. Not in the St. Louis area?

8 A. That is correct.

9 Q. Not in the St. Louis area; is that
10 correct?

11 A. That is correct.

12 Q. Did you have input -- Strike that.

13 Do you recall any input into the
14 December 15, 1970 letter authored by Mr. Graham?

15 A. Yes. Mr. Graham called me over the
16 telephone and read this proposed wording to me. And
17 after some discussion, and I don't recall the
18 specifics, we agreed on this version.

19 Q. And do you recollect what list was
20 relied upon by Monsanto to issue the December 15
21 letter to customers?

22 A. The best I can recall, for this
23 particular letter, it was the manufacturers of the
24 electrical equipment.

25 MR. SMITH: I'm sorry. Did you say

1 dielectric or electrical?

2 THE WITNESS: I think I said both.
3 I meant electrical equipment.

4 Q. (BY MR. GRANOFF) At some point in time
5 after 1970, did Monsanto develop an incinerator in
6 order to accept askarel fluids for incineration?

7 A. Did you say after 1970?

8 Q. Yes.

9 A. Yes.

10 Q. Approximately what was the -- when did
11 that service commence by Monsanto?

12 A. The collection of the material to be
13 incinerated began in the latter part of 1970. The
14 incinerator itself was placed into operation, as best
15 I recall, the late summer of 1971.

16 Q. Was there a letter issued by Monsanto to
17 its customers of askarel which asked them to identify
18 the amount of liquid waste askarel so that Monsanto
19 could design an incineration plant?

20 A. Mr. Graham put together some
21 information. I don't recall a letter. I think, to
22 the best I recall, Mr. Graham made the contact
23 personally either -- well, by telephone or by a call,
24 and relayed back to me in St. Louis a rough estimate
25 of the amount of material that we might expect.

1 Q. When you say as to the estimate of the
2 amount of material Monsanto could expect, we're now
3 focusing on liquid waste askarel?

4 A. That is right. Liquid.

5 Q. Do you recollect whether Florida Power &
6 Light transported liquid waste askarel to Monsanto
7 beginning anytime in 1970 and then forward?

8 A. I recall seeing a list of which Florida
9 Power & Light -- Florida Power & Light was listed,
10 with the quantities of material and the dates of the
11 material received and some description of it.

12 Q. Description of what? I don't understand
13 what you mean.

14 A. Such description as askarel or Aroclor,
15 or whatever the bill of lading had on it.

16 MR. GRANOFF: Mark this, please.

17 (Said instrument was marked as Exhibit
18 No. 374, 2-21-90, CKP.)

19 Q. (BY MR. GRANOFF) Could you identify the
20 documents which -- the document which has been marked
21 as Exhibit 374, and is a letter of January 4, 1972,
22 PSA 001639?

23 A. This is a copy of a letter I wrote
24 addressed to Mr. Salazar of the NEMA organization in
25 which I forwarded some abstracts of papers presented

1 at a meeting in North Carolina.

2 Q. Could you speak up just a little bit,
3 Mr. Papageorge?

4 THE WITNESS: Do you want me to
5 repeat it? Did you hear?

6 MS. BERKOWITZ: I heard.

7 Q. (BY MR. GRANOFF) Okay. I'm sorry.

8 A. I don't know what else to say.

9 Q. Did you attend the symposium put on by
10 the National Institute of Environmental Health
11 Sciences in Durham, North Carolina, December 20
12 through 21, 1971?

13 A. Yes.

14 Q. Did you speak at that symposium?

15 A. No.

16 Q. Do you have a -- Strike that.

17 Do you have any records in your
18 possession presently which reflects the subject
19 matters that were addressed at that symposium? I
20 don't mean that you have them here but do you have
21 any file which reflects that?

22 A. I do not.

23 Q. Do you know -- Strike that.

24 Do you recollect any of the speakers
25 from that symposium? And I know it's been some

1 time.

2 A. As best as I can recall, there were
3 representatives of the Duluth, Minnesota Water
4 Laboratory, Dr. Risebrough, who I mentioned earlier.
5 He gave a presentation. Dr. Peacall from Cornell was
6 there. Dr. Herbert Blumenthal from the Food & Drug
7 Administration made some comments. There were
8 several representatives from Japan that made some
9 comments regarding an incident that occurred in Japan
10 with rice soil contaminated with PCBs.

11 Q. Yusho?

12 A. Yusho incident?

13 A. There were some people -- some
14 investigators out of the wildlife laboratories in
15 Maryland. I think it's the Laurel, Maryland,
16 L-a-u-r-e-l, Pautuxet Laboratories. They had some
17 remarks about impact of PCBs on wild birds. That's
18 all I can recall at the moment.

19 Q. That's fine. At the time of this
20 letter, January 1972, which you sent to Mr. Salazar
21 with a attachment, correct, there were comments that
22 you submitted to Mr. Salazar with the cover letter?

23 A. Yes.

24 Q. The comments of the speakers at the
25 symposium?

1 A. No. They weren't comments. Someone in
2 the National Institute of Environmental Health wrote
3 some abstracts, a paragraph or two from each of the
4 papers. And they were sent to the attendees, and I
5 had sent -- I made extra copies and sent one to
6 Mr. Salazar.

7 Q. Do you recollect whether the information
8 as to the abstracts was shared with the attendees of
9 the C-107 Committee?

10 A. Yes, it was.

11 Q. As of January 1972, do you recollect
12 where the committee was in connection with the
13 drafting of its proposed guidelines? In other words,
14 had it begun its drafting process?

15 A. It had definitely begun drafting.
16 Starting to put their thoughts on paper and trying to
17 arrive at a consensus as to the wording. They had
18 not completed their work yet because additional
19 subjects were introduced to pursue and evaluate. So
20 from 1972, I would say they were eighty percent
21 completed, if I can come up with an estimate of how
22 far along they were.

23 Q. What was the mechanism by which the
24 attendees decided upon the issues to address in
25 C-107? What I mean by that, I'm sure that, depending

1 upon the attendee, one attendee may have a certain
2 suggestion to put into the report, and I can only
3 imagine that other attendees may have objected to
4 that. So how was the consensus formed as to subject
5 matter?

6 A. I don't know that it's any different
7 from any other committees that meet. A lot of
8 discussion takes place. Some ideas, of course, are
9 accepted immediately and assignments are made. Okay,
10 you write the paragraph on that issue. Others
11 require more study and assignments are made. You go
12 back and do some researching on this and get some
13 numbers or whatever is appropriate. Still others are
14 voted on and they just don't get enough support and
15 they're tabled. So I sense that all kinds of
16 reactions were entertained in that room.

17 Now what would happen is, I would go
18 from committee to committee and sit in as they broke
19 off into working sessions so I was able to observe
20 some of this. I don't know what else to add there.

21 Once the group decided that the proposed
22 item was applicable and did apply generally, they
23 would address it. Sometimes a suggestion was so
24 specific to one particular customer that it wasn't
25 deemed to be appropriate for worldwide distribution

1 and that would be tabled, not considered any
2 further.

3 Q. Organizationally, you had two
4 subcommittees, the capacitor and transformer
5 subcommittees?

6 A. That's correct.

7 Q. And those separate subcommittees
8 addressed the separate issues which were inherent to
9 those two areas, that being the capacitors and
10 transformer groups; is that correct?

11 A. Yes. And then those areas that were
12 common to both activities, they would assign working
13 groups, smaller working groups, to meet jointly and
14 come up with a proposed wording for that particular
15 item.

16 Q. Was it a necessity for a majority vote?
17 In other words, if you have a particular issue that
18 is brought up within the transformer subcommittee,
19 was it necessary for a majority of the attendees on
20 the transformer subcommittee to agree to an issue
21 that would be placed into the proposed guidelines?

22 A. The majority was the minimum. In most
23 cases, it was much more than just simple majority.

24 Q. So when you -- When you used the term
25 consensus, in most times you are reflecting that

1 anything that is within the proposed and final C-107
2 guidelines received acceptance of at least a majority
3 and usually more --

4 A. -- That is correct.

5 Q. -- than?

6 During the process of C-107, beginning
7 with the organizational committee, I think in
8 September 1971 and then working forward, what changes
9 did Monsanto make in connection with its marketing
10 and distribution of askarels? What I mean by that
11 is, did Monsanto attempt to limit the marketing and
12 distribution of askarels?

13 A. Yes. Starting in January '72, Monsanto
14 limited its sale of askarel fluids to those customers
15 who were willing to sign an indemnity agreement
16 regarding the --

17 Q. Okay.

18 A. -- understanding and proper care and
19 handling of PCB containing fluids.

20 Q. And what do you understand an indemnity
21 agreement to mean?

22 A. Well, I'm not a lawyer, but I understand
23 that should any problem arise from the disposal or
24 use or transportation, or what have you, of those PCB
25 containing fluids, that the customer would -- what's

1 the proper word -- would be solely responsible for
2 managing that issue in a legal and environmental
3 sense and what have you.

4 Q. Okay. Were you involved in drafting the
5 indemnity agreement?

6 A. No.

7 Q. Did you review the indemnity agreement
8 where it was finally issued by Monsanto to its
9 customers?

10 A. No.

11 Q. Then I assume it was strictly a legal
12 matter for the Monsanto legal department and outside
13 counsel?

14 A. Well, I know Monsanto legal department
15 was involved. I do not know of any outside counsel
16 involvement. I do know that the business managers
17 were involved.

18 Q. The indemnity agreement was sent to
19 customers of askarel manufactured by Monsanto,
20 correct?

21 A. Yes. If the word askarel includes the
22 pure PCBs also.

23 Q. And what customer list was utilized in
24 order to send the indemnity agreement to customers of
25 PCBs manufactured by Monsanto?

1 A. These were the manufacturers of the
2 equipment in which the askarels were used.

3 Q. Up until January 1972, was Monsanto
4 continuing its marketing of PCB sales directly to
5 utilities?

6 A. Yes.

7 Q. Did Monsanto issue the proposed
8 indemnity agreement to utility companies that were
9 directly purchasing PCBs from Monsanto?

10 A. Not to my knowledge.

11 Q. Do you know why that wasn't done?

12 A. No, I don't.

13 Q. Did you ever inquire why that was never
14 done?

15 A. Well, I can -- I did ask. And as best I
16 understood, it was that the volumes involved were so
17 small that it was considered best for control
18 purposes that these manufacturers of that electrical
19 equipment continue to supply the fluids rather than
20 have all these small shipments scattered throughout
21 the country to all the users of transformers.

22 Q. Okay. I'm a little confused. As of
23 January 1972, did Monsanto discontinue the direct
24 sale of PCBs to utilities?

25 A. Yes.

1 MR. CLAYMAN: I'm sorry. Was that
2 discontinue?

3 MR. GRANOFF: Yes.

4 A. Yes.

5 Q. (BY MR. GRANOFF) And more -- Do you
6 have a more precise date? In other words, was
7 January '72 the date or was it prior to that then or
8 subsequent to January 1972?

9 A. The indemnity arrangements became
10 effective in 1972, and by the time all companies that
11 did sign up agreed to sign up -- I think it was
12 probably February, March, and somewhere in that time
13 period of time -- those companies that agreed to the
14 indemnity agreement received a letter from Monsanto's
15 marketing director informing them that their
16 customers, the owners of the equipment, would no
17 longer be supplied and that they would have to be the
18 source of the material.

19 Q. Did Monsanto issue letters to the
20 utilities advising the utilities that Monsanto
21 intended to discontinue the direct sales of PCBs to
22 the respective attendees?

23 A. Yes.

24 Q. And what list was utilized in order to
25 issue this letter to the utilities advising of the

1 discontinuation of direct sales?

2 A. This was the list of customers on record
3 as having purchased this -- these products for at
4 least three years.

5 Q. As I understand it, if the utilities,
6 subsequent to January 1972, wished to purchase PCBs,
7 then one form of purchase would be directly from the
8 manufacturers?

9 MR. SMITH: Object to the form.

10 MR. GRANOFF: I don't want to
11 misstate anything. If that is a misstatement, please
12 let me know.

13 MR. SMITH: You're missing
14 manufacturers of what? Of askarels?

15 MR. GRANOFF: Okay.

16 A. To manufacturer askarel. That was the
17 only way they could get it in the United States.

18 Q. (BY MR. GRANOFF) Okay. The only way
19 for a utility to purchase PCBs subsequent to January
20 1972 was from an electrical equipment manufacturer;
21 is that correct?

22 A. That is correct.

23 Q. Okay. Did you understand that utilities
24 or other purchasers of PCBs could obtain PCBs in
25 direct purchase from overseas suppliers?

1 A. I understood that some of that did
2 occur. But I have no personal proof that it did
3 happen.

4 MR. GRANOFF: Now, just let me put
5 on the record, I have certain documents here that I
6 have marked up, put a checkmark on them, something to
7 that effect. I'm going to ask Mr. Papageorge though
8 to utilize these documents. And I'm going to have
9 them marked as exhibits. If you have an objection,
10 then so note it, but I don't think it's going to
11 disrupt the integrity of the document itself.

12 MR. SMITH: Can you show us what
13 you mean?

14 MR. GRANOFF: Yes, I will.

15 MR. GRANOFF: Mark this, please.

16 (Said instrument was marked as Exhibit
17 No. 375, 2-21-90, CKP.)

18 Q. (BY MR. GRANOFF) All right. I'd like
19 for you to identify, if you can, Mr. Papageorge, what
20 has been marked as composite Exhibit 375. It's PSA
21 001658 through 1667.

22 MR. CLAYMAN: I see some --

23 MR. GRANOFF: There is some
24 checkmarks in some black ink and some yellow
25 highlighting.

1 MR. CLAYMAN: Circling of the name
2 of Doble Engineering.

3 Q. (BY MR. GRANOFF) Could you take a look
4 at this, please, sir, and see if you can identify
5 that composite exhibit.

6 I wouldn't be overly concerned with that
7 first page, but I would -- I don't know about them.
8 We're lawyers. You know.

9 MS. BERKOWITZ: This may be an
10 unnecessary comment but just as long as -- we'll allow
11 that in as long as you don't later on go back and
12 claim that was some type of work product and try to
13 protract it from the record. I just want to --

14 MS. RUMAGE: Rivkin, Radler joins
15 in that.

16 MS. BERKOWITZ: It's not that we
17 don't like you.

18 MR. FANN: I don't like you and I
19 object to you.

20 MR. GRANOFF: It's a general
21 consensus that nobody likes me. At least, I put on a
22 nice show here.

23 MS. BERKOWITZ: Thank you for
24 that.

25 A. This exhibit consists of minutes of a

1 ANSI C-107 meeting held in Chicago on February 8 and
2 9 of 1972. It also consists of two letters, of which
3 I am the author. Both letters are addressed to the
4 committee chairman Mr. Raab and Mr. Posefsky.

5 Q. (BY MR. GRANOFF) What are the dates of
6 those letters, sir?

7 A. The one letter is dated January 19, 1972
8 and the other one is February 2, 1972, in which I
9 responded to questions raised by the two chairman.

10 Q. There's a list of attendees to the
11 meeting of February 8 through 19, 1972 of the
12 capacitor and transformer working groups, and
13 specifically there is, as noted, others present. A
14 representative Mr. A.O. Hauser, H-a-u-s-e-r, of the
15 Electrical Utilities Company.

16 Do you know who the Electrical Utilities
17 Company is, sir?

18 A. Yes.

19 Q. Could you tell me what they are?

20 A. They were a company that manufactured
21 capacitors.

22 Q. Do you know where they were located?

23 A. Outside of Chicago in that northern
24 Illinois area.

25 Q. What is -- Who is the Electric Light &

1 Power Group, do you know?

2 A. I understand that that is a group to
3 which utilities belong.

4 Q. Is that the utilities as you reference
5 them generically throughout this country?

6 A. Yes.

7 Q. Do you recollect, without looking at any
8 documents, but do you recollect whether the Electric
9 Light & Utilities Group was an attendee on the
10 finalized C-107 guidelines?

11 A. Yes.

12 Q. Do you know the purpose of the Electric
13 Light & Utilities Group? Is it some sort of -- In
14 other words, a consortium of utilities within this
15 country?

16 A. It's my understanding it's typical of an
17 organization -- It represents that particular
18 industry.

19 Q. Is Mr. Onishi a representative of the
20 Electric Light Utility Group?

21 A. Yes. He was one of them. Mr. -- It
22 started with Lengefeld or something like that. He
23 was the principle and he would have alternated when
24 he could not attend.

25 Q. Do you know both Mr. Onishi and

1 Mr. Lengefeld?

2 A. Yes.

3 Q. Personally, you know them?

4 A. I met them during these meetings.

5 Q. Do you know if either of those gentlemen
6 is still alive?

7 A. I do not.

8 Q. Your last contact with either of those
9 gentlemen would be in the early to mid 1970?

10 A. Yes.

11 Q. You haven't seen either of those
12 gentlemen since then at symposiums or conferences or
13 meetings?

14 A. I have not.

15 MR. GRANOFF: Since we're going to
16 be getting to the area of C-107, maybe this is a good
17 time to take a break. We're right around noon time.
18 Is that good for you, Mr. Papageorge, since you're
19 the witness?

20 THE WITNESS: Whatever the group
21 wants.

22 MR. GRANOFF: I don't care about
23 the group. I'm concerned about you. The group can
24 suffer, as far as I'm concerned.

25 THE WITNESS: All right. We're

1 trying to make it democratic, I guess.

2 MR. GRANOFF: I'm going to go some
3 time this afternoon. I expect to finish this
4 afternoon. I can't tell you exactly when. I expect
5 to finish this afternoon. So do you want to come
6 back at one-fifteen, one-thirty, one o'clock?

7 MR. SMITH: One-fifteen. It ought
8 to be pretty convenient to find a place to eat.

9 (Deposition stood in luncheon recess at
10 approximately 12:00 noon and resumed at approximately
11 1:30.)

12 AFTERNOON SESSION

13 All parties present, except Ms. Sarah
14 Ramage, by and through counsel, and the witness,
15 WILLIAM B. PAPAGEORGE, having been previously sworn,
16 testifies further, to-wit:

17 CONTINUED DIRECT EXAMINATION

18 BY GRANOFF:

19 (The requested portion of the record was
20 read by the Reporter.)

21 Q. Let me direct you, Mr. Papageorge, back
22 to Exhibit 375. And the records indicate that E.L.
23 Raab was the chairman of the transformer
24 subcommittees; is that correct?

25 A. That's correct.

1 Q. Did you have direct contact with
2 Mr. Raab in connection with his duties as chairman of
3 the transformer subcommittees?

4 A. Yes.

5 (Whereupon Ms. Rumage entered the
6 deposition room.)

7 Q. And he reported to you either verbally
8 or in writing as to where the subcommittee was going
9 on certain issues?

10 A. That is correct.

11 Q. I'd like to direct you to your letter of
12 January 19, 1972. That's PSA 001663, letter of --
13 letter to Mr. Raab and Mr. Pozefsky, and have you
14 tell me what the gist of that letter is.

15 A. This letter describes to Mr. Raab and
16 Mr. Pozefsky the analytical sensitivities of
17 different procedures used by Monsanto, FDA or USDA,
18 in determining the presence of PCBs in samples.

19 Q. What particular samples are you
20 referring to in that letter?

21 A. The letter does not make that clear.

22 Q. Based upon your recollection, what were
23 the sources of analysis?

24 A. As best as I can recall, this had to do
25 with water samples.

1 Q. Also, as part of composite Exhibit 375,
2 it is a letter of February -- looks like February 2,
3 1972, by you to Mr. Pozefsky and Mr. Raab, which
4 attached a question and answer for ANSI PCBs -- PCB
5 rather.

6 Could you describe for me the nature of
7 this questionnaire?

8 A. The two committee chairman submitted to
9 me a list of questions asking for my answers, and
10 this particular letter and the question and answer
11 sheet is an attempt to respond to that request.

12 Q. So the questions were generated by the
13 respective subcommittees and the answers are authored
14 by you?

15 A. Correct.

16 Q. May I see them, please? Okay.

17 MR. GRANOFF: Let's mark this,
18 please.

19 (Said instrument was marked as Exhibit
20 No. 376, 2-21-90, CKP.)

21 Q. (BY MR. GRANOFF) Could you identify,
22 please, Exhibit 376, which is PSA 001388 through
23 1390?

24 A. This exhibit is composed of three
25 sheets. The top sheet is a copy of the address

1 label. The next two sheets --

2 Q. Excuse me. The address label is
3 reflecting what information?

4 A. Reflecting -- This is the copy of the
5 label of the recipient of the attached letter which I
6 composed and mailed in April 1972.

7 Q. And in this particular case, reflecting
8 Exhibit 376, who was the proposed recipient of this
9 particular letter?

10 A. Plant manager, Florida Power & Light,
11 611 West 6th Street, Miami, Florida, 33101.

12 Q. Do you recall actually reviewing the
13 mailing list and finding the mailing -- the address
14 for the plant manager or was that delegated to
15 somebody else?

16 A. What was -- I don't know what was
17 delegated.

18 MR. DAVIDSON: When this was done?

19 MR. GRANOFF: Yes. When this was
20 done.

21 A. When this was done, there were several
22 pages similar to this top sheet, all with envelope
23 labels with adhesive with the addressees typed on
24 them. And copies were made of those and I perused
25 those lists to get an understanding of who was

1 receiving the letter.

2 Q. (BY MR. GRANOFF) Okay. Do you
3 recollect, back in April '72, whether the address
4 which appears on the first page of Exhibit 376, that
5 being plant manager, Florida Power & Light, 611 West
6 6th Street, Miami, Florida, was the only address for
7 Florida Power & Light?

8 A. I have seen so many of these that are
9 similar. I really don't remember.

10 Q. Was the label that appears on the first
11 page of Exhibit 376 to the plant manager for Florida
12 Power & Light, was that the -- for one of the
13 customer lists that you had?

14 A. Well, this information came off of a
15 list. It was transferred to this.

16 Q. Was it a customer list?

17 A. Yes.

18 Q. Customer list for purposes of someone
19 who was purchasing PCBs from Monsanto?

20 A. Someone who either was purchasing or had
21 purchased.

22 Q. Okay. All right. Now, can we discuss
23 the nature of the April 1972 letter?

24 A. Well, it's --

25 Q. And take your time to review it.

1 A. I think I remember it well enough to
2 remember. Tried to serve several purposes. One is
3 to remind -- in the past, they'd been told of the
4 PCBs environmental issue. The other was to inform
5 them that Monsanto was receiving a lot of pressure
6 from governmental representatives to divulge
7 information that many of our customers would not
8 permit us to divulge, such as quantities of material,
9 what types of material, where delivered, and when
10 delivered, and the like.

11 We pointed out to them we didn't think
12 that we can resist this request forever, and
13 eventually we would have to divulge that
14 information. And we reminded them if this should
15 happen, they better have their house in order because
16 an inspection might take place.

17 And we also brought them up to date on
18 some FDA activity which was occurring at that time.

19 Q. Okay. May I see that, please? You
20 authored this letter?

21 A. Yes.

22 Q. Let me direct you to the last paragraph
23 of the letter. What was the meaning of the last
24 paragraph which you authored?

25 A. Well, the intent there was to underscore

1 again the idea that PCBs should be properly handled,
2 and the word extreme care is used in that sentence.

3 Q. In connection with the term, disposal,
4 that is used in your letter, can you recollect what
5 you meant by the term disposal?

6 A. Oh, in 1972, proper disposal included
7 such things as incineration of liquid waste, burial
8 in approved landfills of solid waste. Those are the
9 only two wastes I can recall at the moment.

10 Q. Was there a consideration, at that time,
11 that a utility, such as Florida Power & Light, was
12 disposing of electrical transformers or parts of
13 electrical transformers to scrap dealers?

14 A. Yes. Consideration was given.

15 Q. And how was that consideration
16 manifested? Unless you're saying that that
17 consideration is part and parcel of that last
18 paragraph, and I don't know.

19 A. It's in my mind, it was covered. I
20 didn't try to isolate all the examples of disposal
21 problems. I do know that the industry was aware of
22 metal contaminated with PCBs. I do know that they
23 discussed at these ANSI meetings, many of them talked
24 about using solvents to -- I'm going to use the
25 word -- degrease the unit before it was sent on for

1 scrap purposes.

2 I recall vividly how some discussion
3 centered on the temperatures involved in melting
4 scrap metals and whether the temperatures were enough
5 to destroy any PCB contamination. So it was not a
6 new issue. It was addressed.

7 Q. You've used the term now, in your last
8 answer, response, PCB contamination. Does that have
9 a particular meaning to you? Not necessarily here,
10 as we sit here today, but back in the time frame of
11 1970 until you completed your work -- I have to look
12 back at your CV -- as manager of -- Strike that -- as
13 director of environmental operations in 1985?

14 A. Contamination, as used with reference to
15 PCBs in that period of time, was used to refer to the
16 presence of PCBs in unintended situations where it
17 served no useful purpose.

18 Q. Could you give me some examples of that
19 definition?

20 A. Well, we use the expression
21 contamination when we refer to milk that had PCBs in
22 it. We used it in terms of fish fillets with PCBs in
23 it. It was used in terms of soil containing PCBs or
24 waterways, streams, lakes. Not only surface water
25 but the bottoms of these lakes containing those were

1 all considered contamination.

2 The waste from a plant such as the
3 sawdust or the kitty litter type of material that's
4 used to clean up a spill, that was considered
5 contaminated material. The rags used to wipe up a
6 minor spill. The piping and valves that were removed
7 from service because they needed replacement or the
8 facility was being modified, that was considered
9 contaminated equipment.

10 Q. You mean piping and valves used for
11 the --

12 A. Agitators used to handle PCB in a
13 system pump and the like. Even the working clothes
14 of an individual. The overshoes they might wear, the
15 rubber booties, the gloves; once they had PCBs on
16 them were referred to as contaminated.

17 Q. Was consideration given to PCB
18 contamination of mineral oil supplies by you?

19 MR. SMITH: Objection to the form.
20 Can we have a time?

21 MR. GRANOFF: 1970 to 1985.

22 A. Yes. That was considered.

23 Q. (BY MR. GRANOFF) In what framework was
24 it considered?

25 A. Oh, it included taking care not to ship

1 PCBs in a tank car which had not been properly
2 cleaned and had mineral oil in it before that.
3 Taking care in unloading that tank car when it
4 arrived at his destination. Make certain that it did
5 not end up in the wrong tank which might have -- may
6 contain mineral oil, especially in those plants that
7 made both mineral oil transformers and askarel
8 transformers.

9 Taking care that when units were topped
10 off at the using site, that the person who did the
11 topping off understood what kind of liquid to add to
12 that unit and it better be the proper type, whether
13 it's a mineral unit or an askarel unit.

14 Even in the collection of waste, we
15 considered the possibility of receiving either
16 mineral oil or PCB contaminated with the other. That
17 meant it had to be handled differently at the
18 incinerator.

19 Q. I'm a little bit confused as to that
20 last statement. In other words, you're talking about
21 the collection of waste for purposes of incineration
22 at the Monsanto facility?

23 A. That is right. Yes.

24 Q. That is the Krummrich facility?

25 A. That is correct. Uh-huh.

1 Q. And did you anticipate that some of the
2 waste would include mineral oil which may be
3 contaminated with PCB?

4 MR. SMITH: Objection to the form
5 for lack of time reference.

6 MS. BERKOWITZ: Could you repeat
7 the question, please?

8 (The requested portion of the record was
9 read by the Reporter.)

10 A. We were aware of the possibility of this
11 happening. We were concerned that incineration of
12 waste oils at our incinerator would be an attractive
13 way to dispose of all kinds of liquids. Our unit was
14 designed with a given capacity. We didn't want to be
15 inundated with mineral oils coming from all these
16 transformers and somebody either accidentally or
17 deliberately tainting them with PCBs to make them
18 eligible for our incinerator. We were aware of that
19 kind of thing happening.

20 Q. (BY MR. GRANOFF) Was the incinerator
21 unit designed to incinerate mineral oil which was
22 contaminated with PCBs rather than one hundred
23 percent PCB liquid?

24 A. If it can incinerate PCBs it can
25 incinerate mineral oils.

1 Q. I think you testified to the effect that
2 you were aware, or Monsanto was aware, of the
3 possibility that mineral oil could become
4 contaminated with PCBs and that could eventually
5 reach your incinerator?

6 A. Yes.

7 Q. And how did you gain access to that
8 information?

9 A. Several ways. Some of it really by
10 talking to individuals. Randy Graham, our Monsanto
11 field representative, was a source of most of my
12 information regarding concerns for abusers of this
13 program as a way to dispose of mineral oils by
14 deliberately combining them and contaminating them.
15 That was one thought.

16 At these ANSI meetings, discussions were
17 held about the proper way to dispose of mineral oils
18 with a little bit of PCB that got in there by
19 accident. I remember that. And I agreed if it was
20 truly an accident, we would help somebody, but we
21 didn't make this a regular practice of accepting
22 mineral oil with PCBs in it. It had to be a bonafide
23 accident, inadvertently somebody contaminated
24 something.

25 There was no way for us to really check

1 the source and reason for the contamination. We had
2 to take a customer's word for it.

3 Q. So excuse me. The information that you
4 received generated from the ANSI meetings that
5 mineral oil could be mixed with PCBs -- or let me put
6 it the other way around.

7 PCBs could be mixed into mineral oil
8 accidentally. Was this from one of the subcommittees
9 where that information originated?

10 A. The transformer subcommittee addressed
11 that potential. See, they were discussing the
12 various kinds of wastes that they must dispose of and
13 the proper way to do so. And somebody came up with,
14 suppose I have a tankfull of oil that I accidentally
15 pumped a barrel of PCBs into it. What do I do with
16 it? Is it a PCB?

17 And my answer, at that time was, well,
18 if it's PCB and it's a one-time kind of thing, we'll
19 help you get rid of it.

20 Q. What was the answer to the question, was
21 it a PCB? In other words, if there was a mixture
22 albeit accidental --

23 A. -- Yes.

24 Q. -- between a mineral oil source and
25 PCBs, for purposes of the C-107 Committee, that

1 liquid was considered by you to be a PCB?

2 A. It had to be handled like a PCB.

3 Q. I have to take a couple steps back, and
4 I'm sorry but it happens. To go back and forth on
5 these things. On your April 1972 letter, the last
6 paragraph talks about -- and we've already talked
7 about it -- addresses that extreme care is taken in
8 the handling, use, storage and disposal of these
9 materials, that being PCBs.

10 I think you further have testified that
11 you were aware that one form of disposal of PCBs or
12 with electrical transformers was to scrap dealers; is
13 that correct?

14 A. Yes.

15 Q. I don't want to misstate. Is that
16 correct?

17 A. Yes. Uh-huh.

18 Q. What was the genesis or what was the
19 source of how you became aware that certain users of
20 PCBs were scrapping electrical equipment with these
21 scrap or junk dealers?

22 A. It was discussed in my presence in such
23 a way that I was led to believe that this is a very
24 common practice, particularly at that time -- well,
25 copper was in short supply and there was a lot of

1 interest in recovering the copper wiring inside these
2 units. And there was every indication, at least to
3 my thinking, that this practice was quite common.
4 The only advice I gave was, be careful where the oil
5 goes.

6 Q. I think you testified that this practice
7 of utilizing scrap dealers was discussed in your
8 presence. Do you mean at the ANSI Committee
9 meetings?

10 A. Yes. And even informally one-on-one.
11 Both ways.

12 Q. Do you recollect anybody in particular
13 who advised you?

14 A. Oh, gosh. Mr. Raab for one. He was a
15 principle spokesman. I'm trying to recall. There's
16 an individual in Westinghouse. I can't recall his
17 name at the moment.

18 Q. I'll not try to guess with you. But do
19 you remember the plant that he was associated with
20 from Westinghouse? For instance, the Sharon plant?
21 I'll shut up for a second. I'm sorry.

22 A. Sharon comes to mind. But gosh.

23 Q. How about Larry Sheppard?

24 A. Yes. Thank you.

25 Q. You're welcome.

1 A. Yeah. Larry. In his office, we talked
2 about things like that.

3 Q. Things like what?

4 A. Disposing of scrap, disposing of the
5 liquid, what do we do with copper and so on.

6 Q. Now, what time frame do you recollect
7 the discussions with Raab and Sheppard?

8 A. Oh, gosh. From the period, let's say,
9 middle seventies to 1975.

10 Q. Did you say middle of seventies or '70?

11 A. Seventies, I'm sorry. The middle of
12 1970. About June, July of 1970 on through the end of
13 1975.

14 Q. And as I understand, one of your
15 responses to the information you were receiving from
16 Raab and/or Sheppard, you said, well, be careful
17 where the oil goes.

18 A. (Indicating.)

19 Q. What did you mean by that?

20 A. Well, I intended with that statement to
21 make certain that whatever they did with the oil,
22 that it did not end up creating an environmental
23 problem.

24 Q. Did you recommend -- Strike that.

25 Did you have your own scenerios in your

1 mind as to how the oil would not end up as an
2 environmental problem?

3 A. Yes.

4 Q. Could you relate those to me?

5 A. The two -- one obvious one, of course,
6 is incineration under the right conditions. And the
7 other is, if it could not be incinerated for some
8 reason, that it be put in an approved landfill. And
9 by approved, this is a landfill that the authorities
10 have reviewed and proper permission given and the
11 potential for contaminating either the surface or the
12 underground waters is just remote.

13 Q. Did you, in your capacity as chairman of
14 C-107, at that time, did you counsel against this
15 scrapping of electrical transformers with scrap
16 dealers?

17 A. No, I did not.

18 Q. Did you, in your capacity as chairman of
19 C-107, in that time period of '70 to '75 -- Well, let
20 me strike that.

21 But I don't think you were chairman in
22 1975.

23 A. Yes, I was.

24 Q. You were? Okay. I'm sorry. We'll go
25 back with it then.

1 In your capacity as chairman of C-107
2 from 1970 to 1975, did you counsel against allowing
3 waste oil to be sent to scrap dealers?

4 A. Yes.

5 Q. Why?

6 A. Because, in my considered opinion, there
7 were no scrap dealers qualified to properly
8 incinerate scrap oils with PCBs.

9 Q. And when you say there were -- there
10 were no scrap dealers who could properly incinerate
11 scrap oil with PCBs, do you include in that mineral
12 oil which was mixed with PCBs?

13 A. Yes.

14 MR. GRANOFF: I've got to make a
15 phone call to my office. Probably take fifteen or
16 twenty minutes. I'm sorry but it's a client
17 emergency matter.

18 (Deposition stood in temporary recess.)

19 (The requested portion of the record was
20 read by the Reporter.)

21 Q. (BY MR. GRANOFF) Okay. Mr. Papageorge,
22 under what circumstances did you learn that mineral
23 oil supplies were contaminated with PCBs?

24 A. I can't recall any specific incident.

25 MR. DAVIDSON: Are you asking that

1 they learned that they were in all instances or might
2 be?

3 MR. GRANOFF: I don't know if we
4 can ever say that they're across the board a hundred
5 percent, that all mineral oil supplies were
6 contaminated with PCBs. But let me try to phrase
7 it.

8 Q. (BY MR. GRANOFF) Well, under what
9 circumstances did you learn of the liklihood that
10 mineral oil supplies were contaminated or could be
11 contaminated with PCBs? And for example, was it as a
12 result of the subcommittee meetings or through
13 C-107? And it may not be, but I offer that as a
14 possibility.

15 A. The subcommittee discussions was one
16 source of my education regarding that subject.
17 However prior to that, I was made aware of the
18 potential for this to happen by individuals within
19 Monsanto such as as Mr. Benignus and Mr. Graham and
20 Mr. Bryant, people whose job it was to know the
21 industry and understand some of the problems the
22 industry may be having.

23 Also, in brochures that Monsanto had
24 regarding use of askarel in equipment, there was, as
25 I recall, some reference to the adverse effects to

1 the units that could be contaminated with mineral
2 oils. That sensitized me to the potential.

3 MR. SMITH: I object to the portion
4 that's hearsay, if any.

5 MR. GRANOFF: Okay. That's noted
6 for the record, for whatever it's worth.

7 Q. (BY MR. GRANOFF) I'm sorry.

8 A. And another more direct kind of
9 sensitization occurred when I visited many plants,
10 customers' plants, at which transformers were
11 manufactured.

12 Q. Okay.

13 A. Where I brought them up to date on PCB
14 environmental matters, and they in turn spoke about
15 their operations and their perception of potential
16 problems.

17 Q. Let's take these then in the reverse
18 order. You visited certain customers' plants. And
19 when you say customers, who do you mean by customers?

20 A. Well, like the General Electric plants
21 up in Pittsfield, Massachusetts. A Westinghouse
22 plant at Sharon in south Boston. The Allis-Chalmers
23 plant in Milwaukee. The Moloney Electric plant here
24 in St. Louis.

25 Q. Did -- Sorry.

1 A. That's not the whole list but that's a
2 sample.

3 Q. Representative sample?

4 A. Yes.

5 Q. Did you restrict your visits to
6 manufacturers of electrical equipment?

7 A. Yes. Well, that particular tour of
8 plant visits was restricted to manufacturers of
9 electrical equipment.

10 Q. Did you ever visit any equipment repair
11 center, whether it be a General Electric or
12 Westinghouse, repair center or repair center
13 sponsored or owned by anybody?

14 MR. SMITH: Owned by who? Anyone?

15 MR. GRANOFF: Anybody. Anyone.

16 A. I recall visiting a service company in
17 the Akron, Ohio area.

18 Q. (BY MR. GRANOFF) That's the Meyers,
19 S.D. Meyers Company?

20 A. The name doesn't ring a bell at the
21 moment. I think it was.

22 Q. Ohio Transformer?

23 A. Had the word transformer in it. They
24 were a service company. They did a little work on
25 the site. Most of the work was done in the field.

1 The service vehicles going to the job sites. I did
2 not visit any other service center that I recall.

3 Q. Did anyone -- Strike that.

4 Did you ever direct anybody within
5 Monsanto to visit an equipment repair center, other
6 than you, yourself, other than this possible one in
7 Akron, Ohio you didn't personally visit?

8 A. I did not direct anyone. But as part of
9 their job responsibilities, Mr. Benignus and his
10 team.

11 Q. That team?

12 A. Consisted of Mr. Benignus and
13 Mr. Graham, I know had contacts with these service
14 companies and paid visits to them. The General
15 Electric shops, the Westinghouse shops. Doble
16 Engineering is another service company.

17 I relied on them to come back to me with
18 any adverse information that they might have picked
19 up.

20 Q. Do you recollect whether Benignus,
21 Bryant or Graham visited any utility equipment repair
22 centers?

23 A. I do not remember. No. I just cannot
24 remember.

25 Q. I think I asked you about Mr. Graham.

1 His whereabouts, you think, are somewhere in the
2 northeast?

3 A. That's the last I heard, yes.

4 Q. Mr. Benignus, is he still with Monsanto?

5 A. No. Retired.

6 Q. In this area?

7 A. Yes.

8 Q. St. Louis area?

9 A. General. He's over in Belleville, I
10 believe.

11 Q. Belleville? And Mr. Bryant, to the best
12 of your knowledge?

13 A. I think Mr. Bryant, the last I heard, he
14 was in the northeast somewhere also.

15 Q. Okay. Did Benignus, Byrant or Graham
16 actually give you written reports as to their
17 findings in the field as to their visits or was
18 everything a verbal report?

19 A. I had both written and oral reports. I
20 recall some were called trip reports. It's a form
21 that's filled out by the representative. I don't
22 recall any specific companies or dates at the
23 moment. There were reports on occasion.

24 Q. What did you do with those reports?

25 A. Well, it depended.

1 Q. The written reports?

2 A. It depended, of course, on the
3 contents. Sometimes the report would not expose any
4 particular problems, so I was rather pleased with
5 it. Other times, it was some would even underline
6 attention Papageorge, then write out some piece of
7 information that I would either get on the telephone
8 or call them back and get more details or call the
9 representative of the plant that was visited or the
10 site that was visited.

11 Q. Under those circumstances, when you
12 received a negative report from the field, meaning
13 that the potential for PCBs contamination of mineral
14 oil was discovered by Benignus or his people, did you
15 pass that information along to the transformer or
16 capacitor subcommittee?

17 A. If it was timely. If the committee was
18 in place, that would be a good place to bring it up.
19 And in the few cases that -- I don't remember any
20 specifics, but the normal way to handle that is to
21 get to the individual representative of that company
22 and make sure that he heard how I felt in addition to
23 how Mr. Benignus or how Mr. Bryant felt.

24 Q. These trip reports or the written
25 reports that were transmitted to you by Benignus,

1 Bryant, Graham, do you know who has those documents
2 now?

3 A. I don't know.

4 Q. Well, if I wanted to see them, do you
5 know what procedures I would use?

6 A. I would go to the Monsanto legal
7 department. They're the custodians.

8 MR. DAVIDSON: Off the record.

9 (Discussion was held off the record.)

10 Q. (BY MR. GRANOFF) In connection with the
11 information you gleaned from the subcommittee
12 discussions, what do you recollect was translated or
13 transmitted to you from members of the subcommittee
14 as to the potential for contaminating mineral oil
15 supplies with PCBs?

16 MR. SMITH: Objection. Calls for
17 hearsay. Time frame would be a good way to at least
18 improve on it.

19 Q. (BY MR. GRANOFF) Well, do you
20 understand my question?

21 MR. SMITH: You can answer.

22 Q. (BY MR. GRANOFF) You understand my
23 question, don't you, sir?

24 A. I think I understand it.

25 Q. Okay. We'll proceed then.

1 A. No attempt was made to quantify the
2 potential for this happening. Just the fact that it
3 can happen was discussed, and if it did happen, what
4 is the proper remedial action. That kind of
5 discussion did take place.

6 Q. And you'd agree with me that not only
7 did it take place, but it was enough of a consensus
8 on the issue; in other words, the fact of PCB
9 contamination of mineral oils that was included
10 within the final C-107 report?

11 MR. SMITH: Objection to form.

12 A. Yes.

13 MR. SMITH: Okay.

14 Q. (BY MR. GRANOFF) Pardon me, sir?

15 A. Yes.

16 Q. What is your recollection as to how to
17 remediate -- I think that was term you used, to
18 remediate -- the problem, if indeed it did happen,
19 the problem of mixing PCB with mineral oil?

20 A. In the final analysis, that contaminated
21 oil was to be treated as though it was an askarel.
22 That's a very conservative but practical and most
23 responsible way to treat it rather than -- because we
24 did get in discussions how much PCB makes it a PCB.

25 And we start talking about percentages

1 of mixture and parts per million and parts per
2 billion. There was no standard available to anyone
3 to make that kind of definition. So just presence of
4 PCBs in this oil makes it PCB, treat it as though
5 it's a hundred percent PCB.

6 Q. And as best you can recollect, what is
7 the earliest time frame that the fact of PCBs, the
8 potential for PCBs, being mixed with mineral oil
9 occurred? When was the earliest time frame that you
10 learned of that potential?

11 A. That I learned of it?

12 Q. Yes, sir.

13 A. Oh, I would say, early 1970.

14 Q. 1970? Seven zero?

15 A. Yes.

16 Q. And consistent with your knowledge, is
17 that the time frame when it was discussed within any
18 of these C-107 subcommittees?

19 MR. SMITH: Object to the form.
20 Lack of foundation.

21 A. C-107 subcommittees were not in
22 existence until '72.

23 Q. Oh, all right.

24 A. So as committees, they addressed it at
25 that time almost early on in their agenda.

1 Q. They addressed what?

2 A. The potential for mineral oil containing
3 PCBs and how to treat it.

4 Q. Okay. Sorry. I'm taking things out of
5 order here.

6 MR. GRANOFF: But I need for you to
7 mark this next.

8 (Said instrument was marked as Exhibit
9 No. 377, 2-21-90, CKP.)

10 Q. (BY MR. GRANOFF) Okay. I'll have you
11 identify Exhibit 377, which is a three-page composite
12 exhibit, PSA Bates stamped 001391, and if you could
13 identify this composite exhibit, please, sir.

14 A. The first page is a copy of the address
15 label. The addressee is Florida Power & Light. And
16 written -- That's typed. Then written is care of
17 M.O. Talbert.

18 Q. Could you spell it, as best you can
19 anyways?

20 A. T-a-l-b-e-r-t, it looks like. 611 West
21 6th Street, 33101. Miami, Florida 33101. Transform
22 Pyranol A13B3B. Attached to that are, looks like
23 copies of letters dated, both dated February 28,
24 1972, Monsanto letterhead, signed by T.L. Gossage,
25 who at that time, was the marketing director for

1 dielectric fluids.

2 One letter is addressed to, attention to
3 purchasing agent. The second letter is attention to
4 plant engineer.

5 Q. Okay. If I may, please. Thank you.

6 Directing your attention to the face
7 sheet of Exhibit 377, is any of that in your
8 handwriting?

9 A. No.

10 Q. Do you know whose handwriting it is?

11 A. I do not.

12 Q. Okay. Do you know a gentlemen named --
13 Strike that.

14 Do you know a person at Florida Power &
15 Light identified as M.O. Talbert?

16 A. I don't recall.

17 Q. Do you know a gentleman at Florida Power
18 & Light known as Maurice Talbert? Does that name
19 mean anything to you?

20 A. I just don't remember that name.

21 Q. Okay. All right. Do you have any
22 recollection of what is meant on the face sheet of
23 Exhibit 377, the words Transformer Pyranol and then
24 A13B3B?

25 A. That describes one of the askarel fluids

1 blended by Monsanto according to General Electric
2 specifications, and it's intended for use in
3 transformers. And that particular formulation
4 carries this designation A13B3B.

5 Q. Okay. Do you have a sense for why that
6 information that reflects a G.E. blend for askarel is
7 contained within the label mailing label to Florida
8 Power & Light?

9 A. I don't know. I'm surprised to see it.
10 It's irrelevant to the label but --

11 Q. Okay.

12 MS. RUMAGE: Excuse me. Just for
13 clarification, that was made for spec for General
14 Electric?

15 THE WITNESS: General Electric
16 provides Monsanto with specifications for how to make
17 this material and what to check for to see that it's
18 properly put together.

19 MS. RUMAGE: Okay.

20 Q. (BY MR. GRANOFF) Is it a liklihood or
21 does a liklihood exist that the G.E. Pyranol blend
22 A13B3B, had that blend been directly sold to Florida
23 Power & Light in the past?

24 A. That's why it got on this list.

25 Q. You agree that liklihood exists?

1 A. Yes. It's almost -- Yes. I would say
2 it would not have appeared on that list if that
3 hadn't happened.

4 Q. Could you explain the gist of the two
5 letters dated February 28, 1972 and identify the
6 different persons who were intended to receive that
7 letter from Monsanto?

8 MR. SMITH: Objection for lack of
9 foundation. Was he involved?

10 A. Well, the intent with this particular
11 mailing was to make certain that the appropriate
12 people at the customer's site got the letter. We
13 found from some unfortunate experiences that many
14 times a letter sent to a purchasing agent ends up in
15 the product file and is not shared in the plant with
16 the people who need the information.

17 So in order to make certain, this
18 particular mailing, we addressed one also to the
19 plant engineer informing at the bottom of the letter
20 that the purchasing agent also got a copy.

21 The intent of this letter is to
22 inform -- the major intent of this letter is to
23 inform the recipient of the letter that Monsanto
24 would discontinue direct sales of these fluids to
25 repair shops and for transformer top-up, and that if

1 this customer needed dielectric fluids in the future,
2 we were suggesting he contact the manufacturer of the
3 transformer for a supply of the fluid.

4 Q. (BY MR. GRANOFF) Okay. You knew
5 Mr. Gossage back in 1972, the marketing director,
6 special products group?

7 A. Yes.

8 Q. Do you recall any particular input on
9 the letter of February 28, 1972 authored by
10 Mr. Gossage?

11 A. I again was asked to look at a rough
12 draft. I was aware it was going out. I don't
13 believe I changed anything.

14 Q. It was authorized by Mr. Gossage then
15 with your approval?

16 A. Yes.

17 (Said instrument was marked as Exhibit
18 No. 378, 2-21-90, CKP.)

19 Q. (BY MR. GRANOFF) All right. I'm going
20 have you identify, please, Exhibit 378, which is the
21 ANSI C-107 American National Standard Guidelines for
22 Handling and Disposal of Capacitor- and
23 Transformer-Grade askarels containing Polychlorinated
24 Biphenyls. This appears to be a copy of the
25 standards issued under the ANSI sponsorship.

1 A. On how to handle and dispose of
2 askarels.

3 Q. Is this the version that was accepted by
4 ANSI in January 1974?

5 A. It appears to be, yes.

6 Q. Do the -- Strike that.

7 Does the forward, which I think if you
8 turn to the third page of that exhibit and as you go
9 down towards the bottom of the page which lists the
10 organizations represented --

11 A. -- I see it.

12 Q. Okay. Is the utility industry
13 represented in this or on this C-107 report?

14 A. It's represented by the organization
15 listed at the bottom of the page, Electric Light &
16 Power Group.

17 Q. Now, we already mentioned Mr. Lengefeld
18 and Mr. Onishi. Are you familiar with a gentleman
19 named J.J. Cawley?

20 A. I don't remember the man but I do
21 remember the name.

22 Q. Do you know specifically, did
23 Mr. Lengefeld work for the Electric Light & Power
24 Group? Was he employed by that consortium?

25 A. No. No. Mr. Lengefeld is an employee

1 of the Union Electric Company which is the St. Louis
2 -- by coincidence, the St. Louis utility. But his
3 company is a member of this group and he was Union
4 Electric's representative and he was assigned to join
5 in this standard setting effort.

6 Q. Union Electric, is that the primary
7 electrical utility for St. Louis County? Is that
8 St. Louis County?

9 A. It's generally this St. Louis area here
10 west of the Mississippi.

11 Q. And I'm sorry if have asked you. Is
12 Mr. Lengefeld still alive, to your knowledge?

13 A. I don't know.

14 Q. And do you know where Mr. Onishi was
15 employed during this time frame?

16 A. I don't remember.

17 Q. And as to Mr. Cawley, do you know where
18 he was employed during the time frame of 1974?

19 A. It seems to me -- and this was twenty
20 years ago -- it seems to me that one of them was with
21 Commonwealth Edison. That's just a vague
22 recollection I have.

23 Q. Either Mr. Cawley or Onishi?

24 A. Yes.

25 Q. Okay. If I can direct you to Page 15 of

1 the report, bottom right-hand corner. Do you have
2 it, Mr. Papageorge?

3 A. Yes, I do.

4 Q. Okay. Thank you. I'd like to go
5 through some of the terminology that was used within
6 the report as it concerns transformers, as you
7 understand it. That guideline concerns both
8 capacitors and transformers, correct?

9 A. Yes.

10 Q. I'd like to talk about the portion that
11 speaks to transformers and specifically disposal. To
12 begin with, disposal procedures and services. That
13 would be Section 4.1.6.1.

14 A. I see it.

15 Q. In the following materials.

16 A. I see.

17 Q. Okay. Could you describe for me, as the
18 former chairman of C-107, what was meant by the
19 language used in 4.1.6.1, sources of materials
20 requiring special handling and disposal procedures?
21 In other words, I don't need you to read verbatim for
22 the record, but if you could just review it and tell
23 me what was intended with that section.

24 A. Well, the intent was to try to enumerate
25 sources of PCB fluids and solids that were unuseable

1 and considered waste. And the listing there was only
2 a partial list really. You'll notice then it ends
3 with pointing out such things in the end with sources
4 being the transport containers. That's tank cars and
5 drums and trucks. The procedures used in
6 manufacturing transformers could result in off-grade
7 unusable material and waste, failures while testing
8 the finished product, in-service transformer leaks
9 and failures. These are in the -- at the sites of
10 the owner of the transformer in-services. It lists
11 also askarel-filled transformers scrapped for any
12 reason as a potential source of PCB waste.

13 Q. Okay. Now, in connection with the first
14 liquids containing PCBs and solids containing or
15 contaminated with PCBs may be obtained from any of
16 the following sources, the terminology, liquids
17 containing PCBs or contaminated with PCBs, did that
18 intend to encompass mineral oil which was
19 contaminated with some level or concentration of
20 PCB?

21 MR. SMITH: Objection to the form
22 for characterization of what the document says.

23 A. Yes. That was an example of the kinds
24 of liquids they had in mind.

25 Q. (BY MR. GRANOFF) And as I understand,

1 while you were concerned about PCBs that were
2 contaminating mineral oil, the C-107 report did not
3 designate a specific percentage or concentration of
4 PCB in the mineral oil. For instance, fifty parts
5 per million or a hundred parts per million?

6 A. An attempt was made to arrive at some
7 number. There was no basis, at that time, for such a
8 number. And it was left open then in consensus if --
9 that -- if PCBs are detectable by analysis in this
10 fluid, as I indicated earlier, it would be treated as
11 a PCB waste.

12 Q. Okay. Now, you just said that whether
13 or if PCBs were detectable in the fluids such as
14 mineral oil, it would be treated as a PCB waste?

15 A. That's the intent.

16 Q. At that period of time -- we have to
17 focus on 1974 because that's when the report was
18 actually adopted -- what was the state-of-art to
19 detect PCBs in mineral oil supplies, if you know?

20 A. I assume that by state-of-art you're
21 referring to what levels could be detected or --

22 Q. Yes. What levels and by what was the
23 mechanism to detect it. In other words, electronic
24 gas capture or whatever --

25 A. -- There was --

1 Q. -- mechanism?

2 A. -- methodology in place which used
3 gas -- GLC, gas liquid chromatography, confirmed by
4 mass spectrum chromatography, which is the first
5 industry collecting the first data and sees a --
6 truly a PCB and not a artifact.

7 The levels of detection varied with the
8 methods used. One of the previous tests referred to
9 was USDA methods. Depending on which methods you
10 used, you can, with all probability, detect down to
11 that level.

12 As I remember, Monsanto had two parts
13 per billion or -- I don't remember the numbers now.
14 But there was a level which could be detected using
15 that method.

16 MR. SMITH: Are you talking about
17 the PCBs in oil now or PCBs in water?

18 A. This was in water. But you could still
19 do it in oil.

20 Q. (BY MR. GRANOFF) All right. Excuse
21 me. I'd like to refer you back to composite Exhibit
22 376 -- Excuse me -- 375 and reference you back to a
23 letter of January 1972, that you authored, and the
24 subject matter of that letter to Mr. Raab and
25 Mr. Pozefsky, the chairman of the respective

1 subcommittees of C-107, PCB Analytical Sensitivity,
2 correct?

3 A. Correct.

4 Q. Now, is it your understanding that as of
5 1972 and early 1972, that the mechanism existed which
6 allowed a laboratory analysis of PCBs in mineral oil
7 for a detectable level by Monsanto at a level of two
8 parts per billion?

9 A. Correct.

10 Q. By FDA standards and analysis, it was
11 0.5 parts per million?

12 A. Correct.

13 Q. And by USDA laboratory or analysis, it
14 was one part per million?

15 A. Correct.

16 Q. According to your testimony then, as of
17 the time the C-107 report was adopted in 1974, using
18 let's say the FDA basis of 0.5 parts per million, if
19 PCBs in -- Strike that -- if a sample of mineral oil
20 was taken and analyzed by the FDA method and
21 analysis, and there was a detection of 0.5 parts per
22 million PCB within that mineral oil sample, then
23 according to the C-107 report, that mineral oil
24 sample would be considered a PCB?

25 A. Yes.

1 MR. SMITH: Objection to the form
2 of the hypothetical.

3 Q. (BY MR. GRANOFF) Your answer, please,
4 sir?

5 A. Yes.

6 Q. Now as to analytical sensitivity, did
7 you become aware at some time, as of January 1972, as
8 early as January 1972, whether there were labs in the
9 United States that could test at the level of
10 detection, for instance, 0.5 parts per million other
11 than some FDA lab or wherever that may be located?

12 MR. SMITH: Object to the form of
13 the question. Unclear what you are talking about,
14 testing sample.

15 Q. (BY MR. GRANOFF) Okay. Do you
16 understand my question, sir?

17 A. I think your question addresses the
18 ability to analyze for and detect PCBs in oils and
19 water and other samples.

20 Q. Right. But I am now specifying my
21 questions as to mineral oil PCB in mineral oil.

22 A. There were a limited number of
23 laboratories in the United States with the capability
24 of reliably analyzing PCBs in mineral oil.

25 Q. Do you know the names or locations of

1 those labs?

2 A. Well, I'm aware of the facilities that
3 General Electric had and Westinghouse.

4 Q. General Electric in Pittsfield?

5 A. Pittsfield, yes. And Westinghouse
6 at --

7 Q. Probably Sharon.

8 A. Sharon, yeah. But for sure in
9 Pittsfield, their research lab there.

10 Q. All right.

11 A. There were -- I think there were about
12 -- I can't recall their names -- two or three
13 commercial laboratories, as I remember, at this point
14 in time. There was a laboratory in Knoxville,
15 Tennessee, Stewart Laboratories. And there was one
16 in Memphis, Woodson-Tenant.

17 MR. FANN: What was that?

18 THE WITNESS: Woodson-Tenant.

19 MR. FANN: Where was that located?

20 THE WITNESS: Memphis, Tennessee.

21 A. Seems to me there was a third one, but I
22 can't recall its name.

23 Q. (BY MR. GRANOFF) Are you familiar with
24 a laboratory in 'Fransville', Wisconsin owned by
25 McGraw-Edison or Cooper's Industries?

1 A. No. But when you mention Wisconsin, I
2 remember the the laboratory in Madison, Wisconsin,
3 Alumni Research Institution, the Wharf Institute.

4 MR. CLAYMAN: Could you read back
5 the name of that, again?

6 (The requested portion of the record was
7 read by the Reporter.)

8 MR. SMITH: Is that one that could
9 detect PCBs in oil in half a part a million?

10 THE WITNESS: I believe so, yeah.

11 Q. (BY MR. GRANOFF) Are you aware as to --
12 Strike that.

13 Do you recollect as to whether the Wharf
14 Institute, the Woodson-Tenant labs, I think which you
15 identified as a Stewart labs, the G.E., and
16 Westinghouse labs, had the capability of detection of
17 PCBs in mineral oil to 0.5 parts per million as early
18 as 1972 when you addressed this letter to Mr. Raab
19 and Mr. Pozefsky?

20 A. I was aware of those laboratories. This
21 does not mean that there were not others, because
22 Monsanto -- even my office sent out many, many copies
23 of the analytical methodology that Monsanto had
24 developed by 1974.

25 Those methodologies were adopted by the

1 ASTM, the American Society of Testing Materials, as
2 standard analytical methods. So they were easily
3 available. I cannot sit here and say there were not
4 other laboratories out there doing good work. I
5 don't know that.

6 Q. Excuse me. I don't know if you said yes
7 or no, how you answered that.

8 Specifically as to the five labs that we
9 mentioned, the Woodson-Tenant, Stewart, the Wharf
10 lab, G.E. and Westinghouse --

11 A. -- Uh-huh.

12 Q. -- was the detection level available as
13 early as January 1972 down to 0.5 parts per
14 million?

15 A. Yes.

16 MR. SMITH: Of PCBs in oil?

17 THE WITNESS: Yes.

18 Q. (BY MR. GRANOFF) Of PCBs in oil?

19 A. Yes.

20 Q. Thank you. All right.

21 Moving down again and back to disposal
22 procedures and services, there is a section 4.1.6.2.1
23 Liquids. And without reading it verbatim, would you
24 identify what this section was intended to reflect?

25 A. It attempts to define, for purposes of

1 this document, what is meant by a liquid containing
2 PCBs and it lists three categories. One, PCBs that
3 are contaminated with mineral oil. Number two,
4 mineral oil contaminated with PCBs. And finally, the
5 askarels themselves that are contaminated because of
6 dirt and undesirable ingredient other than mineral
7 oil resulting from spills or process exposure and the
8 like.

9 Q. Do you recollect why the committee made
10 the effort to specify these three potential sources
11 of liquids that could contain PCBs requiring
12 disposal?

13 A. Well, it was the committee's intent to
14 help the reader of this document understand what kind
15 of liquids the committee was referring to. Rather
16 than just say all PCBs are to be controlled properly,
17 they went that added step and tried to distinguish
18 between a transformer askarel that no longer is
19 usable because it doesn't have the right properties
20 any longer, it's not functioning properly, as
21 distinguished from the other categories of a PCB
22 contaminated with mineral oil or mineral oil
23 contaminated with PCB, vice versa.

24 They wanted to highlight the potential
25 for that relationship between mineral oil and PCBs

1 and potential for cross-contamination.

2 Q. What do you mean by cross-contamination?

3 A. That's a poor word. It's the presence
4 of one or the other ingredient in the original. The
5 mineral oil in with the PCBs or PCBs in mineral oil.
6 The unintentional presence.

7 Q. Can you totally discount that mineral
8 oils and PCBs were intentionally mixed at times?

9 MR. SMITH: Object to the form of
10 the question as calling for speculation.

11 A. Can I totally discount? No. I cannot
12 totally discount it.

13 Q. (BY MR. GRANOFF) For instance, have you
14 heard of a process called retrofilling?

15 A. Oh, yes.

16 Q. And what is your understanding of the
17 retrofill process?

18 A. It's my understanding the expression
19 retrofill refers to that procedure where the original
20 fluid is totally drained from the unit and a
21 different fluid is introduced into the unit in the
22 hopes of changing some character of that unit, either
23 making it more fire resistant or to take a higher
24 load of voltage and the like.

25 Q. For example, one form of restrofill

1 could be removing the askarel from an
2 askarel-designed unit and intentionally filling that
3 unit with mineral oil?

4 A. That is correct.

5 Q. Sorry. I have to skip back for a
6 minute.

7 But going back to the language of
8 4.1.6.2.1 for a moment, there's a phrase that
9 contamination could occur in the transformer
10 manufacturing processes. What was intended by use of
11 that phraseology?

12 A. Well, that attempted to cover the
13 inadvertent introduction of mineral oil or the
14 blending of acceptable PCB type dielectric fluids
15 with a batch of material that was dirty for some
16 reason. The bottom of a tank had sludge or water in
17 it or iron filings or something undesirable in the
18 blending.

19 In order to get enough material to fill
20 a unit, they inadvertently, in the process, end up
21 with a pure liquid, unusable, unreclaimable.

22 Q. Did you, here in your discussions with
23 members of the transformer subcommittee -- that's
24 Raab's group, as I recollect -- that the
25 manufacturers, in the process of filling the

1 transformer at a manufacturing level, had experienced
2 situations where both mineral oil and askarel had
3 actually been pumped through the same valve, a common
4 valve?

5 A. I've heard that took place and I also
6 heard how systems were designed to avoid that by
7 using different pipe connections, different
8 couplings, so that the operator could not
9 inadvertently make the wrong connection. The
10 fittings just won't fit.

11 Q. Yes.

12 A. Things like that were discussed as being
13 ways to avoid making mistakes at the plant site.

14 Q. The systems designed to avoid the
15 mistake of mixing the two fluids, was that done to
16 remediate what you understood to be incidents or a
17 problem where mineral oil and askarel were running
18 through a common valve or coupling system?

19 A. Yes.

20 Q. Did you hear from Mr. Raab that that
21 occurrence took place, for instance, at a G.E.
22 facility?

23 A. Yes.

24 Q. Do you recall which facility?

25 A. Pittsfield, Massachusetts.

1 Q. Did he mention the Rome, Georgia
2 facility as another source of that occurrence?

3 A. I'm under the impression that the
4 experiences in Pittsfield were translated to the
5 Rome. In other words, they didn't make the same
6 mistake twice.

7 MR. SMITH: I'm sorry. Could you
8 say that again? They what?

9 THE WITNESS: The experiences this
10 General Electric had at Rome -- at Pittsfield in the
11 early days when they did make some wrong connections
12 and got the wrong material in the wrong tank, where
13 they learned to have different type systems and
14 isolate the systems to avoid mistakes, when they
15 opened the Rome, Georgia facility, which was the
16 newer of the two, they designed that system to avoid
17 this happening there. So --

18 Q. (BY MR. GRANOFF) Okay. Did you -- Do
19 you know that the same occurrence that had happened
20 at Pittsfield -- in other words, the mixture of
21 mineral oil and askarel -- had also been sustained at
22 G.E. -- excuse me -- the Westinghouse, Sharon plant?

23 A. Well, I'm aware of Westinghouse having
24 some experience. I don't recall whether it was
25 specific to Sharon or some other site.

1 Q. Possibly the south Boston site?

2 A. It's possible but I don't associate the
3 incident with any particular location. It's just
4 experience that Westinghouse had undergone and had
5 shared with others.

6 Q. Was this information shared at the
7 subcommittee meetings?

8 A. Yes.

9 Q. Of C-107?

10 A. Yes.

11 Q. Okay. Meaning both the Westinghouse and
12 G.E. information?

13 A. Yes. There were others. There were
14 others in the group that had similar experience.

15 Q. Do you recall the names of others?

16 A. I think Mr. Reinhardt from --

17 Q. Central Moloney?

18 A. Central Moloney. And I can't recall the
19 name anymore. It was not an experience that only
20 those three had. I got the impression that they had
21 all undergone that experience at some time or other.
22 It was not new.

23 Q. Okay. If I can direct you now to the
24 section on Page 15 of 4.1.6.5.1 that's under Liquid
25 and Solid Waste Disposal Service Organizations.

1 A. I see it.

2 Q. Okay. The last couple words has to do
3 with hardware, I assume from a transformer which had
4 been previously drained and washed. And I'm just
5 directing you to that area.

6 Can you tell me what was the intent of
7 that particular paragraph which begins with: Dispose
8 of askarels and askarel-soaked materials through the
9 words, previously drained and washed?

10 A. That was intended to cover -- The word
11 hardware might be, in hindsight, be a poor choice.

12 It was intended to cover the solid
13 component of the electrical equipment, whether it be
14 the transformer body itself or the internals. There
15 are some supports, for example that hold up the
16 copper coils internally. The intent here was to take
17 all these pieces of the equipment and make sure that
18 they're properly drained of the free fluid and rinsed
19 properly in a good solvent like kerosene or diesel
20 fuel, something that will cut the oil and cleanse off
21 the surface as best you can to the point where at
22 least the oil is no longer visible. It may still be
23 to the analytical chemist but not visable to the
24 naked eye. Then the intent was, put this item in a
25 controlled landfill if you're going to dispose of it.

1 Q. The language used of: Disposal of
2 askarels and askarel-soaked materials should be
3 accomplished, et cetera, et cetera, et cetera, did
4 you, by the use of the terms askarels and
5 askeral-soaked materials, did you mean to exclude
6 fluids or materials that were in mineral oil but had
7 been mixed with PCBs?

8 A. No, no. As we said earlier, once PCBs
9 were present at a detectable level, you'd include
10 them the way you treat askarels. You treat them the
11 same way.

12 Q. Okay.

13 A. Until the government came along and told
14 us a certain level was permissible or not
15 permissible.

16 MR. GRANOFF: Can we take five
17 anyway?

18 (Deposition stood in temporary recess.)

19 (The requested portion of the record was
20 read by the Reporter.)

21 Q. (BY MR. GRANOFF) Let me just to go back
22 to another area, Mr. Papageorge.

23 Did Monsanto provide testing facilities
24 to entities who wanted to submit mineral oil samples
25 for PCB detection level?

1 MR. SMITH: As of what time?

2 MR. GRANOFF: Well, 1970 to 1975.

3 MS. RUMAGE: I'm sorry. And by
4 entity, you mean any business entity?

5 MR. GRANOFF: Yes.

6 A. I'm not aware of any mineral oil sample
7 being sent to Monsanto laboratory for analysis.

8 Q. (BY MR. GRANOFF) Did Monsanto have the
9 capability though to test mineral oil samples for PCB
10 levels?

11 A. Yes.

12 Q. So you were -- you are not aware of any
13 utility companies that submitted mineral oil samples
14 for detection of PCB levels?

15 A. That is correct.

16 Q. If I could refer you now to Section 4.2,
17 Specific Guidelines and then Plant Housekeeping. Do
18 you have that, sir? It's Page 15.

19 A. I have it. I do.

20 Q. All right. Did the committee intend, by
21 the use of the term plant housekeeping -- Strike
22 that.

23 What did the committee intend by the use
24 of the term, plant housekeeping?

25 A. The intent here was to minimize the

1 presence of askarel in areas for which it was not
2 intended. For example, the floor, stairways, sewers,
3 and the like.

4 Q. When you use the term askarel in your
5 response, subsumed or included with that, means any
6 mineral oil that was contaminated with the PCB?

7 MR. SMITH: Object. Leading.

8 A. Yes.

9 Q. (BY MR. GRANOFF) By the specific term,
10 plant, was that intended to only include
11 manufacturing facilities?

12 A. Which? Generically the expression,
13 plant housekeeping, the two words are used together.

14 Q. Okay.

15 A. And it refers to an area in which an
16 activity takes place in the attempt to keep it clean
17 within certain limits and for certain objectives,
18 certain purposes, such as PCB shouldn't be on floor
19 because of the environmentally potential problems
20 that it could create.

21 And the term, plant housekeeping, also
22 applies to other areas, slippery areas where people
23 can fall and the like.

24 Q. Was the term, plant housekeeping, though
25 intended to include facilities such as an equipment

1 repair center?

2 A. Yes.

3 Q. I don't mean to be redundant with any of
4 my questions. If you could turn to 4.2.1.2, Special
5 Containers for Scrap Materials --

6 A. -- I don't have a Page 16 here. Goes
7 from 15 to 18.

8 Q. Okay. I'll let you use mine.

9 MS. BERKOWITZ: Which one are we
10 going to use?

11 MR. GRANOFF: We're going to stick
12 with his exhibit and I think what we'll have to do is
13 to make some photocopies of the missing page and
14 include it in this, as long as we have Mr. Papageorge
15 identify the missing pages.

16 So would you look at Pages 16 and 17 and
17 see if you can identify those two pages?

18 A. These appear to be accurate copies of 16
19 and 17.

20 Q. (BY MR. GRANOFF) So they appear to be
21 the copies of two pages that are missing --

22 A. -- Missing.

23 Q. -- from Exhibit 378; is that correct?

24 A. That is correct.

25 Q. Okay.

1 MR. CLAYMAN: Excuse me. Can we go
2 off the record for a minute, please.

3 (Discussion was held off the record.)

4 Q. (BY MR. GRANOFF) Why don't you compare
5 this copy to what I have here, so if we've got all
6 the pages -- and I don't mean to confuse things,
7 believe me.

8 A. This is the copy with the missing pages
9 here.

10 Q. Right. Maybe we can just replace the
11 exhibit.

12 MR. GRANOFF: There are copy
13 services here in the hotel?

14 MR. CLAYMAN: Yes. Down on the
15 fourth floor.

16 (Discussion was held off the record.)

17 A. These two sets are identical except for
18 the last page, which appears to be American National
19 Standard statement which is unrelated to the rest of
20 text.

21 MR. GRANOFF: All right. With
22 everybody's permission, I would withdraw what is
23 previously marked as 378, which appears to be missing
24 from the substance of the C-107 report, Pages 16 and
25 17, and remark the copy that Gerard Davidson has with

1 him, which includes Pages 16 and 17.

2 Is that a problem for anybody? In other
3 words, just mark this as 378, and go on like we've
4 been going on the whole time.

5 MR. SMITH: It sounds fine, but is
6 there something else attached to the back of this
7 one?

8 MR. GRANOFF: Yes. He indicated
9 that there is a statement from American National --
10 Well, American National Standards, which is not
11 related to --

12 THE WITNESS: Has nothing to do
13 with the purpose of the document which has to do with
14 PCB. That is a statement describing the American
15 National Standards Institute.

16 MR. GRANOFF: It is not attached,
17 as a matter of course, to the C-107 report, in other
18 words?

19 THE WITNESS: It was part of the
20 booklet, the whole package.

21 MR. GRANOFF: Okay. It's just
22 boiler plate or something makes a reference to this,
23 say, or things like that?

24 THE WITNESS: It's not related to
25 the subject of the text.

1 MR. GRANOFF: Can we mark this as
2 378, remark this new copy as 378?

3 MR. SMITH: Fine.

4 (Said instrument was remarked as Exhibit
5 No. 378, 2-21-90, CKP.)

6 Q. (BY MR. GRANOFF) All right. The last
7 question was directing you to Page 16, sir.

8 A. I have it.

9 Q. All right. 4.2.1.2, Special Containers
10 for Scrap Materials. And the Section 4.2.1.2.1.

11 A. Wait. I haven't found those yet.

12 Q. It's right --

13 A. -- Would you repeat that number? Oh, I
14 see it.

15 Q. Okay. Special container. All right.
16 What was the intent of that particular
17 paragraph?

18 A. Let me make certain we're talking about
19 the same paragraph. You're talking about 4.2.1.2.1?

20 Q. Yes, sir.

21 A. It refers to the labeled drums?

22 Q. Yes, sir.

23 A. Containing spilled or waste askarel?

24 Q. Yes, sir.

25 A. The purpose here was to identify the

1 contents of the drums containing liquid that resulted
2 from spills from sumps and failed units and drip pans
3 and sample jars, any source. And again, the
4 expression askarel includes any liquid with PCBs in
5 it, including kerosene and diesel fuel and whatever
6 they use to rinse things with. It was all referred
7 to as scrap askarel.

8 Q. Directing you to 4.2.1.4, Teardown of
9 Units for Scrap -- excuse me -- Teardown Units of
10 Repair or Scrap.

11 A. I see it.

12 Q. Okay. Thank you.

13 What was the intended purpose of that
14 section, sir?

15 A. The purpose here was to offer some
16 guidelines for those involved with transformers that
17 no longer provide any service. They're ready to be
18 discarded. And it gives them some idea on how to
19 approach it, such as drain the unit, remove the coil,
20 be sure there's absorbent material on the floor,
21 place all materials and appropriate containers for
22 later disposal on the floor to catch all the leaks.

23 Q. Did this section intend to include
24 equipment repair centers that were working on the
25 teardown of units?

1 A. Yes.

2 Q. And again, for the sake of being
3 redundant, when the term askarel or scrap askarel is
4 used in this section, did it intend to include any
5 mineral oil with detection of PCBs?

6 MR. SMITH: Objection. Leading.

7 A. Yes.

8 Q. (BY MR. GRANOFF) Okay. If you can turn
9 now to Page 17.

10 A. All right.

11 Q. Transformer Disposal, 4.2.3.6.

12 A. I see it.

13 Q. What was meant by the term,
14 Transposer -- transformer disposal?

15 A. This is the disposal of transformers
16 which no longer were functional.

17 Q. I'm sorry. Do you recollect the
18 individuals or the groups within the transformer
19 subcommittee who raised the issues as to transformer
20 disposal so that it found its way into the report
21 through consensus?

22 A. There was no single person or small
23 group of persons. I think it was on the mind of all
24 members of the transformer working group.

25 Q. Including Mr. Raab from General

1 Electric?

2 A. Mr. Raab is a committee chairman. And
3 all the other members. This was one item on their
4 list of things to address early on.

5 Q. And by this transformer disposal, is it
6 meant to address the units that are no longer
7 functional?

8 A. Yes.

9 Q. One last time. I must -- I feel
10 compelled to ask the question.

11 By the use of the terms, askarel or
12 askeral-filled, in 4.2.3.6, were you intending to
13 include mineral oil with detectable levels of PCB?

14 MR. SMITH: Same objection.

15 A. Yes.

16 Q. (BY MR. GRANOFF) As to Subsection 2,
17 which begins with: Disposition of askarel
18 transformers, and then reads through as described in
19 4.1.6, the last paragraph. You have that, sir?

20 A. Yes. I have that.

21 Q. What was the purpose of avoiding the
22 transport of askarel transformers unless they were
23 adequately soaked and washed with a solvent?

24 A. I'm confused by your use of the word
25 transporting.

1 Q. Okay. Sure. What was the purpose in
2 avoiding the disposal of nonfunctional transformers
3 to junk or scrap dealers and the soaking -- the
4 draining and soaking of the unit?

5 A. The purpose there was to avoid a
6 situation where a scrap dealer had not been
7 appropriately informed as to type of oil involved
8 with the units and to make certain that no liquids
9 are mishandled. It was suggested --

10 Q. Mishandled by whom?

11 A. By people such as junk and scrap dealers
12 who may not be appropriately schooled in
13 understanding what kind of oil was being sent to
14 them. To avoid that possibility, it was suggested
15 that the units, before they're transferred to a scrap
16 dealer, be properly drained and degreased with a
17 suitable solvent so the problem of disposal of the
18 liquid remains in the hands of the owner of that
19 transformer rather than pass it on to someone who is
20 not appropriately schooled as to how to handle it.

21 Q. Okay. The members of the transformer
22 subcommittee -- Let me strike that and try to ask it
23 another way.

24 When the transformer subcommittee was
25 coming up with their input into the final version of

1 C-107, did -- was that information shared with
2 members of the capacitor subcommittee?

3 A. Yes. Definitely.

4 Q. So there was an interchange and exchange
5 of knowledge and opinions?

6 A. That is correct.

7 Q. Did you facilitate that interchange or
8 exchange of information?

9 A. On occasion, but much of it happened on
10 an informal basis between meetings particularly.

11 Q. How did that manifest itself?

12 A. Well, most of it was by telephone, where
13 the person designated in the working group as the
14 author of the written work would call his counter on
15 the other committee, compare notes, how are you
16 handling this portion or this idea, so that there was
17 some consistency.

18 In fact, some portions of this document
19 were really -- I want to say -- use the word
20 co-authored by the working groups when it comes to
21 suggestions, what kind of cream does he use on his
22 hands to avoid injure to his skin. It applies to
23 both committees so it was combined. There was no
24 separate section for capacitors as distinguished from
25 transformers.

1 Q. Well, now, with the section we've just
2 been talking about in connection with disposal, is it
3 exclusive to the transformer subcommittee?

4 A. Yes. Because the disposal of
5 transformers involved tearing into a unit and
6 salvaging the component, the disposal of capacitors,
7 at least at that point in time, did not involve, in
8 most cases, the dismantling of the unit and trying to
9 save any parts of it. The whole unit was disposed.

10 Q. It was packaged in a certain pack? That
11 is, the capacitor was the ultimate disposal; is that
12 right?

13 A. That's right.

14 Q. Is it your belief that members of the
15 capacitor subcommittee were familiar with the
16 transformer subcommittee's consensus as to
17 transformer disposal?

18 A. Yes.

19 Q. I think every -- Strike that.

20 Was every organization represented --
21 Try it one more time. Strike and withdraw.

22 As to every organization represented on
23 C-107 -- I invite you to look at the forward just for
24 the particular organizations -- Was there
25 representation for each of the organizations on

1 either the transformer subcommittee or on the
2 capacitor subcommittee?

3 A. Yes. I don't know if -- Some of the
4 members did miss some of the meetings, just as I
5 missed a meeting or two because of press of other
6 work. But in every instance, they tried hard to be
7 present at the meetings and to participate in their
8 assigned working group.

9 Q. Let me be more specific.

10 Would it -- Was it customary to have a
11 member of the Electric Light & Power Group serve on
12 either the transformer subcommittee or capacitor
13 subcommittee?

14 A. I believe, in that case, Mr. Lengefeld
15 was assigned to the transformer committee.

16 (Discussion was held off the record.).

17 Q. (BY MR. GRANOFF) Mr. Papageorge, do you
18 recollect the name of a Florida Power & Light
19 employee named Thomas Fair?

20 A. It rings a -- Yes. I think. Yeah. I
21 remember that one.

22 Q. Can you recollect the nature of any of
23 your contact with Mr. Fair from Florida Power &
24 Light?

25 A. They were telephone calls that he made.

1 And his purpose was to kind of keep up-to-date on
2 things really.

3 Q. Do you recall any other employee or
4 representatives from Florida Power & Light who called
5 you to keep up-to-date?

6 A. No. I associate Mr. Fair's name with
7 another Fair that I was familiar with. That's why I
8 remembered the name. There were not too many
9 contacts with Florida Power & Light.

10 Q. What do you mean by that?

11 A. As compared to other companies where I'd
12 get many phone calls from different parts of the
13 country, different plants. Florida Power & Light,
14 Mr. Fair is the only one that I recall calling me
15 over the telephone maybe twice at the most. More
16 than once, anyway.

17 Q. Okay. I think you testified that he was
18 trying to keep up-to-date. Up-to-date as to what?

19 A. The PCB situation. What's going on and
20 what your toxicity studies are showing and analytical
21 work and so on. What's the government going to do.

22 Q. Can you put those telephone calls --
23 which I understand is more than one?

24 A. Yes.

25 Q. Into some sort of time frame?

1 A. Oh, gosh.

2 Q. And let's try to use the adoption of
3 C-107 in January '74. Maybe that's a time reference
4 that would be of some help to you.

5 A. It would be somewhere between, I'd say,
6 late '71 to late '74. Somewhere in that period of
7 time.

8 (Said instrument was marked as Exhibit
9 No. 379, 2-21-90, CKP.)

10 Q. (BY MR. GRANOFF) And could you
11 identify, please, Exhibit 379, which is a letter
12 dated October 27, 1975, over your signature? It's
13 PSA Bates stamp 001694.

14 A. It's a copy of a letter I wrote to
15 Mr. Fair. This was late 1975, not '74. Okay.

16 Q. Let me see the letter for a moment.
17 It's short, so I'll just read it verbatim.

18 Dear Mr. Fair: Enclosed is the
19 literature I offered to mail you. I hope you find it
20 helpful. If I can be of further service, please let
21 me know. Sincerely, W.B. Papageorge.

22 Do you recollect the type of literature
23 you were sending to Mr. Fair with that cover letter?

24 A. These handwritten letters?

25 Q. Yes.

1 A. It's a code my secretary used that
2 describe the kind of material she sent him. I do not
3 recall all of them.

4 Q. Let's identify what the letters are, for
5 the record, so we can all understand.

6 A. Handwritten letters at the bottom left
7 portion of the page are in caps, E, T, BB, LL. E
8 refers to an environmental statement that I had
9 prepared and it described the detection of PCBs and
10 the environmenal need to control escape, that kind of
11 statement.

12 Q. Excuse me. As to the environmental
13 statement, do you know the date that statement was
14 generated? In other words, circa 1971 or circa 1975?

15 A. The original version was about late 1970
16 and it underwent revisions as we went along, about
17 one revision a year, I would suggest. Maybe one
18 every eight months.

19 Q. Okay.

20 A. There was a summary statement of the
21 result of toxicity studies.

22 Q. Whose summary statement of the result of
23 toxicity studies?

24 A. Monsanto sponsored studies that were
25 summarized for me by our medical department at about

1 every six to eight months.

2 Q. What type of specimens were being used
3 for that study?

4 A. Specimens?

5 Q. Fish or -- I'm not using the correct
6 word.

7 A. These studies included rats.

8 Q. Lawyers?

9 A. These are the white long-tailed type.
10 Chickens.

11 Q. Leg-horn chicken?

12 A. Leg-horn chickens. And dogs. Those are
13 the three species that were studied. And I had
14 copies of those summary statements that I would give
15 out on request.

16 I don't recall what BB and LL stood for
17 but --

18 Q. Okay.

19 A. All I can say, they had a select package
20 that we would send out for general information on the
21 subject.

22 Q. I'd just like to go back to your CV for
23 a moment again and update because we've limited our
24 time frame and your duties.

25 I believe for the period of manager of

1 environmental control, which reflects a time period
2 of 1970 to 1973, the resume or CV then reflects that
3 you became manager, product acceptability, Monsanto
4 Industrial Chemical Company, 1973 to 1977.

5 What were your duties under that
6 position?

7 A. I retained the responsibilities I had up
8 till then on the PCBs and was assigned other products
9 manufactured by Monsanto and marketed by the group
10 that I was reporting into at the time.

11 Q. Would these products -- I'll ask you to
12 identify them in a moment. But were those products
13 that also were thought to be environmental
14 contaminants or dangers?

15 A. No. They were just the product line.

16 Q. Such as?

17 A. Well, let me think back. Obviously, we
18 had the substitute product to the PCBs, the new
19 hydraulic fluids and new heat transfer fluids. We
20 had swimming pool treatment chemicals, we had some
21 chemicals that are used to treat paper to make it --
22 give it a different coating, and all paper chemicals.

23 Q. Okay. I just want to get representative
24 samples.

25 A. It was a mixture of product. My

1 responsibility was to see that they were properly
2 labelled, properly packaged, and the appropriate
3 information was disseminated to the customers.

4 Q. Okay. Now, the next line on your CV
5 reflects that in 1977, you became manager, product
6 acceptability for Monsanto Chemical Intermediate
7 Company.

8 What is Monsanto Chemical Intermediate?

9 A. Those are operating units within
10 Monsanto. Prior to that date, I was with the unit
11 called industrial chemicals. These are the paper
12 chemicals, rubber chemicals, industrial chemicals.

13 In 1977, I was assigned to the company
14 that made chemicals that are not end products in
15 themselves to the customer but they are referred to
16 as intermediates. They are stepping stones to the
17 final product.

18 Q. Okay.

19 A. So it was a different set of products
20 that I was assigned.

21 Q. Okay.

22 A. I no longer had responsibility for PCBs
23 at that time.

24 Q. All right. While you may not have
25 had -- Strike that.

1 While you no longer had responsibility
2 for PCBs at that time, did you maintain your
3 communication with certain entities or anybody in
4 connection with the updates as to Monsanto findings
5 as to PCBs in the environment?

6 A. No. There were other individuals that
7 were assigned that task at the time.

8 Q. Who is that?

9 A. Immediately after I was reassigned, it
10 was Cole Weber. And following Mr. Weber, there was a
11 Dr. Cumming Payton and a David Wood.

12 MS. BERKOWITZ: I'm sorry. I
13 didn't get the name before David Wood.

14 THE WITNESS: Cumming Payton.

15 Q. (BY MR. GRANOFF) Okay.

16 MS. BERKOWITZ: Off the record.

17 (Discussion was held off the record.)

18 (The requested portion of the record was
19 read by the Reporter.)

20 Q. (BY MR. GRANOFF) Back to your CV for a
21 moment. 1983 to 1985, director, environmental
22 operations, Monsanto Industrial Chemicals. What was
23 the nature of that position?

24 A. Let's see. '83 to '85 period?

25 Q. Yes, sir.

1 A. I was responsible for environmental
2 issues at the work place, industrial hygiene, work
3 place safety, and product acceptability for that
4 operating unit.

5 Q. Did that include PCBs?

6 A. '83 to '85?. The individual who was
7 responsibility for coordinating PCB activities
8 reported to me in that period of time.

9 Q. And who was that?

10 A. Dr. John Craddock.

11 Q. When did you leave the chairmanship of
12 C-107? The question is getting a little less
13 heartfelt at this time of day.

14 A. Sometime in the early part of 1976.

15 Q. What was the reason why you discontinued
16 that position?

17 A. That coincided pretty closely with the
18 transfer of the PCB activity to Mr. Cole Weber. And
19 since I was no longer involved with PCBs, my new
20 bosses were insisting I concentrate my efforts in
21 other areas. So I was then forced to tell the
22 committee that I could no longer serve as its
23 chairman, that they would have to find someone else.

24 Q. Do you know who replaced you?

25 A. I don't. I don't recall anymore.

1 Q. Okay. We talked about, I think it was
2 the January '72 letter you authored to Mr. Raab and
3 Mr. Pozefsky, which addressed the analytical
4 capabilities of PCB levels detection?

5 A. Yes.

6 Q. You recollect that correspondence?

7 A. Yes.

8 Q. And then I asked you a question or
9 series of questions in connection with whether you
10 recollect any utilities submitting mineral oil
11 samples to Monsanto for PCB testing. And I think
12 your answer to that was, no, you don't recall any
13 utilities doing that.

14 A. That is correct.

15 Q. Okay. Was Monsanto available though to
16 accept mineral oil samples from entities such as
17 utilities, in the period of 1972 to 1974, for PCB
18 detection of mineral oil samples, understanding it
19 wasn't done based upon your recollection?

20 A. Monsanto's laboratory was not in a good
21 position to provide regular analytical services to
22 customers. However, on a case-by-case basis, at the
23 specific request of a customer, for a very special
24 time period and special need, we would, when we
25 could, help out.

1 Q. What do you mean by help out?

2 A. We would ask them to send us their
3 sample taken a certain way. We would tell them to
4 preserve it, how to ship it, we would analyze that
5 sample, send them back the results.

6 At the same time, we would try to
7 recommend the laboratory that could do it for them,
8 on a routine basis, rather than the way we were
9 situated, on a special basis.

10 Q. The limited special basis, which you've
11 just described for the Monsanto laboratory, did you
12 disseminate information to the industry, including
13 utility industry, which let them know that in a
14 limited fashion you would -- you being Monsanto --
15 would be available for this testing procedure?

16 A. No. We did not announce the
17 availability of it. It was always at the request of
18 a customer asking us if we would help that we would
19 consider it.

20 Q. All right.

21 (Said instrument was marked as Exhibit
22 No. 380, 2-21-90, CKP.).

23 Q. (BY MR. GRANOFF) I'll ask you to
24 identify, if you can, what has been marked as Exhibit
25 380, which is a composite exhibit, and it's got Bates

1 stamp 147039 through 043, and I'll ask you some
2 questions.

3 A. March 9, 1967 letter on General Electric
4 letterhead.

5 MR. CLAYMAN: Can we go off the
6 record just a second?

7 (Discussion was held off the record.)

8 Q. (BY MR. GRANOFF) Just to clear up any
9 problems you all have looking at 380, do you all have
10 an attendance roster?

11 MS. BERKOWITZ: Yes.

12 MS. RUMAGE: Yes.

13 MR. GRANOFF: That's a yes, right?
14 Just take that page and flip it over.

15 MR. DAVIDSON: This is not copied
16 front and back.

17 MR. GRANOFF: All right. You all
18 can struggle with me.

19 MS. BERKOWITZ: What's the last
20 page you have?

21 MR. GRANOFF: Will be Exhibit B-10
22 and it is Bates stamped 147043. On the obverse of
23 that page is Exhibit B-9 with letters C and D. Are
24 you all with me?

25 THE WITNESS: Yes.

1 MR. SMITH: Yo.

2 MR. GRANOFF: Thank you. Okay.

3 Q. (BY MR. GRANOFF) Can you identify
4 Exhibit 380, sir?

5 A. It's a copy of a letter, General
6 Electric letterhead, authored by Mr. E.L. Raab, and
7 addressed to many individuals. And it has attached
8 to it a copy of the minutes of the meeting that this
9 particular group that held and it also includes, on
10 the face of the cover letter, the suggestion on what
11 to bring to a subsequent meeting.

12 Q. Okay. Now, the list of gentlemen listed
13 on Page Bates stamped 147039 starts with Karl Bremer
14 all the way through C.R. Willmore. You see that in
15 front of you, correct?

16 A. I do.

17 Q. Are those the members of the transformer
18 subcommittee in February of 1976?

19 MR. SMITH: Objection to the form.

20 A. Yes.

21 Q. (BY MR. GRANOFF) I'm going to need to
22 go through some of these names, probably each and
23 every name, and so if you can recollect who those
24 people work for, what they do --

25 Before I do that, let me pick out a

1 couple that I'm already familiar with. Take for
2 instance, Mr. Cawley, Mr. Lengefeld and Mr. Onishi.
3 These three names appear as members of a transformer
4 subcommittee circa February 1976, correct?

5 A. Yes.

6 Q. Do you know if all three of those
7 gentlemen were members of the transformer
8 subcommittee at the time C-107 was approved in 1974?

9 In other words, does this document
10 refresh your recollection?

11 A. Yes. Yes, they were originally on the
12 committee and continued to be in 1976.

13 Q. Those were the three representatives of
14 the Electric Light Utility Group on the C-107
15 Committee?

16 A. Correct. Electric Light & Power group
17 or board.

18 Q. Okay.

19 MR. SMITH: Can I ask for a
20 clarification? When you said all of these people,
21 were you referring to the three?

22 MR. GRANOFF: Three. Yes.

23 MR. SMITH: I see. Okay.

24 Q. (BY MR. GRANOFF) There's one other name
25 that's of particular interest to me. That's the name

1 of W.A. Thue, if I'm pronouncing it correctly.

2 Do you see that?

3 A. Yes, I see it.

4 Q. Do you know a gentlemen from Florida
5 Power & Light known as William Thue?

6 A. I don't recall that name.

7 Q. Were persons added to the transformer
8 subcommittee after C-107 was adopted in January 1974?

9 A. I cannot speak -- Well, Let me think
10 back here. There were people added to the committee
11 through the two or three year period. But I don't
12 recall just when they were added, at what point in
13 time.

14 Q. As of March 1976, were you still
15 chairman of the committee?

16 A. No. I was replaced, if I remember
17 correctly, either late January or early February of
18 that year.

19 Q. Okay. We're close.

20 But at that point, you feel as though
21 that your duties had been assumed by someone else?

22 A. Yes.

23 Q. March of 1976 --

24 A. -- You asked me earlier who replaced
25 me. I recall now. No one really replaced me so much

1 as Mr. Willmore from the NEMA staff replaced me and
2 Mr. Salazar. The two of us were no longer involved.
3 So he acted as general chairman.

4 Q. The attendance roster, if you would turn
5 now to Bates Stamp 147043, reflects companies
6 represented -- individuals and the companies
7 represented.

8 Again, Mr. Thue's, W.A. Thue's, name is
9 reflecting that he represented Florida Power &
10 Light.

11 A. Yes.

12 Q. Do you have any recollection as to
13 whether either Mr. Thue or any member of Florida
14 Power & Light was on the C-107 transformer
15 subcommittee at any time from 1971 until C-107 was
16 adopted in January of 1974?

17 A. I do not.

18 Q. Now, the fourth name down on the
19 attendance roster is J.J. Cawley representing,
20 appears to be, Edison Electric Institute.

21 A. Uh-huh.

22 Q. Correct?

23 A. Yes. I see that.

24 Q. Okay. I'm sorry.

25 A. Yes.

1 Q. Who is -- Who was Edison Electric
2 Institute?

3 A. As I understand it, that's another
4 industry group that consists of equipment
5 manufacturers, appliance manufacturers. That's about
6 it really. By equipment, I'm talking about electric
7 equipment like transformers and capacitors and
8 electric switches and the like. And appliance
9 manufacturers includes manufacturers of washing
10 machine, electric appliances.

11 Q. Do you believe utilities were part of
12 this trade group, Edison Electric Institute?

13 A. I don't recall them as being
14 represented.

15 Q. And I think you indicated earlier that
16 one of the gentlemen from the electric utility
17 group -- I'd like to get the name so let's withdraw
18 the question and give me a second.

19 I think you testified earlier that one
20 of the representatives, whether it be Mr. Lengefeld,
21 Mr. Onishi or Mr. Cawley, of the electric
22 representatives on the C-107 were employed by common
23 Commonwealth Edison. And the roster seems to
24 indicate that Mr. Onishi was.

25 A. That was the one.

1 Q. Employed by Commonwealth Edison?

2 A. Yes.

3 Q. Who is Commonwealth Edison?

4 A. That's a utility. As I understand it,
5 it's in the northeast somewhere. I associated them
6 with part of the midwest. Ohio, up in there.

7 Q. Chicago area?

8 A. I don't know about Chicago. Just
9 generally up in the northeast of here.

10 Q. Fair enough. Mr. Sloat, did you know
11 him, sir?

12 A. Yes.

13 Q. He was employed by Westinghouse
14 Electric; is that correct?

15 A. That is correct.

16 Q. And what was his duties, if you know,
17 with Westinghouse?

18 A. Well, I don't know that I can describe
19 his official duties. To me, he represented the most
20 knowledgeable person in Westinghouse regarding
21 transformer design and manufacturer.

22 Q. Did you serve -- Did you serve on any
23 NEMA committees or subcommittees?

24 A. No.

25 Q. I'd like for you to turn to Bates Stamp

1 147041, Item 8, Transformer Rebuilding & Service
2 Testing.

3 A. I see it.

4 Q. Okay. Would you take a moment and read
5 that section to yourself and I'll -- just let me know
6 and I'll ask you a question or two.

7 A. I have read it.

8 Q. Okay. What is your understanding as to
9 the nature of the language contained within Item 8?
10 In other words, the question that is being asked
11 within Item 8.

12 MR. SMITH: Object to the form of
13 that question as being vague.

14 MR. DAVIDSON: Mr. Granoff, I'd
15 like to state, on the record, too, that is not a
16 document produced by Monsanto or by Mr. Papageorge,
17 that he's ever seen before, and he is not an
18 addressee on, and you are asking him to comment on
19 something that you just as well might ask anybody at
20 the table.

21 MR. GRANOFF: This table?

22 Q. (BY MR. GRANOFF) Well, as best you can
23 understand the language contained within No. 8, what
24 is the nature of the question that was being asked?

25 MR. SMITH: Same objection.

1 Q. (BY MR. GRANOFF) Based upon your
2 experience, as the chairman of the C-107 Committee
3 from 1971 through approximately January or February
4 1976, and your involvement with the transformer and
5 capacitor subcommittees.

6 A. Well, this reflects a concern that was
7 expressed at the committee during its work sessions
8 as to how does a repair shop recognize that the unit
9 that arrives for servicing contains PCBs or not. And
10 the concern also is how do we communicate to these
11 repair shops the need for proper handling to make
12 sure that the PCB askarels are not mishandled and
13 lost to the environment.

14 Q. Okay. Your testimony just seconds ago
15 was to the effect that the questions or question that
16 was raised in Item 8 had been previously raised in
17 the working groups subcommittees.

18 A. Yes.

19 Q. Approximately what was the time frame in
20 which that issue had been raised? And again, I ask
21 you to look at it to the extent that the
22 organizational meeting was September of 1971 and the
23 C-107 was adopted January '74. So if you can try to
24 use that as a time frame.

25 A. Yes.

1 MR. SMITH: I have to object
2 because it's not clear what the question is as you're
3 phrasing it.

4 Q. (BY MR. GRANOFF) Okay. Do you
5 understand my question, sir?

6 A. I think I do. You asked me when this
7 need to identify PCB type unit was discussed?

8 Q. For purposes of the repair shops.

9 A. The repair shops. It came about in a
10 discussion, oh, sometime during 19 -- Let me think
11 back -- '73, when the group was deliberating and
12 worked on its draft document.

13 Q. When you say the group, the transformer
14 subcommittee?

15 A. Transformer.

16 Q. Working subcommittee?

17 A. Working group.

18 Q. Do you recollect the time frame or the
19 circumstances in which this was raised? If you can
20 identify an individual or groups that seemed to raise
21 it or the framework in which the issue was
22 approached?

23 A. I don't associate it with any particular
24 person. It came up during the discussion as how does
25 the shop know the units that are arriving for service

1 fit these documents and needs this special
2 attention.

3 The group discussed ways to communicate
4 this. And as I recall, they left it up to the owner
5 of the unit when applying for this service to
6 communicate to the service shop what kind of unit
7 it's sending. So the responsible rested with the
8 owner of the equipment.

9 Q. Was the issue approached from the
10 standpoint that utilities themselves owned
11 transformers and that utilities themselves have their
12 own equipment repair shops?

13 MR. SMITH: Objection. Leading.

14 A. It wasn't limited to their own shops.
15 It was limited to any transformer, any shop.

16 Q. (BY MR. GRANOFF) What happened to this
17 issue as it was -- as you recollect it being
18 addressed in 1973?

19 A. It was decided amongst the group to
20 leave the responsibility for notification to the --

21 Q. I'm sorry.

22 A. -- to the owner of the transformer.

23 Q. Was the the conclusion of the
24 subcommittee as to leaving the information to the
25 owner of the units, was that then placed into the

1 contents of the C-107 as approved in
2 January '74?

3 A. I don't think it was placed in the
4 wording of the document, no.

5 Q. So it was an issue that was discussed
6 but not then addressed specifically in the final and
7 approved version of C-107, correct?

8 A. That's right.

9 Q. Now, the language of this question as
10 it's framed in Item 8, I'll read it verbatim, if you
11 don't mind.

12 How do you test (simply) to determine
13 the presence of askarels in oil-filled transformers
14 returned to service shops for repairs?

15 Do you recollect, in the 1973
16 discussions, that that was the question that was
17 framed at that time?

18 In other words, the question that
19 appears in Item 8, in the 1976 document, was that the
20 question that was, in substance, raised in 1973?

21 A. The question discussed in '73 did not
22 limit itself just to the testing of the oil. It was
23 much broader than that. It was, how does the shop
24 know the unit contains oil? It doesn't say, did it
25 test the oil or does it talk to the owner or did it

1 look at the information that's on the plate on the
2 unit.

3 It did not address the specifics of how
4 do you identify. This particular sentence gets very
5 specific regarding how do you test the oil for
6 presence of askarels.

7 Q. Yes.

8 A. Which is, and as far as I can recall,
9 going back to 1973, a new question that was not
10 raised in 1973.

11 Q. I'm a little bit confused. Maybe it's
12 because it's been a long day. But what then -- I
13 don't want be redundant. Just for my purposes, if
14 you can clarify, what was the question raised in
15 1973, which you recollect?

16 A. The question was, how does the service
17 shop, whether it be on site and owned by the utility
18 or the owner of the transformer or a contract shop or
19 one supplied by the builder of the units like a G.E.
20 or Westinghouse, how do they know that the unit that
21 is going to be worked on contains askarels?

22 Q. And were they -- Was the concern as to
23 mineral oil design transformers?

24 In other words, were they concerned --
25 Strike, withdraw.

1 Was the concern of the subcommittee that
2 there were mineral oil designed transformers that had
3 askarel or PCBs in it?

4 MR. SMITH: Objection. Leading.

5 A. That was only part of the concern. They
6 had addressed all transformers that had some PCBs in
7 them, whether a little bit or a lot.

8 MR. GRANOFF: Excuse me. I'll tell
9 you, I'm getting a little tired.

10 (Discussion was held off the record.)

11 (Deposition stood in recess.)

12 IT IS FURTHER STIPULATED AND AGREED BETWEEN
13 COUNSEL THAT THE DEPOSITION MAY BE SIGNED
14 BEFORE ANY NOTARY PUBLIC.

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DEPOSITION CORRECTION SHEET

WILLIAM B. PAPAGEORGE

In re: Case No. 85-0571-CIV-SPELLMAN
In the United States District Court
Southern District of Florida

Upon reading the deposition and before subscribing thereto,
the deponent indicated the following changes should be made:

	<u>Page No.</u>	<u>Line No.</u>	<u>Original changed to read/reason</u>
1)	10	12	Monsanto was the primary manufacturer of PCBs in the United States from 1934 to mid-1977. (Incorrect dates)
2)	20	21	--- like lighter fluid (Incorrect word)
3)	21	11	--- Aroclor 1260 (Incorrect spelling)
4)	33	17	--- EPA in Athens, Georgia and Duluth (Spelling)
5)	34	10	--- Dr. Peakall (Spelling)
6)	34	11	--- Dr. Peakall... (Spelling)
7)	60	9	--- to little concerns --- (Spelling)
8)	71	10	With rice oil --- (Incorrect word)
9)	79	16	From manufactures of electrical equipment containing askarel (Incomplete sentence)
10)	125	9	Pittsburgh, --- (Incorrect city)
11)	126	3	---, the WARF Institute (Spelling)
12)	130	21	with a poor liquid, --- (Incorrect word)
13)			
14)			
15)			

William B Papageorge
Deponent

Subscribed to before me this 16th day of March 1989

JOSEPHINE S. NIBLOCK
Notary Public - State of Missouri
St. Louis County
My Commission Expires January 15, 1991

Josephine S. Niblock
Notary Public
County of St. Louis
State of Missouri

My Commission expires:

ORIGINAL

1 I, WILLIAM B. PAPAGEORGE, do hereby state
 2 that I have read the foregoing questions and answers
 3 appearing in this transcript of my deposition Page 6
 4 REPLACE through and including Page 171; that this is
 5 a true and accurate (corrected) report of said
 6 answers given in response to the questions appearing
 7 herein.

8 William B Papageorge

9 WILLIAM B. PAPAGEORGE

10
 11 C E R T I F I C A T E:

12 STATE OF MISSOURI)
 13) SS
 14 COUNTY OF ST. LOUIS)

15 Before me personally appeared
 16 WILLIAM B. PAPAGEORGE to me known to be the person
 17 described in and who executed the foregoing
 18 instrument and acknowledged to and before me that he
 19 executed the said instrument in the capacity and for
 20 the purpose therein expressed.

21 WITNESS my hand and official seal
 22 this 16th day of March, 1990.

23 JOSEPHINE S. NIBLOCK
 24 Notary Public - State of Missouri
 St. Louis County
 My Commission Expires January 15, 1991
 25 My Commission Expires:

NOTARY PUBLIC

Josephine S. Niblock

CLAYTON REPORTING COMPANY, LTD.

(3 1 4) 7 2 7 - 6 5 0 2

NOTARIAL CERTIFICATE

1
2 STATE OF MISSOURI)
3) SS
4 COUNTY OF MARION)

5 I, CINDY KEAST PLOWMAN, a General
6 Shorthand Reporter and Notary Public in and for the
7 County of Marion, State of Missouri, duly
8 commissioned, qualified and authorized to administer
9 oaths and to take and certify depositions, do certify
10 that pursuant to notice and subpoena in the civil
11 cause now pending and undetermined in the United
12 States District Court for the Southern District of
13 Florida, entitled UNITED STATES OF AMERICA is the
14 Plaintiff, PEPPER'S STEEL and ALLOYS, INC., FLORIDA
15 POWER & LIGHT COMPANY, NORTON BLOOM, THOMAS A.
16 CURTIS, WILLIAM PAYNE, FLORA B. PAYNE and LOWELL
17 PAYNE are the Defendants, PEPPER'S STEEL and ALLOYS
18 INC., and NORTON BLOOM are the Cross-Plaintiffs,
19 FLORIDA POWER & LIGHT COMPANY is the Cross-Defendant,
20 FLORIDA POWER & LIGHT COMPANY is the Cross-Plaintiff
21 and Third Party Plaintiff and PEPPER'S STEEL AND
22 ALLOYS, INC., et al., are the Cross-Defendants and
23 UNITED STATES FIDELITY AND GUARANTEE COMPANY, et al.,
24 are the Third Party Defendants was attended at 9:00
25 a.m. on the 21st day of February, 1990.

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(314) 727-6503

1 Keith, Mack, Lewis, Allison &
2 Cohen, 111 N.E. First Street, Suite 500, Miami,
3 Florida, By: Mr. Loren S. Granoff, Attorneys for
4 Pepper's and Bloom.

5 Peterson & Bernard, 707 Southeast
6 Third Avenue, P.O. Drawer 14126, Fort Lauderdale,
7 Florida, By: Mr. Donald J. Fann, Attorneys for
8 Pepper's and Bloom.

9 Coll, Davidson, Carter, Smith,
10 Salter & Barkett, P.A., 3200 Miami Center - 100
11 Chopin Plaza, Miami, Florida, By: Mr. Richard C.
12 Smith, Attorneys for Florida Power & Light Company.

13 Baker & McKenzie, 701 Brickell
14 Avenue, #1600, Miami, Florida, By: Mr. Landon K.
15 Clayman, Attorneys for Home Insurance Company.

16 Thornton, David, Murray, Richard &
17 Davis, P.A., 2950 S.W. 27th Avenue, Suite 100, Miami,
18 Florida, By: Ms. Sheryl E. Berkowitz, Attorneys for
19 Home Insurance Company.

20 Rivkin, Radler, Dunne & Bayh, EAB
21 Plaza, Uniondale, New York 11556-0111, By: Ms.
22 Sarah A. Ramage, Attorneys for USF&G.

23 Mendes & Mount, Three Park Avenue,
24 New York, New York, By: Ms. Elizabeth A. Nelson,
25 Attorneys for Lloyd's.

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WATER_PCB-SD0000060372

1 Smith, Helms, Mulliss & Moore, 300
2 N. Greene Street, Suite 1400, P.O. Box 21927,
3 Greensboro, North Carolina, Attorneys for deponent
4 and Monsanto.

5 The witness, WILLIAM B. PAPAGEORGE,
6 being of sound mind, came before me, was duly sworn
7 by me to testify the truth, the whole truth and
8 nothing but the truth in the case aforesaid,
9 thereupon testified as is shown in the foregoing
10 transcript, said testimony being by me reported in
11 stenotypy and caused to be transcribed into
12 typewriting under my supervision; that the foregoing
13 172 pages correctly set forth the testimony of the
14 aforementioned witness, WILLIAM B. PAPAGEORGE,
15 together with the questions propounded by counsel,
16 and remarks and objections of counsel thereto, and is
17 in all respects a full, true, correct, and complete
18 transcript of the questions propounded to and the
19 answers given by said witness; that the said
20 testimony, so transcribed, was subscribed to by him
21 in the County of St. Louis, State of Missouri, on the
22 21st day of February, 1990 A.D.

23
24
25
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(314) 727-6503

1 I further certify that I am not of
2 counsel nor attorney for either of the parties to
3 said suit, nor related to, nor interested in any of
4 the parties or their attorneys.

5 WITNESS my hand and notarial seal
6 at St. Louis, Missouri, this _____ day of _____,
7 1990 A.D.

8 My Commission Expires: March 20, 1993
9

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GENERAL SHORTHAND REPORTER and
NOTARY PUBLIC in and for the County
of Marion, State of Missouri.

CLAYTON REPORTING COMPANY, LTD.

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1 as Mr. Willmore from the NEMA staff replaced me and
2 Mr. Salazar. The two of us were no longer involved.
3 So he acted as general chairman.

4 Q. The attendance roster, if you would turn
5 now to Bates Stamp 147043, reflects companies
6 represented -- individuals and the companies
7 represented.

8 Again, Mr. Thue's, W.A. Thue's, name is
9 reflecting that he represented Florida Power &
10 Light.

11 A. Yes.

12 Q. Do you have any recollection as to
13 whether either Mr. Thue or any member of Florida
14 Power & Light was on the C-107 transformer
15 subcommittee at any time from 1971 until C-107 was
16 adopted in January of 1974?

17 A. I do not.

18 Q. Now, the fourth name down on the
19 attendance roster is J.J. Cawley representing,
20 appears to be, Edison Electric Institute.

21 A. Uh-huh.

22 Q. Correct?

23 A. Yes. I see that.

24 Q. Okay. I'm sorry.

25 A. Yes.

1 Q. Who is -- Who was Edison Electric
2 Institute?

3 A. As I understand it, that's another
4 industry group that consists of equipment
5 manufacturers, appliance manufacturers. That's about
6 it really. By equipment, I'm talking about electric
7 equipment like transformers and capacitors and
8 electric switches and the like. And appliance
9 manufacturers includes manufacturers of washing
10 machine, electric appliances.

11 Q. Do you believe utilities were part of
12 this trade group, Edison Electric Institute?

13 A. I don't recall them as being
14 represented.

15 Q. And I think you indicated earlier that
16 one of the gentlemen from the electric utility
17 group -- I'd like to get the name so let's withdraw
18 the question and give me a second.

19 I think you testified earlier that one
20 of the representatives, whether it be Mr. Lengefeld,
21 Mr. Onishi or Mr. Cawley, of the electric
22 representatives on the C-107 were employed by common
23 Commonwealth Edison. And the roster seems to
24 indicate that Mr. Onishi was.

25 A. That was the one.

1 Q. Employed by Commonwealth Edison?

2 A. Yes.

3 Q. Who is Commonwealth Edison?

4 A. That's a utility. As I understand it,
5 it's in the northeast somewhere. I associated them
6 with part of the midwest. Ohio, up in there.

7 Q. Chicago area?

8 A. I don't know about Chicago. Just
9 generally up in the northeast of here.

10 Q. Fair enough. Mr. Sloat, did you know
11 him, sir?

12 A. Yes.

13 Q. He was employed by Westinghouse
14 Electric; is that correct?

15 A. That is correct.

16 Q. And what was his duties, if you know,
17 with Westinghouse?

18 A. Well, I don't know that I can describe
19 his official duties. To me, he represented the most
20 knowledgeable person in Westinghouse regarding
21 transformer design and manufacturer.

22 Q. Did you serve -- Did you serve on any
23 NEMA committees or subcommittees?

24 A. No.

25 Q. I'd like for you to turn to Bates Stamp

1 147041, Item 8, Transformer Rebuilding & Service
2 Testing.

3 A. I see it.

4 Q. Okay. Would you take a moment and read
5 that section to yourself and I'll -- just let me know
6 and I'll ask you a question or two.

7 A. I have read it.

8 Q. Okay. What is your understanding as to
9 the nature of the language contained within Item 8?
10 In other words, the question that is being asked
11 within Item 8.

12 MR. SMITH: Object to the form of
13 that question as being vague.

14 MR. DAVIDSON: Mr. Granoff, I'd
15 like to state, on the record, too, that is not a
16 document produced by Monsanto or by Mr. Papageorge,
17 that he's ever seen before, and he is not an
18 addressee on, and you are asking him to comment on
19 something that you just as well might ask anybody at
20 the table.

21 MR. GRANOFF: This table?

22 Q. (BY MR. GRANOFF) Well, as best you can
23 understand the language contained within No. 8, what
24 is the nature of the question that was being asked?

25 MR. SMITH: Same objection.

1 Q. (BY MR. GRANOFF) Based upon your
2 experience, as the chairman of the C-107 Committee
3 from 1971 through approximately January or February
4 1976, and your involvement with the transformer and
5 capacitor subcommittees.

6 A. Well, this reflects a concern that was
7 expressed at the committee during its work sessions
8 as to how does a repair shop recognize that the unit
9 that arrives for servicing contains PCBs or not. And
10 the concern also is how do we communicate to these
11 repair shops the need for proper handling to make
12 sure that the PCB askarels are not mishandled and
13 lost to the environment.

14 Q. Okay. Your testimony just seconds ago
15 was to the effect that the questions or question that
16 was raised in Item 8 had been previously raised in
17 the working groups subcommittees.

18 A. Yes.

19 Q. Approximately what was the time frame in
20 which that issue had been raised? And again, I ask
21 you to look at it to the extent that the
22 organizational meeting was September of 1971 and the
23 C-107 was adopted January '74. So if you can try to
24 use that as a time frame.

25 A. Yes.

1 MR. SMITH: I have to object
2 because it's not clear what the question is as you're
3 phrasing it.

4 Q. (BY MR. GRANOFF) Okay. Do you
5 understand my question, sir?

6 A. I think I do. You asked me when this
7 need to identify PCB type unit was discussed?

8 Q. For purposes of the repair shops.

9 A. The repair shops. It came about in a
10 discussion, oh, sometime during 19 -- Let me think
11 back -- '73, when the group was deliberating and
12 worked on its draft document.

13 Q. When you say the group, the transformer
14 subcommittee?

15 A. Transformer.

16 Q. Working subcommittee?

17 A. Working group.

18 Q. Do you recollect the time frame or the
19 circumstances in which this was raised? If you can
20 identify an individual or groups that seemed to raise
21 it or the framework in which the issue was
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23 A. I don't associate it with any particular
24 person. It came up during the discussion as how does
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9 Q. Was the issue approached from the
10 standpoint that utilities themselves owned
11 transformers and that utilities themselves have their
12 own equipment repair shops?

13 MR. SMITH: Objection. Leading.

14 A. It wasn't limited to their own shops.
15 It was limited to any transformer, any shop.

16 Q. (BY MR. GRANOFF) What happened to this
17 issue as it was -- as you recollect it being
18 addressed in 1973?

19 A. It was decided amongst the group to
20 leave the responsibility for notification to the --

21 Q. I'm sorry.

22 A. -- to the owner of the transformer.

23 Q. Was the the conclusion of the
24 subcommittee as to leaving the information to the
25 owner of the units, was that then placed into the

1 contents of the C-107 as approved in
2 January '74?

3 A. I don't think it was placed in the
4 wording of the document, no.

5 Q. So it was an issue that was discussed
6 but not then addressed specifically in the final and
7 approved version of C-107, correct?

8 A. That's right.

9 Q. Now, the language of this question as
10 it's framed in Item 8, I'll read it verbatim, if you
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12 How do you test (simply) to determine
13 the presence of askarels in oil-filled transformers
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15 Do you recollect, in the 1973
16 discussions, that that was the question that was
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18 In other words, the question that
19 appears in Item 8, in the 1976 document, was that the
20 question that was, in substance, raised in 1973?

21 A. The question discussed in '73 did not
22 limit itself just to the testing of the oil. It was
23 much broader than that. It was, how does the shop
24 know the unit contains oil? It doesn't say, did it
25 test the oil or does it talk to the owner or did it

1 look at the information that's on the plate on the
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3 It did not address the specifics of how
4 do you identify. This particular sentence gets very
5 specific regarding how do you test the oil for
6 presence of askarels.

7 Q. Yes.

8 A. Which is, and as far as I can recall,
9 going back to 1973, a new question that was not
10 raised in 1973.

11 Q. I'm a little bit confused. Maybe it's
12 because it's been a long day. But what then -- I
13 don't want be redundant. Just for my purposes, if
14 you can clarify, what was the question raised in
15 1973, which you recollect?

16 A. The question was, how does the service
17 shop, whether it be on site and owned by the utility
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21 is going to be worked on contains askarels?

22 Q. And were they -- Was the concern as to
23 mineral oil design transformers?

24 In other words, were they concerned --
25 Strike, withdraw.

1 Was the concern of the subcommittee that
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3 askarel or PCBs in it?

4 MR. SMITH: Objection. Leading.

5 A. That was only part of the concern. They
6 had addressed all transformers that had some PCBs in
7 them, whether a little bit or a lot.

8 MR. GRANOFF: Excuse me. I'll tell
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10 (Discussion was held off the record.)

11 (Deposition stood in recess.)

12 IT IS FURTHER STIPULATED AND AGREED BETWEEN
13 COUNSEL THAT THE DEPOSITION MAY BE SIGNED
14 BEFORE ANY NOTARY PUBLIC.

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ORIGINAL

1 I, WILLIAM B. PAPAGEORGE, do hereby state
 2 that I have read the foregoing questions and answers
 3 appearing in this transcript of my deposition Page 6
 4 REPLACE through and including Page 171; that this is
 5 a true and accurate (corrected) report of said
 6 answers given in response to the questions appearing
 7 herein.

William B Papageorge

WILLIAM B. PAPAGEORGE

C E R T I F I C A T E:

12 STATE OF MISSOURI)
 13) SS
 14 COUNTY OF ST. LOUIS)

15 Before me personally appeared
 16 WILLIAM B. PAPAGEORGE to me known to be the person
 17 described in and who executed the foregoing
 18 instrument and acknowledged to and before me that he
 19 executed the said instrument in the capacity and for
 20 the purpose therein expressed.

21 WITNESS my hand and official seal
 22 this 16th day of March, 1990.

23 **JOSEPHINE S. NIBLOCK**
 24 **Notary Public - State of Missouri**
St. Louis County NOTARY PUBLIC
My Commission Expires January 15, 1991
 25 My Commission Expires:

Josephine S. Niblock

CLAYTON REPORTING COMPANY, LTD.

(314) 727-6503

NOTARIAL CERTIFICATE

1
2 STATE OF MISSOURI)
3) SS
4 COUNTY OF MARION)

5 I, CINDY KEAST PLOWMAN, a General
6 Shorthand Reporter and Notary Public in and for the
7 County of Marion, State of Missouri, duly
8 commissioned, qualified and authorized to administer
9 oaths and to take and certify depositions, do certify
10 that pursuant to notice and subpoena in the civil
11 cause now pending and undetermined in the United
12 States District Court for the Southern District of
13 Florida, entitled UNITED STATES OF AMERICA is the
14 Plaintiff, PEPPER'S STEEL and ALLOYS, INC., FLORIDA
15 POWER & LIGHT COMPANY, NORTON BLOOM, THOMAS A.
16 CURTIS, WILLIAM PAYNE, FLORA B. PAYNE and LOWELL
17 PAYNE are the Defendants, PEPPER'S STEEL and ALLOYS
18 INC., and NORTON BLOOM are the Cross-Plaintiffs,
19 FLORIDA POWER & LIGHT COMPANY is the Cross-Defendant,
20 FLORIDA POWER & LIGHT COMPANY is the Cross-Plaintiff
21 and Third Party Plaintiff and PEPPER'S STEEL AND
22 ALLOYS, INC., et al., are the Cross-Defendants and
23 UNITED STATES FIDELITY AND GUARANTEE COMPANY, et al.,
24 are the Third Party Defendants was attended at 9:00
25 a.m. on the 21st day of February, 1990.

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1 Keith, Mack, Lewis, Allison &
2 Cohen, 111 N.E. First Street, Suite 500, Miami,
3 Florida, By: Mr. Loren S. Granoff, Attorneys for
4 Pepper's and Bloom.

5 Peterson & Bernard, 707 Southeast
6 Third Avenue, P.O. Drawer 14126, Fort Lauderdale,
7 Florida, By: Mr. Donald J. Fann, Attorneys for
8 Pepper's and Bloom.

9 Coll, Davidson, Carter, Smith,
10 Salter & Barkett, P.A., 3200 Miami Center - 100
11 Chopin Plaza, Miami, Florida, By: Mr. Richard C.
12 Smith, Attorneys for Florida Power & Light Company.

13 Baker & McKenzie, 701 Brickell
14 Avenue, #1600, Miami, Flroida, By: Mr. Landon K.
15 Clayman, Attorneys for Home Insurance Company.

16 Thornton, David, Murray, Richard &
17 Davis, P.A., 2950 S.W. 27th Avenue, Suite 100, Miami,
18 Florida, By: Ms. Sheryl E. Berkowitz, Attorneys for
19 Home Insurance Company.

20 Rivkin, Radler, Dunne & Bayh, EAB
21 Plaza, Uniondale, New York 11556-0111, By: Ms.
22 Sarah A. Rumage, Attorneys for USF&G.

23 Mendes & Mount, Three Park Avenue,
24 New York, New York, By: Ms. Elizabeth A. Nelson,
25 Attorneys for Lloyd's.

1 Smith, Helms, Mulliss & Moore, 300
2 N. Greene Street, Suite 1400, P.O. Box 21927,
3 Greensboro, North Carolina, Attorneys for deponent
4 and Monsanto.

5 The witness, WILLIAM B. PAPAGEORGE,
6 being of sound mind, came before me, was duly sworn
7 by me to testify the truth, the whole truth and
8 nothing but the truth in the case aforesaid,
9 thereupon testified as is shown in the foregoing
10 transcript, said testimony being by me reported in
11 stenotypy and caused to be transcribed into
12 typewriting under my supervision; that the foregoing
13 172 pages correctly set forth the testimony of the
14 aforementioned witness, WILLIAM B. PAPAGEORGE,
15 together with the questions propounded by counsel,
16 and remarks and objections of counsel thereto, and is
17 in all respects a full, true, correct, and complete
18 transcript of the questions propounded to and the
19 answers given by said witness; that the said
20 testimony, so transcribed, was subscribed to by him
21 in the County of St. Louis, State of Missouri, on the
22 21st day of February, 1990 A.D.

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24
25
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WATER_PCB-SD0000060388

1 I further certify that I am not of
2 counsel nor attorney for either of the parties to
3 said suit, nor related to, nor interested in any of
4 the parties or their attorneys.

5 WITNESS my hand and notarial seal
6 at St. Louis, Missouri, this _____ day of _____,
7 1990 A.D.

8 My Commission Expires: March 20, 1993
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GENERAL SHORTHAND REPORTER and
NOTARY PUBLIC in and for the County
of Marion, State of Missouri.

CLAYTON REPORTING COMPANY, LTD.

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DEPOSITION CORRECTION SHEET

WILLIAM B. PAPAGEORGE

In re: Case No. 85-0571-CIV-SPELLMAN
In the United States District Court
Southern District of Florida

Upon reading the deposition and before subscribing thereto,
the deponent indicated the following changes should be made:

	<u>Page No.</u>	<u>Line No.</u>	<u>Original changed to read/reason</u>
1)	10	12	Monsanto was the primary manufacturer of PCBs in the United States from 1934 to mid-1977. (Incorrect dates)
2)	20	21	--- like lighter fluid (Incorrect word)
3)	21	11	--- Aroclor 1260 (Incorrect spelling)
4)	33	17	--- EPA in Athens, Georgia and Duluth (Spelling)
5)	34	10	--- Dr. Peakall (Spelling)
6)	34	11	--- Dr. Peakall... (Spelling)
7)	60	9	--- to little concerns --- (Spelling)
8)	71	10	with rice oil --- (Incorrect word)
9)	79	16	From manufactures of electrical equipment containing askarel (Incomplete sentence)
10)	125	9	Pittsburgh, --- (Incorrect city)
11)	126	3	---, the WARF Institute (Spelling)
12)	130	21	with a poor liquid, --- (Incorrect word)
13)			
14)			
15)			

William B. Papageorge
Deponent

Subscribed to before me this 16th day of March 1989

JOSEPHINE S. NIBLOCK
Notary Public - State of Missouri
St. Louis County
My Commission Expires January 15, 1991
My Commission expires:

Josephine S. Niblock
Notary Public
County of St. Louis
State of Missouri