

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

JOAN MAERTIN, Executrix of)
the Estate of Lothar Maertin,))
JOAN MAERTIN, individually)
and in her own right, et al.,)

v.)

Civil Action L-95-cv
02849 (JBS)

ARMSTRONG WORLD)
INDUSTRIES, INC.,)

Simandle, U.S.D.J.

v.)

Rosen, U.S.M.J.

MONSANTO COMPANY and)
AMERICAN MINERAL)
SPIRITS COMPANY.)

DEPOSITION OF CUMMING PATON

TAKEN ON BEHALF OF THE DEFENDANT/
ARMSTRONG WORLD INDUSTRIES, INC.

JUNE 25, 1998

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1	INDEX	
2	QUESTIONS BY:	PAGE NO.
3	Mr. Turet	4
4	Mr. O'Connor	159
5	INDEX OF EXHIBITS	
6	PATON NO.	DESCRIPTION PAGE MKD.
7	1	Bates MAE 053222-23 59
8	2	Bates MAE 053555-52 63
9	3	Bates PRR 045436-37 76
10	4	Bates MAE 059911 87
11	5	Bates MAE 023314-22 107
12	6	Bates MAE 033475-84 115
13	7	Bates MAE 034803-814 125
14	8	Bates MAE 059946-47 129
15	9	Bates MAE 059952 144
16	10	Bates MAE 054468-69 148
17	11	Bates MAE 054470-86 149
18	12	Bates MAE 054596 151
19	13	Bates MAE 058885 154
20	14	Bates MAE 021966-69 157
21	(Exhibits to be attached to original transcript only.)	
22		
23		
24		
25		

1	A P P E A R A N C E S		Page 3
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Page 2

1 UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

2

3 JOAN MAERTIN, Executrix of)
the Estate of Lothar Maertin,)
4 JOAN MAERTIN, individually)
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5 v.) Civil Action L-95-cv
6 ARMSTRONG WORLD) 02849 (JBS)
7 INDUSTRIES, INC.,) Simandle, U.S.D.J.
8 v.) Rosen, U.S.M.J.
9 Monsanto Company and)
10 AMERICAN MINERAL)
SPIRITS COMPANY.)

11

12 DEPOSITION OF CUMMING PATON, produced, sworn and
13 examined on the 25th day of June, 1998, between the hours
14 of eight o'clock in the forenoon and six o'clock in the
15 afternoon of that day, at the offices of The Cheshire Inn
16 & Lodge, 6306 Clayton Road, Clayton, Missouri, before
17 TAMMIE A. ST. ARBOR, Certified Shorthand Reporter and
18 Notary Public within and for the States of Missouri and
19 Illinois, in a certain cause now pending in the United
20 States District Court for the District of New Jersey,
21 wherein JOAN MAERTIN, Executrix of the Estate of Lothar
22 Maertin, JOAN MAERTIN, individually and in her own right,
23 et al. are Plaintiffs and Armstrong World Industries,
24 Inc., Monsanto Company and American Mineral Spirits
25 Company are Defendants.

Page 4

1 IT IS HEREBY STIPULATED AND AGREED by and between
2 counsel for the Plaintiffs and counsel for the Defendants
3 that this deposition may be taken in shorthand by
4 Tammie A. St. Arbor, CSR and notary public, and afterwards
5 transcribed into printing, and signature by the witness
6 expressly reserved.

7 * * * * *

8 CUMMING PATON,
9 of lawful age, produced, sworn, and examined on behalf of
10 Defendant/Armstrong World Industries, Inc., deposes and
11 says:

12 EXAMINATION

13 QUESTIONS BY MR. TURET:

14 Q. Good morning, Dr. Paton, it is Dr. Paton as
15 opposed to Mister?

16 A. I'd prefer if you didn't use Doctor.

17 Q. Mr. Paton, my name is Craig Turet. We met just
18 a few moments ago. I'm the attorney here representing
19 Armstrong World Industries, Inc. which as I trust you know
20 is a defendant in this case. Have you been deposed before
21 today?

22 A. Yes.

23 Q. Okay. On how many occasions approximately?

24 A. I'm not sure.

25 Q. More than five?

Page 5

1 A. Possibly. I don't keep count.
 2 Q. Okay. Then I'm sure you're familiar with what
 3 you're to experience today. But nevertheless, I'm going
 4 to ask you a series of questions, you'll be expected to
 5 answer them as completely as you can. If you don't hear
 6 any question or understand it, by all means, let me know.
 7 I'll be happy to repeat it or rephrase it. But if you do
 8 answer it, that will indicate that you both heard and
 9 understood it. Is that acceptable?
 10 A. Yes.
 11 Q. Of course, when I'm done, the ladies and
 12 gentlemen to my left will also have an opportunity to ask
 13 you some questions. Now, Mr. Paton, you understand that
 14 your testimony today is being transcribed by the court
 15 reporter to my right, it's being taken down in writing?
 16 A. Yes.
 17 Q. Okay. And you understand that if at the time of
 18 trial in this case, for any reason you're not available,
 19 your testimony from today could be introduced just as if
 20 you were there live?
 21 A. I guess.
 22 Q. And also, if you need to take a break for any
 23 reason, just let me know. We'll be happy to accommodate
 24 you as long as there's not a question outstanding. If so,
 25 you need to answer the question first and then we can take

Page 6

1 a break. Okay?
 2 A. Okay.
 3 Q. Perhaps we could just start, Mr. Paton, if you
 4 could give us your educational background.
 5 A. You mean college education I take it, right?
 6 Q. Your formal education from college on.
 7 A. I attended the University of Aberdeen in
 8 Scotland, graduated with a BSC in chemistry in 1995.
 9 Q. 1995?
 10 A. Sorry, 1955. My apologies. Then I did a
 11 doctorate also at the University of Aberdeen and graduated
 12 with a PhD in chemistry in 1959.
 13 Q. Did you have to do a doctoral dissertation or
 14 thesis as part of that program?
 15 A. Yes.
 16 Q. What was that in?
 17 A. It would have been in what they call polymer,
 18 P-O-L-Y-M-E-R, chemistry.
 19 Q. And had you worked full time before you got your
 20 PhD?
 21 A. No.
 22 Q. Did you go to work full time after you got your
 23 PhD?
 24 A. Yes.
 25 Q. And with whom did you start your employment?

Page 7

1 A. I started my employment with Monsanto Company.
 2 Q. And when was that?
 3 A. That would have been sometime in early 1959 I
 4 guess.
 5 Q. Okay. What position did you first assume with
 6 Monsanto?
 7 A. I think it was a research chemist first. Yeah,
 8 research chemist I believe.
 9 Q. And did you have a particular division that you
 10 were assigned to as a research chemist?
 11 A. It was, the division would have been in the
 12 research department of Monsanto's U.K. operations.
 13 Q. Where were you based at the time?
 14 A. I was based in Newport and Whales.
 15 Q. To your knowledge, did the Newport facility of
 16 Monsanto manufacture PCBs back in 1959?
 17 A. I don't think so. But I could be wrong on
 18 that. I just can't remember.
 19 Q. By the way, just by way of clarification, you
 20 understand that if I refer to PCBs, I'm referring to
 21 polychlorinated biphenyls?
 22 A. Now that you've told me, that's fine.
 23 Q. Just to make things shorter in the transcript,
 24 if I refer to Armstrong rather than stating Armstrong
 25 World Industries, will you understand who I'm referring

Page 8

1 to?
 2 A. Fine with me.
 3 Q. And also, there's a defendant in this case,
 4 third party defendant named American Mineral Spirits
 5 Company that sometimes goes by the acronym AMSCO. So for
 6 purposes of today, if you hear me refer to AMSCO, that's
 7 what I'm referring to.
 8 A. That's fine.
 9 Q. Meanwhile, back in Newport, did you have a
 10 particular substantive specialty as a research chemist?
 11 A. As I recall, I didn't work on polymer latices
 12 which would have been, which would have been to some
 13 extent, would have used some of the experience of when I
 14 did my PhD.
 15 Q. Did you say --
 16 A. Polymer latices.
 17 Q. Did your work in that regard include work on PCB
 18 products?
 19 A. No.
 20 Q. How long did you remain as a research chemist at
 21 the Newport, Whales facility?
 22 A. I remained with Monsanto for I think a total,
 23 sometime in 1962.
 24 Q. And you were a research chemist through to the
 25 1959 to 1962 period?

Page 5 - Page 8

Page 9

1 A. Probably. I can't remember the exact titles,
 2 but, yes, pretty much the same title.
 3 Q. Where did you go in 1962?
 4 A. Then joined Geigy Company in Manchester, New
 5 England. I was head of their laboratory for customer
 6 technical service application development, worked on
 7 additives for plastics.
 8 Q. And were you based in Manchester, England?
 9 A. Yes.
 10 Q. Did any of your work with that company include
 11 work with PCB products?
 12 A. I very much left it. I can't recall anything.
 13 Q. How long did you remain with that company?
 14 A. Two years.
 15 Q. So until 1964 approximately?
 16 A. Yes.
 17 Q. Okay. And what position with that company did
 18 you assume in 1964?
 19 A. I then was hired by a company called Diamond
 20 Alkali. And they had me come to Painesville, Ohio.
 21 Q. Okay. And what was your position with Diamond
 22 Alkali?
 23 A. I was in a position dealing with customer
 24 technical service on a new product that they were, they
 25 had just commercialized.

Page 10

1 Q. And what product was that?
 2 A. It was a group of products known as
 3 polysulfides, P-O-L-Y-S-U-L-F-Y-D-E-S.
 4 Q. And as a customer technical service person, what
 5 was the gist of your responsibilities?
 6 A. Well, I would have been responsible for working
 7 on applications for these products, formulations for them,
 8 and then visiting customers that were potential buyers of
 9 the polysulfides.
 10 Q. And is that similar to the position that, to the
 11 responsibilities that you held while with the Geigy
 12 Company?
 13 A. Some would have been similar, others would have
 14 been different.
 15 Q. Okay. How long did you remain as a customer
 16 technical service person with Diamond Alkali?
 17 A. For two years.
 18 Q. And where did you go in 1966?
 19 A. Then I rejoined Monsanto Company in St. Louis.
 20 Q. When during 1966, was it early in the year, late
 21 in the year?
 22 A. I think it was the latter part of the year as I
 23 recall.
 24 Q. And what position did you hold with Monsanto?
 25 A. When I came to St. Louis, I was what they call a

Page 11

1 product specialist and was in the marketing department.
 2 Q. Which product were you assigned to be a
 3 specialist in?
 4 A. In a group of products known as Plasticizers. I
 5 think it might have been the Plasticizer division, but I
 6 can't recall that.
 7 Q. And that included the Aroclor kind of
 8 Plasticizer products at the time?
 9 A. They were part of that division initially. I
 10 don't think I, in fact, I'm pretty certain that I didn't
 11 have anything to do with the Aroclor products as such.
 12 Q. When you were first assigned to the company?
 13 A. Exactly.
 14 Q. Were there particular products that you had
 15 personal responsibility for within the Plasticizer
 16 department?
 17 A. At this late date, I can't really be too sure.
 18 I would have worked more in supporting the field
 19 salespeople in trying to help them technically and give
 20 them commercial guidance and so on and so forth. So it
 21 was sort of a support group for field sales.
 22 Q. And when you say provide commercial guidance to
 23 the field salespeople, do you mean providing special
 24 technical data with regard to specific Plasticizer
 25 products?

Page 12

1 A. Well, some of that. Trying to help them
 2 understand how the products might be sold and used, and
 3 explaining properties to them if they weren't particularly
 4 sure, trying to help them answer customer questions that
 5 could be answered without having to go to the technical
 6 department and involve actual laboratory work.
 7 Q. Did you do any technical laboratory work as a
 8 product specialist in the marketing department?
 9 A. No. I would have sent requests to the technical
 10 department, but I would not have done the work nor would I
 11 have supervised it.
 12 Q. Was there a geographical limitation on your
 13 responsibilities as product specialist?
 14 A. There might have been. I can't recall now.
 15 Q. Do you remember doing any work in the northeast,
 16 specifically in the Pennsylvania area?
 17 A. I would have visited, but whether it was in my
 18 initial, when I initially joined or later, you know, I
 19 can't distinguish now. Too much time has passed.
 20 Q. And how long did you remain in your position as
 21 a products specialist with the marketing department?
 22 A. Just a little over a year, until the end of 1967
 23 I believe.
 24 Q. By the way, who was your supervisor as products
 25 specialist?

Page 13

1 A. I'm going to say there was a Jim Bagnell,
 2 B-A-G-N-E-L-L, I think but I couldn't be a hundred percent
 3 sure of that now.
 4 Q. Was he in charge of the entire marketing
 5 department within the Plasticizer division?
 6 A. I don't think so. I think he, he had a certain
 7 section of it. But what that section is now, I'm not so
 8 sure. I think it might have been what they called vinyl
 9 Plasticizers more used with PVC because that was the
 10 biggest use of their products.
 11 Q. Do you remember who was in charge of the
 12 Plasticizer division marketing department at the time?
 13 A. There was a product manager called Walter
 14 Waychoff, W-A-Y-C-H-O-F-F.
 15 Q. And Mr. Waychoff would have been superior to Jim
 16 Bagnell?
 17 A. I think so. But, again, my memory is very fuzzy
 18 now.
 19 Q. I understand. Okay. And in the end of 1967,
 20 what position did you assume?
 21 A. I then was made market manager for what
 22 Plasticizers were used in primarily, in resins other than
 23 PVC. And they were the more specialty type of Plasticizer
 24 or modifiers for plastics because the Plasticizer was sort
 25 of an umbrella term. But not everything that actual

Page 14

1 Plasticizers softened are resins.
 2 Q. And how long did you remain in that position?
 3 A. Let me see, '68, '69, sometime, sometime in
 4 early '70. I then went into the international division
 5 and was made a market manager for Latin America for
 6 essentially all of Monsanto's organic chemicals because it
 7 was kind of an organic chemical group of which
 8 Plasticizers was one division. And maybe I'm using the
 9 wrong terminology for divisions, but that's, I hope I've
 10 given you the idea.
 11 Q. Yes, you have. Okay. Now in that period of
 12 late 1967 to early 1970, did your work include
 13 responsibility for the Aroclor Plasticizer products?
 14 A. Yes. Yes, I had responsibility on a business
 15 basis for all of the Aroclors for whatever applications.
 16 Q. And that included the PCB-containing Aroclors as
 17 well as non-PCB containing ones?
 18 A. Are you talking about terphenyls,
 19 polychlorinated terphenyls.
 20 Q. Yes.
 21 A. Because Aroclor was also a chlorinated line of
 22 products. And so they had PCBs and polychlorinated
 23 terphenyls.
 24 Q. Right. And did you have responsibility for both
 25 those lines of products?

Page 15

1 A. Yes. Yes, of terphenyls.
 2 Q. Now what specifically were your job
 3 responsibilities as market manager of Plasticizers between
 4 late 1967 and early 1970?
 5 A. Well, there were probably three parts to it.
 6 First, you were the coordinating point within the division
 7 for everything that applied to that for the group of
 8 products that I was assigned. And you were the primarily
 9 contact point for field sales. Sometimes customers if
 10 they called in and they weren't, you know, the switchboard
 11 wasn't sure where to put them, they probably come to me
 12 for that group of products.
 13 And then I was the liaison, if you will, with
 14 the other functions, manufacturing, research, technical
 15 service, commercial development, whatever, and my job
 16 would have been to, if I needed support or help or action
 17 taken by these other functions, I would have been the one,
 18 or the person that reported to me would have been the ones
 19 to initiate that and collect it and feed it back out to
 20 the field sales. So it was one aspect.
 21 The second would have been to be responsible for
 22 putting together the budgets and, you know, performance
 23 against the budget-making recommendations on pricing,
 24 handling sales forecasts, getting production lined up and
 25 so on and so forth.

Page 16

1 And, thirdly, to also give direction to the
 2 field sales force in how to carry through on meeting our
 3 budget or carrying out our sales plan, and also giving
 4 them sort of technical support, sort of a technical
 5 commercial support, if you will, to assist them in doing
 6 their job.
 7 Q. Okay. Anything other than those three parts
 8 that was within your responsibility as market manager?
 9 A. I think that kind of would encompass, you know,
 10 pretty much everything. Obviously, I can't, you know,
 11 it's hard now to remember exactly, but, that, I hope will
 12 give you a pretty good overview of what it was.
 13 Q. Now, you mentioned that one of your functions
 14 was to serve as sort of liaison to some of the other
 15 areas. You mentioned manufacturing, the technical
 16 service, the commercial development. Specifically, with
 17 regard to the Aroclor PCB products, who did you deal with
 18 on the manufacturing issues?
 19 A. Well, it would have been, first, it would have
 20 been what we called product planning people, people that
 21 were taking sales forecasts and working out with the
 22 plant, you know, when they needed to make certain
 23 products, how much to be made and so on.
 24 Then, there would have been cases where we would
 25 have gone to maybe the analytical department of the plant,

Page 17

1 the quality control department, if you will, of the plant
 2 if there was some question about, you know, what material
 3 a customer is saying wasn't in spec or had some query
 4 about the product. There might have been cases when you
 5 got in touch with some of the engineers or production
 6 supervisors to discuss, you know, things that happened.
 7 For example, a shipment didn't get shipped in time and
 8 normally it would have been, order processing people would
 9 have taken care of that, but sometimes, if it was a
 10 particularly irate customer, I would have had to get
 11 involved just to try to mediate or find out what had
 12 really happened and give an explanation that was
 13 satisfactory.

14 Q. And how about with regard to the technical
 15 services, technical service department, who did you deal
 16 with specifically on Aroclor issues?

17 A. The people that I probably would have dealt with
 18 would have been Joe Darby. Individuals, I'm not sure if
 19 they had Aroclor responsibility, but the type of people,
 20 like there was some person called Morgan as I recall, Al
 21 Morgan maybe. Bill Koch or Norm Touchette, Jim Keresears,
 22 but I can't, I know they were there and I knew them and
 23 dealt with them at various times. How much of their work
 24 was analytical and things, I can't at this late stage
 25 recall.

Page 18

1 Q. By referring to technical service, did this
 2 include the people in the research department who handled
 3 applications research?

4 A. It would have been from, it would have been
 5 again, it was Martin Ferrar that was director of
 6 research. And I think he would have had several
 7 responsibilities. New product development as well as the,
 8 you know, the application, technical support for existing
 9 products -- I'm sorry, I've forgotten what the rest of
 10 your question was.

11 Q. I think you answered it. I was asking where
 12 specifically, where applications researchers fit in, were
 13 they included under this technical service umbrella that
 14 you described.

15 A. I think maybe application, technical service,
 16 you know, runs very closely together, you know.

17 Q. And other than Martin Ferrar and the individuals
 18 that you named previously, from Joe Darby on, were there
 19 other applications researchers that worked with PCBs that
 20 you can recall?

21 A. There were other people. Some of them I can't
 22 recall, really recall their names. And again, at this
 23 stage, I can't really, I don't think of them in terms of
 24 being associated with specific products. And that could
 25 have varied over time as well.

Page 19

1 Q. Do you remember any specific instances during
 2 your tenure as market manager where you were called upon
 3 to explore a new application for a PCB Aroclor product?

4 A. A new application for PCB Aroclor product.
 5 There might have been some, I can't think of specifics
 6 now.

7 Q. Okay. Do you remember any specific instances
 8 where any issue was brought to your attention for the use
 9 of Aroclors on ceiling tiles?

10 MR. DIMURO: Object to the form. You can answer
 11 it, Dr. Paton.

12 A. I don't recall that particular --

13 Q. (By Mr. Turet) Are you aware from your
 14 experiences as a market manager with Monsanto of any
 15 instance where any customer used PCB-containing Aroclor
 16 products on ceiling tiles?

17 MR. DIMURO: Object to the form. Again, you can
 18 answer it, Dr. Paton.

19 A. I can't think, no, it's not, that certainly is
 20 not an application that springs to mind when I think of
 21 PCBs, so I can't recall any specifics in that.

22 Q. (By Mr. Turet) Are surface coatings generally
 23 an application that springs to mind as having included
 24 Aroclor PCB products?

25 A. Surface coatings I think were used in silos.

Page 20

1 They were used in marine coatings. And these phthalates
 2 as best I recall had been the producers of the resins
 3 which are obviously the backbone. The products that
 4 Monsanto was selling were additives to modify as opposed
 5 to the products used.

6 Q. Going back into the late 1960's time frame,
 7 between 1967 and 1970, who was the, if you were to
 8 identify one leading manufacturer of resins for surface
 9 coatings, who would that have been?

10 A. I think the name Hercules is one that comes to
 11 mind. I think they made a chlorinated rubber. Possibly
 12 DuPont, those are two names that come to mind.

13 Q. Now in the surface coatings area, do you recall
 14 instances where customers were using PCB containing
 15 Aroclor products in paint during this 1967 to '70 time
 16 period?

17 A. When you say paint, you're thinking of what,
 18 what kind of paint are you thinking about?

19 Q. Interior or exterior paints.

20 A. Other than sort of industrial coatings like I've
 21 indicated, I can't recall any use in interior decorative
 22 type paint or exterior decorative type paint.

23 Q. Now when in the category of putting together
 24 budget forecast recommendations on pricing and so forth,
 25 can you, how often were you called upon to do so with

Page 21

1 regard to the Aroclor products in particular?
 2 A. You would have done a budget once a year.
 3 Q. What did you use as source material in
 4 developing a budget for Aroclors?
 5 A. You would have received input from field sales
 6 officers. The sales managers would have come forward with
 7 their feelings as to what a budget should be for the sales
 8 counts, and salesmen in their regions, salespersons in
 9 their regions. That would have been one of the starting
 10 points.
 11 Q. And did you essentially prepare a budget in '68
 12 and 1969 and 1970 as a market manager?
 13 A. I probably would have inherited the one for '68
 14 because you usually started that process sometime in the
 15 latter part of the previous year obviously. But I would
 16 have been responsible for the one for '69. And I would
 17 have probably been responsible for the one in 1970.
 18 Q. Now was there a separate budget set out for,
 19 let's say, the Aroclor line of products and other
 20 individual lines of Plasticizer products as well?
 21 A. Yes. You would have had, you would have done
 22 each group of products separately. And then for the
 23 division, it would have been all totaled up.
 24 Q. And during your tenure between 1967 and 1970 was
 25 there, who participated with you in preparing the final

Page 22

1 budget for the Aroclor products?
 2 A. I had a man who worked for me, Ken Wells, as an
 3 assistant, but I can't recall now how he and I, you know,
 4 divided up responsibilities. I'm pretty certain he would
 5 have had some products he worked on, but we might have
 6 done them jointly, I just can't remember.
 7 Q. When a final budget was completed, did you pass
 8 it on to your superior?
 9 A. Yeah, it was that kind of recycling process.
 10 The salespeople would have relied on input from their
 11 customers or certainly from their largest customers they
 12 had, so that, you know, it bore some, you know, you were
 13 hoping to try to match what the customers were going to
 14 do. So that was one point of which would have been a
 15 field sales situation. Then I would have taken a look at
 16 it, seen how we were doing, maybe it was for the whole
 17 national picture and exports and so on, and put my
 18 judgment and so on into it and went back and discussed
 19 that with the sales managers. If I was saying less or
 20 more than they had put in, we tried to reach some sort of
 21 an agreement.
 22 And then it would have then gone to, the next
 23 step would have been for me to sit down with Walter
 24 Waychoff as product manager and there would have reviews
 25 with directors of sales, directors of marketing and other

Page 23

1 management. And at some point late in the year, we would
 2 have said that it's locked in. And if you like it, that's
 3 what your target is for the year.
 4 Q. I've been focusing on budgets which I assume is
 5 sort of the expenditure side of the equation?
 6 A. Well, budget, you start, you have to have, you
 7 have a revenue size which is volume of product times the
 8 price equals a certain amount of dollar revenues. Then it
 9 went further because you've got to get the cost of goods,
 10 the manufacturing cost of goods, you have to get the
 11 sales, administrative, and technical expense that's going
 12 to be associated with producing and supporting and selling
 13 these products. And then you get down to where the profit
 14 is and the level of net income you were hoping to
 15 achieve. And obviously, that depended on input from all
 16 these other functions.
 17 And part of my job was to get that, look at it,
 18 see how consistent it was, discuss it with them and the
 19 accounting department or people that would have actually,
 20 you know, gone and cranked out the numbers and took their
 21 attacks or whatever things there were to do. And that
 22 basically listed what I had to follow and look at during
 23 the rest of the year. And there were monthly reports and
 24 quarterly revisions if necessary, if things were either
 25 ahead or below where we thought they might be.

Page 24

1 Q. And just to clarify, before it's on the revenues
 2 issue, you would obtain input from the various regional
 3 sales managers?
 4 A. Exactly, because that was where they could, they
 5 were the best source of that information. And, in turn,
 6 they would work closely with customers to try to get the
 7 best information they could.
 8 Q. And so during this time period, the regional
 9 sales managers would go through their customer files and
 10 make a reasonable estimation of what the next year was
 11 likely to produce in revenue?
 12 A. Exactly, in volume probably and price. Because,
 13 you know, if they saw any likely change in price because
 14 of competitive activity or whatnot, they would draw my
 15 attention to that and we would multiply that out to get a
 16 sales number.
 17 Q. So at the end of your process, there's a final
 18 budget for the next year?
 19 A. Uh-huh.
 20 Q. And you indicated there's a monthly printout
 21 that you would receive of some sort?
 22 A. Probably, yeah, at some point. I think at some
 23 point in that period, that's when computer runs became,
 24 you know, the norm. Far cry from the compact little
 25 machine we've got here. And then you would have followed

Page 25

1 through and, you know, to see how you were doing.

2 Q. And as you recall, you would get a monthly
3 printout. If the revenues were falling short of your
4 projections, did you follow up with regional sales
5 managers to find out why?

6 A. If they were falling short, if it was
7 significantly short, you would try to find out why, yes.
8 You would expect that, actually, in addition to the
9 reports that were generated, salespersons would be
10 generating call reports as they visited customers, so that
11 you hopefully would be getting some indications of how
12 things were going without having to wait and, you know,
13 see all the detail, the financial detail in a financial
14 report.

15 Q. And those call reports were ones that actually
16 the salespeople filled out?

17 A. Yes.

18 Q. And that would record if there was a significant
19 change that they learned from the customer, they were
20 either buying significantly more or significantly less
21 than was expected?

22 A. Or it was being deferred or seasonality that we
23 had picked up on earlier or whatnot.

24 Q. Now did you actually receive copies of call
25 reports or was that something that was limited to the

Page 26

1 regional level?

2 A. No, the, as I recall at that time, the call
3 report was usually addressed to market managers with
4 copies to persons, sales managers who would have been his
5 supervisor and sometimes to other people depending on what
6 the issue was. And then my role as a market manager would
7 have been to write each one. There would be an internal
8 circulation within the Plasticizer, you know, marketing
9 group showing it to Walt Waychoff. If I thought that it
10 was something he should be aware of, I would indicate what
11 action I thought would be right or the assistant I had
12 would send it to him and ask him to follow up. And it
13 would get disseminated to whoever really could, you know,
14 be meaningful. And you tried to kind of gauge that with
15 not overloading everybody with paper.

16 Q. As market manager, did you keep a central file
17 of call reports, was that part of your --

18 A. Well, there have been customer files, there have
19 been procedures for files to leave my desk and would have
20 been filed wherever they were appropriate.

21 Q. And were customer files maintained as part of
22 your office or were they somewhere else in St. Louis
23 during the '67 to '70 time frame?

24 A. We would have had copies in our files in the
25 Plasticizer product management area, if you will. I'm not

Page 27

1 sure if they were kept anywhere else in the company or
2 not. I really don't know, or I can't recall.

3 Q. And was there some procedure back at that time
4 for discarding paper? At some point was there a record
5 retention program of some sort?

6 A. At one time, well, record retention is a phrase
7 and something that I've knew about when it was initiated
8 and what the details were now, you know, I'd be, I'm so
9 fuzzy. Anything that I said would be probably wrong to be
10 used as --

11 Q. Do you remember generally whether it was a
12 formal program or not? Do you remember, was there a basis
13 on which you got rid of the old paper and started fresh?

14 MR. DIMURO: Object to the form. You can
15 answer.

16 A. I know, you know, I can't recall now in what
17 time frames we did, you know, certain things or how we
18 operated at certain times. And I'm not try trying to
19 dodge the thing, I just can't remember.

20 Q. (By Mr. Turet) I understand. Now you mentioned
21 in addition to monthly reports that you would get on
22 revenue activity and how it compared with your
23 projections. Were there also quarterly reports?

24 A. Yeah, I think there might have been because
25 sometimes you would quarter the reviews. It was a logical

Page 28

1 time to do the review and I think you might have done what
2 they called sales forecasts and, obviously, you could say
3 manufacturing is on schedule, just stay with the budget,
4 or, no, we're going to sell more or less.

5 And that information was vital for the
6 production planning people to do and also our plans
7 because obviously they had, they had to produce as
8 efficiently as they could. So that information was
9 important for them to have.

10 Q. Now, the last of the three job responsibilities
11 that you described was giving direction to the field sales
12 force. I believe you mentioned how to carry out your
13 sales plans and to give technical support generally as
14 needed.

15 A. Uh-huh.

16 Q. Can you tell me, break it down even further as
17 to the specific types of tasks you were involved in with
18 the salespeople?

19 A. It could cover a wide range. It would depend to
20 some extent of what the experience of the salesperson was,
21 what the technical expertise of that salesperson was,
22 obviously someone that was, had been selling Plasticizers
23 for a number of years and had a fairly strong technical
24 understanding of, maybe having come from manufacturing or
25 research somewhere, needed less technical guidance than

Page 29

1 someone that maybe was recently out of college and had no
2 technical background. So it could vary enormously.

3 Q. What kind of technical guidance did you offer to
4 the somebody who did have that technical background?

5 A. Well, I would, there were times when he might
6 have, if it was sales meetings, we might have sort of what
7 I would call a training seminar where I might have for a
8 couple of hours or something, tried to give them an
9 overview of what the products were mostly used for, what
10 some of their properties were, and tried to explain what
11 that property meant in terms of how it might be used.

12 But it was, it was obviously of necessity
13 generally because the, the use and the amounts and the
14 type of additives that were put into plastics and
15 formulations really originated with the customer, and they
16 many times did not, you know, share that information with
17 us. Quite often, we weren't a hundred percent sure what
18 they were using it for. For competitive and confidential
19 reasons, they didn't tell us. So you would have to sort
20 of give fairly general information.

21 Q. Did you use the Plasticizer Blue Book as a
22 source of information for training for these people?

23 A. I'm sure I did.

24 Q. How about Technical Bulletins?

25 A. They would have been used too.

Page 30

1 Q. Any other kinds of written materials that you
2 used for training of salespeople?

3 A. I think there was a system of where market
4 managers or product specialists, product managers would
5 have put together maybe a one or two-page whatever kind of
6 information bulletin and this could have covered
7 anything. It could have covered what might have been seen
8 as an opportunity. But if some company had announced they
9 were going to be entering a certain market and therefore
10 based on our experience of what other people had been
11 doing, this might be an opportunity for you to go and
12 explore where your products could be used, might have had
13 to do product shortages, raw material shortages so just
14 sort of an information bulletin. But you tend to do it on
15 the ones that would be a pretty general information and to
16 some degree of importance, otherwise you just deal on
17 specifics with the individual concerned on the phone.

18 Q. Was there anything else that you can remember
19 was part of the training that was provided to people with
20 relatively little background technically?

21 A. The salespeople, all the salespeople as I
22 recall, certainly, when I joined and for as long as I was
23 in Plasticizers, spent several weeks in our technical
24 service application labs being shown some of the basics of
25 how Monsanto tested its products and kind of basic

Page 31

1 formulations to give job properties. They would have met
2 with the quality control people, they would have toured
3 the plants, you know, to become more familiar with the
4 products and the functions that were there to support
5 them.

6 Q. Was that the program that Joe Darby oversaw?

7 A. I think so. I think, if I'm not mistaken, and I
8 think it was several weeks. I think they went through it
9 for six weeks or so along with some colleagues that were
10 in sales. And I think we called it Darby College. Maybe
11 we called it something less polite at times, but I think
12 that was one of the names that seems to stick in my
13 memory.

14 Q. And this was focused on the Plasticizer
15 division's products specifically?

16 A. Yes, exactly.

17 Q. And that included the Aroclor PCB products?

18 A. Yes.

19 Q. In addition to the training that was provided
20 initially to these people, was there any kind of on-going
21 training provided to salespeople?

22 A. Well, you know, I think I already described some
23 of it. And then the information bulletins that come out,
24 some of that would have had material that they could have
25 used for becoming more knowledgeable. I talked about

Page 32

1 giving seminars and sales meetings. Also, the technical
2 service people in the lab, you know, went to visit
3 customers with sales and met with technical people and
4 customers.

5 Market managers, product specialists would make
6 calls with salespeople and, you know, in those days, you
7 would have gone out for a week with a particular
8 salesman. He would have requested that, said, look I
9 would like for you to come and be in my territory for a
10 week and here's the people I would look like for you to
11 meet. And here it is, the sort of issues that may come
12 up. And we drove in those days. We flew to Point A and
13 you would get in the car and drive for hours at a time all
14 over, wherever it was.

15 And that gave you, I think the salesmen
16 appreciated that and certainly I did because it was an
17 opportunity for us to talk one on one on what their
18 particular needs were, what he felt that I was doing
19 badly, you know, I perhaps wasn't listening to his bright
20 ideas and I would be a listening post or whatever the case
21 may be. So that was an informal way, but a very effective
22 way.

23 Q. So that's the type of work you did between late
24 '66 and late '67 albeit not with the Aroclor products?

25 A. Yes. And then I continued some of that in the

Page 33

1 other products even in '68 and '69. Obviously, not quite
2 as much because I had many other things that kept me tied
3 in St. Louis.

4 Q. But you did occasionally join the salespeople?

5 A. Yes.

6 Q. And go out and meet with customers?

7 A. Oh, yes. Yes. It also gave me an opportunity
8 to get a finger on the pulse in the marketplace.

9 Q. Now you mentioned a couple of times the sales
10 meetings. How frequently were sales meetings held, again
11 during the '67 to '70 time frame?

12 A. Well, each sales region probably tried to have
13 one once a year. And we probably tried to have one for,
14 you know, bringing regional salespeople together once a
15 year. So you know, but, again, it might have overlapped,
16 but in general, that was the target.

17 Q. And were the meetings that included all of the
18 regional sales managers held in St. Louis typically?

19 A. I don't think so. I think we generally tended
20 to get away from St. Louis because otherwise there were
21 too many distractions. I mean, it was hard to break away
22 whereas you wanted to get their undivided attention. They
23 wanted your undivided attention. And that was best
24 accomplished being away from St. Louis.

25 Q. Did you typically participate in each of the

Page 34

1 regional sales annual meetings?

2 A. It depended. I think usually I did, but it
3 depended, you know, what, how much time they had and what
4 they considered the most important needs at that
5 particular time.

6 Q. And I was talking about specifically the
7 meetings that occurred within each region as opposed to
8 the national meeting.

9 A. Well the odds are I would have gone, or the
10 person who reported to me would have probably tried to
11 have a presence at each. And but I was, since I was only
12 there two years, I think the odds are I did attend all of
13 them.

14 Q. Who was the person reporting to you?

15 A. The person's name was Ken Wells.

16 Q. That's the Ken Wells you referred to before?

17 A. Yeah.

18 Q. And how about the national meeting of all of the
19 sales managers, did you typically attend that as well?

20 A. Well, we had ones where all the salespeople
21 would have been there and there were times when just the
22 managers would have been involved. Now that would have
23 typically been at the time we were putting the budget to
24 bed. We were pretty much at the, almost the final stage
25 of getting the budget approved. And we would have sat

Page 35

1 down and said, here's the budget, you know, how are we
2 going to achieve this blah, blah, blah, blah.

3 Q. Okay. Just to clarify, there were, there was a
4 meeting one time a year within each region?

5 A. I think approximately.

6 Q. Approximately, that would include the regional
7 sales manager and all the sales force within that area?

8 A. Yes.

9 Q. There was a meeting that included all the
10 regional salespeople and all the field salespeople once a
11 year?

12 A. Yes. Now whether that was once a year or maybe
13 deferred because sometimes if people, you know, if we were
14 having, if sales weren't too good and budgets aren't being
15 met, you try to save money and that's one way it might
16 have been accomplished. It might have been every 15 or 18
17 months.

18 Q. So year, year and a half. And then there was
19 the meeting annually that would just have the regional
20 sales managers?

21 A. There certainly would have been times when the
22 sales managers would have been brought together maybe more
23 than once a year. But I can't recall now.

24 Q. Now, did you, as part of the meetings that would
25 take place with all the salespeople and all the regional

Page 36

1 managers, did you as part of the program deliver any kind
2 of an address to everybody?

3 A. I'd have probably had time on the program.
4 Sometimes they would have, whoever was putting the program
5 together would have given me a topic that they wanted to
6 cover, something that they wanted to clarify. Other
7 times, I'd have been given a general idea of what the
8 sales conference was about and I would have, then it would
9 have been up to me to kind of decide what I thought might
10 be the most useful thing to tell them and so on and so
11 forth.

12 Q. And would the sales manager for the Plasticizer
13 division also address the crowd?

14 A. The sales director?

15 Q. Yeah.

16 A. Yes, almost certainly I think.

17 Q. Was that Walter Schalk back in the late '60's?

18 A. Yes. I think, yeah, Schalk was involved.
19 Again, I can't remember the date, but certainly Wally
20 Schalk was around then. I was there and at one point, he
21 was the sales director I think.

22 Q. Did the business director or business manager of
23 the Plasticizer division also typically address the crowd?

24 A. There might have been a dinner or, yes, I
25 think. I don't know if he would have stayed for the whole

Page 37

1 thing or just come in for part of it, but he would have
2 been in, you know, he would have been aware of it, been
3 invited and it would have depended on his schedule and so
4 on and so forth, so I can't recall.

5 Q. Do you remember him being part of the program
6 where he actually addressed the salespeople?

7 A. I can't recall any, you know, I can't recall
8 specifics of anything now. I'm just saying this was a
9 general area and that he would have been there or been
10 aware of it.

11 Q. Just by, you know, by general description, were
12 there any other management types that regularly attended
13 these national meetings of the sales force?

14 A. Possibly. People like Joe Darby might have
15 been, might have come to some. It's hard to say, you
16 know. I think occasionally we would have had from some
17 other functions, but it's difficult for me to pin
18 specifics down now.

19 Q. Now, would the national meetings of the
20 salespeople sort of review issues that -- let me withdraw
21 that question.

22 Would these national meetings of the salespeople
23 include discussions of products that were, you know, that
24 there were hopes for increased sales or products that were
25 being discontinued?

Page 38

1 MR. DIMURO: I'll object to the form.

2 A. What do have you in mind?

3 Q. (By Mr. Turet) I'm asking generally first.
4 We'll certainly talk about the Aroclor products later.
5 I'm trying to get a feel for what types of items were on
6 the program.

7 A. Well, it's hard for me now to remember exactly,
8 you know, what a typical agenda would have been, but, and
9 the agenda in most cases would have originated with the
10 field sales force although the director of marketing might
11 have said, well, here's things that I want, you know, on
12 the agenda and might have come and asked that of Walt
13 Waychoff for example what he thought and, in turn, might
14 have come to me. So that would vary from year to year
15 really.

16 Q. Was there any meeting minutes or summaries put
17 together in the aftermath of the meetings?

18 A. I don't think we had formal minutes. There
19 would be, you know, actions that individuals would say
20 they would do and they would be expected to follow up on
21 and so on.

22 Q. All right. Let me jump way, way back. You
23 started to say before that you were market manager for
24 Latin America and all of the organic chemical division
25 starting in early '70?

Page 39

1 A. Yes.

2 Q. Do you remember when in 1970, any specific time
3 reference?

4 A. It would have been somewhere I think around the,
5 you know, sometime in the first quarter I think.

6 Q. And where were you based during that time
7 period?

8 A. I was based in St. Louis but traveled
9 extensively throughout Latin America.

10 Q. Did the Plasticizer division have a significant
11 sales volume in Latin America?

12 MR. DIMURO: Object to the form. You can
13 answer.

14 A. I can't remember now.

15 Q. (By Mr. Turet) And how long did you remain in
16 the, in the position? Was there a formal title to it?

17 A. I think it was, I think it was market manager of
18 Latin America, I believe, but I couldn't swear to it now.

19 Q. And how long did you remain market manager of
20 Latin America?

21 A. I'm going to say end of '71, nearly '72. I'm a
22 bit fuzzy now on the time scale.

23 Q. What position did you assume next?

24 A. I was then promoted to be a product manager.

25 Q. And that was beginning, at the end of '71 or

Page 40

1 beginning of '72 somewhere?

2 A. Somewhere in that time frame.

3 Q. And how long did you remain a product manager?

4 A. I'm guessing. Let me think, I got other
5 products added on and then I think my title changed to be
6 a manager of markets and products which involved a broader
7 scope of products. And I think I had project managers
8 reporting to me then. And that's sometime not maybe until
9 '77, '78.

10 Q. Okay. Do you remember how much of that time was
11 as product manager as distinguished from your broader job
12 responsibilities?

13 A. I would say maybe three years as product
14 manager, maybe, and then the rest as the manager of
15 markets and products. Without having my personal file in
16 front of me, I wouldn't know. I can't remember now exact
17 dates.

18 Q. Okay. And that was, you said until, you were
19 manager of markets and products until approximately 1977,
20 1978?

21 A. Yeah. It might have been '77 because then I at
22 some point about then, and I was not in the Plasticizer
23 division when I came back from Latin America, I was in
24 what they call, initially in what they call fluids. And I
25 think initially it was heat transfer fluids and maybe

Page 41

1 dielectrics as well. And then I took on hydraulic fluids
2 so this was in a fairly short space of time I think I had
3 responsibility for all of our what we call functional
4 fluids.

5 And then later, maybe after about three years
6 then I think I started to take on responsibility for other
7 Monsanto products. And I think then we called it, the
8 group, functional products or specialty products or
9 something. And so fluids would have been part of it and
10 somebody would have reported to me from fluids I think.

11 Q. So when you refer to the heat transfer fluids,
12 dielectrics and hydraulic fluids, that was all in your
13 tenure as product manager?

14 A. Yes.

15 Q. And then you got even more when you became
16 manager of markets and products?

17 A. Yes, exactly.

18 Q. Okay. Now, is this the same product manager
19 position that Mr. Waychoff would have had?

20 A. It could have been. Well, I would have
21 performed probably, the job description would have been
22 somewhat similar to what he had, the general things you
23 were to work on. And so the supervisor would have been
24 doing similar to what Walt Waychoff had in Plasticizer
25 except I had them in another group of products.

Page 42

1 Q. And to whom did you report in your capacity as
2 product manager?

3 A. I reported to a Tom Gossage, G-O-S-S-A-G-E.

4 Q. And do you remember what his title was?

5 A. He was director of marketing.

6 Q. And did he remain your supervisor when you
7 became manager of markets and products?

8 A. I think initially, but then he became a general
9 manager or an assistant general manager or general manager
10 and then I had some other people that I reported to.

11 Q. And what were your job responsibilities as
12 product manager?

13 A. They would have encompassed, you know, somewhat
14 more authority in making decisions. I would have had more
15 people reporting to me. Therefore, also the things that I
16 described as a market manager would have still been within
17 my responsibility. I'd have delegated or assigned to
18 other people some of the functions. I would have been
19 involved more on the business side, commercial side, and
20 supervised people who would have taken care more of the
21 technical service or the day-to-day liaison with sales and
22 the day-to-day routine liaison with other functions. And
23 they would have reported to me what was going on and
24 sought my advice and help if they needed it.

25 Q. Now, were you, were you in Latin America when

Page 43

1 the Aroclor PCB products were actually withdrawn from the
2 market for open applications?

3 A. Yes.

4 Q. And were you in Latin America when the Aroclor
5 PCB products were withdrawn from the market as hydraulic
6 fluids?

7 A. Possibly. Possibly. I think I probably was.

8 Or if I wasn't, I don't think I had responsibility for the
9 hydraulic fluids.

10 Q. Were you a product manager when the announcement
11 was made that the Therminol PCB-containing products were
12 going to be withdrawn from the market?

13 A. Yes.

14 Q. Were you also in that position when they were
15 actually withdrawn from the market?

16 A. Yes.

17 Q. And your responsibilities in that position
18 included interacting with customers as part of that
19 process?

20 A. Yes.

21 MR. DIMURO: Object to the form. But you can
22 answer.

23 A. I would have had some interaction with
24 customers, yes.

25 Q. (By Mr. Turet) Were you in the manager of

Page 44

1 markets and products position when the last of the
2 PCB-containing products were withdrawn from the market
3 domestically by Monsanto?

4 A. I can't be a hundred percent sure. I might have
5 been or by then, I might have moved on to another
6 position. But this is where my memory is fuzzy.

7 Q. Just to finish out your career, what position
8 did you assume after manager of markets and products?

9 A. Sometime either probably in '77 or '78 I became
10 commercial development manager, commercial development
11 director, I can't remember the exact title for the
12 Plasticizer division.

13 Q. And by then, is it fair to say, there were no
14 PCB or polychlorinated terphenyl products available
15 through the Plasticizer division?

16 A. That's correct.

17 Q. How long did you remain commercial development
18 director for the Plasticizer division?

19 A. Until very early 1979.

20 Q. What position did you assume then?

21 A. I was then assigned to Brazil as the commercial
22 director for Monsanto's Brazil organic chemical products,
23 maybe some other products, I can't remember. And that
24 involved products that were actually manufactured by
25 Monsanto in Brazil as well as products that were imported

Page 45

1 but manufactured outside Brazil.

2 Q. And how long did you serve in that position?

3 A. I was six years in Brazil. And I think I was
4 probably commercial director for three years. And then I
5 was made director of development because sometime in I
6 think '81, well maybe '82, there was a big push by
7 Monsanto to increase its investment internationally. And
8 Brazil was selected as one of the key countries in which
9 we wanted to increase our investment. And I was asked to
10 remain in Brazil to spearhead the effort to get more
11 investment there.

12 Q. And where did you go in 1985?

13 A. 1985, I came back to St. Louis and was then made
14 the director for administration and development for
15 Monsanto's total international operations reporting to the
16 managing director of Monsanto International.

17 Q. And you remained in that position how long?

18 A. Until sometime in 1987.

19 Q. Okay. And what position did you assume at that
20 point?

21 A. Then I went to Korea as the joint executive
22 director of a new joint venture that Monsanto had started
23 up with a Korean company.

24 Q. And how long did you remain in Korea?

25 A. Until the end of 1990.

Page 46

1 Q. And did you come back to the States at that
2 point?

3 A. I came back to the States then. And then I was
4 the appointed director of development for Asia.

5 Q. And how long did you remain in that position?

6 A. Well, I then chose to take a package that was
7 offered for retirement at the end of 1991. My plans had
8 been to retire in 1994, but there was a lot of
9 restructuring going on. And the financial package was
10 such that it didn't make a lot of sense for me to continue
11 to work. So I decided to retire.

12 Q. And what have you done since 1991?

13 A. I formed my own consulting company and now I'm
14 in the process of winding that down.

15 Q. What types of consulting did you do?

16 A. It was in the, primarily in the international
17 area. And my clients I think were, I think all of them I
18 believe were in the chemical industry.

19 Q. Did it, did it also involve any work as a
20 consultant in the Plasticizer area specifically?

21 A. No. I think that's correct. I don't think so,
22 no.

23 MR. TURET: Can we take a very quick break?

24 (A short break was taken.)

25 Q. (By Mr. Turet) Okay. Mr. Paton, jumping all

Page 47

1 the way back now to the time when you rejoined Monsanto in
2 the 1966 time frame, and I believe you said that you were
3 a products specialist between late '66 and '67?

4 A. Right.

5 Q. During that time period, did you ever hear about
6 a study done in Sweden that had identified PCBs in the
7 environment there?

8 A. No.

9 Q. Do you remember any meetings or discussions
10 within Monsanto on that topic during your tenure as a
11 products specialist?

12 A. No.

13 MR. DIMURO: I'll object.

14 Q. (By Mr. Turet) Market manager Plasticizers was
15 your next position; is that right?

16 A. Yes.

17 Q. And you began in that position at the end of
18 1967?

19 A. I think the beginning of '68.

20 Q. Well, beginning of '68, okay. In your capacity
21 as market manager in that time frame, did you have
22 occasion to hear about the identification of the Aroclor
23 PCB products, specifically, in the environment?

24 MR. DIMURO: Objection to form. You can answer
25 it.

Page 48

1 A. I didn't, I don't think I recall about absolute
2 identification. I think I heard about, you know, possible
3 identification.

4 Q. (By Mr. Turet) When did you first hear about
5 possible identification to the best of your recollection?

6 A. It would have been sometime I think in the
7 early, middle part of 1968 as I recall.

8 Q. And what was it that you initially heard?

9 A. I seem to recall some sort of an article from a
10 magazine, if I'm not mistaken, that crossed my desk or was
11 sent to me by somebody, and I can't recall who would have
12 sent it to me, that described some work done by two
13 Swedish researchers known as Jensen and Widmark. And
14 these names I recall now because I've given several
15 depositions and I've been asked that question before, so
16 it's refreshed my memory.

17 Q. Okay. And do you remember this issue of the
18 Jensen and Widmark work coming up in meetings or
19 discussions that you held within Monsanto in early or mid
20 '68?

21 A. My earliest recollection is seeing this article
22 and passing it on to Emmet Kelly who was head of our
23 industrial hygiene, you know. He had responsibility for
24 that sort of thing.

25 Q. And did Dr. Kelly contact you to follow up on

Page 49

1 that article in any way?

2 A. Yes. As I recall, he called me back, and I'm
3 not sure if he was already aware of that work or not. I
4 can't recall.

5 Q. Okay. Did you take on any specific
6 responsibilities that related to the issue of PCBs in the
7 environment starting in early to mid '68?

8 A. Did I take on any specific responsibilities
9 related to PCBs in the environment?

10 Q. Yes.

11 A. I don't think so.

12 Q. Okay. Were you, so you were not assigned any
13 kind of investigatory responsibilities with regard to the
14 PCBs in the environment?

15 MR. DIMURO: Objection to form. You can
16 answer.

17 A. I would not have been the one doing
18 investigations. And I would have been interested in it,
19 in knowing what it was all about and how accurate it was
20 and so on because I was responsible for, you know, the
21 commercialization, the support of the products. So I was
22 interested to know more about what this was all about.
23 But I relied on others who were better qualified than me
24 to assess how accurate it was exactly.

25 Q. (By Mr. Turet) And do you know who it was

Page 50

1 within Monsanto who was assigned responsibility for
2 determining the accuracy of the reports of PCBs in the
3 environment?

4 MR. DIMURO: Object to the form. You can
5 answer.

6 A. There were several people as I recall were
7 involved. Emmet Kelly, a man called Elmer Wheeler who
8 worked for Emmet Kelly. I think both Martin Ferrar and a
9 man called Bill Richard who was director of research and
10 fluids. And then a man, there was some people in our
11 analytical section and research. They were involved
12 because they were the, the more technically qualified
13 people to deal with that.

14 Q. (By Mr. Turet) And the person in the analytical
15 department, was that Dr. Keller?

16 A. That name rings a bell.

17 Q. Now, did Dr. Kelly, Mr. Wheeler, Mr. Ferrar,
18 Dr. Richard, or Dr. Keller turn to you for information
19 about the Aroclor PCB products in this undertaking?

20 A. They might have asked me about where our
21 products were sold, what applications I was aware of,
22 questions of that nature.

23 Q. Do you remember any formal meetings with those
24 people that you've just rattled off on the issue of PCBs
25 in the environment?

Page 51

1 A. I remember meetings. I'm not sure of the
2 specifics now whether they would have all been together at
3 one time or the various people, but certainly, I would
4 have met and talked with them from time to time as they
5 were investigating the issue.

6 Q. Let me show you a document that has been marked
7 previously as Keller 5 which is Bates No. MAE 053518, it's
8 a July 31 --

9 MR. O'CONNOR: Could you read that Bates again?

10 MR. TURET: MAE 053518. July 31, 1968 memo.

11 MR. DAVIDSON: Read that number again, please.

12 MR. TURET: It's 053518.

13 MR. DAVIDSON: 18?

14 MR. TURET: Yes.

15 Q. (By Mr. Turet) Mr. Paton, have you seen this
16 document before?

17 A. I think I have. Yes, in fact, I have.

18 Q. And is that the memo which you've forwarded on
19 that article about PCBs in the environment to Dr. Kelly?

20 MR. DIMURO: Object to the form.

21 A. No, I think this must be a later article than
22 the one I was referring to because I think the one I refer
23 to specifically mentioned Jensen and Widmark and the work
24 they did. So I think this is a different one.

25 Q. (By Mr. Turet) Do you know one way or the other

Page 52

1 whether the article in New Scientist of 1966 was the
2 publication of the Jensen and Widmark --

3 A. I don't think so but I can't be really sure
4 without seeing it. I don't think I've ever seen it since
5 I passed it on.

6 Q. Down at the bottom, there's a sentence that
7 says, their theory on how PCB finds its way into fish and
8 later humans is an all-embracing one. What did you mean
9 by that?

10 A. Now as I read it, I can't recall what I meant by
11 that or how much I even knew about the way it found its
12 way into those things. It's so long ago I've forgotten.

13 Q. If I was to represent to you that the article in
14 the New Scientist was, in fact, a publication of the
15 Jensen Widmark work, would that help you understand what
16 the theory was that you were referring to?

17 MR. DIMURO: I'll object to form.

18 A. No, it wouldn't I don't think.

19 Q. (By Mr. Turet) Now who was Rachel Carson?

20 A. She was I believe someone that had written a
21 book attacking the use of pesticides I believe.

22 Q. I'm sorry, did you finish your answer?

23 A. Yeah, that's my answer.

24 Q. And who was Ralph Nader? Is that the consumer
25 advocate?

Page 53

1 A. Yes.

2 MR. DIMURO: Did you say who is or who was?

3 MR. TURET: I though I said who is.

4 Q. (By Mr. Turet) What did you mean by the quote I

5 only hope Rachel Carson never subscribed to New Scientist

6 and that Ralph Nader doesn't decide to?

7 A. Well the New Scientist as I recall came on the

8 scene sometime when I was still in the U.K. I saw it when

9 I was in the U.K. long before I ever, you know, thought I

10 would be in the States or even involved in PCBs. I

11 thought their way of treating science was anything but

12 accurate. And so, therefore, it was not a magazine that I

13 felt was, it used the name Scientist, it masqueraded, in

14 my opinion, as being scientific.

15 I personally didn't think so, so I was therefore

16 a bit skeptical of anything that appeared in that

17 publication. But certainly from what little I knew about

18 Rachel Carson, because I read her book I believe, and

19 Ralph Nader which I read about, I didn't believe they were

20 particularly accurate or responsible either. And so I

21 thought putting these three together would just expand a

22 responsibility rather than help. That was my thought and

23 that I passed on.

24 If I hadn't seen that, if I'd not come from the

25 U.K., I probably would have never heard of the magazine

Page 54

1 before but for being there, and I was giving them my

2 personal opinion about it. I have no reason to believe

3 whether they accepted it or not, the people I wrote it to.

4 Q. With the benefit of hindsight, do you hold

5 Rachel Carson in any higher regard?

6 MR. DIMURO: Objection to form.

7 A. I haven't really thought about it for a long

8 time. I will say that without pesticides in the world,

9 the world would be poorer than it is. God only knows

10 where the world would be if we used her advice.

11 Q. (By Mr. Turet) How about Ralph Nader?

12 MR. DIMURO: Same objection.

13 A. I'm not a particularly great supporter of Ralph

14 Nader's. I don't think he's done much other than the tax

15 exempt institute that's kept him in a failing income for

16 many years.

17 Q. (By Mr. Turet) As you sit here today, do you

18 know whether the theory that you were addressing in your

19 last paragraph turned out to be correct?

20 A. I have no idea because I haven't really followed

21 up on it. It's so long ago I've forgotten.

22 MR. DIMURO: Objection to form.

23 Q. (By Mr. Turet) Do you remember a time while you

24 were in the market manager position that you learned of a

25 study done by Professor Risebrough done out in California?

Page 55

1 A. I recall that, yes.

2 Q. And when was it that you first heard about the

3 Risebrough findings?

4 A. I seem to recall sometime, it might have been

5 end of '68, maybe even sometime in '69 being on the West

6 Coast on business, and I can't remember the specifics of

7 why I was there, but picking up an article, a copy of the

8 San Francisco Chronicle and there was an article referring

9 to some studies that Dr. Risebrough had done with regard

10 to finding chemicals in sea birds, as I recall, along the

11 coast of California.

12 And since I can't, I think they mentioned

13 polychlorinated biphenyls in that article. But at that

14 time, as I recall, Dr. Risebrough wasn't really sure what

15 he had found or whether they were causing problems or

16 whatever, but I brought it back with me to St. Louis

17 because since I had responsibility for those products,

18 obviously, it was something that you would be interested

19 in reading about.

20 Q. Okay. Let me show you a document, Mr. Paton,

21 that was marked as Keller 7 which is an October 21, 1968

22 memo from Elmer Wheeler.

23 MR. O'CONNOR: Do you have a Bates on that?

24 MR. TURET: This is PRR 050542 through 58.

25 Q. (By Mr. Turet) Have you seen this document

Page 56

1 before today, Mr. Paton? I realize the type is pretty

2 bad.

3 A. Yeah, and obviously, my name is misspelled, but

4 that was not unusual because that happened a lot. So I'm

5 not too worried about that. But obviously, I have every

6 reason to believe I got it around the October 21st date.

7 I can't recall it, but I certainly wouldn't dispute that I

8 got it.

9 Q. Now, do you know what it is that's attached to

10 this memo?

11 A. Let me look and see. It looks to be a copy of

12 the paper that he intends or presented or intended to

13 present, oh, it was actually made in June; is that right?

14 Q. That, I don't know. Essentially, the cover memo

15 says that this is an a technical paper that's recently

16 delivered by Professor Risebrough.

17 A. At the university in June; is that right?

18 Q. Correct.

19 MR. DIMURO: You can't ask him questions.

20 Q. (By Mr. Turet) It's not my deposition but --

21 A. That's what I take it to be.

22 Q. And this is a, this is being asked to be held

23 confidential. It's a prepublication, correct?

24 MR. DIMURO: Do you want to direct his attention

25 to any specific paragraph?

Page 57

1 Q. (By Mr. Turet) Yeah, right in the first
 2 paragraph, that third sentence, second, third sentence.
 3 A. I see that, yes.
 4 Q. So this, to your knowledge is this before it was
 5 published in the public media?
 6 MR. DIMURO: Object to the form. You can answer
 7 it.
 8 A. I really can't, you know, I can't recall.
 9 Q. (By Mr. Turet) Now, why were you included on
 10 the routing list that starts with Dr. Kelly and ends with
 11 W.K. Johnson?
 12 A. Well, I was the market manager for products and
 13 that included PCBs at the time. And it would have been
 14 normal for them with something like this to at least keep
 15 me informed that this issue had arisen in case people
 16 asked me about it.
 17 Q. Do you recall in the aftermath of hearing about
 18 Dr. Risebrough's work whether there were meetings held
 19 within Monsanto that included you to address the issue?
 20 A. I can't recall specifically. There could well
 21 have been.
 22 Q. Do you remember any discussions specifically
 23 with Mr. Wheeler on this issue?
 24 A. I would have talked to Mr. Wheeler on this issue
 25 several times. I can't recall if I spoke to him

Page 58

1 specifically on this one. I, you know, I doubt just
 2 glancing at what's behind it, I doubt it because it's
 3 highly technical and I would have deferred to other people
 4 to pass judgment on the accuracy or whatever was being
 5 said.
 6 Q. Now, is Mr. Wheeler one of the people who had a
 7 better technical background to be able to assess the
 8 accuracy of the report?
 9 A. Yes.
 10 Q. And so in the last paragraph when Mr. Wheeler
 11 indicated that Risebrough has found PCBs along with
 12 chlorinated pesticides in a number of species of fish and
 13 birds along the California coast as well as off the water
 14 of Baja, California and Central America, and he goes on to
 15 talk about the Channel Islands and Puget Sound as well,
 16 was that your understanding as well at the time?
 17 MR. DIMURO: Object to the form.
 18 A. What I would have understood was that Risebrough
 19 is saying he found PCBs. And I don't know whether that
 20 was accurate or wasn't.
 21 Q. (By Mr. Turet) Okay.
 22 MR. TURET: Could you mark this as 1?
 23 (Exhibit Paton 1 was marked for identification
 24 by the reporter.)
 25 Q. (By Mr. Turet) Mr. Paton you're being shown a

Page 59

1 document that's been marked as Paton 1. That's Bates Nos.
 2 MAE 053222 dash 23. It's a February 14, 1969 memo. I
 3 don't want to rush you. Just let me know when you're
 4 finished skimming it.
 5 Okay. First of all, who is Don Roush if you
 6 know?
 7 A. Don Roush worked for Monsanto. I don't know
 8 what his position was in 1969. Later he would have been
 9 one of the groups in fluids when I would have worked in
 10 fluids say from late '71 or '72 for several years as I
 11 recall.
 12 Q. Okay. There's a reference in the very first
 13 paragraph in the sentence that begins, we've been advised
 14 of the bran oil poisoning of quite a number of Japanese
 15 citizens that was attributed to PCB.
 16 MR. DIMURO: Are you going to quote it or
 17 paraphrase it?
 18 MR. TURET: Would you like for me to quote it?
 19 MR. DIMURO: Well --
 20 MR. TURET: To quote it, it says, we have been
 21 advised by our Japanese representatives of the bran oil
 22 poisoning of quite a number of Japanese citizens that was
 23 attributed to Kaneclor 400 in parentheses, chlorinated
 24 biphenyl comparable to FR dash 2 close paren.
 25 MR. DIMURO: Thank you.

Page 60

1 Q. (By Mr. Turet) Mr. Paton, what chlorinated
 2 biphenyl was included in the product that was Therminol
 3 FR-2 if you know?
 4 A. I have forgotten which one it was.
 5 Q. But you remember it was a PCB product?
 6 A. Yes.
 7 Q. Now, do you know offhand what the bran oil
 8 poisoning in Japan was?
 9 A. I have not seen this memo before.
 10 Q. Do you know offhand of a bran oil poisoning
 11 incident in Japan?
 12 A. I have a vague recollection of an incident
 13 involving heat transfer fluid in Japan. But I probably
 14 wouldn't have heard of that until after I became involved
 15 in heat transfer fluids in whatever it was, the early
 16 '70's. I don't think --
 17 Q. Does it help any if I use the name Yusho?
 18 A. Not really.
 19 Q. Now Mr. Roush states in the one, two, third
 20 paragraph down and I quote, however, it only seems a
 21 matter of time until the regulatory agencies will be
 22 looking down our throats regarding the use of this
 23 material. Again referring to Therminol FR --
 24 MR. DIMURO: Where does it say that?
 25 MR. TURET: Look at the first sentence.

Page 61

1 MR. DIMURO: Then read both of them together.
 2 MR. TURET: I think we have a good track record
 3 here in the States using Therminol FR in these
 4 applications period. However, comma it only seems a
 5 matter of time until the regulatory agencies will be
 6 looking down our throats regarding the use of this
 7 material period. Did I quote it right.
 8 MR. DIMURO: Thank you.
 9 Q. (By Mr. Turet) Did you agree with that
 10 statement as of February of 1969 when you were a market
 11 manager?
 12 MR. DIMURO: I object to the form of the
 13 question.
 14 A. I thought I just testified this is the first
 15 time I've seen this memo.
 16 Q. (By Mr. Turet) I'm not asking about the memo,
 17 I'm asking about the statement.
 18 A. February 14th, 1969, I had nothing to do with
 19 Therminol FR and I don't see that I was copied in on the
 20 memo. So, you know, I wouldn't have had an opinion on
 21 something that I haven't seen.
 22 Q. Did you have any opinion as to whether it was
 23 inevitable the regulatory agencies would be looking down
 24 Monsanto's throats regarding the use of PCBs?
 25 MR. DIMURO: Objection to form.

Page 62

1 A. I don't think he says PCBs. That's a broad
 2 form.
 3 Q. (By Mr. Turet) I asked you a question about the
 4 statement.
 5 MR. DIMURO: Wait a minute. You're taking a
 6 quote and changing it from Therminol FR to PCBs,
 7 attributing the quote to Mr. Roush, asking the witness who
 8 has never seen the document whether he agrees with the
 9 statement that's a different statement, so I'm --
 10 MR. TURET: I'm asking him if he had an opinion,
 11 if he agrees with the statement if it was changed
 12 slightly. I believe that's a perfectly appropriate
 13 question.
 14 MR. DIMURO: I don't think you can pull certain
 15 things from the document and change the statements Roush
 16 used and some terms to describe something and you're
 17 asking a different question.
 18 MR. TURET: I'm asking it and if you have an
 19 objection, state it.
 20 MS. O'CONNOR: I'll join it. Unless you change
 21 the question as to his past feelings, I think you're
 22 asking for an expert opinion.
 23 MR. TURET: I'm asking whether he had an opinion
 24 in February of 1969 --
 25 MS. O'CONNOR: Okay. Thank you.

Page 63

1 MR. TURET: -- as to whether --
 2 MR. DIMURO: Okay.
 3 MR. TURET: -- it was inevitable that regulatory
 4 agencies would be breathing down the throats of Monsanto
 5 regarding PCBs.
 6 MR. DIMURO: Objection to form.
 7 A. I didn't have an opinion at that time.
 8 Q. (By Mr. Turet) Okay. Did you, while you were
 9 working as the marketing manager in the Plasticizer area,
 10 have any knowledge with regard to Therminol 55 or
 11 Therminol 66?
 12 A. I doubt it very much. I can't recall.
 13 MR. TURET: Would you mark this one as Paton 2?
 14 (Exhibit Paton 2 was marked for identification
 15 by the reporter.)
 16 MR. TURET: And for the record this is Bates MAE
 17 053552 through 55.
 18 MR. DIMURO: Do you want him to read a whole
 19 thing or do you have particular questions?
 20 MR. TURET: I'm going to ask him generally about
 21 it. If I have specific questions, I'll definitely direct
 22 him to the spot.
 23 MR. DIMURO: Okay.
 24 A. I've read it.
 25 Q. (By Mr. Turet) First things first, Mr. Paton,

Page 64

1 have you seen this document before today?
 2 A. I can't recall, but almost certainly I would
 3 have seen it.
 4 Q. At or about March, March 3rd of '69?
 5 A. I'm almost certain, yes.
 6 Q. Did you participate in drafting this public
 7 statement?
 8 A. I can't recall what role I'd have played. I'm
 9 sure that I'd have seen it before it was in its final
 10 form. But whether I helped in the drafting process, I
 11 can't remember.
 12 Q. Who took the initial draft at it if you
 13 remember?
 14 A. I don't remember.
 15 Q. Do you remember any of the other people who
 16 participated in drafting this public statement?
 17 A. No. I could guess and I'd rather not guess.
 18 Q. Fair enough. I'm not going to ask you to
 19 speculate or guess.
 20 Hold on for a moment and let me hand you a
 21 document that was marked as Keller 9 which is a March 3rd,
 22 1969 letter and ask if you've seen that document before.
 23 A. Okay.
 24 Q. First of all, have you ever seen the document
 25 that was marked as Keller 9 before today?

Page 65

1 A. I can't recall now but I probably would have
 2 seen it at the time.
 3 Q. Okay. And did the language of that track fairly
 4 closely to the public statement that we just marked as
 5 Paton 2?
 6 MR. DIMURO: I'll object to form.
 7 A. I saw some differences, but --
 8 Q. (By Mr. Turet) Would you agree that it's very
 9 similar?
 10 MR. DIMURO: I'll object to the form.
 11 A. I can see that they, you know, they cover pretty
 12 much the same information.
 13 Q. (By Mr. Turet) Okay. Skipping to the third
 14 page of what was marked as Keller 9. I believe it has the
 15 same quote in both. It's also on Page 3 of the public
 16 statement it says, quote, it is comma therefore comma not
 17 only puzzling comma but extremely difficult to conceive
 18 how commercially-produced PCB can show up in wildlife as
 19 DDT and other pesticides appear to be. Did you
 20 participate in that, in the drafting of that particular
 21 sentence?
 22 MR. DIMURO: You're asking him about Keller 9?
 23 MR. TURET: It's in both documents. I quoted it
 24 verbatim from both documents.
 25 MR. DIMURO: It's from both. Okay. I object to

Page 66

1 the form.
 2 A. I cannot recall that at all now.
 3 Q. (By Mr. Turet) Did that characterize your
 4 belief back in March of 1969?
 5 MR. DIMURO: Object to the form. Again, you can
 6 answer it.
 7 A. Back then, I was unsure whether these PCBs were
 8 really being found. Also, again, yes, I would have, I
 9 wasn't sure how they would have got into the environment.
 10 Q. (By Mr. Turet) Okay. And did, you may have
 11 said this already and I apologize if I'm repeating the
 12 question. Did you have doubts in your mind as to whether
 13 this substance that had been identified by Jensen in
 14 Sweden and by Risebrough in California was PCB?
 15 MR. DIMURO: I'll object to the form.
 16 A. As I'm not disputing that they did the work and
 17 they did studies. I think as I recall now, when I saw the
 18 article that got across my desk from which was the Jensen
 19 Widmark thing and what I saw about Dr. Risebrough is that
 20 they were finding these products in conjunction with other
 21 chlorinated materials. And so it was difficult, even if
 22 PCBs were present, it didn't necessarily mean that they
 23 were causing problems because they were mixtures of
 24 products.
 25 And then there was debate, I think, as to

Page 67

1 whether or not there was a breakdown of some of these
 2 products that would have given PCB-like materials. So
 3 that was where I didn't know what was accurate and what
 4 wasn't, but I knew that there was work being done to try
 5 to, you know, investigate that further.
 6 Q. (By Mr. Turet) And Mr. Wheeler was one of the
 7 ones who was doing that investigative work?
 8 A. He would have been involved in it, yes.
 9 Q. All right. I have no further questions on those
 10 two. Mr. Paton, let me show a document that was marked as
 11 Keller 10, MAE 053006 through 08. It's a March 6, 1969
 12 memo. And just so you know, Mr. Paton, I understand if
 13 you want to take as much time as you want to read
 14 documents, but we're going to go through this whole
 15 stack. And I assure you, I will direct you to anything
 16 I'm going to ask you questions about. But if you want to
 17 read every word, you're free to.
 18 MR. DIMURO: Do you want to, I think he's
 19 skimmed it if you want to ask him a particular question.
 20 Dr. Paton, I think Craig's trying to speed things up.
 21 Certainly if you think you need to read more than a
 22 portion he looks at, let us know and I'm sure he'll give
 23 you that time to do that.
 24 MR. TURET: Absolutely.
 25 Q. (By Mr. Turet) Have you seen this document

Page 68

1 before today, Mr. Paton?
 2 A. No.
 3 Q. Do you remember during your time as a market
 4 manager back in the late 1960's hearing from Bill Richard
 5 that he had concerns about Aroclor in wildlife?
 6 MR. DIMURO: Object to the form. You can
 7 answer.
 8 A. I'm not sure. I didn't deal a great deal with
 9 Bill Richard because he had, his job was research director
 10 for a group of products different than what I had
 11 responsibilities for so normally we would not have had a
 12 lot of contact. I'm not copied in on this memo. He
 13 copied in Springate and Schalk who were in the Plasticizer
 14 division. So these, and whether these, either of these
 15 two individuals passed this memo on to me, I can't recall
 16 at all.
 17 Q. (By Mr. Turet) Okay. Do you remember in
 18 substance though discussions that related to the issues of
 19 PCBs being found in wildlife?
 20 A. There were discussions because we had seen
 21 articles and heard about it. But I can't recall now the
 22 substance of how many of them were or who, which
 23 individuals I would have discussed it with.
 24 Q. When you first heard about the Risebrough
 25 findings in California, was it your understanding that

Page 69

1 PCBs were being identified as a substance potentially
 2 toxic to humans?
 3 MR. DIMURO: I'll object to the form. You can
 4 answer it.
 5 A. I think at that time my recollection is that
 6 substances that had been identified in sea birds as PCBs
 7 were supposedly identified along with DDT and other
 8 chlorinated materials. But I don't think a link had been
 9 made between finding it and the, you know, any toxic
 10 effects, you know, finding something and saying it caused
 11 something are two different things. And I think that link
 12 had not been made at that time. That's my recollection.
 13 But we were interested in trying to find out whether there
 14 was any link.
 15 Q. (By Mr. Turet) Let me direct your attention to
 16 the very beginning of the memo where Mr., Dr. Richard says
 17 that Risebrough in a recent paper Nature, Vol. 220,
 18 December 14, 1968 has attacked chlorinated biphenyls in
 19 three ways. And you'll notice the third one in the list
 20 of three is a toxic substance endangering man himself
 21 implying that the peregrine falcon is a leading indicator
 22 of things to come. Did you have a different understanding
 23 back in March of 1969 or was yours the same as
 24 Dr. Richard's?
 25 MR. DIMURO: I'll object to the form.

Page 70

1 A. I don't know that, you know, what Dr. Richard's
 2 real thinking was on this. I see what he's written. And
 3 I'm trying to recall what I knew about the situation back
 4 in '69.
 5 Anything that I read about Risebrough, saw in
 6 Risebrough's articles, I wouldn't have characterized as an
 7 attack nor that, you know, man himself was endangered.
 8 That's not my recollection of the situation. But, you
 9 know, I don't know what, you know, what all Bill Richard
 10 had read. He may have read other articles. I don't
 11 know. So I'm really not competent to pass judgment on
 12 this memo at all.
 13 Q. (By Mr. Turet) Let me direct your attention to
 14 the second page of the memo. The paragraph in the middle
 15 of the page that begins with, we can take steps. If you
 16 would read that first sentence to yourself and I just want
 17 to ask you about a piece of it. I'm sorry, did you
 18 finish?
 19 A. I've read this paragraph. The one that starts
 20 with we can take steps and finishes with hydraulic users,
 21 is that what you're directing my attention to?
 22 Q. Yes. I was only referring to the first
 23 sentence, but that's fine. And that first sentence in
 24 that paragraph refers to some of the steps that can be
 25 taken to minimize pollution. Do you recall at the time

Page 71

1 having been invited in your capacity as market manager to
 2 discuss specific steps that could be taken by Monsanto to
 3 minimize pollution?
 4 A. No, I don't.
 5 Q. Do you remember any discussion about meetings
 6 with larger customers at the time as one step that could
 7 be taken?
 8 A. No, I don't.
 9 Q. Do you have any understanding today as to why
 10 larger customers might be approached and not other
 11 customers?
 12 MR. DIMURO: Object to the form. You can answer
 13 it, Dr. Paton.
 14 A. I have no idea.
 15 Q. (By Mr. Turet) Skipping down to the paragraph
 16 after that, Dr. Richard states that it will be still more
 17 difficult to control other end uses such as cutting oils,
 18 adhesives, plastics, and NCR paper. Do you remember
 19 discussions specifically related to difficulties in
 20 controlling end uses back in March of 1969?
 21 A. I don't recall now, but might well have been. I
 22 don't know.
 23 Q. Skipping down to the last, well, the paragraph
 24 that begins with Risebrough. You'll see that there is a
 25 sentence part way into it that says either his position is

Page 72

1 attacked and discounted or we will eventually have to
 2 withdraw product from end uses which have exposure
 3 problems. Do you remember discussions of that substance
 4 back in early 1969, March of 1969?
 5 A. I can't, I think from what I see from this that
 6 Bill Richard is stating his position, his opinion. I
 7 can't recall discussing, that I have discussed that with
 8 Bill Richard, so I have no opinion, no opinion on it.
 9 Q. Okay. Just to clarify, I'm not talking about
 10 just discussions with Bill Richard, I'm talking about
 11 discussions that you participated in within Monsanto with
 12 anybody on these important issues back in March of 1969.
 13 MR. DIMURO: Object to the form. You can answer
 14 it.
 15 A. I can't, I know that I would have been
 16 discussing and trying to learn more about the situation on
 17 this issue back in 1969. But I can't now recall who
 18 specifically, specifically who said what and who held what
 19 opinion and who didn't. I mean, it's just too long ago.
 20 Q. (By Mr. Turet) Then the next sentence
 21 Dr. Richard states that since the Risebrough paper in
 22 Nature December 1968 has just been published it is timely,
 23 perhaps imperative, that this paper and its implications
 24 be discussed with certain customers. Do you remember
 25 early in 1969 discussions within Monsanto about whether

Page 69 - Page 72

Page 73

1 the issue of Risebrough's findings should be discussed
 2 with Monsanto's customers?
 3 A. In Plasticizer, I don't. And I have no
 4 knowledge of what was happening in the fluids area because
 5 I had no responsibility for that.
 6 Q. Okay. You had no knowledge at the time of what
 7 was happening in March '69 in the other areas such as
 8 functional fluids?
 9 A. Not a great deal. I certainly can't remember
 10 any about it.
 11 Q. Do you remember one way or another whether
 12 meetings were taking place with larger functional fluids
 13 customers on the issue of whether PCBs were being found in
 14 the environment?
 15 A. I have no way of knowing that.
 16 Q. Did you, do you know whether in March of 1969,
 17 whether meetings were held with larger Plasticizer
 18 customers to discuss the issue of PCBs in the environment?
 19 A. I can't recall. It wouldn't surprise me if
 20 there hadn't been inquiries maybe received from any
 21 customer. And I don't know to what extent salespeople
 22 might have discussed it with customers. No, again, given
 23 this lapse of time, I can't remember that.
 24 Q. But as market manager, do you remember anybody
 25 contacting you for additional information?

Page 74

1 A. I seem vaguely to remember getting some phone
 2 calls. I seem to recall some requests for samples so that
 3 they could do some investigations on their own. And I
 4 would have passed them on to be sent to these people I'm
 5 sure. I can't say for sure whether, you know, I got calls
 6 from actual customers, calls from salespeople, you know.
 7 Again, I just can't remember.
 8 Q. Do you remember receiving any calls about PCB
 9 products that you forwarded on to the medical department
 10 at Monsanto?
 11 A. If I'd received, if people, sorry, could you
 12 repeat the question?
 13 Q. Do you remember receiving any calls about PCB
 14 products, let's say the early 1969 time frame, that you
 15 forwarded on to the medical department?
 16 A. I vaguely remember having one or two
 17 conversations with people who wanted samples because they
 18 were doing studies and that likely in those cases, I
 19 almost certainly would have passed them on to Emmet Kelly
 20 or Elmer Wheeler.
 21 Q. And that's in early '69?
 22 A. I don't know if it was early '69 or when it
 23 was. I mean it had to be between the beginning of '69 and
 24 sometime early '70, but God knows, I can't sit here today
 25 and remember exactly what I was doing every day of that

Page 75

1 time period.
 2 Q. Now, the last sentence on that page, Dr. Richard
 3 says that well-prepared discussions with Ind., Industrial,
 4 Bio-Test, Monsanto biochemists comma the medical and legal
 5 departments must take place now. Do you, as you sit here
 6 today, know whether well-prepared discussions actually
 7 took place with Monsanto's biochemists, medical and legal
 8 departments back in March of 1969 about this PCB issue?
 9 MR. DIMURO: I'll object to the form. You can
 10 answer it.
 11 A. I don't know whether they were well-prepared or
 12 not. I don't know if the legal department was involved or
 13 not. I do know that at some point Monsanto, I think,
 14 entered into a contract or a program with Industrial
 15 Bio-Test to do studies around some of the issues that are,
 16 you know, in this memo.
 17 Q. (By Mr. Turet) Did you have any personal
 18 involvement in the process whereby Industrial Bio-Test was
 19 obtained to do studies?
 20 A. I would have been briefed about it, but I would
 21 not have, I certainly didn't object, but I would not have
 22 been party to the program, how it was going to be done,
 23 you know, etc., etc. because that was, you know, was
 24 outside my realm of expertise.
 25 Q. Would you have gotten interim reports on how the

Page 76

1 studies were going?
 2 A. Not directly. I might have been told. I
 3 probably would be told or probably would have asked how
 4 things were coming along. But there would have been no
 5 need to give me the reports Industrial Bio-Test prepared
 6 because I would have just sent it to someone else to tell
 7 me what this is all about and what it means.
 8 Q. I have no further questions on that one.
 9 MR. TURET: Can you mark this as Paton 3,
 10 please?
 11 (Exhibit Paton 3 was marked for identification
 12 by the reporter.)
 13 MR. O'CONNOR: Before you ask your next
 14 question, do you guys want to -- let's go off the record.
 15 (A discussion was held off the record.)
 16 MR. DIMURO: Craig, I notice this document
 17 doesn't have any MAE numbers on it. Is it your
 18 representation this document is an exhibit to one of the
 19 depositions previously identified by Monsanto?
 20 MR. TURET: Well, I'm not going to make a
 21 representation just as I did last time during the Keller
 22 deposition. It's my understanding that it is, but I'm not
 23 going to make representation as to something that I don't
 24 know for sure.
 25 MR. DIMURO: So your representation is you don't

Page 77

1 know where the document came from?
 2 MR. TURET: I think this's not going to help you
 3 much. I think that it came from those transcripts.
 4 (Mr. Davidson exited the deposition room.)
 5 Q. (By Mr. Turet) Okay.
 6 A. Yes.
 7 Q. I don't know if I said this, for the record it's
 8 PRR 045436 dash 37. It's a March 7, 1969 letter.
 9 Mr. Paton, have you ever seen the document before today?
 10 A. No.
 11 Q. Okay. Who, in the first paragraph there's a
 12 reference to Monte Throdahl. Who is that?
 13 A. Monte Throdahl worked for Monsanto back in '69.
 14 I don't know what his position would have been.
 15 Q. Okay. What was the corporate development
 16 committee back in March of '69?
 17 A. I'm not sure. If I'd had about heard about it,
 18 which I probably did, it wouldn't have meant much to me.
 19 In my position at the time, that wouldn't have meant a
 20 whole lot to me.
 21 Q. Do you know if it's one of the managerial
 22 committees of the firm, of the company?
 23 A. With corporate being in there, I would have
 24 thought it would have been at the upper levels of
 25 management, but, at that time, I wasn't that close to that

Page 78

1 so --
 2 Q. Now, this is a, this purports to be a letter
 3 signed by Elmer Wheeler. Can you tell one way or the
 4 other from the signature at the bottom whether that's
 5 Mr. Wheeler's signature?
 6 A. Goodness only knows. I have no reason to
 7 believe it isn't, so --
 8 Q. Mr. Wheeler says on the first page one, two,
 9 three, fourth paragraph down, there's a statement, I have
 10 enclosed a copy of the final form of the PR release that
 11 was developed last week. This has been sent to twenty-one
 12 Monsanto customers over my signature. I'm just going to
 13 show you briefly again Keller 9 which you looked at before
 14 and ask if you know one way or the other whether that's
 15 the PR release under Elmer Wheeler's signature that went
 16 out to customers of Monsanto.
 17 A. I really don't know. I have no reason to
 18 believe it wasn't, but I don't know.
 19 Q. Okay. There's also a reference to Hinckler,
 20 H-I-N-C-K-L-E-R. Does that name mean anything to you?
 21 A. I think it might have been Minckler I believe.
 22 There was a Howard Minckler that was an, I'm trying to
 23 think if he was the general manager at the time of the
 24 organic chemical division. He certainly was at a higher
 25 level than Bergen. I think Bergen may have reported to

Page 79

1 them, but I think that might be a typo. I think it would
 2 have been Minckler, M-I-N-C-K-L-E-R, but I'm not sure
 3 because I didn't write the memo and I didn't see it.
 4 (Mr. Davidson re-entered the deposition room.)
 5 Q. (By Mr. Turet) And who is Joe Neff, N-E-F-F, if
 6 you know?
 7 A. I don't know.
 8 Q. Okay. Mr. Paton, I'm going to show you a
 9 document, I'm going to show you a document that was marked
 10 yesterday as Keller 11, a chlorinated biphenyl
 11 chronological events list and ask you if you have seen
 12 that document before today.
 13 A. No, this doesn't look familiar. I might have
 14 seen it, but it doesn't look familiar.
 15 Q. Okay. I'll represent to you that yesterday we
 16 took the deposition of Dr. Keller and that he indicated
 17 that he prepared it and that's his signature down at the
 18 end.
 19 Now, I just want to ask you about a couple of
 20 the references here. There is an, on the first page under
 21 the date of December 29, 1966, a reference to Widmark
 22 letter to and there's a name that's been deleted
 23 Monsanto. Do you recall having seen a letter that went
 24 from Professor Widmark to Monsanto back in December of
 25 '66?

Page 80

1 A. No.
 2 Q. There's a reference there quote would like to
 3 work with Monsanto Toxicologists on problem. Close
 4 quote. Do you recall hearing from anyone that Professor
 5 Widmark had communicated with Monsanto in December of '66
 6 asking to work with their toxicologists?
 7 A. No. And it wouldn't surprise me, because I
 8 don't think, now it comes back to me. I think it was
 9 November of '66 that I joined Monsanto. So at that time,
 10 you know, I would, I wouldn't have known my way around
 11 Monsanto let alone getting to this kind of stuff. I was
 12 probably still in Darby College.
 13 Q. Who was Wilde, W-I-L-D-E? You'll see the name
 14 listed under February 13th, '67 and February 21 of '67.
 15 Does that name mean anything to you?
 16 A. Gene Wilde was a colleague of mine in
 17 Plasticizers. In fact, now that I think of it, initially,
 18 I might have even reported to Gene. He was a market
 19 manager as I recall, but I'm not sure whether I reported
 20 to him or not. But certainly he was a colleague at the
 21 time.
 22 Q. So he was, was he at the level of Walter
 23 Waychoff?
 24 A. No, he would have been a market manager. He
 25 would have been, you know, reporting directly to Walter

Page 77 - Page 80

Page 81

1 Waychoff where I reported initially to a market manager.
 2 Q. I see. Okay. Do you know as you sit here today
 3 what the references would be in February of 1967 of a
 4 Wilde letter to Kelly or Kelly letter to Wilde no need to
 5 contact Swedish people?
 6 A. No. I would not have been involved in anything
 7 about that and, or I certainly can't remember.
 8 Q. Okay. There's a reference at the very bottom of
 9 the page, November 2nd, 1967 Richardson letter Hardy. Do
 10 you know who Hardy was or is?
 11 A. There was a Hardy I think that worked for
 12 Monsanto in Europe, but I don't know if that's the same
 13 one or not.
 14 Q. And if it was the Monsanto Europe person, what
 15 was his position?
 16 A. I have no idea.
 17 Q. There's a reference here to confirmed by GC
 18 slash mass period Aroclor 1254.
 19 A. Oh, I'm sorry.
 20 Q. Right at the very bottom of the page under that
 21 November 2nd, 1967 heading, it says confirmed.
 22 A. It says confirmed by GC mass.
 23 Q. Aroclor 1254 in eggs from 100 ppm feeding
 24 studies confirmed government labs. Do you know what that
 25 means?

Page 82

1 A. No.
 2 Q. Did you have any knowledge back in November of
 3 1967 about testing that had been done on Aroclor 1254 in
 4 eggs?
 5 A. I don't, and I think it highly unlikely I would
 6 have given what my position and what my responsibilities
 7 were then.
 8 Q. Okay. On Page 2, the entry that's dated May 3,
 9 1968, Newell letter to Hunt. First of all, who was Newell
 10 if you know?
 11 A. That's not a name that rings a bell at all.
 12 Q. How about Hunt?
 13 A. No. I can't, that doesn't ring a bell either.
 14 Q. All right. There's a statement, recommended
 15 tests in cooperation with Monsanto rather than seek
 16 government support med department recommended no action.
 17 Does that mean anything to you?
 18 A. No.
 19 Q. Skip ahead to the third page. There's a
 20 July 31, 1968 reference to Paton memo. I think that's the
 21 one that we saw already today. Do you know what the
 22 November 27, 1968 memo Paton to Richard include Aroclor
 23 5460 is?
 24 A. No. I would have to see it to refresh my
 25 memory. I can't think now what that was.

Page 83

1 Q. Do you remember ever recommending to anybody
 2 within Monsanto that they do similar tests that were being
 3 done on PCBs with terphenyls?
 4 A. I can't recall now, but it, I might well have
 5 done. I'm not denying it. I might have done it, I don't
 6 know.
 7 Q. Do you know, down at the bottom under
 8 December 30, 1968 there's a reference Richard to Kuhn,
 9 K-U-H-N, dash legal problems. Do you know what that's a
 10 reference to?
 11 A. No, because the name there was Kuhn in
 12 Monsanto. I don't think he was in the law department, but
 13 I, I just don't.
 14 Q. Do you recall any discussions about legal
 15 problems specifically in the context of chlorinated
 16 biphenyls back in December 30th, '68?
 17 A. No.
 18 MR. DIMURO: Let me just caution the witness to
 19 the extent he had any discussions with Monsanto's in-house
 20 counsel, those conversations are privileged. But subject
 21 to that, you may answer the question.
 22 A. I have no idea what Richard and Kuhn would have
 23 talked about. I have no idea.
 24 Q. (By Mr. Turet) Flipping to the last page,
 25 there's a January 24, 1969 reference to Paton to Keller et

Page 84

1 al.
 2 A. Yeah.
 3 Q. Montar. Do you remember writing a memo to
 4 Dr. Keller about Montar back in January of '69?
 5 A. If there's a memo around, I wouldn't deny that I
 6 did it, but at this late stage, I have no idea what that
 7 would have been about.
 8 Q. You may have answered this question. Do you
 9 know what you, do you remember there having been any
 10 issues discussed with regard to Montar as they would have
 11 been reported to Dr. Keller by you?
 12 A. I can't now recall. Montar was a product that I
 13 think had PCBs in it. And so it's not unlikely that if we
 14 were doing a study on PCBs that we wouldn't have looked at
 15 anything, you know, that was part of it, like Montar, but
 16 I just, at this late date, I have no idea what that might
 17 have been about.
 18 Q. And all the way down at the bottom, March 5th,
 19 1969 Paton to Richard DDT on trial. Do you know what that
 20 is in reference to?
 21 A. I seem to vaguely remember that there was some
 22 investigation or some lawsuit involving DDT in some state
 23 somewhere. Or there were hearings on it or something.
 24 And possibly I drew that, if I had seen an
 25 article or something, maybe I drew it to Bill Richard's

Page 85

1 attention. Again, I can't, without seeing the memo, I
 2 have no, I can't say for sure what it was about.
 3 Q. Okay. I have no further questions on that one.
 4 (Mr. Davidson exited the deposition room.)
 5 Q. (By Mr. Turet) I believe I had just handed you
 6 a document, Mr. Paton.
 7 A. We were looking at one.
 8 MR. DIMURO: You gave him the chronology.
 9 A. I thought we finished that.
 10 Q. (By Mr. Turet) Okay. Mr. Paton, I'm going to
 11 show you a document that was marked as Keller 12 which is
 12 Bates Nos. MAE 023422 dash 31.
 13 MS. O'CONNOR: I'm sorry, could you say that
 14 again?
 15 MR. TURET: Sure. MAE 023422 dash 31.
 16 MS. O'CONNOR: Thank you.
 17 MR. DIMURO: Do you want to call his attention
 18 to any particular --
 19 Q. (By Mr. Turet) First, I'm going to ask if
 20 you've ever seen it before.
 21 A. No, it doesn't ring a bell with me.
 22 Q. Now I asked you before about the Jensen,
 23 Widmark, and about the Risebrough work. On Page 3, there
 24 are references, and perhaps I should start you on Page 2
 25 at the very last paragraph and it says the original work

Page 86

1 of Jensen and Widmark has been extended and generally
 2 confirmed notably by workers at the following
 3 establishments, and much of the detail had been
 4 published. On Page 3, there is a list of studies and I
 5 want to ask which ones you remember having seen and or
 6 heard about back when you were a market manager at
 7 Monsanto.
 8 A. All the ones listed on Page 3?
 9 Q. Correct.
 10 A. Other than seeing articles, you know, one or two
 11 articles written by Dr. Risebrough or references to
 12 Dr. Risebrough, I'm not familiar with any of those at all.
 13 Q. Okay. Flipping ahead to the following page, the
 14 summary section, Paragraph 1 states that there can be no
 15 doubt that traces of PCBs parentheses Aroclors close paren
 16 are to be found in wildlife comma fish and certain items
 17 of human diet. Did you agree with that statement as of
 18 May or June of 1969?
 19 MR. DIMURO: I'll just object to form.
 20 A. I'm not in a position to pass any comment on
 21 that because I don't appear to have received the
 22 document. I can't recall ever having seen it. And I
 23 certainly didn't have any discussions with Mr. Hardy, is
 24 it Hardy, on it so --
 25 Q. (By Mr. Turet) I'm not asking about it with

Page 87

1 respect to this document. I'm asking generally back in
 2 the time frame of May and June of 1969 whether you had an
 3 opinion one way or the other as to the truth of that
 4 statement.
 5 MR. DIMURO: I'll object to the form.
 6 A. Again, I can't, casting my mind back to that
 7 time frame, I can't remember thinking that or not.
 8 Q. (By Mr. Turet) Okay. Do you remember
 9 specifically discussions back in that time frame about
 10 traces of PCBs in the human diet?
 11 MR. DIMURO: Object to the form again.
 12 A. Again, I'm very hazy on that. I recall, and
 13 again, there was a memo that you showed me earlier that
 14 referred to what, what I said about the New Scientist
 15 article and the theory of it, but, how accurate that is
 16 and what is included in this statement, certain items of
 17 human diet, I have no way of knowing what he refers to.
 18 Q. (By Mr. Turet) Okay. No further questions on
 19 that one.
 20 MR. TURET: Can we mark this as Paton 4?
 21 (Exhibit Paton 4 was marked for identification
 22 by the reporter.)
 23 Q. (By Mr. Turet) Mr. Paton, I'm going to show you
 24 a document marked as Paton 4. It has Bates Nos. MAE
 25 059911. I guess it has an enclosure that has a decimal

Page 88

1 point and then .01 through .03. Mr. Paton, what was the
 2 Specialist?
 3 A. It was kind of an information bulletin to our
 4 field sales force.
 5 Q. Prepared by whom?
 6 A. Well, it could have been, Monsanto Speciality
 7 Modifiers, that might have just referred, I can't remember
 8 now, but it might have just referred to products for which
 9 I had responsibility in which case I would have been
 10 mostly the person who had written it. Or it might have
 11 applied to all Plasticizers in which case anyone in the
 12 Plasticizer marketing group might have written one at some
 13 point.
 14 Q. But they generally originated through the
 15 Plasticizer marketing group?
 16 A. Yes.
 17 Q. And are these the information bulletins that you
 18 referred to earlier as part of --
 19 A. This would be an example of one.
 20 Q. And did I understand you to say that the
 21 audience, the targeted audience was the field salespeople
 22 of Monsanto?
 23 A. That was the primary audience, yes.
 24 Q. Was it also distributed to customers?
 25 A. It would have been distributed to customers. It

Page 89

1 would have been done by the salesperson for that
2 particular customer account.

3 Q. Okay. Now, down at the bottom of the first
4 page, there's a reference to a separate Plastifacts will
5 be issued, one word.

6 A. Uh-huh.

7 Q. What is a Plastifacts?

8 A. I recognize the name but I cannot recall now
9 what it was and how it would differ from the Specialist or
10 from an information bulletin.

11 Q. Okay. Now, in the first paragraph there it says
12 we are indebted to blank technical service department and
13 the blank has been whited out for supplying the attached
14 formulations for hot melt adhesives. Do you have any
15 understanding from that sentence whether the hot melt
16 adhesives formulation was coming from outside of Monsanto?

17 A. I think almost certainly it was.

18 Q. Was this an, a common occurrence to have
19 formulations provided by customers that were then
20 incorporated into the Specialist?

21 A. Well, it could have been a customer or it could
22 have also been the producer of the basic resin that was
23 promoting that particular resin for a particular
24 application. I think it would have been maybe unusual for
25 it to have been a customer. We simply wouldn't have used

Page 90

1 it in any event without checking back with whoever
2 supplied it to ask if we could indeed use it.

3 Q. So to use the examples that you gave earlier,
4 Hercules or DuPont could come up with a formulation,
5 supply that formulation to Monsanto, and it could be
6 incorporated as part of the Specialist to go to the field
7 salesmen?

8 A. Yeah, because they would have seen that as one
9 other avenue for their products, and their products could
10 have got some promotion and recognition.

11 Q. Flip ahead to the third page. Do you have any
12 recollection from your time as market manager whether hot
13 melted adhesive for furniture was a common application for
14 Aroclor 1254?

15 A. On the third one, that's 626 F, isn't it?

16 MR. DIMURO: I think it's the --

17 Q. (By Mr. Turet) It's the 614, Formula 614.

18 A. I see, 614.

19 Q. Let me ask you first, this is a formulation for
20 a hot melt adhesive for wood furniture, correct?

21 A. Yes, purports to be, yes.

22 Q. And it purports to require 13 percent Aroclor
23 1254?

24 A. Uh-huh.

25 Q. Okay. To the best of your recollection, was hot

Page 91

1 melt adhesives for furniture a common application for
2 Aroclor 1254 back in this 1968 time frame?

3 MR. DIMURO: Object to the form. You can answer
4 it, Dr. Paton.

5 A. I can't recall. I know that hot melts at that
6 time were sort of a growing application. But I can't
7 recall, you know, what applications were the biggest and
8 just thinking of it, this wouldn't have struck me as being
9 a particularly big one. But I can't relate to hot melts,
10 to the furniture industry coming together and us meeting
11 with a lot of furniture people because I don't imagine we,
12 because I can't recall any customers that we had that were
13 producers of furniture. So unless the furniture
14 manufacturer was getting it from somebody that did the
15 formulation, you know, so --

16 Q. (By Mr. Turet) How about the following page?
17 This hot melt adhesive for polyolefin film. What is
18 polyolefin film?

19 A. Polyolefin film is a type of polymer.
20 Polyethylene is probably one of the more common
21 polyolefins.

22 Q. What is some uses of that we might relate to for
23 polyolefin film?

24 A. It could be used for packaging or covers to keep
25 rain away from products, and, you know, things, putting on

Page 92

1 top of pallets and so on.

2 Q. Okay. And this particular formulation suggested
3 the use of Aroclor 1254 20 percent; is that right?

4 A. That's what this says.

5 Q. Do you remember that being an application for
6 Aroclor 1254 back in the '68, '69 time frame?

7 A. I can't, you know, now I can't recall. But
8 again, I have no reason to dispute that somebody didn't,
9 you know, come up with that formulation and use it.

10 Q. And from your work as a market manager, does it
11 strike you as at all unusual that the procedures for both
12 those calls for heating the Aroclor for 1254 to over 300
13 degrees?

14 MR. DIMURO: I'll object to the form. You can
15 answer it, Dr. Paton.

16 A. I guess it says 300 degrees. I don't know how
17 long it was going to be heated for. I didn't, you know, I
18 didn't develop the formulation nor did, did I develop the
19 procedure for it to be used. I was just reporting, and as
20 I read the first page, and my intent in sending this out
21 was that I saw an opportunity for an antioxidant because
22 we had an antioxidant sandy white powder which we would
23 have had regarded as a replacement for Ethyl 702.

24 Q. (By Mr. Turet) Okay. My question was: Based
25 upon your work as a market manager, was it unusual to have

Page 93

1 a procedure, a mixing procedure that called for the
 2 heating of Aroclor 1254 to over 300 degrees Fahrenheit?
 3 MR. DIMURO: I'll object to the form of the
 4 question.
 5 A. Well, to mix, you know, when you're producing
 6 the formulation to mix it together, maybe to expedite the
 7 mixing, maybe they did heat it. I don't think, if what
 8 you're getting to is that would it then be normal for
 9 Aroclor to be used at extended periods for 300 F, I
 10 wouldn't draw that conclusion.
 11 Q. (By Mr. Turet) That's not my question. I'm
 12 just asking if it's unusual to have as part of the initial
 13 manufacturing process to have temperatures of 300 degrees
 14 or more when mixing the ingredients including Aroclor
 15 1254.
 16 MR. DIMURO: I object to the form again.
 17 A. Well, you know, I don't know what's usual or
 18 unusual in producing hot melt adhesives because I don't
 19 produce them.
 20 Q. (By Mr. Turet) All right. Mr. Paton, I'm going
 21 to show you a document that was marked as Keller 13. For
 22 the record, that is a document Bates No. PRR 0250, I'm
 23 sorry, 025243.
 24 MS. O'CONNOR: 025243?
 25 MR. TURET: 025423 through 247. And the last

Page 94

1 page has a different type and no Bates number.
 2 MR. O'CONNOR: Keller 11?
 3 MR. TURET: Keller 13.
 4 Q. (By Mr. Turet) Mr. Paton, have you ever seen
 5 the document before?
 6 A. No.
 7 Q. When you were market manager, was it customary
 8 for you to receive reports from the medical department?
 9 A. I'm not sure. I don't think I would have got a
 10 regular report. I would have been informed if I'd asked
 11 or if they'd called me up or something, but I would not
 12 have been on their circulation list for the regular
 13 monthly or quarterly reports that they would have
 14 produced.
 15 Q. Now as we flip through this quarterly report,
 16 you'll see there's quite a bit written on PCBs at the time
 17 you were marketing manager for the area that included
 18 PCBs. Did you receive reports from the medical department
 19 that focused on PCBs during your time as a market manager?
 20 A. I can't recall any ones coming to me
 21 specifically, no.
 22 Q. Do you recall learning while you were marketing
 23 manager that, that the State Department of Agriculture in
 24 Connecticut had identified PCBs in the environment?
 25 MR. DIMURO: Are you reading from a particular

Page 95

1 page of that document?
 2 MR. TURET: The page that's Bates No.
 3 PRR 025245.
 4 Q. (By Mr. Turet) There is a statement the State
 5 Department of Agriculture in Connecticut reported finding
 6 PCBs in fish in that state.
 7 MR. DIMURO: And the question is whether he knew
 8 of that at that time?
 9 MR. TURET: Yes.
 10 MR. DIMURO: Okay.
 11 A. I can't recall hearing anything about this at
 12 that time.
 13 Q. (By Mr. Turet) The next paragraph on page, on
 14 the following page, the next full paragraph, states that
 15 during the summer we have received reports of PCBs in milk
 16 in Georgia and Maryland, in fish and water of Lake
 17 Michigan, and fish and oysters in the Gulf of Mexico. Do
 18 you remember any of those incidents?
 19 A. I seem to vaguely remember something in Lake
 20 Michigan that I, but the other two references, I have no
 21 recollection of those.
 22 Q. The paragraph after that refers to sampling that
 23 was done of the Escambia River.
 24 MR. TURET: Off the record.
 25 (A discussion was held off the record.)

Page 96

1 A. I'm sorry and your question was on the third
 2 paragraph.
 3 Q. (By Mr. Turet) Okay. Mr. Paton, I believe we
 4 were on Page 2. There's a discussion about sampling that
 5 was done on the Escambia River below Monsanto's Pensacola
 6 Plant. Did you recall any discussions relating to PCBs in
 7 the Escambia River?
 8 A. This refreshes my memory. I seem to remember
 9 hearing something about this incident.
 10 Q. What was your understanding of what had been
 11 found in the Escambia River and its significance?
 12 A. I wouldn't have been able to, I probably
 13 wouldn't have recalled the incident. And I certainly
 14 wouldn't have recalled the details. I've read Paragraphs
 15 3, 4, and 5 and I have no reason to dispute that whoever
 16 wrote this isn't, you know, giving accurate information.
 17 I don't know.
 18 Q. Do you know specifically whether the Florida
 19 Plant of Monsanto switched over from PCB-containing
 20 Pydraul fluid to mineral oil immediately upon these
 21 findings in the Escambia River?
 22 MR. DIMURO: Object to form.
 23 A. I would not have any involvement in that
 24 decision. I would have no knowledge of that at all.
 25 Q. (By Mr. Turet) Do you remember hearing or

Page 97

1 reading any documents within Monsanto about this?

2 A. I can't recall.

3 Q. At the beginning of the second paragraph from
4 the bottom, there's a statement that other sources of
5 contamination in milk, etc. have not been pinpointed but
6 appears likely that some of our customers' products will
7 be found responsible. Do you have any recollection back
8 in mid to late 1969 of discussions relating to customers'
9 products having been responsible for environmental
10 contamination of PCBs?

11 A. No.

12 Q. Moving on to the next page, Page 3 at the top.
13 There's a statement that quote the organic division comma
14 which produces this series of very profitable products
15 comma has a concerted effort underway to protect continued
16 sales and uses end quote. Do you have any understanding
17 of what that refers to?

18 A. No.

19 Q. Following sentence says quote it is likely comma
20 however comma that it will be found impossible to prevent
21 losses to the environment of Aroclors 1254 and 1260 in
22 some customer applications and that public and
23 governmental pressures will lead to restrictions that
24 cannot be met without discontinuing production and sales.
25 Period. Close quote. Do you remember any documents that

Page 98

1 specifically referred to that in substance back in mid to
2 late 1969?

3 A. I can't recall. That's not to say there weren't
4 any and that's not to say I didn't see them, but I can't
5 recall them.

6 Q. Do you remember any discussions at all about the
7 issue of the possibility that Monsanto could be compelled
8 to cease manufacture of PCBs as a result of the growing
9 detection of PCB in the environment?

10 MR. DIMURO: I object to the form.

11 A. I can't recall discussions about us being
12 compelled to discontinue. I know that, that from what I
13 recall, that it was 1254 and 1260 that were being
14 identified in the studies that were being done. You know,
15 they said that they thought it was the 1254 and 1260 if it
16 wasn't the lower chlorinated materials that were being
17 found. And since we had, you know, there was a lot of
18 sales of these other products, you know, we were trying to
19 say, well, we were saying, well, if it's the 1254 and 1260
20 that are, you know, being identified in the environment,
21 what do we do about those. But if the others aren't being
22 found, then presumably we should, you know, continue on
23 with those.

24 And so there was that thing being, you know,
25 studied and thought about and determined in that time

Page 99

1 frame as to what course of action we would pursue. But I
2 don't think we were, in fact, never in my time with
3 Monsanto have I found them trying to dig their heels in
4 and trying to prevent doing something. And I've always
5 found them to be a company that acted in as responsible a
6 manner as they could.

7 Q. (By Mr. Turet) While you were market manager in
8 this 1969 time frame, do you remember discussions
9 specifically about certain end uses of the Aroclor
10 Plasticizer products that could not be controlled in terms
11 of release of PCBs into the environment?

12 A. As I recall, we were trying to determine how
13 these products could have got into the environment, were
14 they ours, for example, because we were not the only
15 worldwide producer. And, therefore, I seem to recall we
16 were looking at what the uses were that we knew about and,
17 therefore, were some more likely to get into the
18 environment than others.

19 Q. What were the ones that were more likely to get
20 into the environment than others?

21 A. I can't recall now. At some point, we talked in
22 terms of open and closed systems. And I cannot recall now
23 specifically what criteria. We used to say it fell in one
24 or the other.

25 Q. How did Monsanto go about determining which ones

Page 100

1 were more likely to lead to releases of PCBs than others?

2 MR. DIMURO: I'll object to the form. You can
3 answer, Dr. Paton.

4 A. There were technical people looking at this and
5 they would have had some criteria or maybe recommended
6 some criteria. I can't recall now. From my part, the
7 information that I could get at was, you know, where were
8 the products being sold, what did I know from what
9 salesman had told me or I read in call reports about what
10 the uses were. And I could make, possibly, I can't recall
11 if I did or not ever myself sit down and write down, well,
12 I'd consider this one a problem and this one maybe less of
13 a problem. I can't remember doing that.

14 Q. (By Mr. Turet) Which group of people were doing
15 work to determine which of the applications for Aroclor
16 products presented more of a risk of release of PCBs into
17 the environment?

18 A. I think it might have been more the people in
19 the Martin Ferrar, Joe Darby area as far as Plasticizers
20 was concerned. I would have thought they would have been
21 among the more likely people, but I can't at this late
22 stage remember.

23 Q. Now, going back to this document that's been
24 marked as Keller 13, same paragraph that we were in
25 before, there's a statement concurrently comma action is

Page 101

1 being directed at protecting the sales and uses.

2 A. Which page are we on now?

3 Q. Still on Page 3, still in that paragraph that
4 starts with the organic division second from the bottom.

5 A. Uh-huh.

6 Q. And last sentence, says quote concurrently,
7 comma, action is being directed at protecting the sale and
8 uses of the other polychlorinated biphenyls and
9 terphenyls, closed quote. What action was being directed
10 as of September of '69 in protecting the sales and uses of
11 those products?

12 MR. DIMURO: Objection to the form.

13 A. I'm not sure whether this is referring to action
14 on the part of the medical department or action on the
15 part of other departments. So it's hard for me to know,
16 because the word action to me is the, you know, it's not
17 very well defined.

18 The medical department as far as I can recall
19 was involved. It would have been part of the on-going
20 study with the Industrial Bio-Test. So it's possible that
21 that's what that phrase action means. I don't know.

22 Q. (By Mr. Turet) Mr. Paton, do you remember the
23 existence of a committee called the Aroclor ad hoc
24 committee?

25 A. In the course of giving depositions, I've been

Page 102

1 given documents that refer to that committee. I guess,
2 thinking, I had not thought of that having such a precise
3 title as you might get the impression of looking at the
4 documents that I've been shown. So again, I can take it,
5 I see looking at the document that, yes, there was a
6 committee like that.

7 (Mr. Davidson re-entered the deposition room.)

8 Q. (By Mr. Turet) Were you aware back in September
9 or October of 1969 that there was some committee,
10 regardless of what the name may have been, that included
11 Dr. Richard, Dr. Ferrar, Mr. Hodges, Edward John, and
12 Elmer Wheeler?

13 A. I know that they were, as a group, were involved
14 in trying to keep track of reported incidents involving
15 PCBs being found in the environment. And also, they were
16 the ones that were working trying to determine which ones,
17 were the others biodegradable or what area the PCBs were
18 biodegraded in. And they were using tests for feeding
19 studies and so on to try to determine which ones, if any
20 of them, were toxic. And if so, what was the difference
21 in toxicity. I was aware of that.

22 Q. Did you know whether they were looking for
23 globally at what course of action the company should take
24 with respect to the Aroclor PCB products?

25 MR. DIMURO: Object to the form. You can answer

Page 103

1 it, Dr. Paton.

2 A. I'm not sure I could recall. I'm not sure if I
3 ever knew what their exact plan was in terms of geography.

4 Q. (By Mr. Turet) Meaning the substantive areas
5 they were looking at?

6 A. I do know that because the initial discovery of,
7 the initial study occurred in Sweden and they tried to get
8 more information about that. From what you showed me
9 today, there was apparently a Japanese incident. And
10 given that, we were exporting some products, I know that,
11 you know, we couldn't just look in terms of the U.S., you
12 know, the U.S. in isolation.

13 Q. Okay. Mr. Paton, I'm going to show you a
14 document that was marked as Keller 14, a October 2nd, 1969
15 memo it has Bates Nos. MONS 036720 dash 732 and ask if
16 you've seen it before today.

17 A. I don't think so.

18 Q. Did any of the gentlemen I mentioned before,
19 Ferrar, Hodges, John, Richard, Wheeler, seek your input
20 with regard to their investigation in October of 1969 of
21 PCBs in the environment?

22 MR. DIMURO: I'll object to the form. You can
23 answer it.

24 A. I can't recall.

25 Q. (By Mr. Turet) Flipping to the page that's

Page 104

1 numbered 2 at the top, it's Bates 036722.

2 A. Yes.

3 Q. See there a list of --

4 A. Wait a minute, Page 2?

5 Q. I'm sorry, Page 1 at the top, it says objectives
6 at the top.

7 A. Yes.

8 Q. There's a list of objectives there. Do you
9 remember anybody seeking your input with regard to the
10 objectives that were being pursued by this committee?

11 A. I can't, I can't recall being asked about this.

12 Q. Did you finish your answer?

13 A. Yes.

14 Q. The next page that's headed probability of
15 success. If you could read the first paragraph.

16 A. Yes.

17 Q. Did anybody approach you and ask you for your
18 input on the issues that are addressed in this first
19 paragraph regarding the probability of success?

20 A. I have no recollection of that having happened.
21 That's not to say it didn't, but I just can't recall it.

22 Q. Do you remember anybody approaching you and
23 asking your input as to whether there were specific
24 actions that could be undertaken to prolong the
25 manufacture, sale, and use of the PCB-containing Aroclors

Page 105

1 in late 1969?

2 A. No, I, I don't recall that.

3 Q. Do you remember anyone approaching you and
4 seeking your input as to whether it was time to notify
5 customers of Monsanto about PCBs in the environment?

6 A. No, I don't.

7 Q. Do you remember seeing any documents back in
8 late 1969 on these issues we're going through?

9 A. Well, I can't, you know, I'm now just, you know,
10 I cannot recall seeing documents like this. I may well
11 have, but they have not stuck in my memory.

12 Q. If you would flip ahead to Page 5 at the top,
13 basis for recommendations, fourth paragraph down, there's
14 this statement quote it has also been recognized that
15 there could be vapor losses but it has been felt that
16 these were perhaps of less significance than the vapor
17 losses in Plasticizer applications.

18 Do you remember when you were marketing manager
19 responsible for the Plasticizer area there being
20 discussions about vapor losses from Plasticizer
21 applications?

22 A. I don't recall.

23 Q. The next paragraph refers to an additional
24 possible source of environmental contamination being the
25 destruction or incineration or breakdown of materials

Page 106

1 which have Aroclors in them. Do you recall discussions
2 about those possible releases of PCBs into the environment
3 back in 1969?

4 A. No.

5 MR. DIMURO: Object to the form. You can
6 answer.

7 A. I don't recall, but that's not to say that it
8 didn't happen.

9 Q. (By Mr. Turet) Now, if you would flip ahead to
10 Page 10, you'll see there's a No. 8, assignment of
11 full-time effort. There's a statement quote up to this
12 time, the coordination of the division effort has been the
13 principal responsibility of W.R. Richard and E.P. Wheeler
14 with support from R.E. Keller and Cumming Paton.

15 A. Yes.

16 Q. What was the support that you were providing to
17 this effort?

18 A. Again, specifics escape me, but I would think it
19 would have been in terms of what applications did we have;
20 where were the customers located; what quantities of
21 different Aroclors were being sold or used in different
22 areas. That would have been the kind of information that
23 I would have been looked to if they wanted that in order
24 to pursue any of the technical investigations. That's the
25 kind of information that I would have been the logical

Page 107

1 person to have asked and I would have furnished it to the
2 best of my ability.

3 Q. Okay. I have no further questions on that
4 document.

5 MR. TURET: Could we mark this as Paton 5, I
6 guess?

7 (Exhibit Paton 5 was marked for identification
8 by the reporter.)

9 MR. TURET: For the record, Paton 5 is a
10 document that's been Bates Stamped MAE 023314 dash 22,
11 dated October 29, 1969.

12 Q. (By Mr. Turet) Mr. Paton, have you seen the
13 document that you've just been shown marked as Paton 5
14 before today?

15 A. I don't think so. It doesn't seem to, I could
16 well have seen it back in '69, but I don't recall having
17 seen it since.

18 Q. Flipping to Page 2.

19 A. Yes.

20 Q. Section, effect on Monsanto. There are some
21 figures provided, business potential at stake on a
22 worldwide basis. Would those be the types of figures that
23 you would have compiled in your budgeting responsibilities
24 as a market manager?

25 A. In the Plasticizer area, yes.

Page 108

1 Q. Under effect on customers and ultimate
2 consumers, would the statements about where Aroclors were
3 located listed in those numbered statements 1 through 5
4 have been the type of information that you would have
5 compiled as market manager back in 1969?

6 A. 4 and 5, yes. 2, possibly. I can't recall. I
7 wouldn't dispute it. It might have entered into sort of a
8 subset of 4 and 5.

9 Q. But 4 and 5, so you would have been responsible
10 for compiling information about use of Aroclors in
11 plastics, adhesives, paints, and coatings?

12 A. I would have been looking at our sales to see
13 where we were selling and trying to pin down what
14 applications there were. And by the looks of it, possibly
15 have put them into these classifications 4 and 5. And
16 possibly, I might have been asked some questions, which of
17 those might be food processing related, and I'm, I don't
18 think I'm speculating. But that is the gist that I would
19 get of this. And so I wouldn't dispute that I was, I
20 likely would have been involved in 4, 5, and 2.

21 Q. No further questions on that one.

22 Mr. Paton, let me know show you a document that
23 was marked as Keller 15. It's Bates Nos. MAE 023703 to
24 742. And it's a rough draft, November 10, 1969. Have you
25 ever seen this document before?

Page 109

1 A. I can't recall, but, again, that's not to say
 2 that I didn't.
 3 Q. Do you remember participating or providing input
 4 specifically into an environmental pollution abatement
 5 plan back in 1969?
 6 A. I could well have done it. I can't recall, but
 7 it wouldn't have surprised me.
 8 Q. Flip ahead to Page 5. It has listed at the
 9 top -- I think you have to go farther.
 10 A. All these chemical formulas?
 11 Q. Beyond that. There's another numbered page at
 12 the top.
 13 A. Yeah.
 14 Q. And there's a section again, effect on Monsanto
 15 much like what we saw before, correct?
 16 A. Uh-huh.
 17 Q. Is the information on dollars, volumes, and
 18 sales volumes under Plasticizers, would that have been
 19 information that you would have compiled as market
 20 manager?
 21 A. Probably.
 22 Q. How about the section that follows that, do you
 23 recall having any input into the discussion about whether
 24 direct lawsuits against Monsanto was possible?
 25 A. I don't think I would have probably taken the

Page 110

1 initiative in that. That would have been, I think that
 2 would have come from our legal department or possibly --
 3 Q. Do you remember any discussions that took place
 4 back in this late 1969 time frame of the possibility that
 5 lawsuits could ensue against Monsanto because of PCB?
 6 MR. DIMURO: Again, I would caution the witness
 7 that conversations with counsel concerning potential
 8 lawsuits is covered by privilege. Subject to that --
 9 A. I can't recall me participating in any
 10 discussions with lawyers in that regard at all.
 11 Q. (By Mr. Turet) I just want to make sure, is
 12 your answer that, your answer is to the question that I
 13 asked. Do you remember having any discussions not
 14 necessarily with lawyers, with others within Monsanto
 15 about the possibility that lawsuits could come about from
 16 the use of PCBs?
 17 A. No.
 18 Q. There's also a sentence in that same section
 19 that quote all customers using these products have not
 20 been officially notified about known effects nor do our
 21 labels carry this information. Do you remember while you
 22 were market manager in 1969 any discussions about that
 23 issue?
 24 A. No.
 25 Q. Do you know what the reference is to other

Page 111

1 possible legal implications in the sentence that follows?
 2 A. No.
 3 Q. On the following page, Page 6 at the top, now
 4 there's a statement almost in the center of the page, a
 5 little below quote a wide range of paints and coatings are
 6 affected. I believe that's consistent with the document
 7 we saw before. Is that also information that would have
 8 ultimately been assembled by you as market manager?
 9 A. Probably. I think.
 10 Q. And would you agree based on your experience as
 11 market manager for Monsanto that a wide range of paints
 12 and coatings were affected with the PCB issue?
 13 MR. DIMURO: Object to the form. You can answer
 14 it, Dr. Paton.
 15 A. Again, from this far back in time, how wide a
 16 range, I can't recall at all.
 17 Q. (By Mr. Turet) Flip ahead to the page that's
 18 numbered as 10 at the top. I'm not going to ask you to
 19 read the whole thing. But you'll notice that there's
 20 essentially three different courses of action that are
 21 discussed here and, you know, one is labeled do nothing;
 22 one is labeled discontinue manufacture of all PCB; and the
 23 third one is respond responsibly.
 24 Without quoting the whole section, do you recall
 25 a discussion of three or more courses of action back in

Page 112

1 November, November or December of 1969 with regard to the
 2 PCBs?
 3 A. I can't. But I would, you know, it wouldn't
 4 surprise me that this happened. And it wouldn't surprise
 5 me if I had some discussions with my management about
 6 this. I just can't recall the details.
 7 Q. Flipping ahead to a couple more pages, to Page
 8 12. You'll see down at bottom under Letter B there's a
 9 bunch of interim steps that are laid out for the fluids
 10 and for the Plasticizers. Under Plasticizer, No. 4, it
 11 says initiate program to develop Aroclor 1254 and 1260
 12 substitutes.
 13 Do you remember any kind of an effort undertaken
 14 in late 1969 to come up with a substitute for the Aroclor
 15 PCB products?
 16 A. Vaguely.
 17 MR. DIMURO: Objection to form. You can answer
 18 it.
 19 A. I seem to vaguely remember something.
 20 Q. (By Mr. Turet) What is it that you vaguely
 21 remember?
 22 A. I just seem to vaguely remember that our
 23 research, technical lab people were thinking, okay, what
 24 might be suggested to customers to replace 1254 and 1260.
 25 But I'm very, very hazy on when that occurred and --

Page 109 - Page 112

Page 113

1 Q. Do you remember when the terphenyl products, the
2 Aroclor 1254 hundred series were being suggested as
3 alternatives to the PCB-containing Aroclors back in 1969?

4 A. I'm not sure when you, you know, the difficulty
5 I have is you're saying 1969. I'm at this long period
6 away from it. I've forgotten exactly when certain things
7 would have happened. I think at some point we considered
8 using the terphenyls. Whether it was in '69 or later, you
9 know, I can't recall.

10 Q. Do you remember helping to strategize, planning
11 for a precipitous pull out in the event that Monsanto was
12 required to pull the PCBs from the market?

13 MR. DIMURO: Objection to form.

14 A. I can't recall that at all.

15 Q. (By Mr. Turet) Flip ahead, let me give you the
16 Bates numbers, Bates No. MAE 023725.

17 Now, as the person who had responsibility for
18 compiling sales and profitability numbers of the
19 Plasticizer products, did you also help to create charts
20 of profit and liability over time as are reflected on that
21 page?

22 A. I can't recall doing that.

23 MR. DIMURO: Objection to form.

24 A. And this certainly doesn't look like my, it
25 looks to be hand done and this doesn't look like my

Page 114

1 writing at all. I certainly would have been in no
2 position to have done the liability part of that diagram.

3 Q. (By Mr. Turet) So you would have had the
4 profitability information but not the liability
5 information?

6 MR. DIMURO: Objection to form.

7 A. I don't know where, I don't, since there's no
8 scale here, I don't know where the profit numbers came
9 from or anything, if I would have prepared this or whether
10 this was someone else on this, whoever put this document
11 together having done that themselves, I don't know.

12 Q. (By Mr. Turet) Do you remember whether there
13 were any presentations made to managerial committees about
14 the PCBs in the environment issue?

15 MR. DIMURO: Object to the form. You can
16 answer.

17 A. I think there probably were. I can't recall now
18 the specifics.

19 Q. (By Mr. Turet) Did you ever have occasion to
20 appear before one of the managerial committees about PCBs?

21 A. I think if I did it was as I came back as a
22 product manager later on. I can't recall any when I was a
23 market manager. I can't, but I do seem to recall some in
24 the '72 onward period.

25 Q. And what was the context in which you appeared

Page 115

1 before the managerial committees at that time?

2 A. I think it would have been, you know, in terms
3 of being present to answer questions that they might have
4 had of details or maybe to furnish information on the
5 progress of any programs that were going on, that sort of
6 thing. I would not have been, I would have been there
7 probably more in a support role for either the
8 dielectrical marketing or the business director.

9 MR. TURET: Why don't we mark this as Paton 6.

10 (Exhibit Paton 6 was marked for identification
11 by the reporter.)

12 Q. (By Mr. Turet) Mr. Paton, you're being shown a
13 document that's been marked as Paton 6, Bates MAE 033475
14 dash 84. It's entitled presentation to field sales,
15 personal and confidential. Have you ever seen this
16 document before?

17 A. It doesn't, you know, this looks new to me. But
18 again, part of my problem was, I don't see a date. Let's
19 see, I don't know if this would have been prepared before
20 or after I left the Plasticizer group to go to the Latin
21 America position.

22 Q. If you turn the Page 10, the very last sentence
23 says we want 1970 to be no different. Let's not enter a
24 new decade with a down-turn.

25 A. I don't recollect preparing this. It is

Page 116

1 entirely possible it was written by my successor in which
2 case I would have no --

3 Q. Who was your successor?

4 A. I believe the man's name was Willis Clark but I
5 couldn't swear to that. I think that's who it was.

6 Q. Now, were you still a market manager when in
7 February of 1970 a letter went out to customers of
8 Monsanto about PCBs?

9 A. I was shown a document yesterday that had that
10 date on it and I would have said that, yes, I was. And if
11 you'd ask me without, if somebody asked me without showing
12 me that document, I would have said, no, by then I was in
13 Latin America. But I obviously wasn't. But if I wasn't,
14 I must have had one foot ready to go half way out the door
15 so to speak.

16 Q. So if this document that you've been shown came
17 before the customer letter in 1970, then you would have
18 still been the marketing manager?

19 A. Yes, if it came afterwards, I wouldn't, I don't
20 think in all likelihood but --

21 Q. Let me direct you to the section on Page 1 that
22 says letter to Monsanto's Aroclor customers.

23 A. Where is that? No. 2, Item 2 is it?

24 Q. Actually a better place to refer you to is the
25 second page.

Page 117

1 A. Okay.

2 Q. The last paragraph where it says accordingly, a

3 letter has been cleared by our legal department for

4 mailing to each one of our direct Monsanto customers.

5 Later in the paragraph, it says the letters will be mailed

6 from St. Louis about the end of February. So presumably,

7 this came before the end of February. So I take it you

8 were marketing manager at the time this document was

9 created or this presentation to field sales took place?

10 A. It could well be. It could well be.

11 Q. Well given the chronology, were you market

12 manager, in fact, during February of 1970?

13 A. I have no, you know, I didn't think so myself,

14 but having been shown a document yesterday, it may well be

15 that I did. But if that's a big issue, I'm sure we could

16 probably get that together.

17 Q. What is, what is this document if you know?

18 A. All I can go by is what the title says. It

19 doesn't say who the author is, it doesn't say who it went

20 to.

21 Q. Have you ever seen written materials that were

22 entitled presentation to field sales specifically in

23 connection with your job as marketing manager?

24 A. I'm sure I've seen a title like that. It's a

25 very common type heading for things.

Page 118

1 (Mr. O'Connor exited the deposition room.)

2 Q. (By Mr. Turet) Is this the type of document

3 that's generated in advance of the national meetings with

4 all the salespeople?

5 A. Not necessarily. I mean, this doesn't indicate

6 that it was given at some conference. It might have been

7 mailed out possibly but --

8 MR. DIMURO: Why don't you let him ask a

9 question.

10 Q. (By Mr. Turet) Now on the third page,

11 Mr. Paton, there's right in the middle of the page, there

12 are discussions about distributors of Monsanto.

13 Specifically, it says to explain the action to our

14 distributors, we visited the head offices of Central

15 Solvents and American Mineral Spirits.

16 A. Yes, I see that.

17 Q. Did you personally communicate with or visit

18 Central Solvents or American Mineral Spirits while you

19 were marketing manager?

20 A. I can't recall doing so. But there certainly

21 could have been others that would have done it just as

22 easily as I could have done it.

23 Q. Was there anybody who worked under you who was

24 specifically responsible for communicating with American

25 Mineral Spirits?

Page 119

1 A. No.

2 Q. Was your department broken down that way so that

3 there were specific distributors assigned to specific

4 people in the marketing department?

5 A. At that time, I had one assistant. And as I

6 recall, I don't think he was assigned any responsibility

7 for distributors. I tended to handle that myself. But at

8 the same time, in the sales organization, there was a

9 director of sales, there were regional sales managers who

10 would have been the more primary point of contact with

11 distributors. So it could well be that they were the ones

12 who did the visiting. And it's referred to on Page 3.

13 Q. Now on Page 5, there's a section entitled,

14 customer reaction. Do you remember while you were a

15 market manager in February of 1970 discussions about

16 anticipating customer reactions at this letter going out

17 to those customers about the PCBs?

18 A. I can't recall. But, you know, it would have

19 been a very logical thing to have thought about, so I'm

20 not disputing that I didn't or that others, that we didn't

21 discuss it.

22 Q. Do you remember seeing any documents

23 specifically addressing how customer reactions should be

24 handled?

25 A. I can't recall. You know, you may be about to

Page 120

1 show me one but I don't recall.

2 Q. Did you review this document with your Counsel

3 before today?

4 A. No.

5 MR. DIMURO: Don't answer that question.

6 Q. (By Mr. Turet) Were you shown this document

7 before today?

8 THE WITNESS: Can I answer that?

9 MR. DIMURO: Not if it was shown to you by us,

10 no.

11 MR. TURET: He's not allowed to say whether he

12 saw a document before today?

13 MR. DIMURO: Not if I showed it to him. He can

14 say if it was shown to him by anybody else, sure.

15 MR. TURET: And the basis for that is what?

16 MR. DIMURO: Consider it work product. Whatever

17 I showed the witness is my work product. Whatever I

18 decide to pull out of the thousands and thousands of

19 documents that have been produced in this case. He's

20 represented by us today as a former employee. And any

21 conversations I had or any documents I showed him, I

22 consider my work product. But subject to that, if anybody

23 else showed you that document, you can answer Mr. Turet's

24 question.

25 A. No one else has showed me that document.

Page 117 - Page 120

Page 121

1 (Mr. O'Connor re-entered the deposition room.)
 2 Q. (By Mr. Turet) Let me direct you to Page 6 and
 3 Page 7, specifically referring you to the bottom part
 4 about continued customer reaction. Do you recall a list
 5 of dos and don'ts being presented to the regional managers
 6 in terms of dealing with customers calling about PCBs?
 7 A. Again, I don't recall a list of dos and don'ts
 8 as you describe it. But it wouldn't be, it wouldn't
 9 surprise me if some guidance wasn't given to them.
 10 Q. Do you remember what guidance was given to any
 11 of your salespeople?
 12 A. Today, I can't.
 13 Q. Do you remember a list of likely customer
 14 questions being supplied to field salesmen on the issue of
 15 PCBs?
 16 A. I don't, but that's not to say there wasn't one
 17 prepared.
 18 Q. Do you remember receiving any documents from Jim
 19 Springate or anybody else at Monsanto with which to answer
 20 questions that customers had about PCBs after receiving a
 21 letter from Monsanto?
 22 A. No. I can't recall receiving anything from Jim
 23 Springate along those lines at all.
 24 Q. Do you remember any recommendations being given
 25 as to how to handle the issue of drop-offs in sales after

Page 122

1 that letter went out from Monsanto to customers about
 2 PCBs?
 3 A. That's not an issue that I can recall at all.
 4 Q. Do you recall any suggestion being made to
 5 salespeople that they should tell their customers who were
 6 contemplating switching to other products that the other
 7 products might be environmental contaminants too?
 8 A. I can't recall that.
 9 Q. Do you remember any discussions within Monsanto
 10 that related to the issue of how to handle customers that
 11 were living off inventoried PCB products supplied by
 12 Monsanto?
 13 A. I can't recall that, no.
 14 Q. Do you remember any documents that addressed
 15 that issue?
 16 A. I can't recall.
 17 Q. Do you remember in your capacity as market
 18 manager whether you saw information actually documenting
 19 whether customers were living off inventory following the
 20 letters that went out from Monsanto?
 21 MR. DIMURO: Object to the form.
 22 MR. TURET: Let me withdraw the question.
 23 Q. (By Mr. Turet) The timing, you weren't market
 24 manager then?
 25 A. I'm sorry?

Page 123

1 Q. Never mind, I'll withdraw the question.
 2 While you were market manager in January and
 3 February of 1970, were the field salesmen of Monsanto
 4 being encouraged to increase sales of Aroclor PCB
 5 products?
 6 A. I don't recall any specific conversations for
 7 them to go and increase sales, you know, that's not
 8 normally something that they are, you know, they'll go out
 9 and do their job without me having to say, gee, you've got
 10 to get them up.
 11 Q. And doing the job as a salesman means selling as
 12 much of a product as you can?
 13 MR. DIMURO: Objection to form.
 14 A. They have to attend to the needs of their
 15 customers. And if that means that the customer needs more
 16 sales, they would try to follow that.
 17 Q. (By Mr. Turet) Would you not agree that a
 18 salesman tries to sell as much of a product as he can?
 19 MR. DIMURO: Objection. Form.
 20 A. You know, I guess.
 21 Q. (By Mr. Turet) And wasn't it the goal of the
 22 marketing department to get sales up and keep them up with
 23 regard to the products of the Plasticizer division?
 24 A. In general terms, yes. Now, then you've got to
 25 go to the specifics of a particular situation and that

Page 124

1 might be somewhat different.
 2 Q. You'd agree that generally that's the case?
 3 A. Generally, that's, generally, that's the case.
 4 Q. Was there anything communicated to field
 5 salesmen in January of 1970 to your knowledge to
 6 discourage them from selling Aroclor PCB products?
 7 A. I can't recall anything going on, but certainly
 8 we sent out a letter later in 1970 indicating some
 9 products, that we should notify customers that there were
 10 certain products that had been found in the environment
 11 and they would decide what steps, how they perceived that
 12 and what they might do about it.
 13 Q. That's later in 1970, how about January?
 14 A. I thought we were talking February of '70 was
 15 the letter I thought.
 16 Q. We're not to February yet, we're in January of
 17 1970. In January of 1970, was there anything to your
 18 knowledge that was communicated to the field salesmen to
 19 discourage them from selling Aroclor PCB products?
 20 MR. DIMURO: I'll object to the form.
 21 A. I can't recall.
 22 Q. (By Mr. Turet) Do you recall anything in
 23 February of 1970 that was communicated to Monsanto
 24 salesmen to discourage them from selling Aroclor PCB
 25 products?

Page 125

1 MR. DIMURO: Object to the form. You can answer
2 the question.

3 A. I can't recall anything, but I do recall there
4 was a letter sent out to our customers and the salespeople
5 were told about that letter.

6 Q. (By Mr. Turet) And that brings us back to the
7 presentation to field salesmen?

8 A. Yeah.

9 Q. Do you recall the message being delivered to
10 Monsanto field salesmen that, in substance, that Aroclor
11 sales had increased every year for ten years and that
12 Monsanto wanted 1970 to be no different?

13 MR. DIMURO: I'll object to the form.

14 A. I can't, you know, I can't recall whether or
15 not, in fact, they had increased every year. You said
16 every year for ten years?

17 Q. I'm asking about whether you remember that
18 message being delivered to field salesmen.

19 A. No.

20 MR. TURET: Could you mark this as Paton 7?

21 (Exhibit Paton 7 was marked for identification
22 by the reporter.)

23 Q. (By Mr. Turet) Mr. Paton, you're being shown a
24 document that's been marked as Paton 7.

25 A. Yes.

Page 126

1 Q. It's a document Bates MAE 034803 to 814. Have
2 you seen this document before today?

3 A. No, I don't think so, no.

4 MR. DIMURO: Why don't you flip through it to
5 the end, Dr. Paton.

6 A. Again, I don't see a date and I don't see an
7 author so --

8 Q. (By Mr. Turet) Do you remember seeing materials
9 like this prepared by Monsanto anticipating customer
10 questions?

11 MR. DIMURO: Object to the form. You can
12 answer, Dr. Paton.

13 A. What time frame are you talking about?

14 Q. (By Mr. Turet) Well, there are references to
15 1969 articles and I don't see anything in here referring
16 after that, so I'm talking about the tenure while you were
17 market manager.

18 A. This document doesn't refresh my memory much at
19 all.

20 Q. Okay. That wasn't my question. My question
21 was: Do you remember seeing materials like this document
22 while you were market manager that laid out questions that
23 were anticipated by customers with proposed answers?

24 MR. DIMURO: Object to the form. Again, you can
25 answer it.

Page 127

1 A. I don't seem to recall any, no.

2 Q. (By Mr. Turet) Okay. I have no further
3 questions on that one.

4 Mr. Paton, who is Don Olson, Donald Olson?

5 A. He was with Monsanto for a number of years, and
6 I think he left. He had some sort of a field sales
7 manager or field sales director job. I can't remember if
8 it involved Plasticizers at any time or whether it was
9 more in the fluids area. I'm hazy now.

10 Q. Do you remember the issue arising while you were
11 market manager between 1967 and 1970 of whether there
12 should be warnings to Aroclor customers about using PCB
13 products that could ultimately come in contact with food,
14 feed or water?

15 A. Yes. I do have some recollection of that.

16 Q. What is it that you remember in that regard?

17 A. I recall some discussions with our distribution
18 department about labels being put on our containers and
19 them indicating that there were certain protocols that
20 were used, I think, even involving government agencies or
21 industry standards or something in the U.S. and Europe in
22 that regard.

23 And that, you know, this action got initiated
24 and I think ultimately was acted upon. And I would have
25 seen drafts of what was being proposed, and I would have

Page 128

1 been kept abreast of as to how the program to implement
2 this was proceeding. And then I seem to recall that I
3 would have then gone out ahead of time and announced to
4 the field sales folks possibly that we were going to
5 implement this. That's my general recollection.

6 Q. And that's with regard to labels that went on
7 packages?

8 A. Well, it could have been on drums I think,
9 because it would have been drums for most of the
10 products. Some might have been, some of the things were
11 in bags I guess. But primarily, drums I would have
12 thought.

13 And I don't know, I can't recall if we had any
14 tank trucks, you know, bulk customers for Aroclor
15 Plasticizers or not. If we did, there must have been some
16 way of carrying, having some means of communicating that
17 on the truck or something.

18 Q. So using that as an example, when there was a
19 change in protocol, was it your responsibility as market
20 manager to communicate it to the regional sales managers
21 so that it could be passed on to the field salesmen?

22 A. That would have been the most likely way for it
23 to have been done. The orders processing people, the
24 distribution people would have been the ones that would
25 have been, have had the most work to do in this area. But

Page 129

1 I would have probably, they might, order processing might
2 well have communicated this directly to the customers
3 since they were often in daily contact with the customer.
4 I would have notified sales if not my other market
5 managers.

6 Q. Do you remember while you were market manager
7 anybody within Monsanto claiming that it was time to add
8 language to the warning labels about PCBs coming in
9 contact with food, feed, or water?

10 MR. DIMURO: Object to the form. You can answer
11 it, Dr. Paton.

12 A. Are you talking about, again, in the '68, '69
13 area?

14 Q. (By Mr. Turet) Between '67 and '70 when you
15 left that position.

16 A. I can't recall then. I seem to recall later
17 with regard to fluids. Again, it just may be my timing is
18 faulty.

19 Q. Okay.

20 MR. TURET: Let's mark this as Paton 8.

21 (Exhibit Paton 8 was marked for identification
22 by the reporter.)

23 MR. TURET: For the record, this is a document
24 with Bates Nos. MAE 059946 dash 47.

25 Q. (By Mr. Turet) Is this a document you've seen

Page 130

1 before today, Mr. Paton?

2 A. It looks familiar.

3 Q. Can you look at the bottom and see if that's
4 your signature above the name Cumming Paton?

5 A. I'm almost certain it is.

6 Q. Has this document come up in previous
7 depositions that you've testified in?

8 A. Not sure. I can't, no, I don't think it has.
9 I'm not sure. I can't recall.

10 Q. Do you remember what Aroclor Bulletin O/PL-306
11 was?

12 A. No. Other than here it says covers all Aroclors
13 and all applications. So I'm assuming that's what it is.

14 Q. Let me just get something out. I'm not going to
15 mark it as an exhibit. Mr. Paton, I'm going to show you a
16 document that was marked in a previous deposition as Orem
17 3, it has Bates Nos MAE 040881 to 933 and ask you --

18 MR. DAVIDSON: Orem what?

19 MR. TURET: Three.

20 Q. (By Mr. Turet) And ask you if this was the
21 Bulletin O/PL-306 that your memo refers to.

22 A. I have no reason to say that it isn't.

23 Q. Is that a yes?

24 MR. DIMURO: I think -- can you read back his
25 answer, Tammie?

Page 131

1 (The preceding answer was read back.)

2 Q. (By Mr. Turet) Do you know whether it is or is
3 not?

4 A. I think in all likelihood it is.

5 Q. (By Mr. Turet) Is there a way from looking at
6 the Technical Bulletin that you can tell what the date of
7 it is?

8 A. These numbers down in the right-hand corner
9 might indicate that but let's see --

10 MR. DIMURO: Dr. Paton is looking at the last
11 page of --

12 A. I would also look at all of these numbers down
13 at the very bottom down here. I seem to remember it would
14 have been included in this code way down here, I see those
15 on 1/2/68 up there.

16 Q. (By Mr. Turet) Does that suggest January 1968?

17 A. It would to me. So it's possible that
18 there might have been, you know, a limited run off of some
19 copies then. I don't know.

20 Q. Do you know one way or the other whether there
21 was a Technical Bulletin O/PL-306 when you first became
22 marketing manager?

23 A. Well, apparently not. Well, I can't remember.

24 Now, all I can see here is, I said on April 3rd, 1970 it's
25 been out of print for some time, so I'm sure this was a

Page 132

1 factually correct statement at the time I wrote it.

2 Q. Okay. By the way, before I go on further, the
3 R.G. Hutchison that's listed on the distribution list, who
4 is that?

5 A. That's a good question. That's a name that
6 just, I have no idea who that is. I must have known at
7 the time, but that's, I'm drawing a complete blank on that
8 name.

9 Q. On the distribution list, is D.H. Bechtold,
10 Chicago, was he the regional manager for Chicago?

11 A. Yes, I think, yes.

12 Q. And R.N. Brell, he was the regional manager in
13 Wilmington?

14 A. Yes.

15 Q. And E.H. Fording was the regional manager in New
16 York at the time?

17 A. Correct.

18 Q. There's an E.C. Wilde at the bottom, Akron.

19 A. Yes.

20 Q. Also regional sales manager?

21 A. Yes.

22 Q. And this memo is responding to questions about
23 the Technical Bulletin O/PL-306 and whether they could get
24 more copies; is that correct?

25 A. Yes.

Page 133

1 Q. Now there's a statement that O/PL-306 must be
2 drastically revised in light of the letter on PCBs that we
3 have sent to Aroclor customers in the U.S. and plan to
4 send to U.K. and Canadian customers. What was your
5 understanding at the time of how Technical Bulletin 306
6 had to be drastically revised?

7 A. Well, without seeing it, I don't know whether it
8 was indeed revised. So I'm sure it was after my tenure as
9 market manager, and so without, if it was revised, and
10 without me comparing this one to the new one, it would be
11 hard for me to say.

12 But I, you know, one thing would have been that
13 if we had sent a letter out as I recall in '70, you know
14 saying that these things had been found in the
15 environment, that some statement to that effect might have
16 been included in the revision. That would have been one
17 revision that I would have thought appropriate.

18 Q. By the way, this is dated April 3rd, 1970. You
19 were still marketing manager?

20 A. Apparently. I thought I was in Latin America,
21 but I assure you, I must have been because otherwise, I
22 wouldn't have gotten anything done in Latin America. This
23 must have been one of my final acts, but maybe you'll drag
24 up another memo in a minute that says I was still there.

25 Q. The next sentence says quote, as you know we

Page 134

1 have programs underway to solve the problems the PCB
2 situation poses for our Aroclor business. What did that
3 mean at the time?

4 A. I think it was just, it was an umbrella
5 statement saying that there's these issues being
6 publicized about Aroclors and we're trying to understand
7 how accurate they are, what PCBs they apply to, etc.,
8 etc., etc. And so we're trying to come up with ways to
9 the resolve these things.

10 Q. But this says programs underway. What are the
11 programs underway as of April 3rd, 1970?

12 A. Well, one program that was underway was this
13 whole effort in terms of Keller, in terms of analytical
14 methodology. That was the program I believe with
15 Industrial Bio-Test in terms of determining, doing animal
16 studies, trying to determine to what extent the, any link
17 between PCBs and some of the issues affecting wildlife
18 were discussed, whether, indeed, they were due to other
19 products found along with the PCBs.

20 It was always the question if it was 1254 and
21 1260 that were being said that were found in the
22 environment and not the other ones, so there was something
23 unique in terms of 1254 and 1260 with regard to
24 biodegradability, etc. as the others were more
25 biodegradable. There were many issues that had to be

Page 135

1 sorted out before you could decide what's the best
2 solution to all of this.

3 Q. Isn't it also true, Mr. Paton, that there was a
4 program that was well underway to allow for the withdraw
5 of PCB products from the market for open use applications?

6 MR. DIMURO: I'll object to the form.

7 A. I'm not sure to what extent the program, I can't
8 recall now any, what discussions about possibly
9 withdrawing some or all of the Aroclors from Plasticizer
10 uses was at that point in time. I do recall that at
11 sometime when I was in the Latin America position, I was
12 informed that, you know, a decision had been taken that as
13 of a certain date, and I think it was sometime in 1970,
14 that that was going to happen. Again, I personally cannot
15 remember participating in meetings discussing that in the
16 1969, 1970 time frame. That's not to say I didn't, I just
17 can't recall.

18 Q. (By Mr. Turet) Were you aware at the time that
19 the concept of withdrawing 1254 from the market for open
20 applications had been approved back in November of '69?

21 MR. DIMURO: Objection to the form. You can
22 answer it.

23 A. That date doesn't ring a bell at all.

24 Q. (By Mr. Turet) A couple sentences down it says,
25 it would appear inconsistent from an image standpoint that

Page 136

1 at the time we are promising open paren in all sincerity
2 let me emphasize close paren support to scientists slash
3 agencies we publish a new bulletin promoting PCBs. What
4 did that mean?

5 A. I can't now think exactly what I had in mind.
6 But I, I think that reading it again, I'm not sure exactly
7 what I had in mind. Because if I wrote it again, I would
8 try to explain a bit more. It leaves you dangling. So it
9 probably wasn't one of the better sentences I wrote in
10 terms of clarity.

11 Q. Well, isn't it saying in essence that on the one
12 hand Monsanto is supporting those who are studying the
13 present of PCBs in the environment and on the other hand
14 promoting the very PCBs that are turning up in the
15 environment?

16 MR. DIMURO: Object to the form.

17 A. I don't think it says that. I'm not saying that
18 we should be out promoting them.

19 Q. (By Mr. Turet) Well the next sentence and I
20 quote says, the lack of O/PL-306 should not inhibit your
21 sales or your efforts. What does that mean then?

22 A. I think that they should continue on doing what
23 they have been doing until such time as we know what
24 action we should be taking based on facts and accuracy.

25 Q. So in other words, the salespeople should

Page 137

1 continue to promote the sales of PCBs to the extent they
2 can?

3 MR. DIMURO: Objection to form.

4 A. Well, any time that salesmen make an
5 introduction of any product to a customer, it's usually a
6 long, long time before it results in an actual sale, you
7 know, the customer will want to evaluate information,
8 etc., etc. And so, you know, therefore, you know that
9 that's not something that if you tell a customer about
10 this product that immediately, you know, he's going to
11 say, yeah, I'm going to buy it right now. That's a very,
12 very rare occurrence.

13 Q. (By Mr. Turet) But as of April 3rd, 1970, the
14 salespeople were still supposed to be out there persuading
15 the customers to use Aroclor for their products, correct?

16 A. It was a product we still had on our line and if
17 customers indicated an interest in that, we would tell
18 them about it.

19 At the same time, we had sent a letter saying
20 that it had been found in the environment and that
21 therefore that the salesmen with that in his mind would
22 have drawn the customer's attention to it and said you
23 should be aware this and of that if, in indeed, you are
24 considering this product.

25 Q. Would you agree with me that in your sentence,

Page 138

1 it shows some discomfort for promoting PCB sales as of
2 April 3rd, 1970?

3 MR. DIMURO: Object to the form.

4 A. No, I, I don't think so. I think that we were
5 still trying to evaluate a situation that was unfolding
6 where we didn't have all the information that was acquired
7 as to where to go. But we had notified customers that
8 these had been found in the environment and that we were,
9 you know, following up further and that we would then
10 decide what the best course of action was.

11 When this was written, I didn't know what was
12 going to happen. What decisions, what results would come
13 out or what decisions would be taken later.

14 Q. (By Mr. Turet) Well, under those circumstances
15 as of April 3rd, 1970 if a customer expressed
16 discomfort -- let me withdraw that question.

17 If a customer expressed concerns about PCBs
18 being detected in the environment as of April 3rd, 1970,
19 would you have encouraged the salesman to continue to
20 persuade them to buy more PCB-containing Aroclors?

21 MR. DIMURO: Object to the form.

22 A. No, I don't think I would.

23 Q. (By Mr. Turet) Okay. If a customer was
24 purchasing less PCBs after receiving the February 1970
25 letter from Monsanto, would you have encouraged your

Page 139

1 salespeople to find out why and try to increase the level
2 of sales again?

3 MR. DIMURO: Objection. Form.

4 A. There's two things there. I would have
5 encouraged the salesmen to find out why. If the answer
6 came back saying, well, the customer's decided that he's
7 going to use something else or phase out the product
8 they're using because of the product in the environment, I
9 certainly wouldn't have told the salesmen to hammer away
10 and get him to change his mind, no. I would have taken
11 that as a sign that, indeed, you know, we, it was having
12 an effect and ultimately, the sales might decrease and
13 ultimately disappear.

14 Q. (By Mr. Turet) But if there was another reason
15 for their decline in sales, then you would encourage the
16 salesmen to try to reverse that decline?

17 MR. DIMURO: Objection to the form.

18 A. That's very general. It would depend what the
19 reason was. You know, it could be any number of reasons
20 why sales declined. And it, you know, for me to sit here
21 and just answer hypothetical questions is very difficult.

22 Q. (By Mr. Turet) All right. But, I mean, you
23 lived then, you were market manager then and had certain
24 responsibilities over field sales and what I'm trying to
25 get a feel for is what the mind set was and what the

Page 140

1 inducements were for the salesmen. What was the mind set?

2 A. Is that your question?

3 Q. Yes.

4 A. My mindset and those of the people I worked with
5 was to act as responsibly as we could. And certainly, we
6 were not motivated to get sales at any cost, to get
7 profits at any cost. If, indeed, some of these
8 allegations and studies indicated that these products had
9 problems, we would have taken steps either to solve the
10 problem or if we couldn't, then, ultimately, you're faced
11 with having to withdraw the product. But that's not
12 something you could do just precipitously overnight
13 because there were so many other factors involved.

14 PCBs were used primarily because of their fire
15 resistance. The fire resistance was a human safety
16 issue. And so you were, you were in the middle of a
17 dilemma.

18 Q. Was it an effective fire retardant?

19 A. It was an effective fire retardant.

20 Q. And as a Plasticizer as well as a functional
21 fluid?

22 MR. DIMURO: Object to the form.

23 A. Well, I think it's use in vinyl PVC for example
24 was much more limited because it wasn't particularly
25 effective there for a whole variety of technical reasons.

Page 141

1 But in other resins, it was compatible with the resin and
2 it had good fire retardant properties and it had good
3 chemical resistance. It weathered well and it was
4 stable.

5 And what you want in a fire retardant is
6 something that retains its fire resistance for the length,
7 the life of the product. Now, if you say well it turns up
8 in the environment, but it doesn't break down from the
9 fire resistance, if it doesn't breakdown from the fire
10 resistance standpoint, that's good. From a human safety
11 factor, that's good. On the other hand, we're beginning
12 to find out there's other sides too. So how do you
13 balance out that equation.

14 You know, I assure you that all of us were
15 thinking along those lines, but in order to come up with
16 the right decisions, you have to have the right set of
17 information and facts and so on and so forth.

18 And we were dealing with a range of products,
19 not one. Had it been one product, it would have probably
20 been much simpler. But it was a range from the
21 clarification, the biodegradability. And all of that had
22 to be sorted out.

23 Q. (By Mr. Turet) Now --

24 A. And that took time.

25 Q. Sorry?

Page 142

1 A. I say it took time.

2 Q. Did you finish your answer?

3 A. I'm finished now.

4 Q. As an aside, you just mentioned that Aroclor PCB
5 containing Plasticizers were of limited effectiveness in
6 PVC formulations. Why is that you say for a variety of
7 technical situations?

8 A. Well, you couldn't, if you want to, Plasticizers
9 soften PVC and you want to do it with the least amount of
10 Plasticizer as you can. Some products, the Santicizer 160
11 dioctylphthalate was very effective, not a great deal of
12 it to soften. Aroclors didn't soften very much, so you
13 had to add a great deal more. And if you had added too
14 much, the stuff oozed out. So it wasn't the product, if
15 you were just looking for softening and plasticizing
16 action, that would have not been the one you would have
17 gone to right off the bat.

18 Q. What about where it was used in conjunction with
19 DOP?

20 MR. DIMURO: Object to the form.

21 A. Well, as I recall, I think it was more
22 expensive. It was heavier, denser. Therefore, again,
23 that's not to say it wasn't used; I think it was. But it
24 was never, you know, to my knowledge, it was not an area
25 that we would have been pursuing very much its use in PVC.

Page 143

1 Q. (By Mr. Turet) Now coming back to your April
2 3rd memo for a moment, if I'm understanding correctly,
3 this is, this is saying that the Technical Bulletin 306 is
4 out of date, we're not printing any more of them. At some
5 point in the future, we're going to be printing a new
6 Technical Bulletin. Is that what you were communicating
7 in this memo?

8 A. Yes. Basically, yes.

9 Q. And in the last paragraph, I think specifically
10 it says that, you know, reprinting would be misleading,
11 there's various research programs are underway and, you
12 know, we want to get the data and publish it later.

13 MR. DIMURO: I'll object to the form.

14 Q. (By Mr. Turet) Is that an accurate summary of
15 what's been communicated here?

16 A. Yes, I think so.

17 Q. What were customers being given in April when
18 they asked about information for Aroclors?

19 A. April of 1970, that's a good question. It says
20 here many Specialists and that's the type of thing you saw
21 that had been issued, so that's still available to be
22 used. And this 311, so whatever that is, I've forgotten
23 what that was now. If they wanted to get special
24 information on properties of Aroclors, we could still
25 furnish that 306.

Page 144

1 Q. I have no further questions on that.

2 MR. TURET: Off the record

3 (A discussion was held off the record.)

4 MR. TURET: Let's mark this as Paton 9.

5 (Exhibit Paton 9 was marked for identification
6 by the reporter.)

7 MR. TURET: For the record, Paton 9 is a
8 document just marked with Bates No. MAE 059952. It's a
9 call report April 22nd, 1970.

10 Q. (By Mr. Turet) Mr. Paton, have you seen this
11 document before today?

12 A. I see it's got, I don't know if that's my
13 squiggle having looked at it or Walt Waychoff. I can't
14 recall having seen it. I may or may not. It's hard for
15 me to say.

16 Q. Is this the type of call report that you
17 referred to earlier that a field salesman would fill out
18 and send on to the marketing manager?

19 A. The format and how it got distributed and so
20 on. That was the general organic division format at the
21 time.

22 Q. And the reference after your name and after
23 Mr. Waychoff's name is D.H. Bechtold. Was that typically
24 the spot where the regional sales manager and location
25 went?

Page 145

1 A. Yes.

2 Q. Under objectives, there's a No. 2 it says quote

3 identify reasons for below budget purchases of Aroclors.

4 First of all, was that the type of objective that was

5 listed by a salesman, he was sent out to find out why

6 there was a discrepancy between projected purchases and

7 the actual purchases?

8 A. They would, the salesmen would often set their

9 own objectives on the sales calls, mostly would, because

10 he would be in the best position to know what the

11 objectives would be. The sales manager might have some

12 input. I might, or any other market manager might ask in

13 particular. I can't, I don't know whether this came from

14 the salesman's own initiative or some coaching from his

15 regional sales manager, because apparently the regional

16 sales manager was introducing the salesman. So I guess he

17 was either new in selling in Monsanto, the name certainly

18 doesn't ring a bell with me, or he was new to that

19 account.

20 Q. Now the date of call, April 22, 1970, is that

21 the date in which the salesperson would have met with the

22 customer?

23 A. Yes.

24 MR. DIMURO: Objection. Form.

25 A. As far as I know. I've got to go by what's up

Page 146

1 there.

2 Q. (By Mr. Turet) But would you agree that the

3 format was that that would usually be, the date of the

4 call would mean the date the salesman met with the

5 customer?

6 A. Yes.

7 Q. And date received down below it, what does that

8 date indicate?

9 A. There's a date typed and date received. The

10 date received, I'm not sure who's receiving it at that

11 point because I find it would be odd, if it was typed in

12 Chicago, it certainly wouldn't have gotten to St. Louis on

13 the same day because we would have been relying on mail to

14 deliver it.

15 Q. Sure. Now have you read the part that begins

16 new competition for Aroclors?

17 A. Let me do it now.

18 Q. And can you take from that, as I do from the

19 paragraph, that the particular customer whose name is

20 deleted from the call report was evaluating a replacement

21 product for an Aroclor Plasticizer product --

22 MR. DIMURO: Object to the form.

23 Q. (By Mr. Turet) -- caulking compound?

24 MR. DIMURO: Object to the form.

25 A. I read it that the customer is, indeed,

Page 147

1 evaluating a new product to replace Aroclor in caulking

2 compounds.

3 Q. (By Mr. Turet) And down below where it says

4 attention Cumming Paton, have you heard anything about

5 such a product and do we have any ammunition to fight it

6 with, is that the type of communication you typically

7 received from a field salesperson in your capacity as

8 market manager?

9 A. I would get questions like that, yes.

10 Q. Do you interpret that to mean that he was

11 looking for information with which to win the customer

12 back over in purchasing Aroclors with the caulking

13 compound?

14 MR. DIMURO: Objection. Form.

15 A. No, I would look at that and say, okay, the

16 customer's evaluating a lower cost material and he's

17 looking at something that seems to be a by-product from

18 some other application or manufacturer or something four

19 to five cents a pound cheaper than Aroclor.

20 And, frankly, my response to that would have

21 been look, have you any idea what kind of product this is

22 because we might be better looking at a product other than

23 Aroclor. Because I certainly wouldn't propose to reduce

24 my price on Aroclor four to five cents a pound against

25 something which is a by-product which could come down even

Page 148

1 lower. Because if that information got out in the field,

2 the whole market price of Aroclor goes down. So my first

3 response would be to say I'm not going to cut the price.

4 Q. (By Mr. Turet) But you would agree that the

5 salesman was looking for information from you with which

6 to win back the customer over to the purchase of Aroclor?

7 A. I would say that he was, yes, and he might well

8 have been wanting me to agree with him that the only way

9 to do it is to cut the price. And I assure you that

10 usually isn't my, I usually don't give in on that kind of

11 thing very easily. So he would have probably been told no

12 if I was around to answer. But I, I don't know what I did

13 in that situation.

14 Q. I have no further questions on that one.

15 MR. TURET: Mark this one as Paton 10.

16 (Exhibit Paton 10 was marked for identification

17 by the reporter.)

18 MR. TURET: For the record, Paton 10 is an

19 August 14, 1970 letter on Monsanto letterhead from Walter

20 Schalk, Bates Nos. MAE 054468 dash 69.

21 MR. DIMURO: Do you want him to read the whole

22 thing?

23 MR. TURET: No.

24 Q. (By Mr. Turet) Honestly, I'm just going to ask

25 if you've seen it before today.

Page 149

Page 151

1 A. I can't recall when I seen it, but I'm almost
2 certain I did.

3 Q. I'm directing your attention to the second page,
4 the second paragraph there's a reference or a statement
5 quote the latest available bulletin on our line of
6 Aroclors is enclosed for your use. This publication
7 replaces and supersedes Bulletin O/PL-306 dash Aroclor
8 Plasticizers.

9 MR. TURET: I guess we should mark this too.
10 Can you mark this as Paton 11?

11 (Exhibit Paton 11 was marked for identification
12 by the reporter.)

13 Q. (By Mr. Turet) Mr. Paton, you're being shown a
14 document now that's marked Paton 11 and that is Technical
15 Bulletin O/PL-306A.

16 MR. TURET: What are the Bates numbers on that?

17 MR. DIMURO: MAE 054470 through 86.

18 Q. (By Mr. Turet) Okay. Have you seen that
19 document before today, Mr. Paton?

20 A. This letter or this document?

21 Q. No, the one that's marked Paton 11.

22 A. I'm not really sure if I have, frankly. But I
23 probably have. I'd have gotten it, probably in my Latin
24 American role they would have sent me that.

25 Q. From your employment with Monsanto, was it your

1 Q. With both of them.

2 MR. TURET: Let's mark this one, mark this one
3 as Paton 12.

4 (Exhibit Paton 12 was marked for identification
5 by the reporter.)

6 MR. TURET: For the record, Paton 12 is
7 MAE 054596, and it's a December 21, 1971 letter.

8 Q. (By Mr. Turet) Mr. Paton, is this a document
9 that you authored?

10 A. Almost certainly, yes.

11 Q. And it's addressed to Armstrong Cork Company
12 which I represent to you is the same Armstrong as is a
13 defendant in this case. What is this letter and why did
14 it come about?

15 A. Well, Mr. Wilkinson and I it appears had a
16 conversation and I, and as a result of that, I sent him a
17 letter of the notification of discontinuation of Aroclor
18 or Therminol FR transfer fluid. And also telling him that
19 as a result of his request, I'm sending this to somebody
20 else at Lancaster and to somebody in Macon, Georgia. And
21 I guess these would be Armstrong plant personnel, I would
22 guess.

23 Q. Now there's a reference to Therminol 55 and 66.

24 Those are non-PCB containing products?

25 A. Non-PCB containing products.

Page 150

Page 152

1 experience that it was common to supersede a prior
2 Technical Bulletin with the same number plus an A at the
3 end?

4 A. It varied. Some people would have given it a
5 new number. Some for purposes of identification, easier
6 reference might have given it, added the A. You know,
7 that, that could be to the discretion of almost any market
8 manager almost.

9 Q. You see the Technical Bulletin 306A, now does
10 that suggest it is a Technical Bulletin that replaced
11 Technical Bulletin 306?

12 A. Yeah, that would be one interpretation of it.
13 That's how I would see it.

14 Q. Do you know one way or the other whether
15 Technical Bulletin 306A was distributed to customers
16 before this August 14th, 1970 letter?

17 A. I really don't know. I don't know.

18 Q. That was when you were in Latin America?

19 A. Yeah, I'm pretty certain that I was because
20 this, as I say, this is something that I can't recollect
21 having seen. And I can't remember what came on this, so I
22 just don't know.

23 Q. I have no further questions on those.

24 A. Okay. On either of them, the letter or
25 bulletin?

1 Q. Were all of the Therminol FRs PCB containing
2 products to your knowledge?

3 A. I think they were. I'm pretty certain they
4 were.

5 Q. Now, did you have occasion personally to
6 communicate with individuals at Armstrong, Mr. Paton?

7 A. I think I may have visited Armstrong once or
8 twice at Lancaster when I was in the Plasticizer area in
9 1966 to 1970. I vaguely remember what I may have done. I
10 can't remember who I talked to nor much about what the
11 subject was. You know, my guess is it might have had
12 something to do with some supply or commercial issue. I'm
13 not really sure at this time, I just vaguely seem to
14 remember.

15 Q. Do you remember whether that trip related to
16 Plasticizers being purchased for floor products versus for
17 something else?

18 A. I think it might have been floor products. In
19 fact, I think it definitely was floor products. But what
20 it was, I don't know. I don't remember.

21 Q. Do you remember Mr. Wilkinson at all?

22 A. No. Other than this, seeing this name here.

23 And I don't know if he initiated this conversation on
24 December the 20th or I did. You know, it's hard for me
25 now to say who initiated it.

Page 153

1 Q. Now you mentioned visits to Lancaster. Do you
2 remember any instances where individuals from Armstrong
3 came out to St. Louis to meet with you there?

4 A. I don't think anybody ever came from Armstrong
5 to visit me in St. Louis. I seem to recall hearing that
6 Armstrong was in visiting the Joe Darby's and, and people
7 like that, but I can't remember sitting in on any of those
8 meetings.

9 Q. And do you remember telephone communications
10 between you and anybody over at Armstrong during your
11 employment at Monsanto?

12 A. Other than this one, and this was more in the
13 fluid area, I don't think so because my involvement with
14 Armstrong was not very extensive. There would have been
15 other people that would have had more extensive contacts
16 from marketing and tech service than I did. And the
17 normal, it would have been unusual for me to have back in
18 that time, for it to have gone directly to a customer
19 without, you know, using a salesperson as the medium.

20 Q. And based on the BCC list on this particular
21 letter, who was the salesman if you could tell?

22 A. Well Slayton would have been the one responsible
23 for Lancaster, Pennsylvania. Phil Slayton was who, yeah,
24 I think he was also New York or New Jersey somewhere I
25 believe. Ray Ford was out of Atlanta. Fred Sutton would

Page 154

1 have been the salesman. And Paul Gann, Jim Roder and Don
2 Roush were all in my group in fluids. They all reported
3 to me.

4 Q. When you said Phil Slayton was responsible for
5 Lancaster, was he the salesperson?

6 A. Well, no, Lancaster would have fallen into his
7 sales region, but he was a regional sales manager.

8 MR. TURET: Let's mark this one as Paton 13.

9 (Exhibit Paton 13 was marked for identification
10 by the reporter.)

11 MR. TURET: For the record, it's MAE 058885, and
12 it's a March 7th, 1972 letter.

13 MS. O'CONNOR: What was the date on that
14 letter?

15 MR. TURET: March 7th, 1972.

16 Q. (By Mr. Turet) Mr. Paton, have you seen this
17 document before today?

18 A. I must have because I recognize the well done.
19 I must have passed it on to Frank Calkins because that
20 looks like my well done. So, yes, I obviously did.

21 Q. And Frank Calkins was somebody who worked under
22 you?

23 A. Well, what we did when we were getting out of
24 the fire resistant heat transfer business was we pooled
25 together a team of about eight people from our engineering

Page 155

1 department to assist customers who had to convert the PCB
2 fluid which was a fire resistant fluid to a non-fire
3 resistant fluid. And therefore, we wanted to offer to
4 those customers who thought it would be helpful some of
5 our engineers to go in there and to try to help them to
6 make sure that in doing so, we minimized the chances of
7 fire from the non-fire resistant fluid. And it seems as
8 though Frank, and Frank was one of those who did, and he
9 did a very fine job for Armstrong in that regard. And I
10 passed my thanks on to him.

11 Q. Now, the handwritten Jim up top, is that Jim
12 Springate?

13 A. Yes.

14 Q. His note states that as a result of your help,
15 it looks like we're still in good graces with our number
16 one customer. Why would he have referred to Armstrong as
17 number one customer back in March of 1972?

18 MR. DIMURO: Object to the form.

19 A. Well, Jim was the business director of
20 Plasticizers. And Monsanto was a big supplier of
21 Plasticizers to the Armstrong flooring tile business or
22 flooring products business and a very valued customer.

23 And, therefore, I think he was pleased that
24 another part of Monsanto had come around and, you know,
25 had helped instead of screwing up his business. So often

Page 156

1 in companies, you get a problem with sometimes the help
2 you give one division, you know, doesn't help the other,
3 you know, that's not unusual. So it's good to know at
4 least we were all marching in the same direction.

5 Q. (By Mr. Turet) Do you know if that was
6 literally true, that Armstrong was the number one
7 customer?

8 A. I don't know if it was literally true. They
9 were very important. Certainly, if I wore my nonvinyl
10 Plasticizer hat on Aroclors I, and I don't mean this
11 disrespectfully, in terms of volume, they thought they
12 would get the biggest. But clearly they were a very
13 valuable customer of Monsanto overall and I had nothing
14 but good reports of the Joe Darbys and the people who
15 dealt with them. It was a close and good working
16 relationship from what I could observe. And clearly, we
17 took seriously trying to help people when they
18 discontinued the FR products.

19 Q. By the way that reference to, in the first
20 paragraph at the end, FR-11 --

21 A. I think that's just a typo. That has to be
22 because there wasn't an FR-11 material. I'm certain
23 that's supposed to be FR-1.

24 MR. TURET: Would you mark this as Paton 14?

25 (Exhibit Paton 14 was marked for identification

Page 157

1 by the reporter.)
 2 MR. TURET: For the record, Paton 14 is a
 3 document Bates Nos. MAE 021966 through 21969.
 4 MR. DIMURO: Go ahead and shoot.
 5 Q. (By Mr. Turet) Mr. Paton, have you seen this
 6 document before today?
 7 A. I can't recall it. But, frankly, I was present
 8 at the meeting, so I don't know. Probably, yes, I see I
 9 was copied as well, so I probably did see it.
 10 Q. Now, this was February 10th, 1975?
 11 A. Yes.
 12 Q. You were product manager then?
 13 A. I think that would have been my title then, yes.
 14 Q. Why were you included in this meeting as a
 15 product manager?
 16 A. Because I presumably, because, because it was, I
 17 was still involved with dielectric fluids. And at that
 18 time, I think the only products that Monsanto would have
 19 been selling containing PCBs would have been the
 20 dielectrics.
 21 Q. What's the earliest time you remember hearing
 22 that any study had suggested that PCBs might be capable of
 23 causing cancer in humans?
 24 MR. DIMURO: Objection. Form.
 25 A. I can't recall the exact date I'd have heard

Page 158

1 that. As this memo indicated, it was something that was
 2 relatively recent because Dr. Kimbrough's studies had just
 3 recently been completed so --
 4 Q. (By Mr. Turet) Do you remember personally being
 5 involved in the meeting with Dr. Kimbrough relative to her
 6 study?
 7 A. No. And I think it's almost certain that I
 8 would not have been because I would have had nothing to,
 9 there would have been no reason for me to be there because
 10 that would not have not been my area of expertise at all.
 11 Q. Does this memo suggest that you did attend a
 12 meeting with Dr. Kimbrough or that it was a meeting for
 13 others in Monsanto to discuss this?
 14 A. This I think is a memo to Papageorge informing
 15 him that the following nine people had met with him to
 16 review the results of a study recently completed by
 17 Dr. Kimbrough.
 18 And apparently, those who would have had a
 19 meeting with Levinskas were in the medical department, as
 20 I recall, at the time, in Washington with the Cancer
 21 Institute reviewing Dr. Kimbrough's results. But I would
 22 not have been present at either, any review with
 23 Dr. Kimbrough or with any meeting at the National Cancer
 24 Institute.
 25 Q. Do you recall having any specific tasks assigned

Page 159

1 to you in the aftermath of the Kimbrough study?
 2 A. I don't unless there's any you know listed.
 3 Q. I'll represent to you your name is not on the
 4 list that follows.
 5 A. Well in that case, no.
 6 Q. Okay. Do you remember before this February 1975
 7 study any reference, any other studies that suggested that
 8 PCBs could cause cancer in humans?
 9 MR. DIMURO: Objection to the form. You can
 10 answer it.
 11 A. I don't think I do. I can't recall it.
 12 MR. TURET: I have no further questions at this
 13 time.
 14 MR. O'CONNOR: I have probably about 45 minutes
 15 of questions. Do you want to take a quick break before I
 16 get started?
 17 (A short break was taken.)
 18 EXAMINATION
 19 QUESTIONS BY MR. O'CONNOR:
 20 Q. Mr. Paton, my name is Brian O'Connor. We were
 21 introduced what seems like many hours ago. I'm an
 22 attorney from New Jersey and I represent the plaintiffs
 23 who have brought this lawsuit against Armstrong World
 24 Industries.
 25 You have been produced as a witness at the

Page 160

1 request of Counsel as someone who may have relevant
 2 knowledge. You have not been designated as a particular
 3 type of witness to my understanding in this particular
 4 case. Can you tell me how many times you've met with
 5 Counsel prior to today's deposition in preparation for
 6 today's deposition?
 7 A. I've met once.
 8 Q. Was that yesterday?
 9 A. Yes.
 10 (Mr. DiMuro exited the deposition room.)
 11 Q. Were you shown a serious of documents by
 12 counsel?
 13 A. I was shown several documents, yes.
 14 Q. Can you approximate for me how many documents
 15 you were shown?
 16 A. It's hard to say because I didn't pay any
 17 particular notice.
 18 Q. Were the documents, were they authored by you or
 19 directed to you or copied to you?
 20 A. I think most of them were, but there might have
 21 been some that weren't. But it's hard for me to say
 22 because I just sort of read them and didn't pay that much
 23 attention.
 24 Q. When did you first find out about this
 25 particular lawsuit pending in New Jersey?

Page 161

1 A. I think it was just a few weeks ago.
 2 Q. You were contacted a few weeks ago about
 3 appearing for a deposition?
 4 A. Yes.
 5 Q. How many times have you testified on behalf of
 6 Monsanto as it relates to polychlorinated biphenyl
 7 litigation?
 8 A. Several times I think.
 9 Q. Mr. Turet asked you earlier how many times
 10 you've been deposed.
 11 A. Was it five times I said? I think it might have
 12 been five or more. But I haven't kept track of the exact
 13 number of times.
 14 Q. When you appeared and testified on behalf of
 15 Monsanto in a deposition, was that all related to
 16 polychlorinated biphenyl litigation?
 17 A. Yes.
 18 (Mr. DiMuro re-entered the deposition room.)
 19 Q. (By Mr. O'Connor) Earlier, you told Mr. Turet
 20 as market manager of the Plasticizer division, part of
 21 your duties was to support the group field salespeople.
 22 A. Yes.
 23 Q. And also to provide commercial guidance; is that
 24 correct?
 25 A. Yes.

Page 162

1 Q. Did that include providing any information
 2 received from customers with reference to Technical
 3 Bulletins?
 4 A. In general terms, yes. If a salesman met a
 5 customer who had a query about one of our bulletins or if
 6 that salesman couldn't have answered a question to the
 7 customer's satisfaction, then it would have been covered
 8 in a call report or he might have called me about it. But
 9 I can't recall any specific instances. It wouldn't have
 10 probably been a very common occurrence.
 11 Q. When you became market manager of the
 12 Plasticizer division, the Aroclor business, including the
 13 Aroclor line 1254 and 1260, was up and running already,
 14 correct?
 15 A. Oh, yes. Yes.
 16 Q. There was already Technical Bulletins and Blue
 17 Books on those particular products, correct?
 18 A. There were Technical Bulletins. The Blue Book
 19 was kind of a loose leaf binder type thing that covered
 20 all or most all of Monsanto's products and Plasticizers.
 21 So it was not just Aroclors. It was whatever we produced,
 22 but part of the Plasticizer product line.
 23 Q. My question is though, there was a significant
 24 amount of written literature with regard to capabilities
 25 and the uses of the Aroclor lines when you took over as

Page 163

1 market manager, correct?
 2 A. A fair amount. It would have been, you know,
 3 there wasn't an extensive number of bulletins, but I don't
 4 know if there was one or two or how many more, but there
 5 were bulletins that had been around and produced for some
 6 time before that.
 7 Q. Do you recall ever providing anything specific,
 8 any specific information that related to Aroclor 1254 or
 9 Aroclor 1260 that ended up in a Technical Bulletin?
 10 A. Me, personally?
 11 Q. Yes.
 12 A. I don't think so. Not in a bulletin. The
 13 nearest would have been maybe that when we went from this
 14 O/PL-306 to 306A, but I don't think that I really did
 15 306A. It was in the planning process or already done when
 16 I moved positions.
 17 Q. As part of your duties and responsibilities as
 18 market manager of the Plasticizer division, did that
 19 entail providing information as to appropriate uses and
 20 applications of the Aroclor lines and providing that
 21 information to your salespeople?
 22 A. It would have been the extent that it was asked,
 23 I would refer them to the bulletins. If there would have
 24 been any further information, I would have funneled the
 25 requests to the medical department who either would have

Page 164

1 sent the reply back through me or they might have gone
 2 back to the customer, but it was probably changed from me
 3 to the salesman back to the customer.
 4 Q. If research and development, hypothetically, or
 5 some other department in Monsanto contacted you as market
 6 manager, and provided you with some information as to
 7 applications and uses for a particular Aroclor line, is
 8 that something that you would have passed on to your
 9 salespeople?
 10 A. If it, if it was something that needed to be
 11 disseminated either to a specific customer or to all
 12 customers or potential customers or it might have just, in
 13 some cases, the information might have been internal, look
 14 we are developing a new product and here is where we stand
 15 in terms of its performance. Then that would be just kind
 16 of an internal, you know, communication as part of your
 17 developing program as opposed to a full-scale commercial
 18 program. If that's the kind of question you're asking.
 19 Q. Well, my question is, for instance, if Monsanto
 20 had made a decision to make a recommendation not to use
 21 Aroclor 1254 or 1260 in certain applications, is that
 22 information that you would have expected that you would
 23 pass on to your field salespeople?
 24 A. Yes. If indeed it was a product that, yes,
 25 probably.

Page 165

1 Q. Okay. And the time that you spent as a market
2 manager for the Plasticizer division, do you recall ever
3 communicating to your field salespeople any information as
4 it related to a recommendation to avoid certain
5 applications or uses of Aroclor 1254 and Aroclor 1260?

6 A. Not that I can specifically recall.

7 Q. Do you recall any distinction being made by
8 Monsanto during time that you were market manager from I
9 believe it was '67 to '70?

10 A. Yes.

11 Q. Any distinction made between the use of Aroclor
12 1254 and 1260 in open use versus a closed system?

13 A. I don't think I do. I know that at some point
14 the term open versus closed came about. I can't recall at
15 what time frame it did come about. I think in any case it
16 was post 1970, but I couldn't swear to that.

17 Q. So you're just uncertain when, but the
18 distinction from open versus closed uses came to your
19 attention?

20 A. That's probably a fair statement. If I can
21 refer back to your previous question about the technical
22 department informing me of either product information that
23 could go to customers or applications or uses of products
24 that shouldn't be made, that would not necessarily just go
25 to me or go to me only, because in the Plasticizer group,

Page 166

1 we had, in fact, encouraged people from our customer
2 service labs to go out and make calls with salespeople.
3 So in some cases, it's highly likely that that information
4 would have been passed directly from a Monsanto technical
5 service person directly to the customer's technical area.
6 I might have known about it through a call report later
7 but that would have been, that certainly would have come
8 up about part of the technical discussion between the
9 customer and us.

10 Q. Let me ask you, you've been asked several
11 questions and saw several documents today and I'm still a
12 little uncertain as to the time frame of when you became
13 aware of certain things as it related to PCBs.

14 A. Okay.

15 Q. And if reviewing the documents or answering some
16 of these questions has refreshed your recollection, let me
17 know.

18 Can you tell me when you became aware that PCBs
19 were environmental contaminants or potentially an
20 environmental contaminant?

21 A. The earliest that I would have heard about them
22 being linked to being found or allegedly found in the
23 environment would have been sometime in the early part of
24 1968.

25 Q. And how is it that you recall that?

Page 167

1 A. I think as I testified earlier today, it was
2 because an article or some document crossed my desk which
3 referenced the Jensen and Widmark studies in Sweden. Or,
4 in fact, it might have been a copy of the article they
5 published.

6 Q. Do you have a specific recollection of learning
7 that in fact PCBs were an environmental contaminant?

8 MR. DIMURO: Object to the form. You can answer
9 it.

10 MR. O'CONNOR: What's the objection?

11 MR. DIMURO: The question was if PCBs were an
12 environmental contaminant.

13 MR. O'CONNOR: If he has a recollection of
14 learning that.

15 MR. DIMURO: Okay.

16 A. Not so much a contaminant present in the
17 environment. And for I would say at least two years, you
18 know, after I learned about it, there was still the
19 question as to whether, because they were present in the
20 environment, were they, you know, creating a problem. Or
21 was this linked to the products that were found in contact
22 with things, which was things like DDT and other
23 chlorinated materials. And that was part of the, the
24 on-going research, investigation process that took place
25 within Monsanto in that '68, '69, you know, time frame.

Page 168

1 Of which I was not really, didn't have the expertise to
2 really participate or contribute in that.

3 Q. (By Mr. O'Connor) At some time, did you gain an
4 understanding that PCBs were not ready biodegradable?

5 A. Yes.

6 Q. Do you recall when that was?

7 A. That was probably more in the, I would think
8 more in the '69, late '69, early '70 time frame.

9 Q. Do you recall being provided with any
10 information from Monsanto that Monsanto was concerned with
11 potential toxicity of PCBs?

12 A. I think as I recall back in, sometime in, I'm
13 not sure, '68 or '69 we embarked upon a program with
14 Industrial Bio-Test to do feeding studies and so on. And
15 I think that was more just out of trying to determine how
16 toxic are these materials, do they all behave the same,
17 you know, etc., etc.

18 Q. At that time --

19 A. So up until then, there were allegations that
20 were not really, you know, I don't think had been proven
21 one way or the other.

22 Q. At that time, do you know whether or not
23 Monsanto had a concern as to the uses and applications of
24 the Aroclor line at the time they were conducting those
25 animal studies?

Page 169

1 MR. DIMURO: I'm going to object to the form.
2 MR. O'CONNOR: What's the objection?
3 MR. DIMURO: I don't think he said Monsanto was
4 conducting animal studies.
5 Q. (By Mr. O'Connor) Well, let me back up.
6 Mr. Paton, I believe you told me that at some point in
7 time in late '68 early '69 you were provided information
8 that Monsanto was engaged in some type of testing as it
9 related to potential toxicity to animals, correct?
10 A. They embarked in a study, as I understand it,
11 with Industrial Bio-Test to do, for Industrial Bio-Test to
12 do feeding studies using Aroclor PCBs and, you know, that
13 was then going to be, well, to determine if some of the
14 allegations that were being made in some of the media or
15 literature reports were accurate or not as to what extent
16 were they potentially toxic.
17 Q. Do you recall the, or is it your recollection
18 that Monsanto hired IBT to perform those tests?
19 A. I think they did but I'm not the best person to
20 ask that. There would be others that would be much better
21 able to answer that than I.
22 Q. At the time that testing was being done by IBT,
23 do you have a recollection as to whether or not Monsanto
24 had a concern about particular applications or uses of the
25 Aroclor lines?

Page 170

1 A. Concerned might be too strong a term. I think
2 there was, some of the documents that I was shown today
3 indicated among some of our people as to how could the PCB
4 have gotten itself to the point where it was actually
5 discovered. Sweden was certainly a case in point. To the
6 best of my recollection, we sold little or no PCBs in
7 Sweden. So there was a great deal of puzzlement about
8 whether they were.
9 The other thing was, was it only to be 1254,
10 1260? That led to a whole bunch of other conjectures. So
11 it was like a jigsaw puzzle to which we didn't have all
12 the answers.
13 Q. Well, do you know whether or not Monsanto was
14 recommending closed uses for the Aroclor 1254 and 1260
15 line back in 1969?
16 A. Well, we were continuing to sell in the fluids
17 area which were perceived as the very nature of where they
18 were being used that they, you know, were in closed
19 systems. Because in the heat transfer system, you don't
20 want anything leaking out of it. And in the dielectric
21 use, certainly you want it to be in a sealed container
22 type use regardless of whether it's, whatever chemical it
23 would be.
24 Q. Do you recall when it was -- well strike that.
25 At some point in time, did you develop an

Page 171

1 understanding that there was a potential for human
2 exposure of PCBs through the food chain?
3 MR. DIMURO: Any particular time period?
4 MR. O'CONNOR: I'm just asking if he came to
5 that understanding at a particular time.
6 A. I think I came to an understanding when I came
7 back from the Latin America assignment into fluids. I
8 think that, I think that was when I was more aware of it.
9 I may not, I may have been somewhat aware of it.
10 Q. (By Mr. O'Connor) Do you recall any time in
11 1969 where Monsanto made a representation as to what it
12 felt was a safe level of polychlorinated biphenyl for
13 human beings to ingest?
14 A. I can't recall Monsanto doing that. I seem to
15 recall there was a Federal Register Directive if that's
16 the right term. I don't know if that was the FDA or EPA
17 that talked various levels. And again, I'm hazy now as to
18 when that was published.
19 Q. Let me show you a document that's been marked
20 Papageorge 3 at a previous deposition. And I don't have
21 copies of this, so if you don't mind, I'm going to stand
22 over your shoulder. Take a moment first, let's identify
23 it. It's dated March 10th of 1969 and has been marked
24 Papageorge 3. It contains MAE 053277 through 279. And up
25 at the top on the right, I'm just going to ask you, it

Page 172

1 says to file and there's a list of gentlemen on the
2 right-hand side and it says C. Paton slash K. Wells. Is
3 that you?
4 A. That almost certainly is me, yes.
5 Q. Even though there's a misspelling of your name.
6 Take a moment out and read that.
7 A. The whole memo?
8 Q. Yes, please. Okay. You've had an opportunity
9 to read that, Mr. Paton?
10 A. Yes.
11 Q. Mr. Paton, this is a memorandum from March 10th
12 of 1969 and it states notes on meeting Industrial Bio-Test
13 Laboratories, Inc. and references Aroclor dash wildlife.
14 Do you recall getting this document back in '69?
15 A. I almost certainly did. You know, I wouldn't
16 have but since you're showing it to me, I wouldn't have
17 remembered, but obviously, I did.
18 Q. Do you have a specific recollection of any
19 discussions you had about that particular meeting?
20 A. No. Because I wasn't present at the meeting. I
21 see what they were planning to do and I would have been,
22 you know, certainly interested in knowing what the
23 on-going results were.
24 Q. You would have been interested because you were
25 marketing manager of a product line wherein this

Page 173

1 particular document contemplates testing on that
 2 particular product, correct?
 3 A. Yes.
 4 Q. And was this somewhat of an unusual event that
 5 Monsanto would hire a laboratory to do tests on a
 6 particular product?
 7 MR. DIMURO: I'll object to the form. You can
 8 answer it.
 9 Q. (By Mr. O'Connor) In your personal experience
 10 at Monsanto.
 11 A. At that time, that was probably the first case
 12 that I was aware of. But then I was at that point in time
 13 relatively new to Monsanto. Certainly in my experience
 14 with Monsanto as a whole, this would not be unusual.
 15 Q. This document references E. Wheeler and W.
 16 Richard reviewing background on Aroclor properties.
 17 Recent analytical results by Scott Tucker, history of
 18 Aroclor application uses, REF period to Risebrough's
 19 December 1968 paper in Nature. Do you recall that? Do
 20 you recall any involvement of E. Wheeler or W. Richard
 21 with this particular testing of the Aroclor line?
 22 A. You mean, when you say particular testing, you
 23 mean what the testing at Industrial Bio-Test was?
 24 Q. Yes. Correct.
 25 A. E. Wheeler was an industrial hygiene specialist

Page 174

1 in the medical department. And therefore, and Bill
 2 Richard was a technical, you know, a technology director.
 3 They would have been natural people to have worked with
 4 the Industrial Bio-Test people in setting up the type of
 5 program that was deemed necessary to learn more about the
 6 products.
 7 Q. Would you agree with me that this document is
 8 basically notes from a meeting where employees, where
 9 representatives of Monsanto met with representatives of
 10 Industrial Bio-Test Labs and discussed the testing of
 11 Aroclor, the Aroclor line?
 12 MR. DIMURO: I'm going to object to the form.
 13 You can answer it.
 14 A. Well, I'm not sure if they were going over
 15 studies already in place or if they were planning a
 16 program. I didn't, you know, I skimmed through it fastly
 17 but it's my understanding if there wasn't a program
 18 already in place they were planning to get one in place.
 19 And they also saw that they might need some
 20 other outside assistance and Monsanto thought that they
 21 could provide some through some consultants. And they
 22 knew about Bio-Test.
 23 Q. (By Mr. O'Connor) Well, on Page 2 it states
 24 Bio-Test consultants job to J. Calandra dash Otis
 25 Francher. E. Wheeler will report on program to date colon

Page 175

1 and then it lists with Roman numerals tests to be
 2 performed on rats, chickens, fish, mallards, and various
 3 studies on dogs. Do you agree with that?
 4 A. Yeah, I agree with that.
 5 Q. Do you recall getting that information with
 6 regard to the specific tests that were being performed on
 7 certain lab animals?
 8 A. I would not have necessarily seen and can't
 9 recall seeing the exact protocol and details of the tests
 10 that were going to be performed.
 11 Q. Right.
 12 A. I would have, you know, this is the kind of
 13 information that would have been useful for me to know.
 14 And from this, I can see if they start it now in March of
 15 '69, somewhere in March, that around May of '71 or
 16 something, they would hope to have some results in rats
 17 and dogs and so on. And I would have probably, if nobody
 18 let me know how these things were going, I would have
 19 probably asked at some point in time about the program,
 20 have any problems cropped up, is it still on track, that
 21 sort of thing.
 22 Q. On Page 3 it stays discussed requirements of
 23 sampling fish and water in the San Francisco Bay location
 24 of a lot of Risebrough accusations versus PCB and possible
 25 site of very low Aroclor usage. L. Beer indicated \$40,000

Page 176

1 for this kind of job. Wheeler and Richard said \$4,000
 2 plus a row boat.
 3 It goes on to state defense seems to have these
 4 elements. Roman Numeral I, Aroclor not intended to be
 5 spread around period. Used in closed systems comma,
 6 recycle of material comma limited exposure period. Dash
 7 most but not all Aroclor uses meet the above description.
 8 When you received this document back in March of
 9 1969, Mr. Paton, what did you understand defense to mean?
 10 A. It's impossible for me now to go back and say
 11 what did I think in March of 1969 because there could be
 12 several interpretations I think to it. So if you're
 13 asking me what did I really think at the time --
 14 Q. Right.
 15 A. -- I, you know, I can't answer because I can't
 16 remember.
 17 Q. Okay. Well, where it states used in closed
 18 systems comma was it your understanding back in March of
 19 1969 that Aroclor was to be used in closed systems?
 20 A. No. I wouldn't have thought so. Again, it
 21 depends what is meant by closed systems. And I didn't
 22 write this memo and I can't recall discussing with Bill
 23 Richard after I got it what he meant by these things and
 24 so I cannot tell you what he meant.
 25 Q. Okay. Well, use of Aroclors in paint, that

Page 173 - Page 176

Page 177

1 obviously wouldn't be use of Aroclor in a closed system,
2 correct?

3 MR. DIMURO: I'll object to the form. You can
4 answer it, Dr. Paton.

5 A. Well, you could argue that it, I mean there
6 could be someone that said, yes, it might be because it's
7 been absorbed into the resin. So does that make it
8 closed? Or is it going to be used like in a capacitor
9 where it's in a sealed container? Maybe that makes it
10 more closed.

11 Q. (By Mr. O'Connor) Well, back in March of 1969,
12 in your own mind, did you have a distinction as to how
13 Aroclors were to be used?

14 A. I don't think in my own mind that at that point
15 in time that I had really got this open versus closed
16 thing totally differentiated.

17 Q. And you don't recall when it was that you did
18 get an understanding as to the differentiation between an
19 open versus a closed use?

20 A. I think when I got involved in the PCB
21 situation, again, in early '72, then I think sufficient
22 information had been generated and so on and so forth and
23 since I was dealing with, you know, material being used in
24 containers as opposed to being used in plastics, then I
25 began I think to see more clearly some distinctions.

Page 178

1 Q. Well this states used in closed systems, recycle
2 of material, limited exposure most but not, most but not
3 all Aroclor uses meet the above description.

4 A. That's what Bill is saying.

5 Q. Did you have an understanding that that's how
6 most of the Aroclors were being used back in 1969?

7 MR. DIMURO: In closed systems?

8 Q. (By Mr. O'Connor) In the definition that
9 appears there.

10 A. I can't recall having thought about it. And
11 today, if I did think about it, I would be applying my
12 today's thinking rather than going back to that point in
13 time which is relevant which is March of '69.

14 Q. Do you recall working with Mr. Papageorge on the
15 PCB issue?

16 A. Yes.

17 Q. What is it that you recall about working with
18 Mr. Papageorge?

19 A. Well, I remember Mr. Papageorge being the
20 individual that was primarily the main interface with
21 government agencies. And that kind of worked on a system
22 of, what's it called, safety, product safety and data
23 sheets which I think was something that was evolving at
24 that time. And it was a term-like product. Stewardship
25 was getting into the vocabulary. He was our, you know, he

Page 179

1 was the type of person that if someone called me or told
2 me of something involving Aroclor from a government agency
3 standpoint, I'd have passed it on to him, and then he
4 would have dealt with it. But if he wanted to know about
5 customers or volumes sold for what applications, he would
6 have come to me.

7 Q. Do you recall Mr. Papageorge testifying in
8 litigation related to PCBs in paint that had been used to
9 paint the inside of grain silos?

10 A. No, I don't.

11 Q. When you took over as marketing manager, do you
12 recall if there was any mention of any health risks in any
13 of the Technical Bulletins as it related to the Aroclor
14 Plasticizers?

15 A. Yes. I think there was reference to chloracne.
16 There was reference to not getting prolonged exposure on
17 your skin as I recall. There might have been others but
18 these are two that I recall.

19 Q. Were there any, was there any mention of any
20 health risks associated with long term exposure as it
21 related to toxicity of the product?

22 MR. DIMURO: I'll object to the form.

23 A. I don't, I don't think so. I can't seem to
24 recall any, but I'm not sure.

25 Q. (By Mr. O'Connor) Do you recall having any

Page 180

1 discussions with Mr. Papageorge about risks associated
2 with the use of Aroclors on surface coatings?

3 A. Having discussions with Mr. Papageorge?

4 Q. Yes.

5 A. I could have, I can't recall specifically, no.
6 I might have had.

7 Q. Earlier, Mr. Turet asked you about what he
8 referred to as the Yusho incident in Japan. And later on
9 in response to a question you testified that Mr. Turet had
10 brought that to your attention and I just want to
11 clarify. Had you heard of the Yusho incident prior to
12 today's deposition?

13 A. I may have. I'm not sure if, the term Yusho
14 might have been new to me. It might have been something
15 that I was asked before at some other deposition. I can't
16 be absolutely certain. It's certainly something that I
17 can't recall knowing or hearing about when I was a market
18 manager. You know, that's not what I might have done, but
19 I think somewhere along the line I might have heard more
20 about it. I don't know.

21 Q. Did you work closely with Emmet Kelly?

22 A. Not closely. We were colleagues. I would have,
23 when he'd have asked me for information, I reported it to
24 him. And if I had questions, he gave information to me.
25 And I was grateful. I think we had a good working

Page 181

1 relationship. I respected his capabilities and would
 2 have, if I had questions regarding toxicity or something,
 3 I would have gone to him or Elmer Wheeler and let them
 4 explain it to me.
 5 Q. Did Dr. Kelly frequently provide you with
 6 information that he had learned with reference to
 7 polychlorinated biphenyls and the potential health risks?
 8 MR. DIMURO: Object to the form. You can
 9 answer.
 10 A. Well, he wouldn't have, you know, given me
 11 details. I think that as I've seen with documents that
 12 certainly were circulated, and that I got, I felt that I
 13 was not left ignorant of what was going on. But looking
 14 at documents refreshes some, you know, to some extent
 15 refreshes my memory that I must have seen them at one time
 16 or another.
 17 Q. (By Mr. O'Connor) Do you recall when you were
 18 marketing manager Dr. Kelly telling you that he had
 19 discovered levels of PCBs in milk?
 20 A. I can't recall that.
 21 Q. Do you recall any type of incident where he had
 22 discovered levels of PCBs or been provided with
 23 information that PCBs had been found in cattle's milk in
 24 Georgia in 1968?
 25 MR. TURET: I take it when you say he had

Page 182

1 found --
 2 Q. (By Mr. O'Connor) Or had been provided with
 3 information, correct?
 4 A. He might have done that. I can't recall.
 5 Q. Do you know if at any time Mr. Papageorge had
 6 come forward and stated that there were certain uses for
 7 Aroclors that should be avoided?
 8 A. No, I can't recall that.
 9 Q. Earlier you were shown Technical Bulletin
 10 O/PL-306 and I'll show you that. And I believe you were
 11 also provided with Technical Bulletin O/PL-306 A?
 12 A. Yes.
 13 Q. I have a copy of that Technical Bulletin with a
 14 different Bates stamp than what Mr. Turet showed you.
 15 A. The 306 you mean?
 16 Q. 306A. And I'm going to show you this second
 17 one. It has Bates MAE 040935 through 040949.
 18 MR. TURET: Are you going to mark it has an
 19 exhibit?
 20 MR. O'CONNOR: No.
 21 A. Now you want to me to --
 22 Q. (By Mr. O'Connor) Off the top of your head, can
 23 you tell me if there's any information contained in 306A
 24 that's not contained in 306?
 25 MR. DIMURO: Do you want him to go page by

Page 183

1 page?
 2 MR. O'CONNOR: I just asked off the top of his
 3 head.
 4 A. Well, judging by the thickness, I would say
 5 there's a lot less thickness in this one than in this one.
 6 Q. (By Mr. O'Connor) Earlier, Mr. Turet showed you
 7 a document with regard to your statement that 306 needed a
 8 drastic revision.
 9 A. Yeah, it was a memo that I had written.
 10 Q. Do you recall what the drastic revision was in
 11 reference to? Here's a copy of your memo.
 12 MR. DIMURO: Just note my objection. I think he
 13 answered that question, but he can answer it again.
 14 A. Is it possible that I can have the answer that I
 15 gave before read back to me? Well drastically revised,
 16 I'm not sure what I meant by drastic. But the resulting
 17 thing says, well, this is a lot less than the one before.
 18 But I also testified that I didn't, I don't think I did
 19 the revision that ultimately led to this 306A.
 20 Q. (By Mr. O'Connor) Well, your memo states
 21 O/PL-306 must be drastically revised in light of the
 22 letter on PCBs that we have sent to Aroclor customers in
 23 the U.S. and plan to send to U.K. and Canadian customers.
 24 Does that refresh your recollection at all as to what the
 25 drastic revision was that you contemplated?

Page 184

1 A. Well, the one that I would have contemplated
 2 would have been putting something in there referring to
 3 the letter or maybe abstracting from the letter the
 4 information that we had sent in the February 1970 time
 5 frame.
 6 Q. And as you sit here today, you can't tell me
 7 based upon your recollection of any drastic revisions that
 8 are contained in 306A versus 306, correct?
 9 MR. DIMURO: I'll object to the form, you can
 10 answer it.
 11 A. I've said that there's obviously a great deal
 12 less information in the revised one than there was in this
 13 one.
 14 Q. (By Mr. O'Connor) Do you recall if the
 15 revisions that you contemplated related to the
 16 recommendation of the avoidance of certain applications or
 17 uses of Aroclor?
 18 A. I can't at this time say whether that's the case
 19 or not.
 20 Q. Let me bring your attention to Page 10 of 306A.
 21 I'm sorry, it's not Page 10, it appears to be Page 13
 22 containing Bates 040947. Do you see environmental
 23 hazards?
 24 A. Yes.
 25 Q. Can you read that, please?

Page 185

1 A. The whole thing?
 2 Q. Yes.
 3 A. I read it.
 4 Q. Does that refresh your recollection at all as to
 5 any revisions which you contemplated between 306 and any
 6 subsequent Technical Bulletin?
 7 A. That doesn't. I, I can't recall having thought
 8 through what's in here.
 9 Q. Well, the last paragraph says some specific
 10 applications where the use of PCB should definitely be
 11 avoided are in mains and sealants for swimming pool paints
 12 and water proofing agents in silos and other buildings
 13 where food products for humans or animals are stored and
 14 for any component or container for wrapping used in food
 15 products.
 16 Do you recall when it was that that particular
 17 recommendation against certain uses was added to the
 18 Technical Bulletin?
 19 A. No, I don't.
 20 Q. Earlier you made reference to looking at the
 21 back of the Technical Bulletin in order to make a
 22 determination as to when it was provided. Do you see
 23 these numbers at the bottom?
 24 A. Yes.
 25 MR. DIMURO: Are you looking at the last page?

Page 186

1 MR. O'CONNOR: Last page, 040949.
 2 Q. (By Mr. O'Connor) What does that indicate to
 3 you, Mr. Paton?
 4 A. I'm not sure if it's a 3 or a 9 dash 70. It
 5 could be a 3, but I'm not sure.
 6 Q. It appears to me to be a 3.
 7 A. May be.
 8 Q. If it was a 3, would that indicate that it was
 9 March of '70?
 10 MR. DIMURO: March of '70 what?
 11 MR. O'CONNOR: When this Technical Bulletin was
 12 available.
 13 MR. TURET: March of 1970. This's a cleaner
 14 copy.
 15 A. Could be.
 16 Q. (By Mr. O'Connor) Well, do you recall whether
 17 or not this Technical Bulletin, while you were marketing
 18 manager, came out with that particular recommendation
 19 against the use of a certain application or use?
 20 A. I can't recall if it did or didn't.
 21 Q. After reviewing the documents today, there's no
 22 doubt you were marketing manager of the Plasticizer
 23 division back in March of 1970, correct?
 24 A. I think so. But as I said, I think I was in
 25 transition to the new position.

Page 187

1 Q. Do you remember earlier you told us about
 2 Monsanto changing the labels to be affixed to barrels or
 3 containers of Aroclor?
 4 A. Yes.
 5 Q. Okay. Did the revision to the label include
 6 language similar to what I pointed out to you in this
 7 Technical Bulletin?
 8 A. I can't recall.
 9 Q. Do you recall at any time if certain labels that
 10 were to be affixed to containers or drums of Aroclor
 11 contained language that recommended the avoidance of a
 12 certain application or use of Aroclors while you were
 13 market manager?
 14 A. I can't recall.
 15 Q. Getting back to this document dated April 3rd of
 16 1970, the Aroclor Bulletin, at the bottom it states we
 17 plan to issue a much condensed bulletin giving the
 18 physical properties of the various Aroclors without
 19 reference to applications. Do you recall writing that?
 20 A. I don't recall writing it. But I'm not
 21 disputing that I did write it.
 22 Q. Can you tell me why Monsanto would put together
 23 a much condensed Bulletin giving the physical properties
 24 of the various Aroclors without reference to certain
 25 applications?

Page 188

1 A. No.
 2 Q. When you wrote this memo back in April of 1970,
 3 were you concerned at all with the way the Aroclors were
 4 being used in reference to applications or uses?
 5 A. I cannot recall now whether I was at that point
 6 in time or not.
 7 Q. This particular memo, was this addressed
 8 primarily to salespeople?
 9 A. It was addressed to regional sales managers in
 10 the U.S. and to managers that had responsibility for
 11 certain worldwide Aroclors as far as Plasticizer sales
 12 were concerned, as well as copies to other people in the
 13 organization in St. Louis.
 14 Q. And the bulletin itself that's authored by you
 15 doesn't make a distinction between recommending the
 16 sales --
 17 A. I didn't write the bulletin.
 18 Q. This particular bulletin?
 19 MR. DIMURO: That's not --
 20 Q. (By Mr. O'Connor) It states, well, I
 21 apologize. It's a -- well, I don't know what --
 22 MR. DIMURO: I think it's been called a memo.
 23 Q. (By Mr. O'Connor) Okay. The memorandum does
 24 not make a distinction between the sale of Aroclor for
 25 open versus closed uses, correct?

Page 189

Page 191

1 A. My memo?
 2 Q. Yes.
 3 A. It doesn't use the term open and closed I don't
 4 think.
 5 Q. In fact, it doesn't make reference to any
 6 distinction between application and uses of Aroclors,
 7 correct?
 8 A. No. Other than it says that we have various
 9 application research programs underway in hot melts,
 10 sealants and coatings involving Aroclors. We want to get
 11 the data and then publish is later.
 12 Q. But at the date of this memo, there's no
 13 distinction made direct or toward the sales manager or
 14 salespeople regarding the uses of Aroclor?
 15 A. When you say distinction, what do you mean.
 16 Q. Is there a distinction between applications and
 17 uses?
 18 A. No, probably not.
 19 Q. You state in here, Mr. Paton, as you know we
 20 have programs underway to solve the problems the PCB
 21 situation poses for the Aroclor business. What was the
 22 problems that you were contemplating at that time?
 23 A. It's very hard for me to sit down and say
 24 exactly which ones, but at that point in time, there had
 25 been several articles published indicating that products

1 your review of that memorandum, you were not instructing
 2 salespeople to limit the sales of Aroclor 1254 and Aroclor
 3 1260 to customers for certain uses?
 4 A. I didn't make any, you know, I didn't make any
 5 distinction in that memo to Aroclors so, I, I'm not quite
 6 sure what that does mean. At that point in time, I don't
 7 think I was in a position to say what Aroclors we
 8 shouldn't be selling or what ones we should be selling
 9 because as I've just indicated, there was a lot of
 10 information that we were trying to understand and to get
 11 more accurately portrayed.
 12 Q. The warning letters that, or the warning
 13 letter -- I'll strike that.
 14 Are you aware of letters that Monsanto sent to
 15 its customers regarding the potential for an environmental
 16 contaminant created by PCBs?
 17 A. There was a letter that we reviewed today which
 18 I think was dated sometime in February of 1970.
 19 Q. Do you recall though in February of 1970 a
 20 letter going out to various customers who had purchased
 21 Aroclor referencing the potential for environmental
 22 contamination?
 23 A. Well, if, you know, I can't now recall what was
 24 specifically in that letter, but is that the letter you're
 25 referring to?

Page 190

Page 192

1 including PCBs, some types of PCBs had been found in the
 2 environment.
 3 There was other articles written that said that
 4 there could be some potential environmental hazard posed
 5 by certain products. They hadn't been identified. Of the
 6 PCBs that were mentioned, only 1254 and 1260 were stated.
 7 And so therefore, you had a rather complicated set of
 8 factors which at the point, at the time made it very
 9 difficult to know what was there, how much of the
 10 information was accurate, what products it applied to, and
 11 whether there was any real toxicity or environmental
 12 hazard associated with PCBs.
 13 Q. As of April of 1970, when you wrote that
 14 memorandum, you weren't instructing salespeople to limit
 15 the sale of Aroclor 1254 and Aroclor 1260 to customers for
 16 certain uses only though, correct?
 17 A. Can you repeat that question?
 18 MR. DIMURO: Objection to form.
 19 MR. O'CONNOR: What the basis for the
 20 objection?
 21 MR. DIMURO: I just don't understand it, but if
 22 he can answer it, fine.
 23 MR. O'CONNOR: Can you read that back?
 24 (The preceding question was read back.)
 25 Q. (By Mr. O'Connor) As of April of 1970, based on

1 Q. Right, it is --
 2 MR. DIMURO: Are we talking about the February
 3 1970 letter authored by, Mr. Paton?
 4 MR. O'CONNOR: It was authored by Mr. Schalk.
 5 A. Yes, I recall that letter, yes.
 6 Q. (By Mr. O'Connor) Do you recall any subsequent
 7 letters from Monsanto informing customers that they were
 8 going to cease manufacturing Aroclors?
 9 A. I think I was shown a list of chronology that
 10 said that that occurred on certain dates. I think I was
 11 shown one or two letters, one letter in particular I think
 12 which was an August letter saying here we are, you know,
 13 we've told you we were going to do it, now we're doing
 14 it.
 15 As I indicated, I got these after the fact
 16 because I was no longer in the Plasticizer division, so I
 17 would have been the recipient of one of those letters.
 18 Q. Well, you were still in the Plasticizer division
 19 in April of 1970. Do you recall when it was that you
 20 left?
 21 A. This is part of my problem. I can't. I didn't
 22 think it was as long as ago as that, but there was
 23 something that had the date of April the 3rd on it, so at
 24 least I was still involved. Whether I was full time
 25 involved or in transition, I don't know.

Page 193

1 Q. Do you recall Monsanto sending out any letters
2 to customers referencing PCBs contaminating food supply
3 for humans?
4 A. I think I recall after I returned to the organic
5 division, at least I think it was the organic division at
6 the time, from the Latin American assignment that I think
7 there had been letters that had gone out in the interim
8 about that issue. And I referred more to Therminols as I
9 recall.
10 Q. Well, do you recall Monsanto sending out letters
11 to customers and purchasers of PCBs referencing potential
12 human health risks from exposure to PCBs?
13 A. I seem to recall in one of the letters in 1970
14 that there was a reference to an FDA or EPA Federal
15 Register thing that had said that either content, I think
16 it either said content or exposure should be limited to
17 certain parts per million or something. And I can't
18 recall the context in which that was phrased, but I seem
19 to remember seeing that paragraph today.
20 Q. Do you know sitting here today when Monsanto
21 ceased making the Aroclor lines available?
22 A. You mean all of them?
23 Q. Yes.
24 MR. DIMURO: Including the PCB and non-PCB
25 containing?

Page 194

1 Q. (By Mr. O'Connor) Well, just the PCB-containing
2 Aroclors.
3 A. I think when we got out of everything was
4 sometime in, I think '77. Correct me if I'm wrong.
5 Q. With regard to Aroclor 1254 and 1260 being used
6 as a Plasticizer, do you have any information or
7 recollection as to the replacement for that particular
8 product line?
9 A. I don't know for sure.
10 Q. Are you familiar at all with polychlorinated
11 terphenyls?
12 A. Yes.
13 Q. Do you know when they were made available by
14 Monsanto?
15 A. Well, they were, they were available from
16 Monsanto I think for certainty pre-1968. They had the
17 product line for I think a number of years.
18 Q. The ad hoc committee that Mr. Turet made
19 reference to, do you recall attending any meetings with
20 the ad hoc committee?
21 A. I don't, but, you know, I could well have done
22 so. The phrase the ad hoc committee comes up and it's not
23 one that I remember we used in our everyday communications
24 and discussions with each other. Maybe it was a term that
25 was given to management, used or was given to help

Page 195

1 differentiate things for them. I'm not sure.
2 Q. Up until the time you left as market manager of
3 the Plasticizer division, do you recall receiving any
4 correspondence, internal correspondence from Monsanto
5 instructing you to strive to maximize profits of Aroclors
6 up until the Aroclor lines containing PCBs were ceased?
7 A. No.
8 MR. O'CONNOR: I don't have anything further,
9 Mr. Paton, thank you.
10 MS. O'CONNOR: No questions, Mr. Paton.
11 MR. TURET: I have no further questions.
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Page 196

1 NOTARIAL CERTIFICATE
2 STATE OF MISSOURI }
3 CITY OF ST. LOUIS }
4
5 I, Tammie A. St. Arbor, Certified Shorthand Reporter
6 and a duly commissioned Notary Public within and for the
7 States of Missouri and Illinois, do hereby certify that
8 there came before me at the offices of The Cheshire Inn,
9 6306 Clayton Road, Clayton, Missouri,
10 CUMMING PATON,
11 who was by me first duly sworn to tell the truth and
12 nothing but the truth of all the knowledge touching and
13 concerning the matters in controversy in this cause; that
14 the witness was thereupon carefully examined under oath
15 and said examination was reduced to writing by me; and
16 that this deposition is a true and correct record of the
17 testimony given by the witness.
18
19 I further certify that I am neither attorney nor
20 counsel for nor related nor employed by any of the parties
21 to the action in which this deposition is taken; further
22 that I am not a relative or employee of any attorney or
23 counsel employed by the parties hereto or financially
24 interested in this action.
25
IN WITNESS WHEREOF, I have hereunto set my hand and
seal this 21st day of July, 1998.
18
19
20 Tammie A. St. Arbor, CSR
21
22
23
24
25

Page 197

1 STATE OF MISSOURI }
2 CITY OF ST. LOUIS)
3
4
5 I, CUMMING PATON, do hereby certify:
6 That I have read the foregoing deposition;
7 That I have made such changes in form and/or
8 substance to the within deposition as might be necessary
9 to render the same true and correct;
10 That having made such changes thereon, I hereby
11 subscribe my name to the deposition.
12 I declare under penalty of perjury that the
13 foregoing is true and correct.
14
15 Executed this day of ,
16 19 , at
17
18
19
20 CUMMING PATON
21
22 My Commission Expires: _____
23 Notary Public: _____
24 Signature Page to Mr. DiMuro _____
25 Witness Letter Sent to Mr. DiMuro _____

Page 198

1
2 Taylor * Schroeder Reporting & Video
3 7494 Ethel Avenue
4 St. Louis, Missouri 63117
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6 Phone (314) 644-2191
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8 July 21, 1998
9
10 Mr. Christopher DiMuro, Esq.
11 Latham & Watkins
12 One Newark Center
13 Newark, New Jersey 07101-3174
14
15 RE: Maertín, et al. vs. Armstrong, Monsanto & American
16 Mineral Spirits
17
18 Dear Mr. DiMuro:
19
20 Please find enclosed your copies of the deposition of
21 Cumming Paton taken on June 25, 1998 in the
22 above-referenced case. Also enclosed is the original
23 signature page and errata sheets.
24
25 Please have the witnesses read your copies of the
transcript, indicate any changes and/or corrections
desired on the errata sheets, and sign the signature page
before a notary public.
Please return the errata sheets and notarized signature
page to Mr. Craig Turet for filing with the court prior to
trial.
Sincerely,
Tammie A. St. Arbor, CSR
Enclosures
cc: Mr. Turet
Mr. O'Connor
Ms. O'Connor

WATER PCB-SD0000020391

5 [16] 1:11 51:7 96:15 105:12 107:5 107:7 107:9 107:13 108:3 108:6 108:8 108:9 108:15 108:20 109:8 119:13	above [3] 130:4 176:7 178:3 above-referenced [1] 198:14 abreast [1] 128:1 absolute [1] 48:1 absolutely [2] 67:24 180:16 absorbed [1] 177:7 abstracting [1] 184:3 acceptable [1] 5:9 accepted [1] 54:3 accommodate [1] 5:23 accomplished [2] 33:24 35:16 accordingly [1] 117:2 account [2] 89:2 145:19 accounting [1] 23:19 accuracy [4] 50:2 58:4 58:8 136:24 accurate [12] 49:19 49:24 53:12 53:20 58:20 67:3 87:15 96:16 134:7 143:14 169:15 190:10 accurately [1] 191:11 accusations [1] 175:24 achieve [2] 23:15 35:2 acquired [1] 138:6 acronym [1] 8:5 act [1] 140:5 acted [2] 99:5 127:24 action [22] 2:5 15:16 26:11 82:16 99:1 100:25 101:7 101:9 101:13 101:14 101:16 101:21 102:23 111:20 111:25 118:13 127:23 136:24 138:10 142:16 196:14 196:15 actions [2] 38:19 104:24 activity [2] 24:14 27:22 acts [1] 133:23 actual [5] 12:6 13:25 74:6 137:6 145:7 ad [4] 101:23 194:18 194:20 194:22 add [2] 129:7 142:13 added [4] 40:5 142:13 150:6 185:17 addition [3] 25:8 27:21 31:19 additional [2] 73:25 105:23 additives [3] 9:7 20:4 29:14 address [4] 36:2	36:13 36:23 57:19 addressed [7] 26:3 37:6 104:18 122:14 151:11 188:7 188:9 addressing [2] 54:18 119:23 adhesive [3] 90:13 90:20 91:17 adhesives [6] 71:18 89:14 89:16 91:1 93:18 108:11 administration [1] 45:14 administrative [1] 23:11 advance [1] 118:3 advice [2] 42:24 54:10 advised [2] 59:13 59:21 advocate [1] 52:25 affected [2] 111:6 111:12 affecting [1] 134:17 affixed [2] 187:2 187:10 aftermath [3] 38:17 57:17 159:1 afternoon [1] 2:15 afterwards [2] 4:4 116:19 again [44] 13:17 18:5 18:22 19:17 33:10 33:15 36:19 51:9 51:11 60:23 66:5 66:8 73:22 74:7 78:13 85:1 85:14 87:6 87:11 87:12 87:13 92:8 93:16 102:4 106:18 109:1 109:14 110:6 111:15 115:18 121:7 126:6 126:24 129:12 129:17 135:14 136:6 136:7 139:2 142:22 171:17 176:20 177:21 183:13 against [7] 15:23 109:24 110:5 147:24 159:23 185:17 186:19 age [1] 4:9 agencies [7] 60:21 61:5 61:23 63:4 127:20 136:3 178:21 agency [1] 179:2 agenda [3] 38:8 38:9 38:12 agents [1] 185:12 ago [8] 4:18 52:12 54:21 72:19 159:21 161:1 161:2 192:22 agree [13] 61:9 65:8 86:17 111:10 123:17 124:2 137:25 146:2 148:4 148:8 174:7 175:3 175:4	AGREED [1] 4:1 agreement [1] 22:21 agrees [2] 62:8 62:11 Agriculture [2] 94:23 95:5 ahead [12] 23:25 82:19 86:13 90:11 105:12 106:9 109:8 111:17 112:7 113:15 128:3 157:4 Akron [1] 132:18 al [5] 2:4 2:23 17:20 84:1 198:10 albeit [1] 32:24 Alkali [3] 9:20 9:22 10:16 all-embracing [1] 52:8 allegations [3] 140:8 168:19 169:14 allegedly [1] 166:22 allow [1] 135:4 allowed [1] 120:11 almost [15] 34:24 36:16 64:2 64:5 74:19 89:17 111:4 130:5 149:1 150:7 150:8 151:10 158:7 172:4 172:15 alone [1] 80:11 along [10] 31:9 55:10 58:11 58:13 69:7 76:4 121:23 134:19 141:15 180:19 alternatives [1] 113:3 always [2] 99:4 134:20 America [17] 14:5 38:24 39:9 39:11 39:18 39:20 40:23 42:25 43:4 58:14 115:21 116:13 133:20 133:22 135:11 150:18 171:7 American [9] 2:9 2:24 8:4 118:15 118:18 118:24 149:24 193:6 198:10 ammunition [1] 147:5 among [2] 100:21 170:3 amount [4] 23:8 142:9 162:24 163:2 amounts [1] 29:13 AMSCO [2] 8:5 8:6 analytical [6] 16:25 17:24 50:11 50:14 134:13 173:17 animal [3] 134:15 168:25 169:4 animals [3] 169:9 175:7 185:13 announced [2] 30:8	128:3 announcement [1] 43:10 annual [1] 34:1 annually [1] 35:19 answer [62] 5:5 5:8 5:25 12:4 19:10 19:18 27:15 39:13 43:22 47:24 49:16 50:5 52:22 52:23 57:6 66:6 68:7 69:4 71:12 72:13 75:10 83:21 91:3 92:15 100:3 102:25 103:23 104:12 106:6 110:12 110:12 111:13 112:17 114:16 115:3 120:5 120:8 120:23 121:19 125:1 126:12 126:25 129:10 130:25 131:1 135:22 139:5 139:21 142:2 148:12 159:10 167:8 169:21 173:8 174:13 176:15 177:4 181:9 183:13 183:14 184:10 190:22 answered [5] 12:5 18:11 84:8 162:6 183:13 answering [1] 166:15 answers [2] 126:23 170:12 anticipated [1] 126:23 anticipating [2] 119:16 126:9 antioxidant [2] 92:21 92:22 apologies [1] 6:10 apologize [2] 66:11 188:21 appear [4] 65:19 86:21 114:20 135:25 appeared [3] 53:16 114:25 161:14 appearing [1] 161:3 application [19] 9:6 18:8 18:15 19:3 19:4 19:20 19:23 30:24 89:24 90:13 91:1 91:6 92:5 147:18 173:18 186:19 187:12 189:6 189:9 applications [32] 10:7 14:15 18:3 18:12 18:19 43:2 50:21 61:4 91:7 97:22 100:15 105:17 105:21 106:19 108:14 130:13 135:5 135:20 163:20 164:7 164:21 165:5 165:23 168:23 169:24 179:5 184:16 185:10 187:19 187:25 188:4 189:16 applied [3] 15:7 88:11 190:10
--	---	--	--	--

apply [1] 134:7	151:17 162:12 162:13	Atlanta [1] 153:25	58:7 173:16	96:5 111:5 145:3
applying [1] 178:11	162:25 163:8 163:9	Atrium [2] 3:5	bad [1] 56:2	146:7 147:3
appointed [1] 46:4	163:20 164:7 164:21	3:5	badly [1] 32:19	benefit [1] 54:4
appreciated [1] 32:16	165:5 165:5 165:11	attached [3] 1:21	Bagnell [2] 13:1	Bergen [2] 78:25
approach [1] 104:17	168:24 169:12 169:25	56:9 89:13	13:16	78:25
approached [1] 71:10	170:14 172:13 173:16	attack [1] 70:7	bags [1] 128:11	best [12] 20:2 24:5
approaching [2] 104:22 105:3	173:18 173:21 174:11	attacked [2] 69:18	Baja [1] 58:14	24:7 33:23 48:5
appropriate [4] 26:20	174:11 175:25 176:4	72:1	balance [1] 141:13	90:25 107:2 135:1
62:12 133:17 163:19	176:7 176:19 177:1	attacking [1] 52:21	barrels [1] 187:2	138:10 145:10 169:19
approved [2] 34:25	178:3 179:2 179:13	attacks [1] 23:21	based [12] 7:13	better [6] 49:23
135:20	183:22 184:17 187:3	attend [4] 34:12	7:14 9:8 30:10	58:7 116:24 136:9
approximate [1] 160:14	187:10 187:16 188:24	34:19 123:14 158:11	39:6 39:8 92:24	147:22 169:20
April [18] 131:24	189:14 189:21 190:15	attended [2] 6:7	111:10 136:24 153:20	between [22] 2:13
133:18 134:11 137:13	190:15 191:2 191:2	37:12	184:7 190:25	4:1 15:3 20:7
138:2 138:15 138:18	191:21 193:21 194:5	attending [1] 194:19	basic [2] 30:25 89:22	21:24 32:23 47:3
143:1 143:17 143:19	Aroclors [42] 14:15	attention [17] 19:8	basics [1] 30:24	69:9 74:23 127:11
144:9 145:20 187:15	14:16 19:9 21:4	24:15 33:22 33:23	basis [6] 14:15 27:12	129:14 134:17 145:6
188:2 190:13 190:25	86:15 97:21 104:25	56:24 69:15 70:13	105:13 107:22 120:15	153:10 165:11 166:8
192:19 192:23	106:1 106:21 108:2	70:21 85:1 85:17	190:19	177:18 185:5 188:15
Arbor [5] 2:17	108:10 113:3 130:12	137:22 147:4 149:3	bat [1] 142:17	188:24 189:6 189:16
4:4 196:5 196:20	134:6 135:9 138:20	160:23 165:19 180:10	Bates [41] 1:7	Beyond [1] 109:11
198:22	142:12 143:18 143:24	184:20	1:8 1:9 1:10	big [4] 45:6 91:9
area [23] 12:16 20:13	145:3 146:16 147:12	attorney [4] 4:18	1:11 1:12 1:13	117:15 155:20
26:25 35:7 37:9	149:6 156:10 162:21	159:22 196:13 196:14	1:14 1:15 1:16	biggest [3] 13:10
46:17 46:20 63:9	176:25 177:13 178:6	attributed [2] 59:15	1:17 1:18 1:19	91:7 156:12
73:4 94:17 100:19	180:2 182:7 187:12	59:23	1:20 51:7 51:9	Bill [12] 17:21 50:9
102:17 105:19 107:25	187:18 187:24 188:3	attributing [1] 62:7	55:23 59:1 63:16	68:4 68:9 70:9
127:9 128:25 129:13	188:11 189:6 189:10	audience [3] 88:21	85:12 87:24 93:22	72:6 72:8 72:10
142:24 152:8 153:13	191:5 191:7 192:8	88:21 88:23	94:1 95:2 103:15	84:25 174:1 176:22
158:10 166:5 170:17	article [15] 48:9	August [3] 148:19	104:1 107:10 108:23	178:4
areas [4] 16:15 73:7	48:21 49:1 51:19	150:16 192:12	113:16 113:16 115:13	binder [1] 162:19
103:4 106:22	51:21 52:1 52:13	author [2] 117:19	126:1 129:24 130:17	Bio-Test [15] 75:4
argue [1] 177:5	55:7 55:8 55:13	126:7	144:8 148:20 149:16	75:15 75:18 76:5
arisen [1] 57:15	66:18 84:25 87:15	authored [5] 151:9	157:3 182:14 182:17	101:20 134:15 168:14
arising [1] 127:10	167:2 167:4	160:18 188:14 192:3	184:22	169:11 169:11 172:12
Armstrong [1] 198:10	articles [8] 68:21	192:4	Bay [1] 175:23	173:23 174:4 174:10
Armstrong [20] 2:6	70:6 70:10 86:10	authority [1] 42:14	BCC [1] 153:20	174:22 174:24
2:23 4:19 7:24	86:11 126:15 189:25	available [8] 5:18	became [10] 24:23	biochemists [2] 75:4
7:24 151:11 151:12	190:3	44:14 143:21 149:5	41:15 42:7 42:8	75:7
151:21 152:6 152:7	Asia [1] 46:4	186:12 193:21 194:13	44:9 60:14 131:21	biodegradability [2] 134:24 141:21
153:2 153:4 153:6	aside [1] 142:4	194:15	162:11 166:12 166:18	biodegradable [3] 102:17 134:25 168:4
153:10 153:14 155:9	aspect [1] 15:20	avenue [2] 90:9	Bechtold [2] 132:9	biodegraded [1] 102:18
155:16 155:21 156:6	assembled [1] 111:8	198:2	144:23	biphenyl [6] 59:24
159:23	assess [2] 49:24	avoid [1] 165:4	become [1] 31:3	60:2 79:10 161:6
Aroclor [110] 11:7	assigned [11] 7:10	avoidance [2] 184:16	becoming [1] 31:25	161:16 171:12
11:11 14:13 14:21	11:2 11:12 15:8	187:11	bed [1] 34:24	biphenyls [6] 7:21
16:17 17:16 17:19	42:17 44:21 49:12	avoided [2] 182:7	Beer [1] 175:25	55:13 69:18 83:16
19:3 19:4 19:15	50:1 119:3 119:6	185:11	began [2] 47:17	101:8 181:7
19:24 20:15 21:1	158:25	aware [16] 19:13	177:25	birds [3] 55:10 58:13
21:19 22:1 31:17	assignment [3] 106:10	26:10 37:2 37:10	beginning [8] 39:25	69:6
32:24 38:4 43:1	171:7 193:6	49:3 50:21 102:8	40:1 47:19 47:20	bit [4] 39:22 53:16
43:4 47:22 50:19	assist [2] 16:5	102:21 135:18 137:23	69:16 74:23 97:3	94:16 136:8
68:5 81:18 81:23	155:1	166:13 166:18 171:8	141:11	blah [4] 35:2 35:2
82:3 82:22 90:14	assistance [1] 174:20	171:9 173:12 191:14	begins [4] 59:13	35:2 35:2
90:22 91:2 92:3	assistant [4] 22:3	away [6] 33:20 33:21	70:15 71:24 146:15	blank [3] 89:13 132:7
92:6 92:12 93:2	26:11 42:9 119:5	33:24 91:25 113:6	behalf [3] 4:9	Blue [3] 29:21 162:16
93:9 93:14 99:9	associated [5] 18:24	139:9	161:5 161:14	162:18
100:15 101:23 102:24	23:12 179:20 180:1	-B-	behave [1] 168:16	boat [1] 176:2
112:11 112:14 113:2	190:12	B [1] 112:8	behind [1] 58:2	book [4] 29:21 52:21
116:22 123:4 124:6	assume [8] 7:5	B-A-G-N-E-L-L [1] 13:2	beings [1] 171:13	53:18 162:18
124:19 124:24 125:10	9:18 13:20 23:4	backbone [1] 20:3	belief [1] 66:4	Books [1] 162:17
127:12 128:14 130:10	39:23 44:8 44:20	background [6] 6:4	bell [6] 50:16 82:11	
133:3 134:2 137:15	45:19	29:2 29:4 30:20	82:13 85:21 135:23	
142:4 146:21 147:1	assuming [1] 130:13		145:18	
147:19 147:23 147:24	assure [4] 67:15		below [6] 23:25	
148:2 148:6 149:7	133:21 141:14 148:9			

JUNE 23, 1999

bore [1] 22:12	163:3 163:5 163:23	casting [1] 87:6	changes [3] 197:7	Clayton [4] 2:16
bottom [16] 52:6	179:13	category [1] 20:23	197:10 198:16	2:16 196:7 196:7
78:4 81:8 81:20	bunch [2] 112:9	cattle's [1] 181:23	changing [2] 62:6	cleaner [1] 186:13
83:7 84:18 89:3	170:10	caulking [3] 146:23	187:2	cleared [1] 117:3
97:4 101:4 112:8	business [15] 14:14	147:1 147:12	Channel [1] 58:15	clearly [3] 156:12
121:3 130:3 131:13	36:22 36:22 42:19	caused [1] 69:10	characterize [1] 66:3	156:16 177:25
132:18 185:23 187:16	55:6 107:21 115:8	causing [3] 55:15	characterized [1] 70:6	clients [1] 46:17
bran [4] 59:14 59:21	134:2 154:24 155:19	66:23 157:23	charge [2] 13:4	close [7] 59:24 77:25
60:7 60:10	155:21 155:22 155:25	caution [2] 83:18	13:11	80:3 86:15 97:25
Brazil [7] 44:21	162:12 189:21	110:6	charts [1] 113:19	136:2 156:15
44:22 44:25 45:1	buy [2] 137:11 138:20	cc [1] 198:24	cheaper [1] 147:19	closed [20] 99:22
45:3 45:8 45:10	buyers [1] 10:8	cease [2] 98:8	checking [1] 90:1	101:9 165:12 165:14
break [9] 5:22	buying [1] 25:20	ceased [2] 193:21	chemical [8] 14:7	165:18 170:14 170:18
6:1 28:16 33:21	by-product [2] 147:17	195:6	38:24 44:22 46:18	176:5 176:17 176:19
46:23 46:24 141:8	147:25	ceiling [2] 19:9	78:24 109:10 141:3	176:21 177:1 177:8
159:15 159:17		19:16	170:22	177:10 177:15 177:19
breakdown [3] 67:1		center [4] 3:9	chemicals [2] 14:6	178:1 178:7 188:25
105:25 141:9		3:13 111:4 198:8	55:10	189:3
breathing [1] 63:4		central [4] 26:16	chemist [6] 7:7	closely [5] 18:16
Brell [1] 132:12		58:14 118:14 118:18	7:8 7:10 8:10	24:6 65:4 180:21
Brian [2] 3:4		cents [2] 147:19 147:24	8:20 8:24	180:22
159:20		certain [44] 2:19	chemistry [3] 6:8	coaching [1] 145:14
briefed [1] 75:20		11:10 13:6 16:22	6:12 6:18	coast [3] 55:6 55:11
briefly [1] 78:13		22:4 23:8 27:17	Cheshire [2] 2:15	58:13
bright [1] 32:19		27:18 30:9 62:14	196:6	coatings [11] 19:22
bring [1] 184:20		64:5 72:24 86:16	Chicago [3] 132:10	19:25 20:1 20:9
bringing [1] 33:14		87:16 99:9 113:6	132:10 146:12	20:13 20:20 108:11
brings [1] 125:6		124:10 127:19 130:5	chickens [1] 175:2	111:5 111:12 180:2
broad [1] 62:1		135:13 139:23 149:2	chloracne [1] 179:15	189:10
broaden [2] 40:6		150:19 152:3 156:22	chlorinated [12] 14:21 20:11 58:12	code [1] 131:14
40:11		158:7 164:21 165:4	59:23 60:1 66:21	colleague [2] 80:16
broken [1] 119:2		166:13 175:7 180:16	69:8 69:18 79:10	80:20
brought [5] 19:8		182:6 184:16 185:17	83:15 98:16 167:23	colleagues [2] 31:9
35:22 55:16 159:23		186:19 187:9 187:12	chose [1] 46:6	180:22
180:10		187:24 188:11 190:5	Christopher [2] 3:12	collect [1] 15:19
BSC [1] 6:8		190:16 191:3 192:10	198:7	college [5] 6:5
budget [16] 16:3		193:17	Chronicle [1] 55:8	6:6 29:1 31:10
20:24 21:2 21:4		certainly [42] 19:19	chronological [1] 79:11	80:12
21:7 21:11 21:18		22:11 30:22 32:16	chronology [3] 85:8	colon [1] 174:25
22:1 22:7 23:6		35:21 36:16 36:19	117:11 192:9	coming [7] 48:18
24:18 28:3 34:23		38:4 51:3 53:17	circulated [1] 181:12	76:4 89:16 91:10
34:25 35:1 145:3		56:7 64:2 67:21	circulation [2] 26:8	94:20 129:8 143:1
budget-making [1] 15:23		73:9 74:19 75:21	94:12	comma [15] 61:4
budgeting [1] 107:23		78:24 80:20 81:7	circumstances [1] 138:14	65:16 65:16 65:17
budgets [3] 15:22		86:23 89:17 96:13	citizens [2] 59:15	75:4 86:16 97:13
23:4 35:14		113:24 114:1 118:20	59:22	97:15 97:19 97:20
buildings [1] 185:12		124:7 139:9 140:5	CITY [2] 196:3	100:25 101:7 176:5
bulk [1] 128:14		145:17 146:12 147:23	197:2	176:6 176:18
bulletin [39] 30:6		151:10 156:9 166:7	Civil [1] 2:5	comment [1] 86:20
30:14 88:3 89:10		170:5 170:21 172:4	claiming [1] 129:7	commercial [14] 11:20 11:22 15:15
130:10 130:21 131:6		172:15 172:22 173:13	clarification [2] 7:19 141:21	16:5 16:16 42:19
131:21 132:23 133:5		180:16 181:12	clarify [5] 24:1	44:10 44:10 44:17
136:3 143:3 143:6		certainty [1] 194:16	35:3 36:6 72:9	44:21 45:4 152:12
149:5 149:7 149:15		CERTIFICATE [1] 196:1	180:11	161:23 164:17
150:2 150:9 150:10		Certified [2] 2:17	clarity [1] 136:10	commercialization [1] 49:21
150:11 150:15 150:25		196:5	Clark [1] 116:4	commercialized [1] 9:25
163:9 163:12 182:9		certify [3] 196:6	classifications [1] 108:15	commercially-produced [1] 65:18
182:11 182:13 185:6		196:13 197:5		Commission [1] 197:22
185:18 185:21 186:11		chain [1] 171:2		commissioned [1] 196:5
186:17 187:7 187:16		chances [1] 155:6		committee [10] 77:16
187:17 187:23 188:14		change [6] 24:13		
188:17 188:18		25:19 62:15 62:20		
		128:19 139:10		
bulletins [11] 29:24		changed [3] 40:5		
31:23 88:17 162:3		62:11 164:2		
162:5 162:16 162:18				

101:23 101:24 102:1 102:6 102:9 104:10 194:18 194:20 194:22	102:1 104:10 194:22	committees [4] 77:22 114:13 114:20 115:1	common [7] 89:18 90:13 91:1 91:20 117:25 150:1 162:10	communicate [3] 118:17 128:20 152:6	communicated [6] 80:5 124:4 124:18 124:23 129:2 143:15	communicating [4] 118:24 128:16 143:6 165:3	communication [2] 147:6 164:16	communications [2] 153:9 194:23	compact [1] 24:24	companies [1] 156:1	company [22] 2:9 2:10 2:24 2:25 7:1 8:5 9:4 9:10 9:13 9:17 9:19 10:12 10:19 11:12 27:1 30:8 45:23 46:13 77:22 99:5 102:23 151:11	comparable [1] 59:24	compared [1] 27:22	comparing [1] 133:10	compatible [1] 141:1	compelled [2] 98:7 98:12	competent [1] 70:11	competition [1] 146:16	competitive [2] 24:14 29:18	compiled [3] 107:23 108:5 109:19	compiling [2] 108:10 113:18	complete [1] 132:7	completed [3] 22:7 158:3 158:16	completely [1] 5:5	complicated [1] 190:7	component [1] 185:14	compound [2] 146:23 147:13	compounds [1] 147:2	computer [1] 24:23	conceive [1] 65:17	concept [1] 135:19	concern [2] 168:23 169:24	concerned [6] 30:17 100:20 168:10 170:1 188:3 188:12	concerning [2] 110:7 196:10	concerns [2] 68:5 138:17	concerted [1] 97:15	conclusion [1] 93:10	concurrently [2] 100:25 101:6	condensed [2] 187:17 187:23	conducting [2] 168:24 169:4	conference [2] 36:8 118:6	confidential [3] 29:18 56:23 115:15	confirmed [5] 81:17 81:21 81:22 81:24 86:2	conjectures [1] 170:10	conjunction [2] 66:20 142:18	Connecticut [2] 94:24 95:5	connection [1] 117:23	consider [3] 100:12 120:16 120:22	considered [2] 34:4 113:7	considering [1] 137:24	consistent [2] 23:18 111:6	consultant [1] 46:20	consultants [2] 174:21 174:24	consulting [2] 46:13 46:15	consumer [1] 52:24	consumers [1] 108:2	contact [9] 15:9 48:25 68:12 81:5 119:10 127:13 129:3 129:9 167:21	contacted [2] 161:2 164:5	contacting [1] 73:25	contacts [1] 153:15	contained [4] 182:23 182:24 184:8 187:11	container [3] 170:21 177:9 185:14	containers [4] 127:18 177:24 187:3 187:10	containing [10] 14:17 20:14 142:5 151:24 151:25 152:1 157:19 184:22 193:25 195:6	contains [1] 171:24	contaminant [5] 166:20 167:7 167:12 167:16 191:16	contaminants [2] 122:7 166:19	contaminating [1] 193:2	contamination [4] 97:5 97:10 105:24 191:22	contemplated [4] 183:25 184:1 184:15 185:5	contemplates [1] 173:1	contemplating [2] 122:6 189:22	content [2] 193:15 193:16	context [3] 83:15 114:25 193:18	continue [5] 46:10 98:22 136:22 137:1 138:19	continued [3] 32:25 97:15 121:4	continuing [1] 170:16	contract [1] 75:14	contribute [1] 168:2	control [3] 17:1 31:2 71:17	controlled [1] 99:10	controlling [1] 71:20	controversy [1] 196:10	conversation [2] 151:16 152:23	conversations [5] 74:17 83:20 110:7 120:21 123:6	convert [1] 155:1	cooperation [1] 82:15	coordinating [1] 15:6	coordination [1] 106:12	copied [5] 61:19 68:12 68:13 157:9 160:19	copies [9] 25:24 26:4 26:24 131:19 132:24 171:21 188:12 198:13 198:15	copy [7] 55:7 56:11 78:10 167:4 182:13 183:11 186:14	Cork [1] 151:11	corner [1] 131:8	corporate [2] 77:15 77:23	correct [30] 44:16 46:21 54:19 56:18 56:23 86:9 90:20 109:15 132:1 132:17 132:24 137:15 161:24 162:14 162:17 163:1 169:9 173:2 173:24 177:2 182:3 184:8 186:23 188:25 189:7 190:16 194:4 196:11 197:9 197:13	corrections [1] 198:16	correctly [1] 143:2	correspondence [2] 195:4 195:4	cost [5] 23:9 23:10 140:6 140:7 147:16	counsel [10] 4:2 4:2 83:20 110:7 120:2 160:1 160:5 160:12 196:13 196:15	count [1] 5:1	countries [1] 45:8	counts [1] 21:8	couple [5] 29:8 33:9 79:19 112:7 135:24	course [5] 5:11 99:1 101:25 102:23 138:10	courses [2] 111:20 111:25	court [4] 2:1 2:20 5:14 198:18	cover [4] 28:19 36:6 56:14 65:11	covered [5] 30:6 30:7 110:8 162:7 162:19	covers [2] 91:24 130:12	Craig [4] 3:19 4:17 76:16 198:18	Craig's [1] 67:20	cranked [1] 23:20	create [1] 113:19	created [2] 117:9 191:16	creating [1] 167:20	criteria [3] 99:23 100:5 100:6	cropped [1] 175:20	crossed [2] 48:10 167:2	crowd [2] 36:13 36:23	cry [1] 24:24	CSR [3] 4:4 196:20 198:22	Cumming [9] 2:12 4:8 106:14 130:4 147:4 196:8 197:5 197:20 198:13	customary [1] 94:7	customer [51] 9:5 9:23 10:4 10:15 12:4 17:3 17:10 19:15 24:9 25:19 26:18 26:21 29:15 73:21 89:2 89:21 89:25 97:22 116:17 119:14 119:16 119:23 121:4 121:13 123:15 126:9 129:3 137:5 137:7 137:9 138:15 138:17 138:23 145:22 146:5 146:19 146:25 147:11 148:6 153:18 155:16 155:17 155:22	156:7 156:13 162:5 164:2 164:3 164:11 166:1 166:9	customer's [5] 137:22 139:6 147:16 162:7 166:5	customers [73] 10:8 15:9 20:14 22:11 22:11 22:13 24:6 25:10 32:3 32:4 33:6 43:18 43:24 71:6 71:10 71:11 72:24 73:2 73:13 73:18 73:22 74:6 78:12 78:16 88:24 88:25 89:19 91:12 105:5 106:20 108:1 110:19 112:24 116:7 116:22 117:4 119:17 121:6 121:20 122:1 122:5 122:10 122:19 123:15 124:9 125:4 126:23 127:12 128:14 129:2 133:3 133:4 137:15 137:17 138:7 143:17 150:15 155:1 155:4 162:2 164:12 164:12 165:23 179:5 183:22 183:23 190:15 191:3 191:15 191:20 192:7 193:2 193:11	customers' [2] 97:6 97:8	cut [2] 148:3 148:9	cutting [1] 71:17
-D-																																																																																																																																				
D.H [2] 132:9 144:23																																																																																																																																				
daily [1] 129:3																																																																																																																																				
dangling [1] 136:8																																																																																																																																				
Darby [7] 17:18 18:18 31:6 31:10 37:14 80:12 100:19																																																																																																																																				
Darby's [1] 153:6																																																																																																																																				
Darbys [1] 156:14																																																																																																																																				
dash [16] 59:2 59:24 77:8 83:9 85:12 85:15 103:15 107:10 115:14 129:24 148:20 149:7 172:13 174:24 176:6 186:4																																																																																																																																				
data [4] 11:24 143:12 178:22 189:11																																																																																																																																				
date [26] 11:17 36:19 56:6 79:21 84:16 115:18 116:10 126:6 131:6 135:13 135:23 143:4 145:20 145:21 146:3 146:4 146:7 146:8 146:9 146:9 146:10 154:13 157:25 174:25 189:12 192:23																																																																																																																																				
dated [6] 82:8 107:11 133:18 171:23 187:15 191:18																																																																																																																																				
dates [2] 40:17 192:10																																																																																																																																				
Davidson [8] 3:15 51:11 51:13 77:4																																																																																																																																				

79:4 85:4 102:7	146:20	determine [7] 99:12	76:25 83:18 85:8	discontinuing [1] 97:24
130:18	deliver [2] 36:1	100:15 102:16 102:19	85:17 86:19 87:5	discounted [1] 72:1
day-to-day [2] 42:21	146:14	134:16 168:15 169:13	87:11 90:16 91:3	discourage [3] 124:6
42:22	delivered [3] 56:16	determined [1] 98:25	92:14 93:3 93:16	124:19 124:24
days [2] 32:6 32:12	125:9 125:18	determining [3] 50:2	94:25 95:7 95:10	discovered [3] 170:5
DDT [5] 65:19 69:7	denser [1] 142:22	99:25 134:15	96:22 98:10 100:2	181:19 181:22
84:19 84:22 167:22	deny [1] 84:5	develop [4] 92:18	101:12 102:25 103:22	discovery [1] 103:6
deal [11] 16:17 17:15	denying [1] 83:5	92:18 112:11 170:25	106:5 110:6 111:13	discrepancy [1] 145:6
30:16 50:13 68:8	department [39] 7:12	developed [1] 78:11	112:17 113:13 113:23	discretion [1] 150:7
68:8 73:9 142:11	11:1 11:16 12:6	developing [3] 21:4	114:6 114:15 118:8	discuss [6] 17:6
142:13 170:7 184:11	12:8 12:10 12:21	164:14 164:17	120:5 120:9 120:13	23:18 71:2 73:18
dealing [4] 9:23	13:5 13:12 16:25	development [12] 9:6 15:15 16:16	120:16 122:21 123:13	119:21 158:13
121:6 141:18 177:23	17:1 17:15 18:2	18:7 44:10 44:10	123:19 124:20 125:1	discussed [11] 22:18
dealt [4] 17:17 17:23	23:19 50:15 74:9	44:17 45:5 45:14	125:13 126:4 126:11	68:23 72:7 72:24
156:15 179:4	74:15 75:12 82:16	46:4 77:15 164:4	126:24 129:10 130:24	73:1 73:22 84:10
Dear [1] 198:12	83:12 89:12 94:8	diagram [1] 114:2	131:10 135:6 135:21	111:21 134:18 174:10
debate [1] 66:25	94:18 94:23 95:5	Diamond [3] 9:19	136:16 137:3 138:3	175:22
decade [1] 115:24	101:14 101:18 110:2	9:21 10:16	138:21 139:3 139:17	discussing [4] 72:7
December [11] 69:18	117:3 119:2 119:4	Dicker [1] 3:9	140:22 142:20 143:13	72:16 135:15 176:22
72:22 79:21 79:24	123:22 127:18 155:1	dielectric [2] 157:17	145:24 146:22 146:24	discussion [8] 71:5
80:5 83:8 83:16	158:19 163:25 164:5	170:20	147:14 148:21 149:17	76:15 95:25 96:4
112:1 151:7 152:24	165:22 174:1	dielectrical [1] 115:8	155:18 157:4 157:24	109:23 111:25 144:3
173:19	departments [3] 75:5 75:8 101:15	dielectrics [3] 41:1	159:9 160:10 161:18	166:8
decide [6] 36:9	depend [2] 28:19	41:12 157:20	167:8 167:11 167:15	discussions [38] 37:23 47:9 48:19
53:6 120:18 124:11	139:18	dict [3] 86:17 87:10	169:1 169:3 171:3	57:22 68:18 68:20
135:1 138:10	depended [4] 23:15	87:17	173:7 174:12 177:3	71:19 72:3 72:10
decided [2] 46:11	34:2 34:3 37:3	differ [1] 89:9	178:7 179:22 181:8	72:11 72:25 75:3
139:6	depending [1] 26:5	difference [1] 102:20	182:25 183:12 184:9	75:6 83:14 83:19
decimal [1] 87:25	deposed [2] 4:20	differences [1] 65:7	185:25 186:10 188:19	86:23 87:9 96:6
decision [3] 96:24	161:10	differ [15] 10:14	188:22 190:18 190:21	97:8 98:6 98:11
135:12 164:20	deposes [1] 4:10	51:24 62:9 62:17	192:2 193:24 197:24	99:8 105:20 106:1
decisions [4] 42:14	deposition [27] 2:12	68:10 69:11 69:22	197:25 198:7 198:12	110:3 110:10 110:13
138:12 138:13 141:16	4:3 56:20 76:22	94:1 106:21 106:21	dinner [1] 36:24	110:22 112:5 118:12
declare [1] 197:12	77:4 79:4 79:16	111:20 115:23 124:1	diethylphthalate [1] 142:11	119:15 122:9 127:17
decline [2] 139:15	85:4 102:7 118:1	125:12 182:14	142:11	135:8 172:19 180:1
139:16	121:1 130:16 160:5	differentiate [1] 195:1	direct [10] 56:24	180:3 194:24
declined [1] 139:20	160:6 160:10 161:3	differentiated [1] 177:16	63:21 67:15 69:15	dispute [5] 56:7
decorative [2] 20:21	161:15 161:18 171:20	differentiation [1] 177:18	70:13 109:24 116:21	92:8 96:15 108:7
20:22	180:12 180:15 196:11	difficult [6] 37:17	117:4 121:2 189:13	108:19
decrease [1] 139:12	196:14 197:6 197:8	65:17 66:21 71:17	directed [4] 101:1	disputing [3] 66:16
deemed [1] 174:5	197:11 198:13	139:21 190:9	101:7 101:9 160:19	119:20 187:21
defendant [4] 4:20	depositions [4] 48:15	difficulties [1] 71:19	149:3	disrespectfully [1] 156:11
8:3 8:4 151:13	76:19 101:25 130:7	difficulty [1] 113:4	direction [3] 16:1	disseminated [2] 26:13 164:11
Defendant/American [1] 3:7	describe [2] 62:16	dig [1] 99:3	Directive [1] 171:15	dissertation [1] 6:13
Defendant/Armstrong [2] 3:18 4:10	121:8	dilemma [1] 140:17	directly [6] 76:2	distinction [11] 165:7
Defendant/Monsanto [1] 3:11	described [5] 18:14	DiMuro [145] 3:12	80:25 129:2 153:18	165:11 165:18 177:12
Defendants [2] 2:25	28:11 31:22 42:16	19:10 19:17 27:14	166:4 166:5	188:15 188:24 189:6
4:2	48:12	38:1 39:12 43:21	director [22] 18:5	189:13 189:15 189:16
defense [2] 176:3	description [5] 1:6	47:13 47:24 49:15	36:14 36:21 36:22	191:5
176:9	37:11 41:21 176:7	50:4 51:20 52:17	38:10 42:5 44:11	distinctions [1] 177:25
deferred [3] 25:22	178:3	53:2 54:6 54:12	44:18 44:22 45:4	distinguish [1] 12:19
35:13 58:3	designated [1] 160:2	54:22 56:19 56:24	45:5 45:14 45:16	distinguished [1] 40:11
defined [1] 101:17	desired [1] 198:16	57:6 58:17 59:16	45:22 46:4 50:9	distractions [1] 33:21
definitely [3] 63:21	desk [4] 26:19 48:10	59:19 59:25 60:24	68:9 115:8 119:9	distributed [4] 88:24
152:19 185:10	66:18 167:2	61:1 61:8 61:12	127:7 155:19 174:2	88:25 144:19 150:15
definition [1] 178:8	destruction [1] 105:25	61:25 62:5 62:14	directors [2] 22:25	distribution [4] 127:17
degree [1] 30:16	detail [3] 25:13	63:2 63:6 63:18	disappear [1] 139:13	128:24 132:3 132:9
degrees [4] 92:13	25:13 86:3	63:23 65:6 65:10	discarding [1] 27:4	distributors [5] 118:12
92:16 93:2 93:13	details [6] 27:8	65:22 65:25 66:5	discomfort [2] 138:1	118:14 119:3 119:7
delegated [1] 42:17	96:14 112:6 115:4	66:15 67:18 68:6	138:16	119:11
deleted [2] 79:22	175:9 181:11	69:3 69:25 71:12	discontinuation [1] 151:17	District [4] 2:1
	detected [1] 138:18	72:13 75:9 76:16	discontinue [2] 98:12	2:1 2:20 2:20
	detection [1] 98:9		111:22	
	determination [1] 185:22		discontinued [2] 37:25 156:18	

divided [1] 22:4	dollars [1] 109:17	drastically [4] 133:2	106:17 112:13 134:13	108:7
division [36] 7:9	domestically [1] 44:3	133:6 183:15 183:21	efforts [1] 136:21	entering [1] 30:9
7:11 11:5 11:9	Don [4] 59:5 59:7	draw [2] 24:14 93:10	eggs [2] 81:23 82:4	entire [1] 13:4
13:5 13:12 14:4	127:4 154:1	drawing [1] 132:7	eight [2] 2:14 154:25	entirely [1] 116:1
14:8 15:6 21:23	don'ts [2] 121:5	drawn [1] 137:22	either [17] 23:24	entitled [3] 115:14
36:13 36:23 38:24	Donald [1] 127:4	drew [2] 84:24 84:25	25:20 44:9 53:20	117:22 119:13
39:10 40:23 44:12	done [39] 5:11	drive [1] 32:13	68:14 71:25 82:13	entry [1] 82:8
44:15 44:18 68:14	12:10 21:2 21:21	drop-offs [1] 121:25	115:7 140:9 145:17	environment [39]
78:24 97:13 101:4	22:6 28:1 46:12	drove [1] 32:12	150:24 158:22 163:25	47:7 47:23 49:7
106:12 123:23 144:20	47:6 48:12 54:14	drums [4] 128:8	164:11 165:22 193:15	49:9 49:14 50:3
156:2 161:20 162:12	54:25 54:25 55:9	128:9 128:11 187:10	elements [1] 176:4	50:25 51:19 66:9
163:18 165:2 186:23	67:4 75:22 82:3	Duane [1] 3:20	Elmer [7] 50:7	73:14 73:18 94:24
192:16 192:18 193:5	83:3 83:5 83:5	due [1] 134:18	55:22 74:20 78:3	97:21 98:9 98:20
193:5 195:3	89:1 95:23 96:5	duly [2] 196:5 196:9	78:15 102:12 181:3	99:11 99:13 99:18
division's [1] 31:15	98:14 109:6 113:25	DuPont [2] 20:12	Elser [1] 3:9	99:20 100:17 102:15
divisions [1] 14:9	114:2 114:11 118:21	90:4	embarked [2] 168:13	103:21 105:5 106:2
Doctor [1] 4:16	118:22 128:23 133:22	during [18] 10:20	169:10	114:14 124:10 133:15
doctoral [1] 6:13	152:9 154:18 154:20	19:1 20:15 21:24	Emmet [5] 48:22	134:22 136:13 136:15
doctorate [1] 6:11	163:15 169:22 180:18	23:22 24:8 26:23	50:7 50:8 74:19	137:20 138:8 138:18
document [80] 51:6	182:4 194:21	33:11 39:6 47:5	180:21	139:8 141:8 166:23
51:16 55:20 55:25	door [1] 116:14	47:10 68:3 76:21	emphasize [1] 136:2	167:17 167:20 190:2
59:1 62:8 62:15	DOP [1] 142:19	94:19 95:15 117:12	employed [2] 196:13	environmental [13]
64:1 64:21 64:22	dos [2] 121:5 121:7	153:10 165:8	196:15	97:9 105:24 109:4
64:24 67:10 67:25	doubt [5] 58:1	duties [2] 161:21	employee [2] 120:20	122:7 166:19 166:20
76:16 76:18 77:1	58:2 63:12 86:15	163:17	196:14	167:7 167:12 184:22
77:9 79:9 79:9	doubts [1] 66:12	-E-	employees [1] 174:8	190:4 190:11 191:15
79:12 85:6 85:11	down [37] 5:15	E [6] 3:1 3:1	employment [4] 6:25 7:1 149:25	191:21
86:22 87:1 87:24	22:23 23:13 28:16	173:15 173:20 173:25	153:11	EPA [2] 171:16 193:14
93:21 93:22 94:5	35:1 37:18 46:14	174:25	enclosed [4] 78:10	equals [1] 23:8
95:1 100:23 102:5	52:6 60:20 60:22	E.C [1] 132:18	149:6 198:13 198:14	equation [2] 23:5
103:14 107:4 107:10	61:6 61:23 63:4	E.H [1] 132:15	enclosure [1] 87:25	141:13
107:13 108:22 108:25	71:15 71:23 78:9	E.P [1] 106:13	Enclosures [1] 198:23	errata [3] 198:14
111:6 114:10 115:13	79:17 83:7 84:18	earliest [3] 48:21	encompass [1] 16:9	198:16 198:18
115:16 116:9 116:12	89:3 100:11 100:11	157:21 166:21	encompassed [1] 42:13	Escambia [5] 95:23
116:16 117:8 117:14	105:13 108:13 112:8	early [21] 7:3	encourage [1] 139:15	96:5 96:7 96:11
117:17 118:2 120:2	119:2 131:8 131:12	10:20 14:4 14:12	encouraged [5] 123:4	96:21
120:6 120:12 120:23	131:13 131:14 135:24	15:4 38:25 44:19	138:19 138:25 139:5	escape [1] 106:18
120:25 125:24 126:1	141:8 146:7 147:3	48:7 48:19 49:7	166:1	Esq [6] 3:4 3:8
126:2 126:18 126:21	147:25 148:2 189:23	60:15 72:4 72:25	end [20] 12:22 13:19	3:12 3:15 3:19
129:23 129:25 130:6	down-turn [1] 115:24	74:14 74:21 74:22	24:17 39:21 39:25	198:7
130:16 144:8 144:11	Dr [48] 4:14 4:14	74:24 166:23 168:8	45:25 46:7 47:17	essence [1] 136:11
149:14 149:19 149:20	19:11 19:18 48:25	169:7 177:21	55:5 71:17 71:20	essentially [4] 14:6
151:8 154:17 157:3	50:15 50:17 50:18	easier [1] 150:5	72:2 79:18 97:16	21:11 56:14 111:20
157:6 167:2 171:19	55:14 57:10 57:18	easily [2] 118:22	99:9 117:6 117:7	establishments [1] 86:3
172:14 173:1 173:15	66:19 67:20 69:16	148:11	126:5 150:3 156:20	Estate [2] 2:3
174:7 176:8 183:7	69:24 70:1 71:13	Edelman [1] 3:9	endangered [1] 70:7	2:21
documenting [1] 122:18	71:16 72:21 75:2	education [2] 6:5	endangering [1] 69:20	estimation [1] 24:10
documents [24] 65:23	79:16 84:4 84:11	6:6	ended [1] 163:9	et [4] 2:4 2:23
65:24 67:14 97:1	86:11 86:12 91:4	educational [1] 6:4	ends [1] 57:10	83:25 198:10
97:25 102:1 102:4	92:15 100:3 102:11	Edward [1] 102:11	engaged [1] 169:8	etc [11] 75:23 75:23
105:7 105:10 119:22	102:11 103:1 111:14	effect [5] 107:20	engineering [1] 154:25	97:5 134:7 134:8
120:19 120:21 121:18	126:5 126:12 129:11	108:1 109:14 133:15	engineers [2] 17:5	134:8 134:24 137:8
122:14 160:11 160:13	131:10 158:2 158:5	139:12	155:5	137:8 168:17 168:17
160:14 160:18 166:11	158:12 158:17 158:21	effective [5] 32:21	England [2] 9:5	Ethel [1] 198:2
166:15 170:2 181:11	158:23 177:4 181:5	140:18 140:19 140:25	9:8	Ethyl [1] 92:23
181:14 186:21	181:18	142:11	enormously [1] 29:2	Europe [3] 81:12
dodge [1] 27:19	draft [2] 64:12 108:24	effectiveness [1] 142:5	ensue [1] 110:5	81:14 127:21
doesn't [23] 53:6	drafting [4] 64:6	effects [2] 69:10	entail [1] 163:19	evaluate [2] 137:7
76:17 79:13 79:14	64:10 64:16 65:20	110:20	enter [1] 115:23	138:5
82:13 85:21 107:15	drafts [1] 127:25	efficiently [1] 28:8	entered [2] 75:14	evaluating [3] 146:20
113:24 113:25 115:17	drag [1] 133:23	effort [7] 45:10		147:1 147:16
117:19 117:19 118:5	drastic [5] 183:8	97:15 106:11 106:12		event [3] 90:1
126:18 135:23 141:8	183:10 183:16 183:25			113:11 173:4
141:9 145:18 156:2	184:7			events [1] 79:11
185:7 188:15 189:3				eventually [1] 72:1
189:5				
dogs [2] 175:3 175:17				
dollar [1] 23:8				

everybody [2] 26:15 36:2	exposure [8] 72:2 171:2 176:6 178:2 179:16 179:20 193:12 193:16	Federal [2] 171:15 193:14	141:5 141:6 141:9 141:9 154:24 155:2 155:7	foot [1] 116:14
everyday [1] 194:23	expressed [2] 138:15 138:17	feed [3] 15:19 127:14 129:9	firm [1] 77:22	force [6] 16:2 28:12 35:7 37:13 38:10 88:4
evolving [1] 178:23	expressly [1] 4:6	feeding [4] 81:23 102:18 168:14 169:12	first [41] 5:25 7:5 7:7 11:12 15:6 16:19 38:3 39:5 48:4 55:2 57:1 59:5 59:12 60:25 61:14 63:25 63:25 64:24 68:24 70:16 70:22 70:23 77:11 78:8 79:20 82:9 85:19 89:3 89:11 90:19 92:20 104:15 104:18 131:21 145:4 148:2 156:19 160:24 171:22 173:11 196:9	Ford [1] 153:25
exact [7] 9:1 40:16 44:11 103:3 157:25 161:12 175:9	extended [2] 86:1 93:9	feelings [2] 21:7 62:21	fish [8] 52:7 58:12 86:16 95:6 95:16 95:17 175:2 175:23	Fording [1] 132:15
exactly [13] 11:13 16:11 24:4 24:12 31:16 38:7 41:17 49:24 74:25 113:6 136:5 136:6 189:24	extensive [3] 153:14 153:15 163:3	fell [1] 99:23	fit [1] 18:12	forecast [1] 20:24
examination [3] 4:12 159:18 196:11	extensively [1] 39:9	felt [5] 32:18 53:13 105:15 171:12 181:12	five [5] 4:25 147:19 147:24 161:11 161:12	forecasts [3] 15:24 16:21 28:2
examined [3] 2:13 4:9 196:10	extent [10] 8:13 28:20 73:21 83:19 134:16 135:7 137:1 163:22 169:15 181:14	Ferrari [7] 18:5 18:17 50:8 50:17 100:19 102:11 103:19	flew [1] 32:12	foregoing [2] 197:6 197:13
example [6] 17:7 38:13 88:19 99:14 128:18 140:23	exterior [2] 20:19 20:22	few [3] 4:18 161:1 161:2	flip [8] 90:11 94:15 105:12 106:9 109:8 111:17 113:15 126:4	forenoon [1] 2:14
examples [1] 90:3	extremely [1] 65:17	field [35] 11:18 11:21 11:23 15:9 15:20 16:2 21:5 22:15 28:11 35:10 38:10 88:4 88:21 90:6 115:14 117:9 117:22 121:14 123:3 124:4 124:18 125:7 125:10 125:18 127:6 127:7 128:4 128:21 139:24 144:17 147:7 148:1 161:21 164:23 165:3	Flipping [5] 83:24 86:13 103:25 107:18 112:7	forgotten [6] 18:9 52:12 54:21 60:4 113:6 143:22
except [1] 41:25	-F-	fight [1] 147:5	floor [3] 152:16 152:18 152:19	form [89] 19:10 19:17 27:14 38:1 39:12 43:21 47:24 49:15 50:4 51:20 52:17 54:6 54:22 57:6 58:17 61:12 61:25 62:2 63:6 64:10 65:6 65:10 66:1 66:5 66:15 68:6 69:3 69:25 71:12 72:13 75:9 78:10 86:19 87:5 87:11 91:3 92:14 93:3 93:16 96:22 98:10 100:2 101:12 102:25 103:22 106:5 111:13 112:17 113:13 113:23 114:6 114:15 122:21 123:13 123:19 124:20 125:1 125:13 126:11 126:24 129:10 135:6 135:21 136:16 137:3 138:3 138:21 139:3 139:17 140:22 142:20 143:13 145:24 146:22 146:24 147:14 155:18 157:24 159:9 167:8 169:1 173:7 174:12 177:3 179:22 181:8 184:9 190:18 197:7
Executed [1] 197:15	F [2] 90:15 93:9	figures [2] 107:21 107:22	Florida [1] 96:18	formal [5] 6:6 27:12 38:18 39:16 50:23
executive [1] 45:21	faced [1] 140:10	file [3] 26:16 40:15 172:1	fluid [9] 60:13 96:20 140:21 151:18 153:13 155:2 155:2 155:3 155:7	format [3] 144:19 144:20 146:3
Executrix [2] 2:3 2:21	facility [2] 7:15 8:21	filed [1] 26:20	fluids [24] 40:24 40:25 41:1 41:4 41:9 41:10 41:11 41:12 43:6 43:9 50:10 59:9 59:10 60:15 73:4 73:8 73:12 112:9 127:9 129:17 154:2 157:17 170:16 171:7	formed [1] 46:13
exempt [1] 54:15	fact [13] 11:10 51:17 52:14 80:17 99:2 117:12 125:15 152:19 166:1 167:4 167:7 189:5 192:15	files [5] 24:9 26:18 26:19 26:21 26:24	focused [2] 31:14 94:19	former [1] 120:20
exhibit [17] 58:23 63:14 76:11 76:18 87:21 107:7 115:10 125:21 129:21 130:15 144:5 148:16 149:11 151:4 154:9 156:25 182:19	factor [1] 141:11	fill [1] 144:17	folks [1] 128:4	Formula [1] 90:17
Exhibits [2] 1:5 1:21	factors [2] 140:13 190:8	filled [1] 25:16	follow [6] 23:22 25:4 26:12 38:20 48:25 123:16	formulas [1] 109:10
existence [1] 101:23	facts [2] 136:24 141:17	film [4] 91:17 91:18 91:19 91:23	followed [2] 24:25 54:20	formulation [9] 89:16 90:4 90:5 90:19 91:15 92:2 92:9 92:18 93:6
existing [1] 18:8	factually [1] 132:1	final [7] 21:25 22:7 24:17 34:24 64:9 78:10 133:23	following [9] 86:2 86:13 91:16 95:14 97:19 111:3 122:19 138:9 158:15	formulations [6] 10:7 29:15 31:1 89:14 89:19 142:6
exited [4] 77:4 85:4 118:1 160:10	failing [1] 54:15	financial [3] 25:13 25:13 46:9	food [7] 108:17 127:13 129:9 171:2 185:13 185:14 193:2	forth [7] 11:20 15:25 20:24 36:11 37:4 141:17 177:22
expand [1] 53:21	fair [4] 44:13 64:18 163:2 165:20	findings [4] 55:3 68:25 73:1 96:21		forward [2] 21:6 182:6
expect [1] 25:8	fairly [4] 28:23 29:20 41:2 65:3	finds [1] 52:7		forwarded [3] 51:18
expected [4] 5:4 25:21 38:20 164:22	falcon [1] 69:21	fine [6] 7:22 8:2 8:8 70:23 155:9 190:22		
expedite [1] 93:6	fallen [1] 154:6	finger [1] 33:8		
expenditure [1] 23:5	falling [2] 25:3 25:6	finish [5] 44:7 52:22 70:18 104:12 142:2		
expense [1] 23:11	familiar [7] 5:2 31:3 79:13 79:14 86:12 130:2 194:10	finished [3] 59:4 85:9 142:3		
expensive [1] 142:22	far [6] 24:24 100:19 101:18 111:15 145:25 188:11	finishes [1] 70:20		
experience [8] 5:3 8:13 28:20 30:10 111:10 150:1 173:9 173:13	farther [1] 109:9	fire [12] 140:14 140:15 140:18 140:19 141:2		
experiences [1] 19:14	fastly [1] 174:16			
expert [1] 62:22	faulty [1] 129:18			
expertise [4] 28:21 75:24 158:10 168:1	FDA [2] 171:16 193:14			
Expires [1] 197:22	February [23] 59:2 61:10 61:18 62:24 80:14 80:14 81:3 116:7 117:6 117:7 117:12 119:15 123:3 124:14 124:16 124:23 138:24 157:10 159:6 184:4 191:18 191:19 192:2			
explain [4] 29:10 118:13 136:8 181:4				
explaining [1] 12:3				
explanation [1] 17:12				
explore [2] 19:3 30:12				
exporting [1] 103:10				
exports [1] 22:17				

150:5 151:4 154:9 156:25 identified [10] 47:6 66:13 69:1 69:6 69:7 76:19 94:24 98:14 98:20 190:5 identify [3] 20:8 145:3 171:22 ignorant [1] 181:13 II [1] 3:5 Illinois [2] 2:19 196:6 image [1] 135:25 imagine [1] 91:11 immediately [2] 96:20 137:10 imperative [1] 72:23 implement [2] 128:1 128:5 implications [2] 72:23 111:1 implying [1] 69:21 importance [1] 30:16 important [4] 28:9 34:4 72:12 156:9 imported [1] 44:25 impossible [2] 97:20 176:10 impression [1] 102:3 in-house [1] 83:19 Inc [6] 2:7 2:24 3:18 4:10 4:19 172:13 incident [8] 60:11 60:12 96:9 96:13 103:9 180:8 180:11 181:21 incidents [2] 95:18 102:14 incineration [1] 105:25 include [9] 8:17 9:10 14:12 18:2 35:6 37:23 82:22 162:1 187:5 included [18] 11:7 14:16 18:13 19:23 31:17 33:17 35:9 43:18 57:9 57:13 57:19 60:2 87:16 94:17 102:10 131:14 133:16 157:14 including [4] 93:14 162:12 190:1 193:24 income [2] 23:14 54:15 inconsistent [1] 135:25 incorporated [2] 89:20 90:6 increase [5] 45:7 45:9 123:4 123:7 139:1 increased [3] 37:24 125:11 125:15	Ind [1] 75:3 indebted [1] 89:12 indeed [8] 90:2 133:8 134:18 137:23 139:11 140:7 146:25 164:24 INDEX [2] 1:1 1:5 indicate [8] 5:8 26:10 118:5 131:9 146:8 186:2 186:8 198:16 indicated [11] 20:21 24:20 58:11 79:16 137:17 140:8 158:1 170:3 175:25 191:9 192:15 indicating [3] 124:8 127:19 189:25 indications [1] 25:11 indicator [1] 69:21 individual [3] 21:20 30:17 178:20 individually [2] 2:4 2:22 individuals [7] 17:18 18:17 38:19 68:15 68:23 152:6 153:2 inducements [1] 140:1 industrial [16] 20:20 48:23 75:3 75:14 75:18 76:5 101:20 134:15 168:14 169:11 169:11 172:12 173:23 173:25 174:4 174:10 Industries [7] 2:7 2:23 3:18 4:10 4:19 7:25 159:24 industry [3] 46:18 91:10 127:21 inevitable [2] 61:23 63:3 informal [1] 32:21 information [67] 24:5 24:7 28:5 28:8 29:16 29:20 29:22 30:6 30:14 30:15 31:23 50:18 65:12 73:25 88:3 88:17 89:10 96:16 100:7 103:8 106:22 106:25 108:4 108:10 109:17 109:19 110:21 111:7 114:4 114:5 115:4 122:18 137:7 138:6 141:17 143:18 143:24 147:11 148:1 148:5 162:1 163:8 163:19 163:21 163:24 164:6 164:13 164:22 165:3 165:22 166:3 168:10 169:7 175:5 175:13 177:22 180:23 180:24 181:6 181:23 182:3 182:23 184:4 184:12 190:10 191:10 194:6	informed [3] 57:15 94:10 135:12 informing [3] 158:14 165:22 192:7 ingest [1] 171:13 ingredients [1] 93:14 inherited [1] 21:13 inhibit [1] 136:20 initial [5] 12:18 64:12 93:12 103:6 103:7 initiate [2] 15:19 112:11 initiated [4] 27:7 127:23 152:23 152:25 initiative [2] 110:1 145:14 Inn [2] 2:15 196:6 input [12] 21:5 22:10 23:15 24:2 103:19 104:9 104:18 104:23 105:4 109:3 109:23 145:12 inquiries [1] 73:20 inside [1] 179:9 instance [2] 19:15 164:19 instances [5] 19:1 19:7 20:14 153:2 162:9 instead [1] 155:25 institute [3] 54:15 158:21 158:24 instructing [3] 190:14 191:1 195:5 intended [2] 56:12 176:4 intends [1] 56:12 intent [1] 92:20 interacting [1] 43:18 interaction [1] 43:23 interest [1] 137:17 interested [7] 49:18 49:22 55:18 69:13 172:22 172:24 196:15 interface [1] 178:20 interim [3] 75:25 112:9 193:7 interior [2] 20:19 20:21 internal [4] 26:7 164:13 164:16 195:4 international [4] 14:4 45:15 45:16 46:16 internationally [1] 45:7 interpret [1] 147:10 interpretation [1] 150:12 interpretations [1] 176:12 introduced [2] 5:19 159:21	introducing [1] 145:16 introduction [1] 137:5 inventoried [1] 122:11 inventory [1] 122:19 investigate [1] 67:5 investigating [1] 51:5 investigation [3] 84:22 103:20 167:24 investigations [3] 49:18 74:3 106:24 investigative [1] 67:7 investigatory [1] 49:13 investment [3] 45:7 45:9 45:11 invited [2] 37:3 71:1 involve [2] 12:6 46:19 involved [24] 17:11 28:17 34:22 36:18 40:6 42:19 44:24 50:7 50:11 53:10 60:14 67:8 75:12 81:6 101:19 102:13 108:20 127:8 140:13 157:17 158:5 177:20 192:24 192:25 involvement [4] 75:18 96:23 153:13 173:20 involving [6] 60:13 84:22 102:14 127:20 179:2 189:10 irate [1] 17:10 Islands [1] 58:15 isolation [1] 103:12 issue [32] 19:8 24:2 26:6 48:17 49:6 50:24 51:5 57:15 57:19 57:23 57:24 72:17 73:1 73:13 73:18 75:8 98:7 110:23 111:12 114:14 117:15 121:14 121:25 122:3 122:10 122:15 127:10 140:16 152:12 178:15 187:17 193:8 issued [2] 89:5 143:21 issues [13] 16:18 17:16 32:11 37:20 68:18 72:12 75:15 84:10 104:18 105:8 134:5 134:17 134:25 Item [1] 116:23 items [3] 38:5 86:16 87:16 itself [2] 170:4 188:14	January [8] 83:25 84:4 123:2 124:5 124:13 124:16 124:17 131:16 Japan [4] 60:8 60:11 60:13 180:8 Japanese [4] 59:14 59:21 59:22 103:9 JBS [1] 2:6 Jensen [10] 48:13 48:18 51:23 52:2 52:15 66:13 66:18 55:22 86:1 167:3 Jersey [9] 2:1 2:20 3:6 3:10 3:14 153:24 159:22 160:25 198:9 jigsaw [1] 170:11 Jim [9] 13:1 13:15 17:21 121:18 121:22 154:1 155:11 155:11 155:19 JOAN [4] 2:3 2:4 2:21 2:22 job [17] 15:2 15:15 16:6 23:17 28:10 31:1 40:11 41:21 42:11 68:9 117:23 123:9 123:11 127:7 155:9 174:24 176:1 Joe [8] 17:18 18:18 31:6 37:14 79:5 100:19 153:6 156:14 John [2] 102:11 103:19 Johnson [1] 57:11 join [2] 33:4 62:20 joined [4] 9:4 12:18 30:22 80:9 joint [2] 45:21 45:22 jointly [1] 22:6 Jr [1] 3:15 judging [1] 183:4 judgment [3] 22:18 58:4 70:11 July [5] 51:8 51:10 82:20 196:17 198:6 jump [1] 38:22 jumping [1] 46:25 June [6] 2:13 56:13 56:17 86:18 87:2 198:13
---	--	--	---	--

-K-

K [1] 172:2	
K-U-H-N [1] 83:9	
Kaneclor [1] 59:23	
keep [6] 5:1 26:16	
57:14 91:24 102:14	
123:22	
Keller [25] 50:15	
50:18 51:7 55:21	
64:21 64:25 65:14	
65:22 67:11 76:21	
78:13 79:10 79:16	
83:25 84:4 84:11	

-J-

J [1] 174:24

85:11 93:21 94:2	127:18 128:6 129:8	learn [2] 72:16 174:5	limited [7] 25:25	looks [8] 56:11
94:3 100:24 103:14	187:2 187:9	learned [4] 25:19	131:18 140:24 142:5	67:22 108:14 113:25
106:14 108:23 134:13	Laboratories [1] 172:13	54:24 167:18 181:6	176:6 178:2 193:16	115:17 130:2 154:20
Kelly [13] 48:22	laboratory [4] 9:5	learning [3] 94:22	line [15] 14:21 21:19	155:15
48:25 50:7 50:8	12:6 12:7 173:5	167:6 167:14	137:16 149:5 162:13	loose [1] 162:19
50:17 51:19 57:10	labs [4] 30:24 81:24	least [6] 57:14 142:9	162:22 164:7 168:24	losses [4] 97:21
74:19 81:4 81:4	166:2 174:10	156:4 167:17 192:24	170:15 172:25 173:21	105:15 105:17 105:20
180:21 181:5 181:18	lack [1] 136:20	193:5	174:11 180:19 194:8	Lothar [2] 2:3
Ken [3] 22:2 34:15	ladies [1] 5:11	leave [1] 26:19	194:17	2:21
34:16	laid [2] 112:9 126:22	leaves [1] 136:8	lined [1] 15:24	Louis [18] 10:19
kept [5] 27:1 33:2	Lake [2] 95:16 95:19	led [2] 170:10 183:19	lines [9] 14:25 21:20	10:25 26:22 33:3
54:15 128:1 161:12	Lancaster [6] 151:20	left [8] 5:12 9:12	121:23 141:15 162:25	33:18 33:20 33:24
Kereseers [1] 17:21	152:8 153:1 153:23	115:20 127:6 129:15	163:20 169:25 193:21	39:8 45:13 55:16
key [1] 45:8	154:5 154:6	181:13 192:20 195:2	195:6	117:6 146:12 153:3
Kimbrough [5] 158:5	language [4] 65:3	legal [8] 75:4 75:7	link [4] 69:8 69:11	153:5 188:13 196:3
158:12 158:17 158:23	129:8 187:6 187:11	75:12 83:9 83:14	69:14 134:16	197:2 198:3
159:1	lapse [1] 73:23	110:2 111:1 117:3	linked [2] 166:22	low [1] 175:25
Kimbrough's [2] 158:2 158:21	larger [4] 71:6	length [1] 141:6	167:21	lower [3] 98:16
kind [26] 11:7	71:10 73:12 73:17	less [11] 22:19 25:20	list [16] 57:10 69:19	147:16 148:1
14:7 16:9 20:18	largest [1] 22:11	28:4 28:25 31:11	79:11 86:4 94:12	
22:9 26:14 29:3	last [19] 28:10 44:1	100:12 105:16 138:24	104:3 104:8 121:4	-M-
30:5 30:25 31:20	54:19 58:10 71:23	183:5 183:17 184:12	121:7 121:13 132:3	M-I-N-C-K-L-E-R [1] 79:2
36:1 36:9 49:13	75:2 76:21 78:11	letter [48] 64:22	132:9 153:20 159:4	machine [1] 24:25
80:11 88:3 106:22	83:24 85:25 93:25	77:8 78:2 79:22	172:1 192:9	Macon [1] 151:20
106:25 112:13 147:21	101:6 115:22 117:2	79:23 81:4 81:4	listed [8] 23:22	MAE [37] 1:7
148:10 162:19 164:15	131:10 143:9 185:9	81:9 82:9 112:8	80:14 86:8 108:3	1:8 1:10 1:11
164:18 175:12 176:1	185:25 186:1	116:7 116:17 116:22	109:8 132:3 145:5	1:12 1:13 1:14
178:21	late [24] 10:20 11:17	117:3 119:16 121:21	159:2	1:15 1:16 1:17
kinds [1] 30:1	14:12 15:4 17:24	122:1 124:8 124:15	listening [2] 32:19	1:18 1:19 1:20
knew [10] 17:22	20:6 23:1 32:23	125:4 125:5 133:2	32:20	51:7 51:10 59:2
27:7 52:11 53:17	32:24 36:17 47:3	133:13 137:19 138:25	lists [1] 175:1	63:16 67:11 76:17
67:4 70:3 95:7	59:10 68:4 84:6	148:19 149:20 150:16	literally [2] 156:6	85:12 85:15 87:24
99:16 103:3 174:22	84:16 97:8 98:2	150:24 151:7 151:13	156:8	107:10 108:23 113:16
knowing [5] 49:19	100:21 105:1 105:8	151:17 153:21 154:12	literature [2] 162:24	115:13 126:1 129:24
73:15 87:17 172:22	110:4 112:14 168:8	154:14 183:22 184:3	169:15	130:17 144:8 148:20
180:17	169:7	184:3 191:13 191:17	litigation [3] 161:7	149:17 151:7 154:11
knowledge [13] 7:15	latest [1] 149:5	191:20 191:24 191:24	161:16 179:8	157:3 171:24 182:17
57:4 63:10 73:4	Latham [2] 3:13	192:3 192:5 192:11	live [1] 5:20	Maertin [7] 2:3
73:6 82:2 96:24	198:8	192:12 197:25	lived [1] 139:23	2:3 2:4 2:21
124:5 124:18 142:24	latices [2] 8:11	letterhead [1] 148:19	living [2] 122:11	2:22 2:22 198:10
152:2 160:2 196:9	8:16	letters [11] 117:5	122:19	magazine [3] 48:10
knowledgeable [1] 31:25	Latin [18] 14:5	122:20 191:12 191:14	LLP [1] 3:20	53:12 53:25
known [7] 10:2	38:24 39:9 39:11	192:7 192:11 192:17	located [2] 106:20	mail [1] 146:13
11:4 48:13 80:10	39:18 39:20 40:23	193:1 193:7 193:10	108:3	mailed [2] 117:5
110:20 132:6 166:6	42:25 43:4 115:20	193:13	location [2] 144:24	118:7
knows [3] 54:9	116:13 133:20 133:22	level [6] 23:14 26:1	175:23	mailing [1] 117:4
74:24 78:6	135:11 149:23 150:18	78:25 80:22 139:1	locked [1] 23:2	main [1] 178:20
Koch [1] 17:21	171:7 193:6	171:12	Lodge [1] 2:16	mains [1] 185:11
Korea [2] 45:21	latter [2] 10:22	levels [4] 77:24	logical [3] 27:25	maintained [1] 26:21
45:24	21:15	171:17 181:19 181:22	106:25 119:19	makes [1] 177:9
Korcan [1] 45:23	Laurel [1] 3:6	Levinaskas [1] 158:19	longer [1] 192:16	mallards [1] 175:2
Kuhn [3] 83:8	law [2] 3:4 83:12	liability [3] 113:20	look [17] 22:15 23:17	man [6] 22:2 50:7
83:11 83:22	lawful [1] 4:9	114:2 114:4	23:22 32:8 32:10	50:9 50:10 69:20
	lawsuit [3] 84:22	liaison [4] 15:13	56:11 60:25 79:13	70:7
	159:23 160:25	16:14 42:21 42:22	79:14 103:11 113:24	man's [1] 116:4
-L-	110:5 110:8 110:15	Liberty [1] 3:20	113:25 130:3 131:12	management [6] 23:1 26:25 37:12
L [1] 175:25	lawyers [2] 110:10	life [1] 141:7	147:15 147:21 164:13	77:25 112:5 194:25
L-95-cv [1] 2:5	110:14	light [2] 133:2 183:21	looked [4] 78:13	manager [120] 13:13
L.L.P [1] 3:15	lead [2] 97:23 100:1	likelihood [2] 116:20	84:14 106:23 144:13	13:21 14:5 15:3
lab [3] 32:2 112:23	leading [2] 20:8	131:4	looking [21] 60:22	16:8 19:2 19:14
175:7	69:21	likely [13] 24:11	61:6 61:23 85:7	21:12 22:24 26:6
label [1] 187:5	leaf [1] 162:19	24:13 74:18 97:6	99:16 100:4 102:3	26:16 35:7 36:12
labeled [2] 111:21	leak [1] 170:20	97:19 99:17 99:19	102:5 102:22 103:5	36:22 38:23 39:17
111:22		100:1 100:21 108:20	108:12 131:5 131:10	39:19 39:24 40:3
labels [6] 110:21		121:13 128:22 166:3	142:15 147:11 147:17	
		limit [2] 190:14 191:2	147:22 148:5 181:13	
		limitation [1] 12:12	185:20 185:25	

40:6	40:11	40:14	186:10	186:13	186:23	Maryland [1]	95:16	meetings [24]	29:6	37:14	37:15	38:10	
40:14	40:19	41:13	marching [1]	156:4		masqueraded [1]		32:1	33:10	33:10	38:12	38:13	40:21
41:16	41:18	42:2	marine [1]	20:1		53:13		33:17	34:1	34:7	44:4	44:5	50:20
42:7	42:9	42:9	mark [18]	58:22		mass [2]	81:18	81:22	35:24	37:13	55:4	71:10	71:21
42:9	42:12	42:16	63:13	76:9	87:20	match [1]	22:13		37:22	38:17	73:22	76:2	78:21
43:10	43:25	44:8	107:5	115:9	125:20	material [11]	17:2		48:18	50:23	79:1	79:13	80:18
44:10	47:14	47:21	129:20	130:15	144:4	21:3	30:13	31:24	57:18	71:5	83:4	83:5	84:16
54:24	57:12	61:11	148:15	149:9	149:10	60:23	61:7	147:16	73:17	118:3	88:7	88:8	88:10
63:9	68:4	71:1	151:2	151:2	154:8	156:22	176:6	177:23	153:8	194:19	88:12	91:22	100:18
73:24	78:23	80:19	156:24	182:18		178:2			melt [6]	89:14	102:3	108:7	108:16
80:24	81:1	86:6	marked [38]	51:6		materials [11]	30:1		90:20	91:1	108:17	112:24	115:3
90:12	92:10	92:25	55:21	58:23	59:1	66:21	67:2	69:8	93:18		118:6	122:7	124:1
94:7	94:17	94:19	63:14	64:21	64:25	98:16	105:25	117:21	melted [1]	90:13	124:12	128:10	129:1
94:23	99:7	105:18	65:4	65:14	67:10	126:8	126:21	167:23	melts [3]	91:5	129:1	131:9	131:18
107:24	108:5	109:20	76:11	79:9	85:11	168:16			91:9	189:9	133:15	139:12	145:11
110:22	111:8	111:11	87:21	87:24	93:21	matter [2]	60:21		memo [44]	51:10	145:12	145:12	147:22
114:22	114:23	116:6	100:24	103:14	107:7	61:5			51:18	55:22	148:7	150:6	152:11
116:18	117:8	117:12	107:13	108:23	115:10	matters [1]	196:10		56:14	59:2	152:18	157:22	160:20
117:23	118:19	119:15	115:13	125:21	125:24	maximize [1]	195:5		61:15	61:16	161:11	162:8	164:1
122:18	122:24	123:2	129:21	130:16	144:5	may [26]	4:3	32:11	67:12	68:12	164:12	164:13	166:6
126:17	126:22	127:7	144:8	148:16	149:11	32:21	66:10	70:10	69:16	70:12	167:4	170:1	174:19
127:11	128:20	129:6	149:14	149:21	151:4	78:25	82:8	83:21	75:16	79:3	177:6	179:17	180:6
131:22	132:10	132:12	154:9	156:25	171:19	84:8	86:18	87:2	82:22	84:3	180:14	180:14	180:18
132:15	132:20	133:9	171:23			102:10	105:10	117:14	85:1	87:13	180:19	182:4	197:8
133:19	139:23	144:18	market [78]	13:21		119:25	129:17	144:14	130:21	132:22	milk [4]	95:15	97:5
144:24	145:11	145:12	14:5	15:3	16:8	144:14	152:7	152:9	143:2	143:7	181:19	181:23	
145:15	145:16	147:8	19:2	19:14	21:12	160:1	171:9	171:9	158:11	158:14	million [1]	193:17	
150:8	154:7	157:12	26:3	26:6	26:16	175:15	180:13	186:7	176:22	183:9	Minckler [3]	78:21	
157:15	161:20	162:11	30:3	30:9	32:5	mean [27]	6:5		183:20	188:2	78:22	79:2	
163:1	163:18	164:6	38:23	39:17	39:19	11:23	33:21	52:8	188:22	189:1	mind [17]	19:20	
165:2	165:8	172:25	42:16	43:2	43:5	53:4	66:22	72:19	191:5		19:23	20:11	20:12
179:11	180:18	181:18	43:12	43:15	44:2	74:23	78:20	80:15	memorandum [4]	172:11	38:2	66:12	87:6
186:18	186:22	187:13	47:14	47:21	54:24	82:17	118:5	134:3	191:1	188:23	123:1	136:5	136:7
189:13	195:2		57:12	61:10	68:3	136:4	136:21	139:22	memory [9]	13:17	137:21	139:10	139:25
managerial [4]	77:21		71:1	73:24	80:18	146:4	147:10	156:10	31:13	44:6	140:1	171:21	177:12
114:13	114:20	115:1	80:24	81:1	86:6	173:22	173:23	176:9	82:25	96:8	177:14		
managers [23]	21:6		90:12	92:10	92:25	177:5	182:15	189:15	126:18	181:15	mindset [1]	140:4	
22:19	24:3	24:9	94:7	94:19	99:7	191:6	193:22		mention [2]	179:12	mine [1]	80:16	
25:5	26:3	26:4	107:24	108:5	109:19	Meaning [1]	103:4		179:19		mineral [9]	2:9	
30:4	30:4	32:5	110:22	111:8	111:11	meaningful [1]	26:14		mentioned [11]	16:13	2:24	3:7	8:4
33:18	34:19	34:22	113:12	114:23	116:6	means [7]	5:6		16:15	27:20	96:20	118:15	118:18
35:20	35:22	36:1	117:11	119:15	122:17	76:7	81:25	101:21	33:9	51:23	118:25	198:11	
40:7	119:9	121:5	122:23	123:2	126:17	123:11	123:15	128:16	103:18	142:4	minimize [2]	70:25	
128:20	129:5	188:9	126:22	127:11	128:19	meant [8]	29:11		190:6		71:3		
188:10			129:4	129:6	133:9	52:10	77:18	77:19	message [2]	125:9	minimized [1]	155:6	
managing [1]	45:16		135:5	135:19	139:23	176:21	176:23	176:24	125:18		minute [3]	62:5	
Manchester [2]	9:4		145:12	147:8	148:2	183:16			met [13]	4:17	104:4	133:24	
9:8			150:7	161:20	162:11	Meanwhile [1]	8:9		32:3	35:15	minutes [3]	38:16	
manner [1]	99:6		163:1	163:18	164:5	med [1]	82:16		97:24	145:21	38:18	159:14	
manufacture [4]			165:1	165:8	180:17	media [2]	57:5		158:15	160:4	misleading [1]	143:10	
7:16	98:8	104:25	187:13	195:2		169:14			162:4	174:9	Missouri [7]	2:16	
111:22			marketing [30]	11:1		mediate [1]	17:11		methodology [1]	134:14	2:18	196:2	196:6
manufactured [2]			12:21	13:4	13:12	medical [11]	74:9		Mexico [1]	95:17	196:7	197:1	198:3
44:24	45:1		22:25	26:8	38:10	74:15	75:4	75:7	Michigan [2]	95:17	misspelled [1]	56:3	
manufacturer [3]			42:5	63:9	88:12	94:8	94:18	101:14	95:20		misspelling [1]	172:5	
20:8	91:14	147:18	88:15	94:17	94:22	101:18	158:19	163:25	mid [4]	48:19	mistaken [2]	31:7	
manufacturing [8]			105:18	115:8	116:18	174:1			97:8	98:1	48:10		
15:14	16:15	16:18	117:8	117:23	118:19	medium [1]	153:19		middle [4]	48:7	Mister [1]	4:15	
23:10	28:3	28:24	119:4	123:22	131:22	meet [5]	32:11	33:6	70:14	118:11	mix [2]	93:5	93:6
93:13	192:8		133:19	144:18	153:16	153:3	176:7	178:3	might [94]	11:5	mixing [3]	93:1	
March [31]			172:25	179:11	181:18	meeting [19]	16:2		12:2	12:14	93:7	93:14	
64:4	64:21	66:4	186:17	186:22		34:8	34:18	35:4	17:4	19:5	mixtures [1]	66:23	
67:11	69:23	71:20	marketplace [1]	33:8		35:9	35:19	38:16	23:25	27:24	MKD [1]	1:6	
72:4	72:12	73:7	markets [7]	40:6		91:10	157:8	157:14	29:5	29:6	modifiers [2]	13:24	
73:16	75:8	77:8	40:15	40:19	41:16	158:5	158:12	158:12	29:11	30:7	88:7		
77:16	84:18	154:12	42:7	44:1	44:8	158:19	158:23	172:12	30:12	33:15	modify [1]	20:4	
154:15	155:17	171:23	marking [1]	12:8		172:19	172:20	174:8	35:16	36:9	moment [4]	64:20	
172:11	175:14	175:15	Martin [4]	18:5									
176:8	176:11	176:18	18:17	50:8	100:19								
177:11	178:13	186:9											

143:2 171:22 172:6	162:20 176:7 178:2	34:4 123:14 123:15	nothing [5] 61:18	
moments [1] 4:18	178:2 178:6	Neff [1] 79:5	111:21 156:13 158:8	
money [1] 35:15	mostly [3] 29:9	neither [1] 196:13	196:9	
MONS [1] 103:15	88:10 145:9	net [1] 23:14	notice [4] 69:19	
Monsanto [124] 2:9	motivated [1] 140:6	never [6] 53:5	76:16 111:19 160:17	
2:24 7:1 7:6	moved [2] 44:5	53:25 62:8 99:2	notification [1] 151:17	
7:16 8:22 10:19	163:16	123:1 142:24	notified [3] 110:20	
10:24 19:14 20:4	Moving [1] 97:12	nevertheless [1] 5:3	129:4 138:7	
30:25 41:7 44:3	Ms [9] 3:8 62:20	new [36] 2:1 2:20	124:9	
44:25 45:7 45:16	62:25 85:13 85:16	3:6 3:10 3:14	November [9] 80:9	
45:22 47:1 47:10	93:24 154:13 195:10	9:4 9:24 18:7	81:9 81:21 82:2	
48:19 50:1 57:19	198:25	19:3 19:4 45:22	82:22 108:24 112:1	
59:7 63:4 71:2	Mt [1] 3:6	52:1 52:14 53:5	112:1 135:20	
72:11 72:25 74:10	Mulliss [1] 3:15	53:7 87:14 115:17	now [114] 2:19	
75:4 75:13 76:19	multiply [1] 24:15	115:24 132:15 133:10	5:13 7:22 12:14	
77:13 78:12 78:16	must [12] 51:21	136:3 143:5 145:17	12:19 13:3 13:7	
79:23 79:24 80:3	75:5 116:14 128:15	145:18 146:16 147:1	13:18 14:11 15:2	
80:5 80:9 80:11	132:6 133:1 133:21	150:5 153:24 153:24	16:11 16:13 19:6	
81:12 81:14 82:15	133:23 154:18 154:19	159:22 160:25 164:14	20:13 20:23 21:18	
83:2 83:12 86:7	181:15 183:21	173:13 180:14 186:25	22:3 25:24 27:8	
88:6 88:22 89:16		198:9	27:16 27:20 28:10	
90:5 96:19 97:1		Newark [5] 3:10	33:9 34:22 35:12	
98:7 99:3 99:25		3:13 3:14 198:8	35:23 35:24 37:8	
105:5 107:20 109:14		198:9	37:18 37:19 38:7	
109:24 110:5 110:14		Newell [2] 82:9	39:14 39:18 39:22	
111:11 113:11 116:8		82:9	40:16 41:18 42:25	
117:4 118:12 121:19		Newport [4] 7:14	46:13 47:1 48:14	
121:21 122:1 122:9		7:15 8:9 8:21	50:17 51:2 52:10	
122:12 122:20 123:3		next [14] 22:22 24:10	52:19 56:9 57:9	
124:23 125:10 125:12		24:18 39:23 47:15	58:6 60:7 60:19	
126:9 127:5 129:7		72:20 76:13 95:13	65:1 66:2 66:17	
136:12 138:25 145:17		95:14 97:12 104:14	68:21 71:21 72:17	
148:19 149:25 153:11		105:23 133:25 136:19	75:2 75:5 78:2	
155:20 155:24 156:13		nine [1] 158:15	79:19 80:8 80:17	
157:18 158:13 161:6		nobody [1] 175:17	82:25 83:4 84:12	
161:15 164:5 164:19		non-fire [2] 155:2	85:22 88:8 89:3	
165:8 166:4 167:25		155:7	89:8 89:11 92:7	
168:10 168:10 168:23		non-PCB [4] 14:17	94:15 99:21 99:22	
169:3 169:8 169:18		151:24 151:25 193:24	100:6 100:23 101:2	
169:23 170:13 171:11		nonvinyl [1] 156:9	105:9 106:9 111:3	
171:14 173:5 173:10		nor [8] 12:10 70:7	113:17 114:17 116:6	
173:13 173:14 174:9		92:18 110:20 152:10	118:10 119:13 123:24	
174:20 187:2 187:22		196:13 196:13 196:13	127:9 131:24 133:1	
191:14 192:7 193:1		norm [2] 17:21 24:24	135:8 136:5 137:11	
193:10 193:20 194:14		normal [3] 57:14	141:7 141:23 142:3	
194:16 195:4 198:10		93:8 153:17	143:1 143:23 145:20	
Monsanto's [11]		normally [3] 17:8	146:15 146:17 149:14	
7:12 14:6 44:22		68:11 123:8	150:9 151:23 152:5	
45:15 61:24 73:2		North [2] 3:16	152:25 153:1 155:11	
75:7 83:19 96:5		3:17	157:10 171:17 175:14	
116:22 162:20		northeast [1] 12:15	176:10 182:21 188:5	
Montar [5] 84:3		Nos [9] 59:1 85:12	191:23 192:13	
84:4 84:10 84:12		87:24 103:15 108:23	number [17] 24:16	
84:15		129:24 130:17 148:20	28:23 51:11 58:12	
Monte [2] 77:12		157:3	59:14 59:22 94:1	
77:13		notably [1] 86:2	127:5 139:19 150:2	
monthly [5] 23:23		NOTARIAL [1] 196:1	150:5 155:15 155:17	
24:20 25:2 27:21		notarized [1] 198:18	156:6 161:13 163:3	
94:13		notary [5] 2:18	194:17	
months [1] 35:17		4:4 196:5 197:23	numbered [4] 104:1	
Moore [1] 3:15		198:17	108:3 109:11 111:18	
Morgan [2] 17:20		note [2] 155:14 183:12	76:17 113:16 113:18	
17:21		notes [2] 172:12	114:8 131:8 131:12	
morning [1] 4:14		174:8	149:16 185:23	
Morris [1] 3:20			Numeral [1] 176:4	
Moskowitz [1] 3:9			numerals [1] 175:1	
most [12] 34:4				
36:10 38:9 128:9				
128:22 128:25 160:20				

obtained [1] 75:19	78:3 78:8 78:14	otherwise [3] 30:16	179:7 180:1 180:3	passed [12] 12:19
obviously [17] 16:10	81:13 82:21 85:3	33:20 133:21	182:5	52:5 53:23 68:15
20:3 21:15 23:15	85:7 86:10 87:3	Otis [1] 174:24	paper [10] 26:15	74:4 74:19 128:21
28:2 28:7 28:22	87:19 88:12 88:19	ours [1] 99:14	27:4 27:13 56:12	154:19 155:10 164:8
29:12 33:1 55:18	89:5 90:8 90:15	outside [4] 45:1	56:15 69:17 71:18	166:4 179:3
56:3 56:5 116:13	91:9 91:20 99:23	75:24 89:16 174:20	72:21 72:23 173:19	passing [1] 48:22
154:20 172:17 177:1	100:12 100:12 108:21	outstanding [1] 5:24	paragraph [35] 54:19	past [1] 62:21
184:11	111:21 111:22 111:23	overall [1] 156:13	56:25 57:2 58:10	Paton [121] 1:6
occasion [3] 47:22	114:20 116:14 117:4	overlapped [1] 33:15	59:13 60:20 70:14	2:12 4:8 4:14
114:19 152:5	119:5 120:1 120:25	overloading [1] 26:15	70:19 70:24 71:15	4:14 4:17 5:13
occasionally [2] 33:4 37:16	121:16 127:3 131:20	overnight [1] 140:12	71:23 77:11 78:9	6:3 19:11 19:18
occasions [1] 4:23	133:10 133:10 133:12	oversaw [1] 31:6	85:25 86:14 89:11	46:25 51:15 55:20
occurred [4] 34:7	133:16 133:23 134:12	overview [2] 16:12	95:13 95:14 95:22	56:1 58:23 58:25
103:7 112:25 192:10	136:9 136:11 141:19	29:9	96:2 97:3 100:24	59:1 60:1 63:13
occurrence [3] 89:18	141:19 142:16 148:14	own [8] 2:4 2:22	101:3 104:15 104:19	63:14 63:25 65:5
137:12 162:10	148:15 149:21 150:12	46:13 74:3 145:9	105:13 105:23 117:2	67:10 67:12 67:20
October [6] 55:21	150:14 151:2 151:2	145:14 177:12 177:14	117:5 143:9 146:19	68:1 71:13 76:9
56:6 102:9 103:14	153:12 153:22 154:8	oysters [1] 95:17	149:4 156:20 185:9	76:11 77:9 79:8
103:20 107:11	155:8 155:16 155:17		193:19	82:20 82:22 83:25
odd [1] 146:11	156:2 156:6 162:5		Paragraphs [1] 96:14	84:19 85:6 85:10
odds [2] 34:9 34:12	163:4 168:21 174:18		paraphrase [1] 59:17	87:20 87:21 87:23
off [14] 50:24 58:13	181:15 182:17 183:5		paren [4] 59:24	87:24 88:1 91:4
76:14 76:15 95:24	183:5 183:17 184:1		86:15 136:1 136:2	92:15 93:20 94:4
95:25 122:11 122:19	184:12 184:13 192:11		parentheses [2] 59:23	96:3 100:3 101:22
131:18 142:17 144:2	192:11 192:17 193:13		86:15	103:1 103:13 106:14
144:3 182:22 183:2	194:23 198:8		part [37] 6:14 10:22	107:5 107:7 107:9
offer [2] 29:3 155:3	ones [19] 14:17		11:9 21:15 23:17	107:12 107:13 108:22
offered [1] 46:7	15:18 25:15 30:15		26:17 26:21 30:19	111:14 115:9 115:10
offhand [2] 60:7	34:20 67:7 86:5		35:24 36:1 37:1	115:12 115:13 118:11
60:10	86:8 94:20 99:19		37:5 41:9 43:18	125:20 125:21 125:23
office [1] 26:22	99:25 102:16 102:16		48:7 71:25 84:15	125:24 126:5 126:12
officers [1] 21:6	102:19 119:11 128:24		88:18 90:6 93:12	127:4 129:11 129:20
offices [4] 2:15	134:22 189:24 191:8		100:6 101:14 101:15	129:21 130:1 130:4
3:4 118:14 196:6	onward [1] 114:24		101:19 114:2 115:18	130:15 131:10 135:3
officially [1] 110:20	oozed [1] 142:14		121:3 146:15 155:24	144:4 144:5 144:7
often [5] 20:25 29:17	open [12] 43:2		161:20 162:22 163:17	144:10 147:4 148:15
129:3 145:8 155:25	99:22 135:5 135:19		164:16 166:8 166:23	148:16 148:18 149:10
Ohio [1] 9:20	136:1 165:12 165:14		167:23 192:21	149:11 149:13 149:14
oil [5] 59:14 59:21	165:18 177:15 177:19		participate [4] 33:25	149:19 149:21 151:3
60:7 60:10 96:20	188:25 189:3		64:6 65:20 168:2	151:4 151:6 151:8
oils [1] 71:17	operated [1] 27:18		participated [3] 21:25	152:6 154:8 154:9
old [1] 27:13	operations [2] 7:12		64:16 72:11	154:16 156:24 156:25
Olson [2] 127:4	opinion [13] 53:14		participating [3] 109:3 110:9 135:15	157:2 157:5 159:20
127:4	54:2 61:20 61:22		particular [42] 7:9	169:6 172:2 172:9
on-going [4] 31:20	62:10 62:22 62:23		8:10 11:14 19:12	172:11 176:9 177:4
101:19 167:24 172:23	63:7 72:6 72:8		21:1 32:7 32:18	186:3 189:19 192:3
once [8] 21:2 33:13	72:8 72:19 87:3		34:5 63:19 65:20	195:9 195:10 196:8
33:14 35:10 35:12	opportunity [7] 5:12		67:19 85:18 89:2	197:5 197:20 198:13
35:23 152:7 160:7	30:8 30:11 32:17		89:23 89:23 92:2	Paul [1] 154:1
one [124] 3:13 3:20	33:7 92:21 172:8		94:25 123:25 145:13	pay [2] 160:16 160:22
14:8 15:17 15:20	opposed [5] 4:15		146:19 153:20 160:2	PCB [46] 8:17
16:13 20:8 20:10	20:4 34:7 164:17		160:3 160:17 160:25	9:11 16:17 19:3
21:9 21:13 21:16	177:24		162:17 164:7 169:24	19:4 19:24 20:14
21:17 22:14 26:7	order [5] 17:8 106:23		171:3 171:5 172:19	31:17 43:1 43:5
27:6 30:5 31:12	129:1 141:15 185:21		173:1 173:2 173:6	44:14 47:23 50:19
32:17 32:17 33:13	orders [1] 128:23		173:21 173:22 185:16	52:7 59:15 60:5
33:13 35:4 35:15	Orem [2] 130:16		186:18 188:7 188:18	65:18 66:14 74:8
36:20 45:8 49:17	organic [10] 14:6		192:11 194:7	74:13 75:8 98:9
51:3 51:22 51:22	14:7 38:24 44:22		particularly [6] 12:3	102:24 110:5 111:12
51:24 51:25 52:8	78:24 97:13 101:4		17:10 53:20 54:13	111:22 112:15 122:11
58:1 58:6 59:9	144:20 193:4 193:5		91:9 140:24	123:4 124:6 124:19
60:4 60:19 63:13	organization [2] 119:8 188:13		parties [2] 196:15	124:24 127:12 134:1
67:6 69:19 70:19	original [3] 1:21		parts [3] 15:5 16:7	135:5 138:1 142:4
71:6 73:11 74:16	85:25 198:14		party [2] 8:4 75:22	152:1 155:1 170:3
76:8 76:18 77:21	originated [3] 29:15		pass [5] 22:7 58:4	175:24 177:20 178:15
	38:9 88:14		70:11 86:20 164:23	185:10 189:20 193:24
				PCB-containing [9] 14:16 19:15 43:11
				44:2 96:19 104:25
				113:3 138:20 194:1
				PCB-like [1] 67:2

PCBs [98]	7:16	performance [2]	15:22 164:15	planning [7]	16:20	44:14 55:13 101:8	precipitously [1]	140:12
7:20 14:22 18:19		15:22 164:15		28:6 113:10 163:15		161:6 161:16 171:12	precise [1]	102:2
19:21 47:6 49:6		performed [4]	41:21	172:21 174:15 174:18		181:7 194:10	prefer [1]	4:16
49:9 49:14 50:2		175:2 175:6 175:10		plans [3]	28:6	Polyethylene [1]	preparation [1]	160:5
50:24 51:19 53:10		perhaps [5]	6:3	28:13 46:7		91:20	prepare [1]	21:11
57:13 58:11 58:19		32:19 72:23 85:24		plant [6]	16:22 16:25	polymer [4]	prepared [7]	76:5
61:24 62:1 62:6		105:16		17:1 96:6 96:19		8:11 8:16 91:19	79:17 88:5 114:9	115:19 121:17 126:9
63:5 66:7 66:22		period [18]	8:25	151:21		polyolefin [4]	preparing [2]	21:25
68:19 69:1 69:6		14:11 20:16 24:8		plants [1]	31:3	91:18 91:19 91:23	prepublication [1]	56:23
73:13 73:18 83:3		24:23 39:7 47:5		Plasticizer [56]	11:5	polyolefins [1]	presence [1]	34:11
84:13 84:14 86:15		61:4 61:7 75:1		11:8 11:15 11:24		polysulfides [2]	present [9]	56:13
87:10 94:16 94:18		81:18 97:25 113:5		13:5 13:12 13:23		10:3 10:9	66:22 115:3 136:13	157:7 158:22 167:16
94:19 94:24 95:6		114:24 171:3 173:18		13:24 14:13 21:20		pool [1]	167:19 172:20	presentation [4]
95:15 96:6 97:10		176:5 176:6		26:8 26:25 29:21		pooled [1]	115:14 117:9 117:22	125:7
98:8 99:11 100:1		periods [1]	93:9	31:14 36:12 36:23		poorer [1]	presentations [1]	114:13
100:16 102:15 102:17		perjury [1]	197:12	39:10 40:22 41:24		portion [1]	presented [3]	56:12
103:21 105:5 106:2		person [14]	10:4	44:12 44:15 44:18		portrayed [1]	100:16 121:5	pressures [1]
110:16 112:2 113:12		10:16 15:18 17:20		46:20 63:9 68:13		posed [1]	presumably [3]	98:22
114:14 114:20 116:8		34:10 34:14 50:14		73:3 73:17 88:12		poses [2]	117:6 157:16	pretty [11]
119:17 121:6 121:15		81:14 88:10 107:1		88:15 99:10 105:17		189:21	11:10 16:10 16:12	22:4 30:15 34:24
121:20 122:2 129:8		113:17 166:5 169:19		105:19 105:20 107:25		position [40]	56:1 65:11 150:19	152:3
133:2 134:7 134:17		179:1		112:10 113:19 115:20		9:17 9:21 9:23	prevent [2]	97:20
134:19 136:3 136:13		person's [1]	34:15	123:23 135:9 140:20		10:10 10:24 12:20	previous [5]	21:15
136:14 137:1 138:17		personal [6]	11:15	142:10 146:21 152:8		13:20 14:2 39:16	130:6 130:16 165:21	171:20
138:24 140:14 157:19		40:15 54:2 75:17		156:10 161:20 162:12		39:23 41:19 43:14	previously [3]	18:18
157:22 159:8 166:13		115:15 173:9		162:22 163:18 165:2		43:17 44:1 44:6	price [7]	23:8 24:12
166:18 167:7 167:11		personally [6]	53:15	165:25 186:22 188:11		44:7 44:20 45:2	24:13 147:24 148:2	148:3 148:9
168:4 168:11 169:12		118:17 135:14 152:5		192:16 192:18 194:6		45:17 45:19 46:5	pricing [2]	15:23
170:6 171:2 179:8		158:4 163:10		Plasticizers [24]		47:15 47:17 54:24	primarily [7]	13:22
181:19 181:22 181:23		personnel [1]	151:21	11:4 13:9 13:22		59:8 71:25 72:6	15:8 46:16 128:11	140:14 178:20 188:8
183:22 190:1 190:1		persons [1]	26:4	14:1 14:8 15:3		77:14 77:19 81:15	primary [2]	88:23
190:6 190:12 191:16		persuade [1]	138:20	28:22 30:23 47:14		82:6 86:20 114:2	principal [1]	106:13
193:2 193:11 193:12		persuading [1]	137:14	80:17 88:11 100:19		115:21 129:15 135:11	print [1]	131:25
penalty [1]	197:12	pesticides [4]	52:21	109:18 112:10 127:8		145:10 186:25 191:7	printing [3]	4:5
pending [2]	2:19	54:8 58:12 65:19		128:15 142:5 142:8		positions [1]	printout [2]	24:20
160:25		phase [1]	139:7	149:8 152:16 155:20		possibility [3]	25:3	privilege [1]
Pennsylvania [3]		PhD [4]	6:12 6:20	155:21 162:20 179:14		110:4 110:15	privileged [1]	83:20
3:21 12:16 153:23		6:23 8:14		plasticizing [1]	142:15	possible [11]	probability [2]	104:14
Pensacola [1]	96:5	Phil [2]	153:23 154:4	plastics [6]	9:7	48:5 101:20 105:24	problem [8]	80:3
people [60]	16:20	Philadelphia [1]	3:21	13:24 29:14 71:18		106:2 109:24 111:1	100:12 100:13 115:18	140:10 156:1 167:20
16:20 17:8 17:17		3:21		108:11 177:24		116:1 131:17 175:24	192:21	problems [10]
17:19 18:2 18:21		phone [3]	30:17	Plastifacts [2]	89:4	183:14	55:15	
23:19 26:5 28:6		74:1 198:4		played [1]	64:8	possibly [14]		
29:22 30:10 30:19		phrase [3]	27:6	pleased [1]	155:23	20:11 37:14 43:7		
31:2 31:20 32:2		101:21 194:22		plus [2]	150:2	43:7 84:24 100:10		
32:3 32:10 35:13		phrased [1]	193:18	point [34]	15:6	108:6 108:14 108:16		
37:14 42:10 42:15		phthalates [1]	20:1	15:9 22:14 23:1		110:2 118:7 128:4		
42:18 42:20 50:6		physical [2]	187:18	24:22 24:23 27:4		post [2]		
50:10 50:13 50:24		187:23		32:12 36:20 40:22		107:21 110:7 164:12		
51:3 54:3 57:15		picked [1]	25:23	45:20 46:2 75:13		168:11 169:9 171:1		
58:3 58:6 64:15		picking [1]	55:7	88:1 88:13 99:21		181:7 190:4 191:15		
74:4 74:11 74:17		picture [1]	22:17	113:7 119:10 135:10		191:21 193:11		
81:5 91:11 100:4		piece [1]	70:17	143:5 146:11 165:13		potentially [3]		
100:14 100:18 100:21		pin [2]	37:17 108:13	169:6 170:4 170:5		166:19 169:16		
112:23 119:4 128:23		pinpointed [1]	97:5	170:25 173:12 175:19		pound [2]		
128:24 140:4 150:4		place [12]	3:20	177:14 178:12 188:5		147:24		
153:6 153:15 154:25		35:25 73:12 75:5		189:24 190:8 191:6		powder [1]		
156:14 156:17 158:15		75:7 110:3 116:24		pointed [1]	187:6	ppm [1]		
166:1 170:3 174:3		117:9 167:24 174:15		points [1]	21:10	PR [2]		
174:4 188:12		174:18 174:18		poisoning [4]	59:14	78:10 78:15		
per [1]	193:17	plaintiffs [4]	2:23	59:22 60:8 60:10		pre-1968 [1]		
perceived [2]	124:11	3:3 4:2 159:22		polite [1]	31:11	preceding [2]		
170:17		plan [6]	16:3 103:3	pollution [3]	70:25	190:24		
percent [5]	13:2	109:5 133:3 183:23		71:3 109:4		precipitous [1]		
29:17 44:4 90:22		187:17		polychlorinated [11]	7:21 14:19 14:22	113:11		
92:3								
peregrine [1]	69:21							
perfectly [1]	62:12							
perform [1]	169:18							

66:23 72:3 83:9	40:19 41:7 41:8	143:24 173:16 187:18	53:21 91:25 184:2	111:5 111:11 111:16
83:15 134:1 140:9	41:8 41:16 41:25	187:23	puzzle [1] 170:11	141:18 141:20
175:20 189:20 189:22	42:7 43:1 43:5	property [1] 29:11	puzzlement [1] 170:7	rare [1] 137:12
procedure [4] 27:3	43:11 44:1 44:2	propose [1] 147:23	puzzling [1] 65:17	rather [6] 7:24
92:19 93:1 93:1	44:8 44:14 44:22	proposed [2] 126:23	PVC [6] 13:9 13:23	53:22 64:17 82:15
procedures [2] 26:19	44:23 44:24 44:25	127:25	140:23 142:6 142:9	178:12 190:7
92:11	47:3 47:11 47:23	protect [1] 97:15	142:25	rats [2] 175:2 175:16
proceeding [1] 128:2	49:21 50:19 50:21	protecting [3] 101:1	Pydraul [1] 96:20	rattled [1] 50:24
process [10] 21:14	55:17 57:12 66:20	101:7 101:10		raw [1] 30:13
22:9 24:17 43:19	66:24 67:2 68:10	protocol [2] 128:19	-Q-	Ray [1] 153:25
46:14 64:10 75:18	74:9 74:14 88:8	175:9	qualified [2] 49:23	RE [1] 198:10
93:13 163:15 167:24	90:9 90:9 91:25	protocols [1] 127:19	50:12	re-entered [4] 79:4
processing [4] 17:8	97:6 97:9 97:14	proven [1] 168:20	quality [2] 17:1	102:7 121:1 161:18
108:17 128:23 129:1	98:18 99:10 99:13	provide [4] 11:22	31:2	reach [1] 22:20
produce [3] 24:11	100:8 100:16 101:11	161:23 174:21 181:5	quantities [1] 106:20	reaction [2] 119:14
28:7 93:19	102:24 103:10 110:19	provided [12] 30:19	quarter [2] 27:25	121:4
produced [7] 2:12	112:15 113:1 113:19	31:19 31:21 89:19	39:5	reactions [2] 119:16
4:9 94:14 120:19	122:6 122:7 122:11	107:21 164:6 168:9	quarterly [4] 23:24	119:23
159:25 162:21 163:5	123:5 123:23 124:6	169:7 181:22 182:2	27:23 94:13 94:15	read [36] 51:9 51:11
producer [2] 89:22	124:25 127:13 128:10	182:11 185:22	query [2] 17:3	52:10 53:18 53:19
99:15	134:19 135:5 137:15	providing [7] 11:23	162:5	61:1 63:18 63:24
producers [2] 20:2	140:8 141:18 142:10	106:16 109:3 162:1	questions [38] 1:2	67:13 67:17 67:21
91:13	151:24 151:25 152:2	163:7 163:19 163:20	4:13 5:4 5:13	70:5 70:10 70:10
produces [1] 97:14	152:16 152:18 152:19	PRR [5] 1:9 55:24	12:4 50:22 56:19	70:16 70:19 92:20
producing [3] 23:12	155:22 156:18 157:18	77:8 93:22 95:3	63:19 63:21 67:9	96:14 100:9 104:15
93:5 93:18	162:17 162:20 165:23	public [11] 2:18	67:16 76:8 85:3	111:19 130:24 131:1
product [68] 9:24	167:21 174:6 185:13	4:4 57:5 64:6	87:18 107:3 108:16	146:15 146:25 148:21
10:1 11:1 11:2	185:15 189:25 190:5	64:16 65:4 65:15	108:21 115:3 121:14	160:22 172:6 172:9
12:8 12:13 13:13	190:10	97:22 196:5 197:23	121:20 126:10 126:22	183:15 184:25 185:3
16:20 17:4 18:7	Professor [4] 54:25	198:17	127:3 132:22 139:21	190:23 190:24 197:6
19:3 19:4 22:24	56:16 79:24 80:4	publication [4] 52:2	144:1 147:9 148:14	198:15
23:7 26:25 30:4	profit [3] 23:13	52:14 53:17 149:6	150:23 159:12 159:15	reading [4] 55:19
30:4 30:13 32:5	113:20 114:8	publicized [1] 134:6	159:19 166:11 166:16	94:25 97:1 136:6
39:24 40:3 40:11	profitability [2] 113:18 114:4	publish [3] 136:3	180:24 181:2 195:10	ready [2] 116:14
40:13 41:13 41:18	profitable [1] 97:14	143:12 189:11	195:11	168:4
42:2 42:12 43:10	profits [2] 140:7	published [6] 57:5	quick [2] 46:23	real [2] 70:2 190:11
60:2 60:5 72:2	195:5	72:22 86:4 167:5	159:15	realize [1] 56:1
84:12 114:22 120:16	program [25] 6:14	171:18 189:25	quite [6] 29:17 33:1	really [26] 11:17
120:17 120:22 123:12	27:5 27:12 31:6	Puget [1] 58:15	59:14 59:22 94:16	17:12 18:22 18:23
123:18 137:5 137:10	36:1 36:3 36:4	pull [4] 62:14 113:11	191:5	26:13 27:2 29:15
137:16 137:24 139:7	37:5 38:6 75:14	113:12 120:18	quote [26] 53:4	38:15 52:3 54:7
139:8 140:11 141:7	75:22 112:11 128:1	pulse [1] 33:8	59:16 59:18 59:20	54:20 55:14 57:8
141:19 142:14 146:21	134:12 134:14 135:4	purchase [1] 148:6	60:20 61:7 62:6	60:18 66:8 70:11
146:21 147:1 147:5	135:7 164:17 164:18	purchased [2] 152:16	62:7 65:15 65:16	78:17 149:22 150:17
147:21 147:22 157:12	168:13 174:5 174:16	191:20	80:2 80:4 97:13	152:13 163:14 168:1
157:15 162:22 164:14	174:17 174:25 175:19	programs [7] 115:5	97:16 97:19 97:25	168:2 168:20 176:13
164:24 165:22 172:25	programs [7] 115:5	134:1 134:10 134:11	101:6 101:9 105:14	177:15
173:2 173:6 178:22	143:11 189:9 189:20	143:11 189:9 189:20	106:11 110:19 111:5	realm [1] 75:24
178:24 179:21 194:8	progress [1] 115:5	purchases [3] 145:3	133:25 136:20 145:2	reason [12] 5:18
194:17	project [1] 40:7	145:6 145:7	149:5	5:23 54:2 56:6
production [4] 15:24	projected [1] 145:6	purchasing [2] 138:24	quoted [1] 65:23	78:6 78:17 92:8
17:5 28:6 97:24	projections [2] 25:4	147:12	quoting [1] 111:24	96:15 130:22 139:14
products [137] 8:18	27:23	purports [3] 78:2		139:19 158:9
9:11 10:2 10:7	prolong [1] 104:24	90:21 90:22	-R-	reasonable [1] 24:10
11:4 11:8 11:11	prolonged [1] 179:16	purposes [2] 8:6	R [1] 3:1	reasons [4] 29:19
11:14 11:25 12:2	promising [1] 136:1	150:5	R.E [1] 106:14	139:19 140:25 145:3
12:21 12:24 13:10	promote [1] 137:1	106:24	R.G [1] 132:3	recalled [2] 96:13
14:13 14:22 14:25	promoted [1] 39:24	pursued [1] 104:10	R.N [1] 132:12	96:14
15:8 15:12 16:17	promoting [5] 89:23	pursuing [1] 142:25	Rachel [4] 52:19	receive [4] 24:21
16:23 18:9 18:24	136:3 136:14 136:18	push [1] 45:6	53:5 53:18 54:5	25:24 94:8 94:18
19:16 19:24 20:3	138:1	put [10] 15:11 22:17	rain [1] 91:25	received [11] 21:5
20:5 20:15 21:1	promotion [1] 90:10	22:20 29:14 30:5	Ralph [5] 52:24	73:20 74:11 86:21
21:19 21:20 21:22	proofing [1] 185:12	38:16 108:15 114:10	53:6 53:19 54:11	95:15 146:7 146:9
22:1 22:5 23:13	properties [8] 12:3	127:18 187:22	54:13	146:10 147:7 162:2
29:9 30:12 30:25	29:10 31:1 141:2	putting [7] 15:22	range [6] 28:19	176:8
31:4 31:15 31:17		20:23 34:23 36:4		receiving [8] 74:8
32:24 33:1 37:23				74:13 121:18 121:20
37:24 38:4 40:5				
40:6 40:7 40:15				

JUNE 25, 1998

121:22 138:24 146:10 195:3	173:15	161:15 163:8 165:4 166:13 169:9 179:8 179:13 179:21 184:15 196:13	187:1 193:19 194:23 172:17	8:10 8:20 8:24 15:14 18:2 18:3 18:6 28:25 50:9 50:11 68:9 112:23 143:11 164:4 167:24 189:9
recent [3] 69:17	referencing [3] 191:21 193:2 193:11	relates [1] 161:6	remembered [1] 172:17	researchers [3] 18:12 18:19 48:13
158:2 173:17	referred [11] 34:16 87:14 88:7 88:8 88:18 98:1 119:12 144:17 155:16 180:8 193:8	relating [2] 96:6 97:8	render [1] 197:9	reserved [1] 4:6
recently [4] 29:1	referring [14] 7:20 7:25 8:7 18:1 51:22 52:16 55:8 60:23 70:22 101:13 121:3 126:15 184:2 191:25	relationship [2] 156:16 181:1	repeat [3] 5:7 74:12 190:17	resin [4] 89:22 89:23 141:1 177:7
56:15 158:3 158:16	refers [6] 70:24 87:17 95:22 97:17 105:23 130:21	relative [2] 158:5 196:14	rephrasing [1] 66:11	resins [5] 13:22 14:1 20:2 20:8 141:1
recipient [1] 192:17	refresh [4] 82:24 126:18 183:24 185:4	relatively [3] 30:20 158:2 173:13	replace [2] 112:24 147:1	resistance [6] 140:15 140:15 141:3 141:6 141:9 141:10
recognition [1] 90:10	refreshed [2] 48:16 166:16	release [4] 78:10 78:15 99:11 100:16	replaced [1] 150:10	resistant [2] 155:2
recognize [2] 89:8 154:18	refreshes [3] 96:8 181:14 181:15	releases [2] 100:1 106:2	replacement [3] 92:23 146:20 194:7	resistent [2] 154:24 155:3
recognized [1] 105:14	regard [25] 8:17 11:24 16:17 17:14 21:1 49:13 54:5 55:9 63:10 84:10 103:20 104:9 110:10 112:1 123:23 127:16 127:22 128:6 129:17 134:23 155:9 162:24 175:6 183:7 194:5	relevant [2] 160:1 178:13	replaces [1] 149:7	resolve [1] 134:9
recollect [2] 115:25 150:20	regarding [8] 60:22 61:6 61:24 63:5 104:19 181:2 189:14 191:15	relied [2] 22:10 49:23	reply [1] 164:1	respect [2] 87:1 102:24
recollection [24] 48:5 48:21 60:12 69:5 69:12 70:8 90:12 90:25 95:21 97:7 104:20 127:15 128:5 166:16 167:6 167:13 169:17 169:23 170:6 172:18 183:24 184:7 185:4 194:7	regardless [2] 102:10 170:22	relying [1] 146:13	report [12] 25:14 26:3 42:1 58:8 94:10 94:15 144:9 144:16 146:20 162:8 166:6 174:25	respected [1] 181:1
recommendation [5] 164:20 165:4 184:16 185:17 186:18	region [4] 33:12 34:7 35:4 154:7	remain [13] 8:20 9:13 10:15 12:20 14:2 39:15 39:19 40:3 42:6 44:17 45:10 45:24 46:5	reported [15] 15:18 34:10 41:10 42:3 42:10 42:23 78:25 80:18 80:19 81:1 84:11 95:5 102:14 154:2 180:23	respond [1] 111:23
recommendations [4] 15:23 20:24 105:13 121:24	regional [23] 24:2 24:8 25:4 26:1 33:14 33:18 34:1 35:6 35:10 35:19 35:25 119:9 121:5 128:20 132:10 132:12 132:15 132:20 144:24 145:15 145:15 154:7 188:9	remained [2] 8:22 45:17	reporter [17] 2:17 5:15 58:24 63:15 76:12 87:22 107:8 115:11 125:22 129:22 144:6 148:17 149:12 151:5 154:10 157:1 196:5	responding [1] 132:22
recommended [4] 82:14 82:16 100:5 187:11	regions [2] 21:8 21:9	remember [124] 7:18 9:1 12:15 13:11 16:11 19:1 19:7 22:6 27:11 27:12 27:19 30:18 36:19 37:5 38:7 39:2 39:14 40:10 40:16 42:4 44:11 44:23 47:9 48:17 50:23 51:1 54:23 55:6 57:22 60:5 64:11 64:13 64:14 64:15 68:3 68:17 71:5 71:18 72:3 72:24 73:9 73:11 73:23 73:24 74:1 74:7 74:8 74:13 74:16 74:25 81:7 83:1 84:3 84:9 84:21 86:5 87:7 87:8 88:7 92:5 95:18 95:19 96:8 96:25 97:25 98:6 99:8 100:13 100:22 101:22 104:9 104:22 105:3 105:7 105:18 109:3 110:3 110:13 110:21 112:13 112:19 112:21 112:22 113:1 113:10 114:12 119:14 119:22 121:10 121:13 121:18 121:24 122:9 122:14 122:17 125:17 126:8 126:21 127:7 127:10 127:16 129:6 130:10 131:13 131:23 135:15 150:21 152:9 152:10 152:14 152:15 152:20 152:21 153:2 153:7 153:9 157:21 158:4 159:6 176:16 178:19	reports [18] 23:23 25:9 25:10 25:15 25:25 26:17 27:21 27:23 50:2 75:25 76:5 94:8 94:13 94:18 95:15 100:9 156:14 169:15	response [3] 147:20 148:3 180:9
recommending [3] 83:1 170:14 188:15	regional [23] 24:2 24:8 25:4 26:1 33:14 33:18 34:1 35:6 35:10 35:19 35:25 119:9 121:5 128:20 132:10 132:12 132:15 132:20 144:24 145:15 145:15 154:7 188:9	remembered [1] 172:17	reporting [7] 34:14 40:8 42:15 45:15 80:25 92:19 198:2	responsibilities [18] 10:5 10:11 12:13 15:3 18:7 22:4 28:10 40:12 42:11 43:17 49:6 49:8 49:13 68:11 82:6 107:23 139:24 163:17
record [21] 25:18 27:4 27:6 61:2 63:16 76:14 76:15 77:7 93:22 95:24 95:25 107:9 129:23 144:2 144:3 144:7 148:18 151:6 154:11 157:2 196:11	regional [23] 24:2 24:8 25:4 26:1 33:14 33:18 34:1 35:6 35:10 35:19 35:25 119:9 121:5 128:20 132:10 132:12 132:15 132:20 144:24 145:15 145:15 154:7 188:9	remains [1] 8:22 45:17	represent [5] 52:13 79:15 151:12 159:3 159:22	responsibility [21] 11:15 14:13 14:14 14:24 16:8 17:19 41:3 41:6 42:17 43:8 48:23 50:1 53:22 55:17 73:5 88:9 106:13 113:17 119:6 128:19 188:10
recycle [2] 176:6 178:1	regions [2] 21:8 21:9	remains [1] 8:22 45:17	representation [5] 76:18 76:21 76:23 76:25 171:11	responsible [14] 10:6 15:21 21:16 21:17 49:20 53:20 97:7 97:9 99:5 105:19 108:9 118:24 153:22 154:4
recycling [1] 22:9	regions [2] 21:8 21:9	remains [1] 8:22 45:17	representatives [3] 59:21 174:9 174:9	restrictions [1] 97:23
reduce [1] 147:23	regions [2] 21:8 21:9	remains [1] 8:22 45:17	represented [1] 120:20	restructuring [1] 46:9
reduced [1] 196:11	regions [2] 21:8 21:9	remains [1] 8:22 45:17	representing [1] 4:18	result [4] 98:8 151:16 151:19 155:14
REF [1] 173:18	regions [2] 21:8 21:9	remains [1] 8:22 45:17	reprinting [1] 143:10	resulting [1] 183:16
refer [9] 7:20 7:24 8:6 41:11 51:22 102:1 116:24 163:23 165:21	regions [2] 21:8 21:9	remains [1] 8:22 45:17	request [2] 151:19 160:1	results [7] 137:6 138:12 158:16 158:21 172:23 173:17 175:16
reference [33] 39:3 59:12 77:12 78:19 79:21 80:2 81:8 81:17 82:20 83:8 83:10 83:25 84:20 89:4 110:25 144:22 149:4 150:6 151:23 156:19 159:7 162:2 179:15 179:16 181:6 183:11 185:20 187:19 187:24 188:4 189:5 193:14 194:19	regions [2] 21:8 21:9	remains [1] 8:22 45:17	research [20] 7:7 7:8 7:10 7:12	retains [1] 141:6
referenced [1] 167:3	regions [2] 21:8 21:9	remains [1] 8:22 45:17	research [20] 7:7 7:8 7:10 7:12	retardant [4] 140:18 140:19 141:2 141:5
references [8] 79:20 81:3 85:24 86:11 95:20 126:14 172:13	regions [2] 21:8 21:9	remains [1] 8:22 45:17	research [20] 7:7 7:8 7:10 7:12	

retention [2] 27:5 27:6	risk [1] 100:16	154:7 188:9 188:11	scene [1] 53:8	selling [12] 20:4
retire [2] 46:8 46:11	risks [5] 179:12 179:20 180:1 181:7 193:12	188:16 189:13 191:2	Schalk [6] 36:17 36:18 36:20 68:13	23:12 28:22 108:13
retirement [1] 46:7	River [5] 95:23 96:5 96:7 96:11	100:9 123:11 123:18	148:20 192:4	123:11 124:6 124:19
return [1] 198:18	96:21	138:19 144:17 145:5	schedule [2] 28:3 37:3	124:24 145:17 157:19
returned [1] 193:4	Road [2] 2:16 196:7	145:16 146:4 148:5	Schroeder [1] 198:2	191:8 191:8
revenue [3] 23:7 24:11 27:22	Roder [1] 154:1	153:21 154:1 162:4	science [1] 53:11	seminar [1] 29:7
revenues [3] 23:8 24:1 25:3	role [4] 26:6 64:8 115:7 149:24	salesman's [1] 145:14	scientific [1] 53:14	seminars [1] 32:1
reverse [1] 139:16	Roman [2] 175:1 176:4	salesmen [19] 21:8 32:15 90:7 121:14	Scientist [6] 52:1 52:14 53:5 53:7	send [4] 26:12 133:4 144:18 183:23
review [6] 28:1 37:20 120:2 158:16 158:22 191:1	room [8] 77:4 79:4 85:4 102:7 118:1 121:1 160:10 161:18	123:3 124:5 124:18 124:24 125:7 125:10	53:13 87:14	sending [4] 92:20 151:19 193:1 193:10
reviewed [1] 191:17	Rosen [1] 2:8	125:18 128:21 137:4 137:21 139:5 139:9 139:16 140:1 145:8	scientists [1] 136:2	sense [1] 46:10
reviewing [4] 158:21 166:15 173:16 186:21	rough [1] 108:24	salespeople [39] 11:19 11:23 22:10 25:16 28:18 30:2	scope [1] 40:7	sent [19] 12:9 48:11 48:12 74:4 76:6
reviews [2] 22:24 27:25	Roush [6] 59:5 59:7 60:19 62:7 62:15 154:2	30:21 30:21 31:21 32:6 33:4 33:14 34:20 35:10 35:10 35:25 37:6 37:20 37:22 73:21 74:6	Scotland [1] 6:8	78:11 124:8 125:4 133:3 133:13 137:19 145:5 149:24 151:16 164:1 183:22 184:4 191:14 197:25
revised [7] 133:2 133:6 133:8 133:9 183:15 183:21 184:12	routine [1] 42:22	88:21 118:4 121:11 122:5 125:4 136:25 137:14 139:1 161:21 163:21 164:9 164:23 165:3 166:2 188:8 189:14 190:14 191:2	seal [1] 196:17	sentence [21] 52:6 57:2 57:2 59:13 60:25 65:21 70:16 70:23 70:23 71:25 72:20 75:2 89:15 97:19 101:6 110:18 111:1 115:22 133:25 136:19 137:25
revision [7] 133:16 133:17 183:8 183:10 183:19 183:25 187:5	routing [1] 57:10	salesperson [7] 28:20 28:21 89:1 145:21 147:7 153:19 154:5	scalants [2] 185:11 189:10	sentences [2] 135:24 136:9
revisions [4] 23:24 184:7 184:15 185:5	row [1] 176:2	salespersons [2] 21:8 25:9	sealed [2] 170:21 177:9	separate [2] 21:18 89:4
Richard [24] 50:9 50:18 68:4 68:9 69:16 70:9 71:16 72:6 72:8 72:10 72:21 75:2 82:22 83:8 83:22 84:19 102:11 103:19 106:13 173:16 173:20 174:2 176:1 176:23	rubber [1] 20:11	samples [2] 74:2 74:17	section [11] 13:7 13:7 50:11 86:14 107:20 109:14 109:22 110:18 111:24 116:21 119:13	separately [1] 21:22
Richard's [3] 69:24 70:1 84:25	running [1] 162:13	sampling [3] 95:22 96:4 175:23	sea [2] 55:10 69:6	September [2] 101:10 102:8
Richardson [1] 81:9	runs [2] 18:16 24:23	San [2] 55:8 175:23	seal [1] 196:17	series [3] 5:4 97:14 113:2
rid [1] 27:13	rush [1] 59:3	sandy [1] 92:22	scalants [2] 185:11 189:10	serious [1] 160:11
right [29] 2:4 2:22 5:15 6:5 14:24 26:11 38:22 47:4 47:15 56:13 56:17 57:1 61:7 67:9 81:20 82:14 92:3 93:20 118:11 137:11 139:22 141:16 141:16 142:17 171:16 171:25 175:11 176:14 192:1	S [1] 3:1	Santicizer [1] 142:10	seasonality [1] 25:22	seriously [1] 156:17
right-hand [2] 131:8 172:2	safe [1] 171:12	sat [1] 34:25	second [9] 15:21 57:2 70:14 97:3 101:4 116:25 149:3 149:4 182:16	serve [2] 16:14 45:2
ring [4] 82:13 85:21 135:23 145:18	safety [4] 140:15 141:10 178:22 178:22	satisfaction [1] 162:7	section [11] 13:7 13:7 50:11 86:14 107:20 109:14 109:22 110:18 111:24 116:21 119:13	service [17] 9:6 9:24 10:4 10:16 15:15 16:16 17:15 18:1 18:13 18:15 30:24 32:2 42:21 89:12 153:16 166:2 166:5
rings [2] 50:16 82:11	sale [5] 101:7 104:25 137:6 188:24 190:15	satisfactory [1] 17:13	see [43] 14:3 23:18 25:1 25:13 56:11 57:3 61:19 65:11 70:2 71:24 72:5 79:3 80:13 81:2 82:24 90:18 94:16 98:4 102:5 104:3 106:10 108:12 112:8 115:18 115:19 118:16 126:6 126:6 126:15 130:3 131:9 131:14 131:24 144:12 150:9 150:13 157:8 157:9 172:21 175:14 177:25 184:22 185:22	services [1] 17:15
Risebrough [18] 54:25 55:3 55:9 55:14 56:16 58:11 58:18 66:14 66:19 68:24 69:17 70:5 71:24 72:21 85:23 86:11 86:12 175:24	sales [94] 11:21 15:9 15:20 15:24 16:2 16:3 16:21 21:5 21:6 21:7 22:15 22:19 22:25 23:11 24:3 24:9 24:16 25:4 26:4 28:2 28:11 28:13 29:6 31:10 32:1 32:3 33:9 33:10 33:12 33:18 34:1 34:19 35:7 35:7 35:14 35:20 35:22 36:8 36:12 36:14 36:21 37:13 37:24 38:10 39:11 42:21 88:4 97:16 97:24 98:18 101:1 101:10 108:12 109:18 113:18 115:14 117:9 117:22 119:8 119:9 119:9 121:25 123:4 123:7 123:16 123:22 125:11 127:6 127:7 128:4 128:20 129:4 132:20 136:21 137:1 138:1 139:2 139:12 139:15 139:20 139:24 140:6 144:24 145:9 145:11 145:15 145:16 154:7	saw [15] 24:13 53:8 65:7 66:17 66:19 70:5 82:21 92:21 109:15 111:7 120:12 122:18 143:20 166:11 174:19	seeing [13] 48:21 52:4 85:1 86:10 105:7 105:10 119:22 126:8 126:21 133:7 152:22 175:9 193:19	set [7] 21:18 139:25 140:1 141:16 145:8 190:7 196:16
Risebrough's [4] 57:18 70:6 73:1 173:18		says [42] 4:11 52:7 56:15 59:20 62:1 65:16 69:16 71:25 75:3 78:8 81:21 81:22 85:25 89:11 92:4 92:16 97:19 101:6 104:5 112:11 115:23 116:22 117:2 117:5 117:18 118:13 130:12 133:24 133:25 134:10 135:24 136:17 136:20 143:10 143:19 145:2 147:3 172:1 172:2 183:17 185:9 189:8	seek [2] 82:15 103:19	setting [1] 174:4
		scale [2] 39:22 114:8	seeking [2] 104:9 105:4	several [13] 18:6 30:23 31:8 48:14 50:6 57:25 59:10 160:13 161:8 166:10 166:11 176:12 189:25
			seem [22] 48:9 55:4 74:1 74:2 84:21 95:19 96:8 99:15 107:15 112:19 112:22 114:23 127:1 128:2 129:16 131:13 152:13 153:5 171:14 179:23 193:13 193:18	share [1] 29:16
			selected [1] 45:8	sheets [4] 178:23 198:14 198:16 198:18
			sell [3] 28:4 123:18 170:16	shipment [1] 17:7
				shipped [1] 17:7
				shoot [1] 157:4
				short [6] 25:3 25:6 25:7 41:2 46:24 159:17
				shortages [2] 30:13

30:13		45:3		sought [1]	42:24	33:3	33:18	33:20	101:3	116:6	116:18
shorter [1]	7:23	size [1]	23:7	Sound [1]	58:15	33:24	39:8	45:13	133:19	133:24	137:14
shorthand [3]	2:17	skeptical [1]	53:16	source [4]	21:3	55:16	117:6	146:12	137:16	138:5	143:21
4:3	196:5	skimmed [2]	67:19	24:5	29:22	153:3	153:5	188:13	143:24	155:15	157:17
shoulder [1]	171:22	174:16		sources [1]	97:4	196:3	196:5	196:20	166:11	167:18	175:20
show [17]	51:6	skimming [1]	59:4	space [1]	41:2	197:2	198:3	198:22	192:18	192:24	
55:20	65:18	skin [1]	179:17	speak [1]	116:15	stable [1]		141:4	STIPULATED [1]		
78:13	79:8	Skip [1]	82:19	spearhead [1]	45:10	stack [1]	67:15		4:1		
85:11	87:23	Skipping [3]	65:13	spec [1]	17:3	stage [5]	17:24	18:23	stored [1]		185:13
103:13	108:22	71:15	71:23	special [2]	11:23	34:24	84:6	100:22	strategize [1]		113:10
130:15	171:19	slash [3]	81:18	143:23		stake [1]	107:21		Street [1]		3:16
182:16		172:2		specialist [13]	11:1	stamp [1]		182:14	strike [3]		92:11
showed [9]	87:13	Slayton [3]	153:22	11:3	12:8	Stamped [1]		107:10	170:24	191:13	
103:8	120:13	153:23	154:4	12:21	12:25	stand [2]		164:14	strive [1]		195:5
120:21	120:23	slightly [1]	62:12	47:11	88:2	171:21			strong [2]		28:23
182:14	183:6	Smith [1]	3:15	89:20	90:6	standards [1]		127:21	170:1		
showing [3]	26:9	soften [3]	142:9	specialists [3]	30:4	standpoint [3]		135:25	struck [1]		91:8
116:11	172:16	142:12	142:12	32:5	143:20	141:10	179:3		stuck [1]		105:11
shown [20]	30:24	softened [1]	14:1	Speciality [1]	88:6	start [5]	6:3	6:25	studied [1]		98:25
58:25	102:4	softening [1]	142:15	specialty [3]	8:10	23:6	85:24	175:14	studies [21]		55:9
115:12	116:9	sold [6]	12:2	13:23	41:8	started [7]		7:1	66:17	74:18	75:15
117:14	120:6	100:8	106:21	species [1]	58:12	21:14	27:13	38:23	75:19	76:1	81:24
120:14	125:23	179:5		specific [24]	11:24	41:6	45:22	159:16	86:4	98:14	102:19
160:11	160:13	solution [1]	135:2	18:24	19:1	starting [3]		21:9	134:16	140:8	158:2
170:2	182:9	solve [3]	134:1	28:17	39:2	38:25	49:7		159:7	167:3	168:14
192:11		140:9	189:20	49:8	56:25	starts [3]		57:10	168:25	169:4	169:12
shows [1]	138:1	Solvents [2]	118:15	71:2	104:23	70:19	101:4		174:15	175:3	
side [4]	23:5	someone [8]	28:22	119:3	123:6	state [9]	62:19	84:22	study [11]		
42:19	172:2	29:1	52:20	162:9	163:7	94:23	95:4	95:6	54:25	84:14	101:20
sides [1]	141:12	114:10	160:1	164:11	167:6	176:3	189:19	196:2	103:7	157:22	158:6
sign [2]	139:11	179:1		175:6	185:9	197:1			158:16	159:1	159:7
signature [11]	4:5	sometime [21]	7:3	specifically [33]			statement [29]	61:10	169:10		
78:4	78:5	8:23	14:3	12:16	15:2	16:16	61:17	62:4	studying [1]		
78:15	79:17	21:14	39:5	17:16	18:12	31:15	62:9	62:11	stuff [2]	80:11	142:14
197:24	198:14	44:9	45:5	34:6	46:20	47:23	64:16	65:4	subject [4]		83:20
198:18		48:6	53:8	51:23	57:20	57:22	78:9	82:14	110:8	120:22	152:11
signed [1]	78:3	55:5	74:24	58:1	71:19	72:18	87:4	87:16	subscribe [1]		
significance [2]		135:13	166:23	72:18	83:15	87:9	97:4	97:13	197:11		
96:11	105:16	191:18	194:4	94:21	96:18	98:1	105:14	106:11	subscribed [1]		53:5
significant [3]	25:18	sometimes [8]	8:5	99:9	99:23	109:4	132:1	133:1	subsequent [2]		185:6
39:10	162:23	15:9	17:9	117:22	118:13	118:24	134:5	149:4	192:6		
significantly [3]		27:25	35:13	119:23	121:3	143:9	183:7		subset [1]		
25:7	25:20	156:1	36:4	165:6	180:5	191:24	statements [3]	62:15	substance [9]		66:13
silos [3]	19:25	somewhat [5]	41:22	specifics [10]			108:2	108:3	68:18	68:22	69:1
185:12		42:13	124:1	19:21	30:17	37:8	states [21]	2:1	69:20	72:3	98:1
Simandle [1]	2:7	173:4		37:18	51:2	55:6	2:18	2:20	125:10	197:8	
similar [7]	10:10	somewhere [9]	26:22	106:18	114:18	123:25	46:3	53:10	substances [1]		
10:13	41:22	28:25	39:4	speculate [1]			61:3	71:16	69:6		
65:9	83:2	40:2	84:23	speculating [1]	108:18		86:14	95:14	substantive [2]		8:10
simpler [1]	141:20	175:15	180:19	speed [1]	67:20		172:12	174:23	103:4		
simply [1]	89:25	sorry [13]	6:10	spent [2]	30:23		178:1	183:20	substitute [1]		112:14
Sincerely [1]	198:20	18:9	52:22	165:1			188:20	196:6	substitutes [1]		112:12
sincerity [1]	136:1	74:11	81:19	Spirits [8]	2:10		stating [2]			104:15	
sit [9]	22:23	93:23	96:1	2:24	3:7	8:4	72:6		successor [2]		116:1
74:24	75:5	122:25	141:25	118:15	118:18	118:25	stay [1]	28:3	116:3		
100:11	139:20	122:25	141:25	198:11			stayed [1]		36:25		
189:23		sort [23]	11:21	spoke [1]			stays [1]	175:22	such [9]	11:11	46:10
site [1]	175:25	16:4	16:4	spot [2]	63:22	144:24	step [2]	22:23	71:17	73:7	102:2
sitting [2]	153:7	20:20	22:20	spread [1]	176:5		steps [7]	70:15	136:23	147:5	197:7
193:20		24:21	27:5	Springate [4]	68:13		70:24	71:2	197:10		
situation [10]	22:15	29:19	30:14	121:19	121:23	155:12	124:11	140:9	sufficient [1]		177:21
70:3	70:8	37:20	48:9	springs [2]	19:20		Stewardship [1]			150:10	158:11
123:25	134:2	91:6	108:7	19:23			178:24		suggest [3]		131:16
148:13	177:21	127:6	160:22	squiggle [1]	144:13		stick [1]	31:12	suggested [5]		92:2
situations [1]	142:7	sorted [2]	135:1	St [23]	2:17	4:4	still [22]	42:16	112:24	113:2	157:22
six [3]	2:14	141:22		10:19	10:25	26:22	71:16	80:12	159:7		
									suggestion [1]		122:4

JUNE 25, 1971

Suite [2] 3:5	3:16	62:5	73:12	136:24	113:1	thousands [2]	120:18	141:12	142:13	149:9
summaries [1]	38:16	Tammie [6]	2:17	terphenyls [8]	14:18	three [13]	15:5	took [13]	23:20	41:1
summary [2]	86:14	4:4	130:25	14:19	14:23	16:7	28:10	64:12	75:7	79:16
143:14		196:20	198:22	83:3	101:9	41:5	45:4	110:3	117:9	141:24
summer [1]	95:15	tank [1]	128:14	194:11		69:19	69:20	142:1	156:17	162:25
superior [2]	13:15	target [2]	23:3	territory [1]	32:9	111:20	111:25	167:24	179:11	
22:8		33:16		tested [1]	30:25	throats [4]	60:22	top [14]	92:1	97:12
supersede [1]	150:1	targeted [1]	88:21	testified [7]	61:14	61:6	61:24	104:1	104:5	104:6
supersedes [1]	149:7	tasks [2]	28:17	130:7	161:5	Throdahl [2]	77:12	105:12	109:9	109:12
supervised [2]	12:11	tax [1]	54:14	167:1	180:9	77:13		111:3	111:18	155:11
42:20		Taylor [1]	198:2	testifying [1]	179:7	through [27]	8:24	171:25	182:22	183:2
supervisor [4]	12:24	team [1]	154:25	testimony [3]	5:14	16:2	24:9	topic [2]	36:5	47:10
26:5	41:23	tech [1]	153:16	5:19	196:12	31:8	44:15	total [2]	8:22	45:15
42:6		technical [71]	9:6	testing [8]	82:3	63:17	67:11	totaled [1]		21:23
supervisors [1]	17:6	9:24	10:4	169:8	169:22	88:1	88:14	totally [1]		177:16
supplied [3]	90:2	11:24	12:5	173:21	173:22	94:15	105:8	touch [1]		17:5
121:14	122:11	12:9	15:14	174:10		126:4	149:17	Touchette [1]		17:21
supplier [1]	155:20	16:4	16:15	tests [8]	82:15	164:1	166:6	touching [1]		196:9
supply [3]	90:5	17:15	18:1	102:18	169:18	171:24	174:16	toured [1]		31:2
152:12	193:2	18:13	18:15	175:1	175:6	182:17	185:8	toward [1]		189:13
supplying [1]	89:13	28:13	28:21	thank [5]	59:25	throughout [1]	39:9	toxic [6]	69:2	69:9
support [14]	11:21	28:25	29:2	61:8	62:25	tile [1]	33:2	69:20	102:20	168:16
15:16	16:4	29:4	29:24	195:9		tiles [2]	19:9	169:16		
18:8	28:13	32:1	32:3	thanks [1]	155:10	timely [1]	72:22	toxicity [6]		102:21
49:21	82:16	56:15	58:3	themselves [1]	114:11	times [17]	17:23	168:11	169:9	179:21
106:16	115:7	89:12	100:4	theory [4]	52:7	23:7	27:18	181:2	190:11	
161:21		112:23	131:6	52:16	54:18	29:16	31:11	toxicologists [2]		
supporter [1]	54:13	132:23	133:5	therefore [14]	30:9	34:21	35:21	traces [2]		86:15
supporting [3]	11:18	142:7	143:3	42:15	53:12	57:25	160:4	87:10		
23:12	136:12	149:14	150:2	65:16	99:15	161:8	161:9	track [5]	61:2	65:3
supposed [2]	137:14	150:10	150:11	137:8	137:21	161:13		102:14	161:12	175:20
156:23		162:2	162:16	155:3	155:23	161:13		training [6]		29:7
supposedly [1]	69:7	163:9	165:21	190:7		129:17		29:22	30:2	30:19
surface [5]	19:22	166:5	166:8	thereon [1]	197:10	title [9]	9:2	31:19	31:21	
19:25	20:8	179:13		thereupon [1]	196:10	40:5	42:4	transcribed [2]	4:5	
180:2		182:13	185:6	Therminol [11]	43:11	102:3	117:18	5:14		
surprise [5]	73:19	185:21	186:11	60:2	60:23	157:13		transcript [3]	1:21	
80:7	112:4	187:7		61:19	62:6	titles [1]	9:1	7:23	198:16	
121:9	112:4	technically [3]	11:19	63:11	151:18	today [41]	4:21	transcripts [1]	77:3	
surprised [1]	109:7	30:20	50:12	152:1		5:3	5:14	transfer [7]	40:25	
Sutton [1]	153:25	technology [1]	174:2	Therminols [1]	193:8	8:6	54:17	41:11	60:13	60:15
swear [3]	39:18	telephone [1]	153:9	thesis [1]	6:14	64:1	64:25	151:18	154:24	170:19
116:5	165:16	telling [2]	151:18	thickness [2]	183:4	71:9	74:24	transition [2]	186:25	
Sweden [6]	47:6	181:18		183:5		77:9	79:12	192:25		
66:14	103:7	temperatures [1]		thinking [9]	20:17	82:21	103:9	traveled [1]	39:8	
170:5	170:7	93:13		20:18	70:2	107:14	120:3	treating [1]	53:11	
Swedish [2]	48:13	ten [2]	125:11	91:8	102:2	120:12	120:20	trial [3]	5:18	84:19
81:5		tend [1]	30:14	141:15	178:12	126:2	130:1	198:19		
swimming [1]	185:11	tended [2]	33:19	third [12]	8:4	148:25	149:19	tried [8]	22:20	26:14
switchboard [1]		119:7		57:2	57:2	157:6	166:11	29:8	29:10	33:12
15:10		tenure [6]	19:2	65:13	69:19	170:2	178:11	33:13	34:10	103:7
switched [1]	96:19	21:24	41:13	90:11	90:15	186:21	191:17	tries [1]	123:18	
switching [1]	122:6	126:16	133:8	111:23	118:10	193:20		trip [1]	152:15	
sworn [3]	2:12	term [8]	13:25	thirdly [1]	16:1	today's [4]	160:5	truck [1]	128:17	
4:9	196:9	170:1	171:16	this's [2]	77:2	160:6	178:12	trucks [1]		128:14
system [5]	30:3	180:13	189:3	186:13		together [17]	15:22	true [6]	135:3	156:6
165:12	170:19	term-like [1]	178:24	thought [29]	23:25	18:16	20:23	156:8	196:11	197:9
178:21		terminology [1]		26:9	26:11	33:14	35:22	197:13		
systems [8]	99:22	14:9		38:13	53:9	38:17	51:2	trust [1]	4:19	
170:19	176:5	terms [19]	18:23	53:21	53:22	61:1	91:10	truth [3]	87:3	196:9
176:19	176:21	29:11	62:16	61:14	77:24	114:11	117:16	try [13]	17:11	22:13
178:7		99:22	103:3	98:15	98:25	187:22				
		106:19	115:2	102:2	119:19	Tom [1]	42:3			
		123:24	134:13	124:15	128:12	too [12]	11:17			
		134:15	134:23	133:20	155:4	29:25	33:21			
		156:11	162:4	174:20	176:20	56:5	72:19			
		164:15		185:7						
		terphenyl [2]	44:14							

24:6

25:7

27:18

35:15

67:4

102:19

123:16

136:8

139:1

139:16

155:5

trying [25]

11:19

12:1

12:4

27:18

38:5

67:20

69:13

70:3

72:16

78:22

98:18

99:3

99:4

99:12

102:14

102:16

108:13

134:6

134:8

134:16

138:5

139:24

156:17

168:15

191:10

Tucker [1]

173:17

Turet [95]

1:3

3:19

4:13

4:17

19:13

19:22

27:20

38:3

39:15

43:25

46:23

46:25

47:14

48:4

49:25

50:14

51:10

51:12

51:14

51:15

51:25

52:19

53:3

53:4

54:11

54:17

54:23

55:24

55:25

56:20

57:1

57:9

58:21

58:22

58:25

59:18

59:20

60:1

60:25

61:2

61:9

61:16

62:3

62:10

62:18

62:23

63:1

63:3

63:8

63:13

63:16

63:20

63:25

65:8

65:13

65:23

66:3

66:10

67:6

67:24

67:25

68:17

69:15

70:13

71:15

72:20

75:17

76:9

76:20

77:2

77:5

79:5

83:24

85:5

85:10

85:15

85:19

86:25

87:8

87:18

87:20

87:23

90:17

91:16

92:24

93:11

93:20

93:25

94:3

94:4

95:2

95:4

95:9

95:13

95:24

96:3

96:25

99:7

100:14

101:22

102:8

103:4

103:25

106:9

107:5

107:9

107:12

110:11

111:17

112:20

113:15

114:3

114:12

114:19

115:9

115:12

118:2

118:10

120:6

120:11

120:15

121:2

122:22

122:2

123:17

123:21

124:22

125:6

125:20

125:23

126:8

126:14

127:2

129:14

129:20

129:23

129:25

130:19

130:20

131:2

131:5

131:16

135:18

135:24

136:19

137:13

138:14

138:23

139:14

139:22

141:23

143:1

143:14

144:2

144:4

144:7

144:10

146:2

146:23

147:3

148:4

148:15

148:18

148:23

148:24

149:9

149:13

149:16

149:18

151:2

151:6

151:8

154:8

154:11

154:15

154:16

156:5

156:24

157:2

157:5

158:4

159:12

161:9

161:19

180:7

180:9

181:25

182:14

182:18

183:6

186:13

194:18

195:11

198:18

198:24

Turet's [1]

120:23

turn [4]

24:5

38:13

50:18

115:22

turned [1]

54:19

turning [1]

136:14

turns [1]

141:7

twenty-one [1]

78:11

twice [1]

152:8

two [19]

3:9

9:14

10:17

20:12

34:12

48:12

60:19

67:10

68:15

69:11

74:16

78:8

86:10

95:20

139:4

163:4

167:17

179:18

192:11

two-page [1]

30:5

type [23]

13:23

17:19

20:22

20:22

29:14

32:23

56:1

91:19

94:1

108:4

117:25

118:2

143:20

144:16

145:4

147:6

160:3

162:19

169:8

170:22

174:4

179:1

181:21

typed [2]

146:11

types [6]

28:17

37:12

38:5

46:15

107:22

190:1

typical [1]

38:8

typically [7]

33:18

33:25

34:19

34:23

36:23

144:23

147:6

typo [2]

79:1

156:21

-U-

U.K [6]

7:12

53:8

53:9

53:25

133:4

183:23

U.S [6]

103:11

103:12

127:21

133:3

183:23

188:10

U.S.D.J [1]

2:7

U.S.M.J [1]

2:8

ultimate [1]

108:1

ultimately [7]

111:8

127:13

127:24

139:12

139:13

140:10

183:19

umbrella [3]

13:25

18:13

134:4

uncertain [2]

165:17

166:12

under [16]

18:13

78:15

79:20

80:14

81:20

83:7

108:1

109:18

112:8

112:10

118:23

138:14

145:2

154:21

196:10

197:12

understand [16]

5:6

5:13

5:17

7:20

7:25

12:2

13:19

27:20

52:15

67:12

88:20

134:6

169:10

176:9

190:21

191:10

understood [2]

5:9

58:18

undertaken [2]

104:24

112:13

undertaking [1]

50:19

underway [9]

97:15

134:1

134:10

134:11

134:12

135:4

143:11

189:9

189:20

undivided [2]

33:22

33:23

unfolding [1]

138:5

unique [1]

134:23

United [2]

2:1

2:19

university [3]

6:7

6:11

56:17

unless [3]

62:20

91:13

159:2

unlikely [2]

82:5

84:13

unsure [1]

66:7

unusual [10]

56:4

89:24

92:11

92:25

93:12

93:18

153:17

156:3

173:4

173:14

up [46]

15:24

21:23

22:4

25:4

25:23

26:12

32:12

36:9

38:20

45:23

48:18

48:25

54:21

55:7

65:18

67:20

90:4

92:9

94:11

106:11

112:14

123:10

123:22

123:22

130:6

131:15

133:24

134:8

136:14

138:9

141:7

141:15

145:25

155:11

155:25

162:13

163:9

166:8

168:19

169:5

171:24

174:4

175:20

194:22

195:2

195:6

upper [1]

77:24

usage [1]

175:25

used [45]

8:13

12:2

13:9

13:22

19:15

19:25

20:1

20:5

27:10

29:9

29:11

29:25

30:2

30:12

31:25

53:13

54:10

62:16

89:25

91:24

92:19

93:9

99:23

106:21

127:20

140:14

142:18

142:23

143:22

170:18

176:5

176:17

176:19

177:8

177:13

177:23

177:24

178:1

178:6

179:8

185:14

188:4

194:5

194:23

194:25

useful [2]

36:10

175:13

users [1]

70:20

uses [34]

71:17

71:20

72:2

91:22

97:16

99:9

99:16

100:10

101:1

101:8

101:10

135:10

162:25

163:19

164:7

165:5

165:18

165:23

168:23

169:24

170:14

173:18

176:7

178:3

182:6

184:17

185:17

188:4

188:25

189:6

189:14

189:17

190:16

191:3

using [12]

14:8

20:14

29:18

61:3

102:18

110:19

113:8

127:12

128:18

139:8

153:19

169:12

usual [1]

93:17

usually [7]

21:14

26:3

34:2

137:5

146:3

148:10

148:10

-V-

v [2]

2:5

2:8

vague [1]

60:12

vaguely [10]

74:1

74:16

84:21

95:19

112:16

112:19

112:20

112:22

152:9

152:13

valuable [1]

156:13

valued [1]

155:22

vapor [3]

105:16

105:20

105:16

105:20

varied [2]

18:25

150:4

variety [2]

140:25

142:6

various [10]

17:23

24:2

51:3

143:11

171:17

175:2

187:18

187:24

189:8

191:20

vary [2]

29:2

38:14

venture [1]

45:22

verbatim [1]

65:24

versus [9]

152:16

165:12

165:14

165:18

175:24

177:15

177:19

184:8

188:25

Video [1]

198:2

vinyl [2]

13:8

140:23

visit [3]

32:2

118:17

153:5

visited [4]

12:17

25:10

118:14

152:7

visiting [3]

10:8

119:12

153:6

visits [1]

153:1

vital [1]

28:5

vocabulary [1]

178:25

Vol [1]

69:17

volume [4]

23:7

24:12

39:11

156:11

volumes [3]

109:17

109:18

179:5

vs [1]

198:10

-W-

W [2]

173:15

173:20

W-A-Y-C-H-O-F-F

[1]

13:14

W-I-L-D-E [1]

80:13

W.K [1]

57:11

W.R [1]

106:13

wait [3]

25:12

62:5

104:4

Wally [1]

36:19

Walt [4]

26:9

38:12

41:24

144:13

Walter [6]

13:13

22:23

36:17

80:22

80:25

148:19

wanting [1]

148:8

warning [3]

129:8

191:12

191:12

warnings [1]

127:12

Washington [1]

158:20

water [6]

58:13

95:16

127:14

129:9

175:23

185:12

Watkins [2]

3:13

198:8

Waychoff [10]

13:14

13:15

22:24

26:9

38:13

41:19

41:24

80:23

81:1

144:13

Waychoff's [1]

144:23

ways [2]

69:19

134:8

weathered [1]

141:3

week [3]

32:7

32:10

78:11

weeks [5]

30:23

31:8

31:9

161:1

161:2

well-prepared [3]

75:3

75:6

75:11

Wells [4]

22:2

34:15

34:16

172:2

West [1]

55:5

Whales [2]

7:14

8:21

whatnot [2]

24:14

25:23

Wheeler [20]

50:7

50:17

55:22

57:23

57:24

58:6

58:10

67:6

74:20

78:3

78:8

102:12

103:19

106:13

173:15

173:20

173:25

174:25

176:1

181:3

Wheeler's [2]

78:5

78:15

whereas [1]

33:22

whereby [1]

75:18

wherein [2]

2:21

172:25

WHEREOF [1]

196:16

wherever [2]	26:20	22:2	22:5	50:8
32:14		59:7	59:9	77:13
white [1]	92:22	81:11	118:23	140:4
whited [1]	89:13	154:21	174:3	178:21
whole [15]	22:16	workers [1]	86:2	
36:25	63:18	world [10]	2:6	
67:14		2:23	3:18	4:10
77:20	111:19	4:19	7:25	54:8
111:24		54:9	54:10	159:23
134:13	140:25	worldwide [3]	99:15	
148:2		107:22	188:11	
148:21	170:10	worried [1]	56:5	
172:7		wrapping [1]	185:14	
173:14	185:1	write [6]	26:7	79:3
wide [4]	28:19	100:11	176:22	187:21
111:11	111:15	188:17		
Widmark [12]	48:13	writing [6]	5:15	
48:18	51:23	84:3	114:1	187:19
52:15	66:19	187:20	196:11	
79:21		written [13]	30:1	
79:24	80:5	52:20	70:2	86:11
85:23		88:10	88:12	94:16
86:1	167:3	116:1	117:21	138:11
Wilde [5]	80:13	162:24	183:9	190:3
80:16	81:4	wrong [4]	7:17	
81:4		14:9	27:9	194:4
132:18		wrote [7]	54:3	
wildlife [6]	65:18	96:16	132:1	136:7
68:5	68:19	136:9	188:2	190:13
86:16		-Y-		
134:17	172:13	year [24]	10:20	10:21
Wilkinson [2]	151:15	10:22	12:22	21:2
152:21		21:15	23:1	23:3
Willis [1]	116:4	23:23	24:10	24:18
Wilmington [1]	132:13	33:13	33:15	35:4
Wilson [1]	3:9	35:11	35:12	35:18
win [2]	147:11	35:18	35:23	38:14
winding [1]	46:14	38:14	125:11	125:15
withdraw [7]	37:20	125:16		
72:2	122:22	years [15]	9:14	
123:1		10:17	28:23	34:12
135:4	138:16	40:13	41:5	45:3
withdrawing [2]	140:11	45:4	54:16	59:10
135:9	135:19	125:11	125:16	127:5
withdrawn [5]	43:1	167:17	194:17	
43:5	43:12	yesterday [5]	79:10	
44:2		79:15	116:9	117:14
within [24]	2:18	160:8		
11:15	13:5	yet [1]	124:16	
15:6		York [2]	132:16	153:24
16:8	26:8	yourself [1]	70:16	
34:7		Yusho [4]	60:17	
35:4	35:7	180:8	180:11	180:13
42:16				
47:10	48:19			
50:1				
57:19	72:11			
72:25				
83:2	97:1			
110:14				
122:9	129:7			
167:25				
196:5	197:8			
without [18]	12:5			
25:12	40:15			
52:4				
54:8	85:1			
90:1				
97:24	111:24			
116:11	123:9			
133:7				
133:9	133:10			
153:19				
187:18	187:24			
witness [12]	4:5			
62:7	83:18			
110:6				
120:8	120:17			
159:25				
160:3	196:10			
196:12				
196:16	197:25			
witnesses [1]	198:15			
wood [1]	90:20			
word [3]	67:17			
89:5				
101:16				
words [1]	136:25			
wore [1]	156:9			
worked [16]	6:19			
9:6	11:18			
18:19				

DEPOSITION OF CUMMING PATON, 6/25/98

STATE OF MISSOURI)
)
CITY OF ST. LOUIS)

I, CUMMING PATON, do hereby certify:

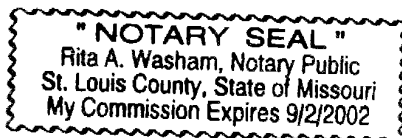
That I have read the foregoing deposition;

That I have made such changes in form and/or
substance to the within deposition as might be necessary
to render the same true and correct;

That having made such changes thereon, I hereby
subscribe my name to the deposition.

I declare under penalty of perjury that the
foregoing is true and correct.

Executed this 16th CP day of November,
1998, at _____.



Cumming Paton
CUMMING PATON

My Commission Expires: _____

Notary Public: Rita A. Washam

Signature Page to Mr. DiMuro _____

Witness Letter Sent to Mr. DiMuro _____

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN vs. ARMSTRONG WORLD INDUSTRIES vs MONSANTO
Date Taken: 6/25/98 & AMSCO.
Page # 9
Line # 4
Should Read: ENGLAND instead of New England.
Reason for Change: ACCURACY
Page # 10
Line # 3
Should Read: Poly sulfides
Reason for Change: Spelling
Page # 10
Line # 9
Should Read: Polysulfides
Reason for Change: Spelling
Page # 13
Line # 10
Should Read: "these" instead of "their"
Reason for Change: helps clarify.
Page # 13
Line # 24
Should Read: Delete "the" before "Plasticizer"
Reason for Change: grammar
Page # 13
Line # 25
Should Read: after "actual"
insert "uses of" before Plasti.
Reason for Change: clarifies (see also line 26)
Witness: C. Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MARTIN vs ARMSTRONG vs MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 14
Line # 1
Should Read: Insert "are for" involve" after "Plasticizers"
Reason for Change: clarify
Page # 14
Line # 1
Should Read: "softening of" instead of "softened are"
Reason for Change: clarify
Page # 14
Line # 3
Should Read: delete one of "sometimes"
Reason for Change: duplicate word
Page # 14
Line # 6
Should Read: Delete "because". New sentence beginning "It was"
Reason for Change: clarity
Page # 14
Line # 15
Should Read: Add "the" after "applications"
Reason for Change: Important clarification - I did not then have responsibility for other Monsanto sales applications for Aroclor or PCB-based products.
Page # 14
Line # 15
Should Read: have responsibility for other Monsanto sales applications for Aroclor or PCB-based products.
Reason for Change: clarity
Witness: Cumming Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO
Date Taken: 6/25/98 AMSCO

Page # 15
Line # 10
Should Read: delete "they weren't, you know"
Reason for Change: grammar

Page # 15
Line # 11
Should Read: "came" instead of "come"
Reason for Change: grammar

Page # 15
Line # 15
Should Read: Insert "within the Plasticizer Division" after
Reason for Change: clarity "whatever"

Page # 16
Line # 10
Should Read: delete "I can't, you know,"
Reason for Change: clarity

Page # 16
Line # 20
Should Read: "production" instead "product"
Reason for Change: accuracy

Page # 16
Line # 31
Should Read: insert "our divisional" after "taking"
Reason for Change: clarity

Witness: Cj Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN V. ARMSTRONG vs. MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 17
Line # 8
Should Read: delete "it would have been"
Reason for Change: grammar
Page # 17
Line # 21
Should Read: "Coaker" not "koah"
Reason for Change: spelling
Page # 17
Line # 21
Should Read: Insert "Renshaw" after "Jim"
Reason for Change: accuracy
Page # 17
Line # 21
Should Read: "Kern Sears" not "Kere sears"
Reason for Change: spelling
Page # 17
Line # 22
Should Read: delete "but I can't"
Reason for Change: grammar
Page # 18
Line # 4-5
Should Read: delete all of line 4
Reason for Change: clarity
Witness: C. J. Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 18
Line # 5
Should Read: Replace "again, it was" with "yes, under Martin,
Reason for Change: clarity replace "that" with "who"
Page # 18
Line # 16
Should Read: Delete first "you know"
Reason for Change: grammar
Page # 20
Line # 1
Should Read: "also used" were": instead of "these"
Reason for Change: clarity
Page # 20
Line # 2
Should Read: New sentence after "I recall". start sentence with
Reason for Change: accuracy "these applications --- developed by ---"
Page # 20
Line # 3
Should Read: Add "of the coatings" after "backbone"
Reason for Change: clarity
Page # 20
Line # 5
Should Read: Reword to read "to the coatings products used"
Reason for Change: clarity
Witness: Cj Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v ARMSTRONG v MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 21
Line # 6
Should Read: management "representatives" and "managers"
Reason for Change: clarity instead of "officials"
Page # 22
Line # 11
Should Read: "the" instead of "their"
Reason for Change: grammar
Page # 22
Line # 12
Should Read: Delete "you know, there some, you know"
Reason for Change: grammar
Page # 22
Line # 14
Should Read: Delete "of"
Reason for Change: grammar
Page # 22
Line # 22
Should Read: Delete "then" after "have"
Reason for Change: grammar
Page # 22
Line # 24
Should Read: "be" instead of "have"
Reason for Change: grammar
Witness: Cumming Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 23
Line # 6-7
Should Read: Delete "you" last word on l. 6 and "have" first
Reason for Change: grammar word on l. 7.
Page # 23
Line # 20
Should Read: "got" not "took"
Reason for Change: clarity
Page # 23
Line # 21
Should Read: "feedbacks on" not "attacks or"
Reason for Change: clarity
Page # 26
Line # 2
Should Read: Delete "the" - second word on line 2
Reason for Change: grammar
Page # 27
Line # 16
Should Read: Delete "I know, you know,"
Reason for Change: clarity
Page # 27
Line # 25
Should Read: Reword "you would do reviews quarterly"
Reason for Change: clarity
Witness: C. Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON

Case Name: MAERTIN v ARMSTRONG v MONSANTO & AMSCO

Date Taken: 6/25/98

Page # 28
Line # 7
Should Read: Delete ", they had" - second phrase
Reason for Change: Redundant

Page # 28
Line # 22
Should Read: Delete "was,"
Reason for Change: grammar

Page # 28
Line # 24
Should Read: delete "of" after "understanding"
Reason for Change: grammar

Page # 29
Line # 5
Should Read: Delete "I would"
Reason for Change: _____

Page # 29
Line # 6
Should Read: Reword with "be at" instead of "have, if it was"
Reason for Change: clarity

Page # 29
Line # 10
Should Read: Insert "and" after "meetings"
Reason for Change: clarity

Witness: [Signature] Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON

Case Name: MAERTIN v ARMSTRONG v. MONSANTO & AMSCO

Date Taken: 6/25/98

Page # 29
Line # 7
Should Read: "would" instead of "might have"
Reason for Change: clarity

Page # 29
Line # 8
Should Read: "try" instead of "tried"
Reason for Change: grammar

Page # 29
Line # 12
Should Read: delete first "it was"
Reason for Change: redundant

Page # 29
Line # 13
Should Read: "general" instead of "generally"
Reason for Change: grammar

Page # 29
Line # 13
Should Read: Delete ", the " before "use"
Reason for Change: redundant

Page # 32
Line # 8
Should Read: "saying" not "said"
Reason for Change: grammar

Witness: Cumming Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 32
Line # 15
Should Read: Delete "that gave you"
Reason for Change: grammar
Page # 33
Line # 15
Should Read: Delete "so you know but"
Reason for Change: grammar
Page # 34
Line # 10
Should Read: New sentence after "me" reading "We probably tried--"
Reason for Change: Clarity Delete "would have"
Page # 34
Line # 24
Should Read: Delete "the" after "at"
Reason for Change: grammar
Page # 39
Line # 17
Should Read: Delete first "I think it was"
Reason for Change: duplication of phrases
Page # 40
Line # 7
Should Read: "product" not "project"
Reason for Change: accuracy
Witness: Cumming Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 40
Line # 21
Should Read: Delete "than I"
Reason for Change: grammar
Page # 40
Line # 22
Should Read: Delete "and"
Reason for Change: clarity
Page # 40
Line # 23
Should Read: Insert "initially" after "America,"
Reason for Change: clarity
Page # 40
Line # 24
Should Read: "called" not "call" (third word in L. 24)
Reason for Change: clarity
Page # 40
Line # 24
Should Read: Delete "initially in what they call"
Reason for Change: clarity
Page # 41
Line # 2
Should Read: "that within" instead of "this was in"
Reason for Change: clarity
Witness: [Signature] Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MARTIN v. ARMSTRONG v. MONSANTO (AMSCO)
Date Taken: 6/25/98
Page # 42
Line # 9
Should Read: Delete " or general manager "
Reason for Change: Redundant
Page # 46
Line # 4
Should Read: Delete "the"
Reason for Change: grammar
Page # 46
Line # 16
Should Read: Delete first "in the"
Reason for Change: grammar
Page # 49
Line # 18
Should Read: "But" instead of "And"
Reason for Change: clarity
Page # 50
Line # 12
Should Read: Delete first "the"
Reason for Change: Redundant.
Page # 53
Line # 21
Should Read: Delete "a" last word on line 21.
Reason for Change: grammar/clarity
Witness: [Signature] Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 53
Line # 22
Should Read: "irresponsibility" not "responsibility"
Reason for Change: clarity.
Page # 54
Line # 15
Should Read: "full" not "failing"
Reason for Change: clarity
Page # 55
Line # 12
Should Read: Delete "since I can't"
Reason for Change: grammar.
Page # 66
Line # 16
Should Read: Delete first word "As"
Reason for Change: clarity
Page # 68
Line # 14
Should Read: Delete "these, and"
Reason for Change: grammar
Page # 68
Line # 22
Should Read: Insert "there" before "were"
Reason for Change: grammar
Witness: [Signature] Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MARTIN v. ARMSTRONG v. MONSANTO & AMSCO
Date Taken: 6/25/98
Page # 69
Line # 10
Should Read: New sentence after "effects."
Reason for Change: clarity
Page # 72
Line # 7
Should Read: Delete "discussing,"
Reason for Change: grammar
Page # 85
Line # 11-2
Should Read: Delete "I have no"
Reason for Change: grammar
Page # 99
Line # 2.23
Should Read: Delete ". "after criteria and lower cap for "w"
Reason for Change: clarity
Page # 101
Line # 16
Should Read: Delete: "the, you know,"
Reason for Change: clarity
Page # 102
Line # 13
Should Read: Delete first "were"
Reason for Change: grammar
Witness: [Signature] Paton.

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMISCO
Date Taken: 6/25/98
Page # 103
Line # 7 Delete "and"
Should Read: _____
Reason for Change: clarity
Page # 103
Line # 11 Delete "you know"
Should Read: _____
Reason for Change: clarity
Page # 105
Line # 9 Delete "I'm now just, you know"
Should Read: _____
Reason for Change: clarity
Page # 123
Line # 8 Insert "fax about" after are.
Should Read: _____
Reason for Change: clarity
Page # 123
Line # 8 New sentence beginning with "you know - -"
Should Read: _____
Reason for Change: clarity
Page # 139
Line # 20 Delete "it,"
Should Read: _____
Reason for Change: clarity
Witness: [Signature] Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: 6/25/98 MAERTIN v ARMSTRONG v MONSANTO
Date Taken: 6/25/98 & AMS CO
Page # 141
Line # 21 "chlorination level" not "clarification"
Should Read: transcript error
Reason for Change: transcript error
Page # 149
Line # 8
Should Read: transcript error
Reason for Change: transcript error
Page # 141
Line # 11 "butyl/benzyl phthalate" not "dioctyl"
Should Read: correction phthalate
Reason for Change: correction
Page # 149
Line # 1 "saw" not "seen"
Should Read: grammar
Reason for Change: grammar
Page # 156
Line # 11 delete "they" and change "thought" to "bought"
Should Read: transcript error
Reason for Change: transcript error
Page # 156
Line # 12 change "get the" to "not be"
Should Read: transcript error
Reason for Change: transcript error
Witness: C. Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MARTIN v ARMSTRONG vs MONSANTO
6/25/98 2 AMSCO
Date Taken: _____

Page # 157
Line # 16
Should Read: Delete " , because, because it was, I "
Reason for Change: clarity

Page # 158
Line # 8
Should Read: insert "contribute" after "nothing to"
Reason for Change: transcript error

Page # 158
Line # 9
Should Read: New sentence: "There would ---"
Reason for Change: _____

Page # 160
Line # 11
Should Read: "series" not "serious"
Reason for Change: transcript error

Page # 163
Line # 1
Should Read: "wouldn't" not "would"
Reason for Change: transcript error

Page # 164
Line # 2
Should Read: "exchanged" to "changed"
Reason for Change: clarity

Witness: Cumming Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MARTIN v. ARMSTRONG v MONSANTO &
Date Taken: 6/25/98 AMSCO

Page # 164
Line # 12
Should Read: New sentence: "Or it might ---
Reason for Change: clarity

Page # 164
Line # 13
Should Read: Insert "that" between "cases" and "the"
Reason for Change: clarity

Page # 164
Line # 14-15
Should Read: Put " " around "look --- performance"
Reason for Change: clarity

Page # 166
Line # 8
Should Read: Delete "up"
Reason for Change: grammar

Page # 166
Line # 8
Should Read: insert "as" between "about" and "part"
Reason for Change: clarity

Page # 170
Line # 8
Should Read: Add "PCBs" after "were"
Reason for Change: transcription error

Witness: [Signature] Paton

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Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMSCO.
Date Taken: 6/25/98
Page # 170
Line # 17 Replace "as" with "by"
Should Read: clarity
Reason for Change: clarity
Page # 170
Line # 22 Insert "PCBs" after "it's"
Should Read: clarity
Reason for Change: clarity
Page # 174
Line # 1 Delete "And therefore"
Should Read: clarity
Reason for Change: clarity
Page # 174
Line # 16 "fast" not "fastly"
Should Read: grammar
Reason for Change: grammar
Page # 178
Line # 21 "Work" not "worked"
Should Read: transcript error
Reason for Change: transcript error
Page # 189
Line # 11 "it" not "is"
Should Read: Typo
Reason for Change: Typo
Witness: C. J. Paton

Members:

National Court Reporters Association
Missouri Court Reporters Association
DEPONENT

TAYLOR & ASSOCIATES REPORTING, INC. d/b/a
TAYLOR * SCHROEDER REPORTING & VIDEO

Witness Errata Sheet

Witness Name: CUMMING PATON
Case Name: MAERTIN v. ARMSTRONG v. MONSANTO & AMSCO.
Date Taken: 6/25/98
Page # 190
Line # 3
Should Read: "were" not "was"
Reason for Change: grammar

Page # _____
Line # _____
Should Read: _____
Reason for Change: _____

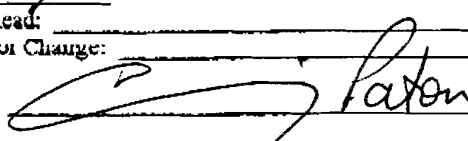
Page # _____
Line # _____
Should Read: _____
Reason for Change: _____

Page # _____
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Page # _____
Line # _____
Should Read: _____
Reason for Change: _____

Witness:  Paton

Members:

National Court Reporters Association
Missouri Court Reporters Association
DEPONENT

MEMORANDUM

FROM: NAME & LOCATION:

DATE: February 14, 1969 cc: J. R. Fallon
SUBJECT: INQUIRY FROM VAPOR CORPORATION R. A. Garcia - AKRON
ON TOXIC EFFECT OF CHLORINATED S. Shaw
BIPHENYL
TO: J. J. Roder - CHICAGO

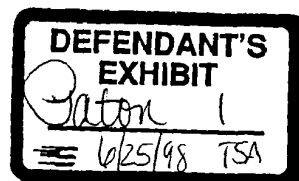
Stan forwarded to me the note you received from Ed Gustaf and the accompanying letter from T. Fujiwara, Managing Director, Nipon Vapor Generator Company, and to H. J. Schickedanz, General Manager, Vapor International. We have been advised by our Japanese representatives of the bran oil poisoning of quite a number of Japanese citizens that was attributed to Kaneclor 400 (chlorinated biphenyl comparable to FR-2).

We assembled both medical and application data and sent it to our Japanese counter-parts as arguments for the safe use of chlorinated biphenyl heat transfer fluid. Essentially, we said that there are certain toxic and systemic effects that can be brought about by the vapors of chlorinated biphenyls. We did not rule specifically on the ingestion limits of this chemical. We also directed attention to the large number of applications in food processing that utilize Therminol FR heat transfer fluid. We brought out very strongly the fact that these systems have been designed to minimize accidental contamination of food products with chlorinated biphenyls.

I think we have a good track record here in the States using Therminol FR in these applications. However, it only seems a matter of time until the regulatory agencies will be looking down our throats regarding the use of this material. Possibly, by the time this comes about, we will have completed feeding studies with chlorinated biphenyls that will allow us more exact data than has been available in the past. As a matter of fact, they're feeding this stuff to chickens now, but I have no specific results of these tests. I can only suggest that you attempt to put Gustaf's mind at ease regarding the "toxic" aspects of these chlorinated biphenyls by playing down the medical reports and playing up proper system design.

Look at the bright side for us in the heat transfer fluid end of our business -- if the government closes us down on the use of chlorinated biphenyls, we have two excellent fluids in Therminol 55 and Therminol 66, as well as, a proprietary fluid in Therminol 77 to exploit. Therminol 66 will certainly be available in Japan according to recent information from our Engineering Department.

MAE 053222



WATER_PCB-SD0000020434

February 14, 1969
Page 2

A final caution Jim, please use the attached information with some discretion. I certainly would not pass completed sets of this data to those asking the questions, but rather extract the essential points from this data, namely, the ruling on vapor limits as handed down by the Industrial Hygienist Association, and a strong play on proper system design to prevent accidental contamination of food products and processing material by chlorinated biphenyls.

Don Roush

Don Roush

MAE 053223

STATEMENT FROM:
MONSANTO COMPANY
ST. LOUIS, MO.

March 3, 1969

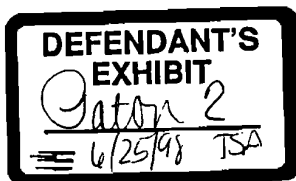
On February 24, the San Francisco Chronicle carried a major feature about "a menacing new pollutant" found in the San Francisco Bay area. The article was based on marine life research carried out by Dr. Robert Risebrough of the University of California. It stated that residues of polychlorinated biphenyl (PCB) were killing certain birds and implied a long-term threat to humans.

Monsanto manufactures polychlorinated biphenyl and markets it under our Aroclor trade name. (There are other manufacturers in Europe and Japan.) We, therefore, would like to present some additional facts.

The work done by Dr. Risebrough dates back to earlier research by other scientists to analyze the amount of pesticides in wildlife, soil and water. The initial pesticide research was extremely difficult since any search to detect materials in the parts-per-billion range also brings out other "interfering" substances.

-more-

MAE 053552



-- 2 MONSANTO COMPANY

Several years ago, two Swedish scientists at Stockholm University's Institution of Analytical Chemistry, Professor Gunnar Widmark and Soren Jensen, reported they had identified the other substances which were appearing during analysis of chlorinated pesticide residues. They said some of the materials were polychlorinated biphenyl or PCB. The amount reported was in the parts-per-billion range, or less. Since PCBs are not "broadcast" or spread around the land as are pesticides, the scientists theorized that the source must be the industrial wastes of PCB users.

Dr. Risebrough's more recent work reports the identification of PCB, along with DDT and DDE pesticides, in the tissues of birds and fish on the West Coast.

The conclusions of these scientists are puzzling from several aspects. Polychlorinated biphenyls are stable chemical compounds which are essentially insoluble in water. Their use does not make them easily released into the natural environment.

A principal market for PCB is in electrical applications where they are used as insulating fluids for transformers and capacitors. In this use, the chemical is completely sealed in metal containers. Another market is for heat-transfer applications where the PCB fluid functions in a closed system.

-more-

MAE 053553

-- 3 MONSANTO COMPANY

In the functional fluids market, we have carried out a program for several years for the reclamation of used PCBs to reuse these valuable materials.

PCBs are also used in several "plastic-type" applications. Here the chemical is incorporated into the polymer as an integral part of the solid material. This applies whether the polymer is used as an adhesive, an elastomer or a surface coating.

It has also been implied that polychlorinated biphenyls are "highly toxic" chemicals. This is not true. The toxicity of any material, whether it be chemicals, drugs, natural plants or even foods, is relative. Just like other industrial chemicals and home products now in widespread use, PCBs are not hazardous when properly handled and used. During more than 30 years of U.S. production and use, cases of any toxic effect have been extremely rare -- and then only where the simple precautions recommended for use were not followed.

To our knowledge, polychlorinated biphenyls are not sprayed or dusted on crops, woodlands or any other areas, as are pesticides. It is, therefore, not only puzzling, but extremely difficult to conceive how commercially produced PCB can show up in wildlife in the quantities reported. This raises the question whether the substances identified in the Swedish work, and now in California, are actually PCBs -- or whether they are compounds which, due to the metabolism of other materials in the marine environment, appear to be PCBs.

-more-

MAE 053554

()
-- 4 MONSANTO COMPANY

Unfortunately, even though techniques for analyzing tissue samples have become quite precise, the ability to analyze the possible impact of naturally occurring substances in the food cycle of living organisms has not made comparable advances.

Monsanto has a research program to identify the compounds reported to be PCB by the Swedish and California scientists. We have always cooperated, on a regular basis, with federal, state and university laboratories in their analysis of chlorinated hydrocarbon residues. We will continue to do so.

Additionally, Monsanto will continue to exercise the highest degree of control in its manufacturing, shipping and storing of PCB -- as we do with all products.

The source of the marine life residue identified as PCB is not yet known. It will take extensive research, on a worldwide basis, to confirm or deny these initial scientific conclusions.

-o0o-

MAE 053555

DEPOSITION
EXHIBIT

Kelly 28

7-16-91 LG

Monsanto

ST. LOUIS, MISSOURI St. Louis

DATE March 7, 1969

TO Dr. R. Emmet Kelly

Dear Emmet:

The Aroclor pot is really boiling. Monte Throdahl asked me to have lunch with him today to give him the background as to what the whole problem is about. He said he might call me Monday morning to give a 15 minute presentation to the Corporate Development Committee. He thought that he could probably answer questions that might arise but told me to be prepared.

Bill Richard and I were at Calandra's yesterday and the proposals from Joe on the various studies are to be undertaken posthaste, including the two-year chronics in rats and dogs. We are to have a meeting, possibly before you return, of those involved here in St. Louis, Joe Calandra, and one or two of his people, with perhaps as many as three consultants who are already retained by Monsanto for either Ag Division or NED projects. These include entomologists and enzyme specialists from the University of Illinois, Marquette, and possibly Harvard.

The intent is to select someone from the university who can serve as an objective spokesman on this whole problem and with contacts not intimately related to Monsanto or Industrial Bio-Test.

I have enclosed a copy of the final form of the PR release that was developed last week. This has been sent to 21 Monsanto customers over my signature. I was not asked as to whether or not I should sign such a release but guess that Bergen or Minckler decided that I should. They had the letters typed and brought over here for signing.

In terms of "goals" or "objectives" Joe Baff told me today that the solid wastes bunch in Washington have been asked to consider financing part of the cost of our proposed combination steam boiler/incinerator for plastic wastes at Fort Plastics. The Cincinnati office of the solid wastes program has already indicated that they thought the project was worthy of U. S. financial support.

CONFIDENTIAL--SUBJECT TO
PROTECTIVE ORDER

SCM 042701

PRR 045436

DEFENDANT'S
EXHIBIT
3

WATER_PCB-SD0000020440

-2-

On the second item I have contacted Leo Weaver and expect to meet with him Monday morning.

I guess that's all of the important news. We sure hope you are enjoying your trip, which in Mr. Nixon's terms is a "working trip," not "ceremonial."

Come Home!!
Elmer
E. F. Wheeler

EPW/Ln
enc.

PRR 045437

SCM 042708

TO:

DATE: August 28, 1969

SUBJECT: HOT MELT ADHESIVE FORMULATIONS

We are indebted to Technical Service Department for supplying the attached formulations for hot melt adhesives. All contain an Aroclor®.

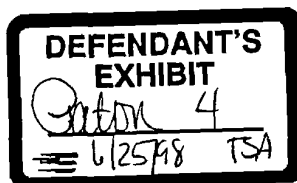
Furthermore, in formulation 6-26F, Ethyl 702 is recommended at 0.5% as antioxidant.

Santowhite Powder should be recommended as a replacement. Santowhite Powder is covered by the FDA to the same extent as Ethyl 702.

A separate Plastifacts will be issued.


Cumming Paton

/dbw



MAE 059911

technical service bulletin

June 24, 1968

FORMULA 6-3

PRODUCT: Hot Melt Adhesive -- Heat-Resistant Type

TYPICAL USE: Sealing seams of multiwall bags to be stored at temperatures to 140°F.

FORMULA:

<u>Wt. %</u>	<u>Material</u>	<u>Supplier</u>
12	Shellwax 700 (fully refined paraffin wax, 185°F melt point)	Shell Chemical Co.
32	Aroclor 5460 (chlorinated polyphenyl)	Monsanto Chemical Co.
20	Elvax 260 (E/VA copolymer)	E.I. duPont de Nemours
0.20	Butylated hydroxytoluene (antioxidant)	Eastman Chemical
36	UNIREZ 915 (modified phenolic resin)*	Union Carbide Corp.

* or Filled Resin Products Filrez 640.

PROCEDURE: Melt wax and Aroclor 5460 to about 350°F. Add Elvax slowly and mix until all is dissolved. Stir in BHT. Then stir in UNIREZ 915 at about 400°F.

PROPERTIES:

Softening Point, Ring & Ball, °C	-	192°F (89°C)
Color, 25% in toluene at 70°C,		
ASTM D-1544	-	9+
Brookfield Viscosity at 360°F	-	4000 cps
Oven Peel Temperature *	-	142°F

* Temperature at which kraft-kraft bond fails when loaded at 160 g/inch width.

MAE 059911.01

Formulas and statements herein are accurate to the best of our knowledge. However, since application in the user's plant is under conditions beyond our control, exceptions and recommendations are made without warranty or guarantee of any kind. Nothing contained herein shall be construed as a recommendation to use any product or process in conflict with existing patents covering any material with use.

technical service bulletin

July 24, 1968

Formula 6-14

Product: Hot melt adhesive for furniture

Typical Use: Bonding wood-to-wood, wood-to-coreboard

<u>Formula:</u>	<u>Wt. %</u>	<u>Material</u>	<u>Supplier Code</u>
	10	Paraflint SH (Fischer-Tropsch wax)	1
	13	Aroclor 1254 (chlorinated polyphenyl)	2
	12	Aroclor 5460 (" ")	2
	30	Elvax 150 (E/VA copolymer)	3
	0.2	Butylated hydroxytoluene (antioxidant)	4
	35	UNIREZ 9002 (modified phenolic resin)	5

Procedure: Melt wax and Aroclor plasticizers to about 375°F. Mix in BHT. Add Elvax in small portions and mix until each is completely dissolved. Stir in UNIREZ 9002 while reducing temperature to about 350°F. Hold at 350°F. until well blended.

Properties: Ring & Ball softening point - 228°F.
Brookfield viscosity (Model LVT
No. 3 spindle, 12 rpm) - 5700 cps.
Color, 25% in toluene at 70°C.,
ASTM D1544 - 6+
Oven peel temperature* - 160°F.

Supplier Code:

- 1 Moore & Munger, Inc.
- 2 Monsanto Chemical Co.
- 3 E. I. duPont de Nemours & Co.
- 4 Eastman Chemical Products, Inc.
- 5 Union Carbide Corp., Chemical Division

* Temperature at which kraft-to-kraft bond fails when loaded at 160 g/inch bond width

MAE 059911.02

Formulas and statements herein are accurate to the best of our knowledge. However, since application in the user's plant is under conditions beyond our control, no warranties and recommendations are made without warranty or guarantee of any kind. Nothing contained herein shall be construed as a recommendation to use any product or process in conflict with existing patents covering any material or its use.

WATER_PCB-SD0000020444

TECHNICAL SERVICE BUREAU

January 3, 1968

FORMULA 6-26F

PRODUCT: Hot Melt Adhesive for Polyolefin Film

TYPICAL USES: Polyolefin-kraft, polyolefin-polyolefin adhesion.

FORMULA:

<u>Wt. %</u>	<u>Material</u>	<u>Supplier</u>
45	UNIREZ XR-8 (experimental resin)	Union Carb Corp.
20	Aroclor 1254 (chlorinated poly-phenyl)	Monsanto Chemical Co.
35	Elvax 4320 (acid terpolymer)	E.I. duPont de Nemours
0.5	Ethyl 702 (antioxidant)	Ethyl Corp.

PROCEDURE: Blend XR-8 and Aroclor together at 300°F and mix in antioxidant. Increase temperature to 350°F and add Elvax in small portion with good agitation. Allow each portion of Elvax to melt and blend in before adding the next. After all components are added, allow to mix at 350°F until hot melt is completely homogenous.

PROPERTIES:

Softening Point, Ring & Ball, °C	-	69
Brookfield Viscosity (Model LVT, #3 spindle)	-	3150 cps at 350°F 8800 cps at 300°F

MAE 059911.03

Formulas and statements herein are accurate to the best of our knowledge. However, since application in the user's plant is under conditions beyond our control, suggestions and recommendations are made without warranty or guarantee of any kind. Nothing contained herein shall be construed as a recommendation to use any product or process in conflict with existing patents covering any material or its use.

WATER_PCB-SD0000020445

10/29/69

EXECUTIVE SUMMARY

PCB POLLUTION

**COMPANY
CONFIDENTIAL**

PROBLEM:

Contamination of the environment with polychlorinated biphenyls (PCB) (Aroclor products).

PROBLEM DEFINITION AND TIMING:

Professors Widmark and Jensen of the Institute of Analytical Chemistry at Stockholm, Sweden, in November 1966, announced and confirmed finding PCB in fish, birds, and eggs. Subsequent findings were made in 1967 in Great Britain. Problem was first presented in the U.S. by Professor Risebrough of the University of California in a published article in the San Francisco Chronicle in February, 1969. Monsanto confirmed the presence of PCB's in mid-1969 and confirmed the adequacy of work by Widmark and Jensen and others — a worldwide ecological problem.

CONFIRMATION OF FINDINGS:

Analysis indicates environmental presence of 5 and higher chlorinated biphenyls (similar to Aroclors 1254 and 1260). Other Aroclors may contribute, but have not been identified yet. In the last six months, PCB's have been reported present in waters in Lake Michigan, fish in Connecticut, seafood along the Gulf Coast, and waters outside Monsanto plants.

SERIOUSNESS OF PROBLEM:

1. Fish - Marine or aquatic species concentrate PCB in the fatty tissue. Toxic in small quantities (down to 5 ppb) to sensitive marine life such as shrimp.
2. Birds - Predatory species feeding on the marine or aquatic life can further concentrate PCB to possible harmful effects. Specifically in birds, PCB can effect the calcium metabolism leading to egg shell imperfections which prevents proper hatch of the young.

MAE 023314

**DEFENDANT'S
EXHIBIT**

Gaton 5

6/25/98 TSA

WATER_PCB-SD0000020446

3. Man - There is no harmful effect known to man or other mammals after 40-years of production. Studies are underway by various sources.
4. Political and Public Emotion - PCB's linked to DDT because PCB's show up in analyses for DDT. Linked with other permanent chlorinated hydrocarbon pesticides.

EFFECT ON MONSANTO:

1. Business potential at stake on a worldwide basis:

<u>Fluids</u>	<u>Plasticizers</u>	<u>Total/Year</u>
70 M Lbs.	34 M Lbs.	104 M Lbs.
\$16 M	\$6 M	\$22 M
\$6-8 M GP	\$2-3 M GP	\$8-11 M Gross Profit

2. Legal responsibility.
3. Public image.
4. Effect on other product areas.

EFFECT ON CUSTOMERS AND ULTIMATE CONSUMERS:

1. Affects entire electrical industry - capacitors and transformers.
2. Affects food processing.
3. Affects die casters and other "hot metal" working industries.
4. Affects wide range of plastics and adhesive applications.
5. Affects wide range of paints and coatings.

EFFECT ON OTHER PRODUCERS:

There are at least six other producers of PCB's in USA. Monsanto has discussed problem with two in Europe. No great concern there yet.

MAE 023315

MAIN SOURCES OF POLLUTION:

Difficult to define, but Aroclor 1254 and 1260 are used in electrical devices, heat transfer, plastics, adhesives, coatings, and industrial fluids. Other Aroclors contain minor percentages of 5 and 6 chlorine ring structures. Manufacturing plants also a vulnerable contributing factor, but less significant in quantity than customer or end user losses.

POSSIBLE CONTROL OF CONTAMINATION:

- Electrical and heat transfer - possible to control with effort and reclamation.
- Industrial fluids, plastics, coatings and adhesives - very difficult, if not impossible to control. Substitute products needed.

MONSANTO OUTSIDE STATEMENTS:

- Letter sent to electrical customers regarding problem.
- Monsanto Public Relations statement attached.

MONSANTO FUTURE ACTION:

Presentation to CDC reviewing subject and future plan of action by November 17, 1969. This will define a program to determine what is necessary in various product areas to meet the problem.

- 1 Research and Engineering needed and cost.
2. Plant and customer "clean-up and control" required and cost.
3. Biodegradability of Aroclors.

MAE 023316

4. Toxicity studies.
5. Alternative routes.
6. Recommended approach.
7. Appropriation request to cover capital and expenses required.

MAE 023317

STATEMENT FROM:
MONSANTO COMPANY
ST. LOUIS, MO.

Oct. 29, 1969

Late in February, 1969, a West Coast newspaper carried a major feature about "a menacing new pollutant" found in the San Francisco Bay area. The article was based on marine life research carried out by Dr. Robert Risebrough of the University of California. The article stated that residues of pesticides (DDT and DDE) and polychlorinated biphenyl (PCB) were threatening the welfare of certain birds and posed a long-term threat to humans.

Monsanto manufactures polychlorinated biphenyl and markets it under our Aroclor trade name. (There are other manufacturers in Europe and Japan.) We, therefore, would like to present some additional facts.

The work done by Dr. Risebrough dates back to earlier research by other scientists who, while analyzing pesticide residues in wildlife, soil and water, encountered unknown or "interfering" substances in the parts-per-million range.

-more-

MAE 023318

--2 MONSANTO COMPANY

Several years ago, two Swedish scientists at Stockholm University's Institution of Analytical Chemistry, Professor Gunnar Widmark and Soren Jensen, reported they had identified these other substances. They said some of the materials were polychlorinated biphenyl or PCB. Since PCBs are not "broadcast" or spread around the land as are pesticides, the scientists theorized that the source must be the industrial wastes of PCB users.

In addition to the work of Dr. Risebrough and the Swedish scientists, there have been other studies which indicate the presence of PCBs in the environment. Monsanto is concerned over the situation and is cooperating fully with these studies.

The common uses of commercial PCB would not normally lead to its release into the natural environment.

A principal market for PCB is in electrical applications where they are used as insulating fluids for transformers and capacitors. In this use, the chemical is completely sealed in metal containers. Another market is for heat-transfer applications where the PCB fluid functions in a closed system.

-more-

MAE 023319

--3 MONSANTO COMPANY

PCBs are also used in several applications where the chemical is incorporated into a polymer as an integral part of the solid material. Such polymers are used in highly special applications as an adhesive, elastomer or surface coating.

Polychlorinated biphenyls are not sprayed or dusted on crops, woodlands or any other areas, as are pesticides. To our knowledge, they are not used in tires, house paints, household products, epoxy resins or major vinyl plastics, as has been charged.

Therefore, conclusions as to the source of PCB found in the environment are difficult to make. Some qualified scientists, using the latest laboratory equipment, have correctly identified the substances as being PCB. However, most scientists are not yet willing to indict commercially produced PCB as a pollutant.

It has also been implied that polychlorinated biphenyls are "highly toxic" chemicals. This is not true. Just like other industrial chemicals and home products now in widespread use, PCBs are not hazardous when properly handled and used. During more than 30 years of U.S. production and use, cases of any toxic effect have been extremely rare -- and then only where the simple precautions recommended for use were not followed.

-more-

MAE 023320

---4 MONSANTO COMPANY

Monsanto has research programs under way to identify the compounds, reported to be PCB, and locate their source. The programs involve precise analysis of environmental samples of water and soil. Also under way are studies to determine the biological effects of deliberate dosage of PCBs on fish, birds and mammalian animals. Special emphasis is being paid to endocrinological effects, mineral metabolism and reproduction physiology.

Some preliminary biodegradability studies are under way. Further studies to clearly demonstrate this phenomenon are contemplated.

Very early results of chronic toxicity studies confirm that PCBs are not highly toxic. In 90-day studies on rats and other normal laboratory species, there have been no adverse effects when feedings of up to 100 parts-per-million were administered.

Monsanto has always cooperated on a regular basis with federal, state and university laboratories in their analysis of chlorinated hydrocarbon residues. We will continue to do so. Additionally, Monsanto will continue to exercise the highest degree of control in its manufacturing, shipping and storing of PCB -- as we do with all products. In the functional fluids market, we have carried out a program for several years for the reclamation of used PCBs to reuse these valuable materials.

-more-

MAE 023321

WATER_PCB-SD0000020453

--J MONSANTO COMPANY

The source of the marine life residue identified as PCB is not yet known. It will take extensive research on a worldwide basis, to confirm or deny these initial scientific conclusions.

-o0o-

D IV/b

MAE 023322

WATER_PCB-SD0000020454

(F).

PRESENTATION TO FIELD SALES

PERSONAL AND CONFIDENTIAL

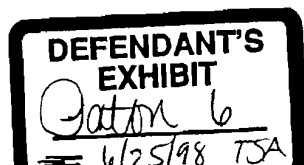
1. Introduction

As most of you are aware, there have been several newspaper and magazine articles published in the U. S. in 1969 indicating that polychlorinated biphenyls (PCBs) have been discovered in some marine, aquatic and wildlife environments. The quantities detected are said to be in the parts per million or parts per billion category.

It is claimed that the PCBs found strongly resemble chlorinated biphenyls containing 54% and 60% chlorine by weight. As you know, Monsanto sells such products under the trade-names of Aroclor[®] 1254 and 1260.

2. Letter to Monsanto's Aroclor Customers

As a result of this publicity and because Monsanto's name has been mentioned in at least one of the articles, it was felt that Monsanto as a responsible member of the business community had a duty to alert its Aroclor customers to a potential problem of environmental contamination. In so alerting our customers, let me emphasize that this does NOT mean that we are agreeing with the contents of any



MAE 033475

WATER_PCB-SD0000020455

published articles on PCBs, nor are we necessarily disagreeing with the articles. It does not mean that we accept that Aroclor 1254 and 1260 have caused any environmental problems. We are merely fulfilling what we consider to be our moral and our legal responsibility to our customers. When you consider the present public concern with pollution and the environment (witness Newsweek's recent article headlined "The Ravaged Environment"), I think you would agree that it would be foolish and imprudent to ignore the PCB articles. But let me repeat that notification to our customers does not imply guilt on the part of Monsanto.

Accordingly, a letter has been cleared by our Legal Department for mailing to each one of our direct Monsanto customers. This letter goes to Plasticizer customers only. A very similar letter will be mailed by the Functional Fluids Group to their customers. The letters will be mailed from St. Louis about the end of February. It will be addressed to:

Office of the President
XYZ Company
Accounts Receivable Address

MAE 033476

The Plasticizer letter will be signed by W. E. Schalk. A copy of this letter, together with a cover letter, will be mailed to the head office of each of our Aroclor distributors. The cover letter will indicate the action Monsanto is taking with regard to its direct Aroclor customers. We will recommend that our distributors mail a similar letter promptly to each of their Aroclor customers. Copies of our letter will be made available to our distributors in quantities sufficient to meet their needs. It is not our responsibility to alert our distributors' customers. To explain the action to our distributors we have visited the head offices of Central Solvents and American Mineral Spirits.

Let me summarize what Monsanto's letter says:

- 1) Its primary function is to alert customers to a potential environmental pollution problem. Confidentially, our Legal Department believes this will minimize and, hopefully, eliminate claims made against us for environmental pollution damage.
- 2) It does not imply guilt by Monsanto. At this time,

MAE 033477

we are taking a neutral stand on the controversy. There are real problems of analytical identification of PCBs, how accurate the levels observed are, how PCBs affect marine, aquatic and wildlife environments over the long-term. We have active programs in all these areas to better define the problem but a lot of work needs to be done before definite scientific conclusions can be drawn.

- 3) It points out that not all Aroclors are PCBs. This is an important distinction. Don't call the PCB problem the Aroclor problem. We sell Aroclors such as 5060, 5442 and 5460 which are NOT PCBs. They, therefore, should not be regarded as potential environmental contaminants.
- 4) Furthermore, it says that not all PCBs appear to be potential contaminants. Aroclors 1221, 1232, 1242 and 1248 have NOT been found in the environment. Neither have Aroclors 1262 and 1268. We can only theorize as to why this should be. At this stage, we prefer not to indulge in theories. The salient

point is that since they have not been found - in spite of intensive investigations by scientists both here and abroad - indicates that they are not persistent contaminants and, therefore, do not pose a long-term threat to the environment.

- 5) By including a copy of the Federal Water Pollution Standards established for all states of the Union, we are pointing out that care will be needed in preventing environmental contamination from other raw materials and products not just Aroclor 1254 and 1260. We feel this Chemical Week reprint will be useful information for many of our smaller customers.

3. Customer Reaction

We expect this letter will lead to customer reaction. Our competitors are sure to learn of it and some of them may even be kind enough to capitalize on it or at least try to.

We can't anticipate all the ways in which our customers

react. Remember this letter is going to the "Office of the President" so it may get down to his subordinates in a variety of different ways leading to a variety of reactions. Why send it to the Office of the President? Because our Legal Department feels in this way we have really notified a company officially of the potential problem. If there is any legal litigation later, the courts might feel that sending the letter to Joe Doe, Plant Purchasing Agent, was not legal notification because Joe Doe may not be an officer of the company.

So we must be prepared to expect hearing from customer employees we've never met nor heard of before. They may call anyone in the district office, many are likely to call Mr. Schalk, some may call executives all over the St. Louis campus.

Let us concern ourselves with what happens when a customer calls your regional offices about the letter or raises the matter during a sales call. For your guidance, we've prepared some aids:

MAE 033480

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-7-

- (1) A list of DOs and DON'Ts for Regional Managers.
- (2) A list of "likely" customer questions together with answers approved by Jim Springgate and our Legal Department.

MAE 033481

Decreased Sales

Beware of decreased sales to any account after the letter is sent out. If you suspect this, your plan of attack could be:

Monsanto: "I see your purchases of Aroclor XYZ are down. I hope it doesn't mean your business is having a tough spell".

Customer: "No, business is O.K. but it's that so-and-so letter you sent".

Monsanto: "Does this mean you've switched to a replacement for XYZ?"

Customer: "Yes".

Monsanto: Probe to find what it is. Is it inferior to Aroclor. Is it really not a contaminant too. Point out our range of products. Use Monsanto bulletins/Blue Book to get him to evaluate one of our products.

OR

Customer: "No but I'm living off inventory till my boys can get a replacement".

MAE 033482

Monsanto: "Let me help you with some suggestions if I can. In the Blue Book here, we cover over eighty possible products---".

Competition: Remember that Aroclor[®] plasticizers are outstanding products. They are inert, oxidatively and chemically stable, give good adhesion in adhesives, sealants and coatings, moisture resistant, give low vapor transmission in coatings. In other words, they are used because of PERFORMANCE. Competitors will suggest chlorinated paraffins but they are not so good. Every salesman who has gone through the Training School in the past year - and over 90% have - have been given the advantages of Aroclor over chlorinated paraffins. Use it if you have to. You might ask the customer: "How sure are you that chlorinated paraffins are not environmental contaminants. What proof do you have". Blunt the competitive attacks by getting them to be defensive.

MAE 033483

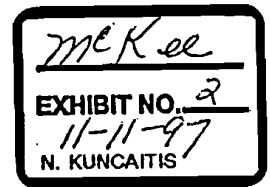
-10-

If the customer is going to evaluate replacements, make sure he gets samples of plenty of our standard plasticizers.

Future:

There may be some panicky reaction to start with. Your job will be to calm it down. To do that, you have to be confident. Our Aroclor sales have increased every year for ten years - in boom or recession. We want 1970 to be no different. Let's not enter a new decade with a down-turn.

MAE 033484



POSSIBLE CUSTOMER QUESTIONS ON PCBs

PUBLICITY

Question 1

What articles have appeared on the PCB problem?
Will you send me copies?

Answer:

In the U.S., newspaper articles have appeared in the San Francisco Chronicle on Feb. 24, 1969, the San Francisco Examiner on Feb. 25, 1969, and the Hartford Times on Aug. 3, 1969. Numerous articles were generated by the Wisconsin "DDT Hearings" in May, 1969. At the hearings, witnesses discussed the problem of PCBs as "interfering substances" in their search for DDT in the environment. PCBs, they said, produced peaks on a gas chromatograph similar to the peaks produced by DDT. In no case was PCB indicted at the Wisconsin hearings.

Copies of the articles will be made available on request. Regional managers should contact E. V. John, Public Relations Manager Organic Chemicals Division, in St. Louis and copies will be forwarded to the customer through the regional manager's office.

In addition to the newspaper articles mentioned above, there have been radio broadcasts. At the time of the San Francisco Chronicle and Examiner articles, radios in the San Francisco area also carried the story. In August, the sports editor of the Hartford Times syndicated a radio broadcast on the subject of PCBs, and in Dec., 1969, the Canadian Broadcasting Co. (radio) carried an interview they taped with a member of our medical department.

Question 2

Were Monsanto's Aroclors specifically mentioned in these articles?
If so, which ones?

MAE 034803



WATER_PCB-SD0000020465

Answer

Monsanto's Aroclors were mentioned in some of the articles but only in the San Francisco Chronicle story in Feb., 1969, was Aroclor 1262 specifically mentioned by number. In several of the articles, Monsanto was also identified as the sole U.S. producer of polychlorinated biphenyls, marketed under the tradename of Aroclor.

Question 3

What did the articles on the PCB problem say?

Answer

Since the outset of the "PCB problem", when the first article appeared in the U.S. press in Feb., 1969, the whole question has been closely interwoven with the question of DDT as a possible environmental contaminant.

The San Francisco Chronicle article carried a headline, "A Menacing New Pollutant." In rather sensational style, it identified PCB as a threat to birds and humans, highly toxic in a gaseous state and related to known cancer-causers. PCB presence in the environment is rising swiftly, the article stated.

The Examiner article called PCB a "plastic pollutant in the Bay and Mothers' Milk." This article called PCB an "alarming" new chemical pollutant that is playing a role in the declining peregrine falcon population, has been found in mothers' milk, and is the "latest addition to a growing list of chemicals in the ocean--- the newest symptom of man's chemical invasion of the ocean."

These two articles quoted Dr. Robert Risebrough, a researcher at the Institute of Marine Resources in the University of California's Department of Nutritional Scientists, on the detrimental effects of PCBs. Later Dr. Risebrough said he had been misquoted in some newspaper stories.

The Hartford Times story called PCB pollution a "new puzzle." Less sensational than the San Francisco articles, the Times gave an account of PCBs being found in the environment and the studies under way to determine their biological effects. This article, says Dr. Risebrough, tends to clear PCB of blame.

Articles generated by the Wisconsin DDT hearings generally discussed PCB as an interfering substance discovered in scientists' search for DDT in the environment. Dr. Risebrough said at the hearings that there was no proof at the moment that PCB alone can cause thin eggshells, one of the phenomenon that he had discovered in studying the declining population of the peregrine falcon.

LEGISLATION

Question 1

Are there any Federal/State/local laws under which the use or discharge of Aroclors could be prohibited?

Answer:

No existing Federal, State, or local laws prohibit the discharge of Aroclors. However, in a number of states the basic water pollution control legislation is so broad that state agencies can prohibit chemicals, deemed necessary, from being discharged.

Question 2

Is the DDT and the PCB problem related?

Answer:

We are not a manufacturer of DDT or other chlorinated hydrocarbon pesticide and, therefore, have no knowledge of the seriousness of the charges against DDT other than what has been so widely publicized on TV, in the press and in technical journals. To the extent that both DDT and PCB are chlorinated hydrocarbons, then there is a similarity. They are sufficiently different in their chemical structures, however, that it would be entirely wrong to assume that both behave in the same way in the environment. There is another and more obvious difference. DDT and other chlorinated hydrocarbon pesticides were specifically designed for a job that obviously leads to their being scattered in wide spread fashion across the countryside. Rain, birds, wind, insects further scatter these pesticides in an uncontrollable manner. PCBs are not used in this fashion and

MAE 034805

WATER_PCB-SD0000020467

Monsanto has never sought to promote this. This, we believe, is an important distinction that should not be overlooked if DDT and PCB are linked as a common pollutant of the environment. To our knowledge PCBs have never been identified in the absence of DDT or other chlorinated hydrocarbon pesticides.

Question 3

Could it be PCB that's causing the environmental problems and not DDT?

Answer:

We believe that present-day GLC and mass spectrometric techniques are sufficiently accurate to be able to differentiate between DDT, related pesticides, their metabolites and PCB.

Question 4

What authority do State and local governments have in banning/controlling the use of PCBs.

Answer:

They do have authority to ban or control use of any substances they consider harmful.

EFFLUENT AND ITS CONTROL

Question 1

How do I dispose of Aroclor 1254/1260, etc. effluent from my plant?

Answer:

We would suggest collecting all process effluent, equipment washings, tank or drum washings and then regularly taking to the nearest toxic materials dump. You may also be able to use a sanitary landfill if permits are issued for this in your locality. We don't recommend feeding this material to local sewage treatment plants or taking out to sea in drums for dumping. These methods do not

MAE 034806

solve the problem of contamination. We are working on the disposal of these materials by incineration and biodegradation. Our work in these areas has not yet reached the stage where we can offer practical suggestions. It is of interest to note, however, that research is underway to find catalysts to make DDT self-destructive. The possibility exists that we could find catalysts that would destroy PCBs in settling tanks constructed to catch all your effluents.

Question 2

Can I test my effluent to see if my effluent has no Aroclor 1254, etc. ?

Answer:

Yes. Analytical equipment is available that can do this if the proper technique is used. The basis of the method is GLC or gas liquid chromatography. Are you or anyone in your company familiar with this? Do you have GLC equipment? If you do, we can send you a description of a method that could identify PCB. If not, there may be a good analytical testing laboratory in the vicinity where you could send samples and rely on the results if you want to test your effluent..

Question 3

What is a "safe" PCB level for effluent leaving my plant?

Answer:

As our letter points out, parts per million (ppm) and parts per billion (ppb) have been mentioned in the published articles. There is still a lot of doubt as to how absolute any quoted values are. To bring this into the realms of reality, this definition of ppm and ppb may help clarify things.

To give you a practical example, the escape of one-two gallons per day could lead to samples in a stream beside the plant showing 10-50 ppb on analysis.

MAE 034807

Question 4

You must have quite a control problem at your plants--I would think Monsanto's Aroclor plants are the major polluters--how are you handling control?

Answer:

The Aroclor products we make to sell at a profit, so economics dictate maximum housekeeping, minimum losses. The Aroclor process is a "dry process" or closed system.

Question 5

How does Monsanto think Aroclors can get into the environment and cause so much pollution?

Answer:

Disposal, leakage from systems using it, spills, etc.

Question 6

If I analyze my effluent stream and find ppb there, how do I know it didn't come from air-borne contamination or was present in the process water that I pump from the XYZ river into my plant?

Answer:

Analyze water entering your plant and compare. There is a method available for sampling air.

Question 7

You seem to think from the tone of your letter that the source of pollution is from effluent disposal into streams. In my process, Aroclor 1254, 1260, etc. vapors escape. What precautions can I take to prevent (a) employee problems and (b) escape of vapors into the atmosphere?

Answer (7):

Articles on PCB interference with pesticides analysis have mentioned the possibility of loss to the atmosphere from vaporization when Aroclors are heated. We find this hard to believe and it warrants considerable investigation.

TOXICITY

Question 1

If PCB is a danger to fish and birds, how about humans?

Answer:

The amounts being found in the environment are not considered a danger to humans or fish. The whole question on chlorinated pesticides relates to birds.

Question 2

Are Aroclor 1254/1260, etc. more toxic than other Aroclors? Why?

Answer:

There is a difference in toxicity depending on degree of chlorination. This is not to say that higher chlorination is more toxic than lower chlorination. The alleged PCB problem is not really related to degree of toxicity.

DIFFERENCES BETWEEN AROCLORS

Question 1*

In your letter, you state that Aroclor ® 5060, 5442 and 5460 are not PCBs. What are they?

Answer:

They are chlorinated terphenyls.

MAE 034809

Question 2*

What's the difference between a chlorinated biphenyl and a terphenyl?

Answer:

A terphenyl has three benzenes linked together and biphenyl only two. They are, therefore, similar but different, just as naphthalene is different from benzene.

Question 3*

Why should PCB be an environmental contaminant and chlorinated terphenyls not?

Answer:

I don't think there is any positive answer on this and I can't give you any theories. However, I would emphasize that not all PCBs appear to be contaminants. Those such as Aroclor 1221, 1232, and 1242 haven't been identified in marine, aquatic and wildlife environments. Chlorinated terphenyls - at least those made by Monsanto - have not been identified in the environment either.

Question 4

Since you sell other PCBs beside Aroclor 1254 and 1260, why are they not found in the environment?

Answer:

One reason could be that they biodegrade and hence never build up to a level where they can be labelled persistent contaminants. Therefore, although you would find it in an effluent stream if you analyzed it just after you poured PCB into it, its absence when a river, for example, is analyzed downstream at a later date would indicate degradation by bacterial organisms.

We are actively working on this aspect of biodegradability in our laboratories at this time. Results of this type of work won't come to hand quickly but our preliminary work on PCBs of less than 54% chlorine looks promising.

MAE 034810

Question 5

In your letter, you make no mention of Aroclor 1262 and 1268. What is their status?

Answer:

It could be that their semi-solid/solid water insoluble nature means they are far, far less likely to become "mobile" contaminants. It could be that their structural differences from Aroclor 1254 and 1260 are responsible for the apparent lack of a problem. In any event, they have not been identified by scientists in the environment and--believe me-- a lot of scientists seem to be looking for PCBs.

Question 6*

Both Aroclor 5460 and 1260 contain 60% chlorine. Why is one a problem (1260) and apparently not the other (5460)?

Answer:

A terphenyl has three benzenes linked together and biphenyl only two. They are, therefore, similar but different, just as naphthalene is different from benzene.

I would emphasize that not all PCBs appear to be contaminants. Those such as Aroclor 1221, 1232, and 1342 haven't been identified in marine, aquatic and wildlife environments. Chlorinated terphenyls--at least those made by Monsanto-- have not been identified in the environment either.

Question 7*

Does this PCB problem mean that you have discontinued efforts to get Aroclor 5460 approved by FDA?

Answer:

No.

MAE 034811

Question 8*

Is the reason for not resubmitting your petition to the FDA for approval of Aroclor 5460 due to this PCB publicity?

Answer:

No.

Question 9

What's the problem then?

Answer:

We are bringing a new solid Aroclor plant on-stream in the next two-three months. We want to make sure it produces the same quality Aroclor 5460 we used in our feeding studies for the FDA. Once we're sure that's O.K. -- and we feel it will be -- then we'll get the petition moving again but FDA clearances do take time.

Question 10

Does this PCB publicity mean that FDA approval of Aroclor 5460 is not going to be obtained?

Answer:

We have no reason to think the two things are related. Aroclor 5460 is not chemically a PCB. The delay resulted from the need to set up certain analytical methods to satisfy FDA. This involved analytical instrumentation and is being completed now. It is my understanding we plan to resubmit our petition although I personally don't know the exact date.

CONTAINERSQuestion 1

Joe Doe buys all my used Aroclor drums without me having to wash them. I get \$3.00 a piece. I can't afford to wash them out. Even if I did, what would I do with the washings?

MAE 034812

(Question 1 con't)

What should I do? Should I tell Joe Doe? Will Monsanto take them back or pay me \$3.00 plus my costs to take them to a dump?

Answer:

Don't have an answer at this time. We just don't know.

APPLICATIONS

Question 1*

Could Aroclor 1254/1260 escape from my sealant/adhesive/coating whatever into the environment?

Answer:

This will depend entirely on the final use to which your product is used--its ultimate disposition.

Question 2*

My product X contains Aroclor 1254/1260. What should I tell my customers?

Answer:

Tell your customer--We want to advise you of a possible environmental problem. Without knowing what your customer does with product X, this is hard to answer. (We would say that it would not seem wise to use Aroclor 1254 or 1260 for keeping dust down on the roads, for use in dental sealing compounds or as carriers for pesticides.)*

*Only if you suspect or are told this is what the application is.

Question 3

Does Monsanto intend to continue manufacture of Aroclor 1254/1260, etc. ?

MAE 034813

Answer (3):

I have been given no indication otherwise.

Question 4*

Should I look for replacement for Aroclor 1254/1260, etc. ?

Answer:

I think only you can decide this. How easy would this be for you? Do you have any other replacement product in mind?

Question 5*

Does Monsanto have replacement products for Aroclor 1254 and 1260?

Answer:

As you know, we have over eighty plasticizers in our line and there's quite a bit of product interplay so it is possible that there is another product in our line that might replace them. What resin do you use? Perhaps we could look at these resin/plasticizer Selector Charts in the back of the Blue Book. I've got it with me.

Question 6*

Is Monsanto working on replacements for Aroclor 1254 and 1260?

Answer:

These research fellows are always busy on things like that. To some people Aroclor 1254 and 1260 have draw-backs-- quite apart from present publicity on PCB. Aroclor 1254 is fairly volatile. Aroclor 1260 is very viscous and difficult to handle. For polysulfide sealants, for example, the technical people in St. Louis have just sent us data on products that will behave better than Aroclor 1254 in polysulfide sealants. Maybe there's something here for you to look at. Let's go over it.

MAE 034814

FROM: NAME & LOCATION:

Cumming, Paton - General Offices

DATE:

April 3, 1970

SUBJECT:

AROCLOR BULLETIN O/PL-306

REFERENCE:

TO :

D. H. Bechtold - Chicago
R. N. Brell - Wilmington
J. H. Brydon - Montreal
G. Chew - Hong Kong
E. H. Fording - New York
J. D. Fowler - Melbourne
R. V. Johnson - RJOHN
J. J. McNamara - Everett
R. A. Onians - Brussels
G. W. Sperberg - GSPER
E. C. Wilde - Akron

cc M. W. Farrar - JFQ Research
R. G. Hutchison - RHUTC
E. V. John - EJOHN
Dr. R. E. Kelly - RKELL
W. B. Papageorge - WPAPA
Phocion S. Park - PPARK
W. E. Schalk - WSCHA
J. E. Smith - JSMT
J. E. Springgate - JSPRI
W. F. Waychoff
J. D. Wright - JWRIG

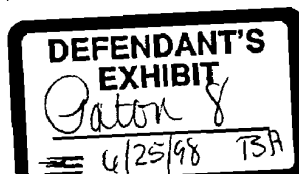
PERSONAL AND CONFIDENTIAL

Many of you have asked about the availability of Bulletin O/PL-306 which covers all Aroclors and all applications. It has been out of print for some time.

For your information only:

O/PL-306 must be drastically revised in the light of the letter on PCBs that we have sent to Aroclor customers in the U. S. and plan to send to U. K. and Canadian customers. As you know, we have programs underway to solve the problems the PCB situation poses for our Aroclor business. We are co-operating with the scientists and public agencies who have interests in the PCB situation. It would appear inconsistent from an image stand-point that at the time we are promising (in all sincerity let me emphasize) support to scientists/agencies we publish a NEW bulletin promoting PCBs. The lack of O/PL-306 should NOT inhibit your sales or your efforts. Salesmen who have been through the training school were given hand-outs on Aroclors. Many Specialists have been issued and O/PL-311A is available. We plan to issue a much-condensed bulletin giving the physical properties of the various Aroclors without reference to applications.

MAE 059946

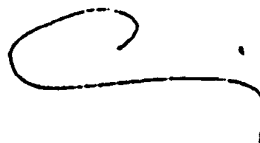


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For customers information:

Send them O/PL-311A (later you will have a physical properties pamphlet).

On O/PL-306, the line should be this. This bulletin is long out of date. Mere reprinting we feel would be misleading. We have various application research programs underway in hot melts, sealants and coatings involving Aroclors. We want to get the data and then publish it later. We feel this approach will be much more accurate and useful for our customers.



Cumming Paton

/dbw

MAE 059947

1. HEADING INFORMATION
2. NAMES OF ADDRESSEES
3. NAMES OF CARBONEES
4. IMMEDIATE ACTION NEEDED
5. REPORT ON CALL

CONSTRUCTION PRODUCT DIVISION		DATE OF CALL 4/22/70	
CITY AND STATE		DATE RECEIVED 4/23/70	DATE TYPED 4/23/70
CUSTOMER MAILING LIST CHANGES - SERVICE CENTER USE ONLY			
NAME AND TITLE	PUT ON	TAKE OFF	MP MAG. CATEGORY CODE
REGION Chicago	SERVICE CENTER Chicago	SALESMAN L. Berlik/saa	

REPORT CAPTIONS:

1. OBJECTIVE
2. PERSONS CONTACTED
3. RESULTS
4. ACTION REQUIRED

TO C. Paton/W.P. Waychoff - St. Louis D.H. Bechtold - Chicago

Contacted: - P.A.

Objectives: 1) Introduce LJB to account.
2) Identify reasons for below budget purchases of Aroclors.

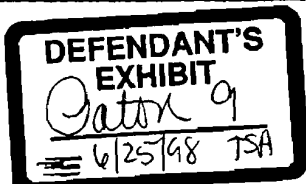
Results:

New competition for Aroclors: reported that is currently in the final stages of evaluating a new product which would replace the Aroclors in their caulking compounds. He described this product as a re-processed material which was recovered from the manufacturer of another product. He would not reveal the nature of this new product nor the supplier but did say that the material was 4-5¢ cheaper/lb than Aroclors. He indicated that has not definitely decided to switch over to this material at the present time. However, evaluations indicate that it does the same job as the Aroclor at a much lower price.

ATTN: Cumming Paton - Have you heard anything about such a product and do we have any ammunition to fight it with?

 attributed declining purchases of Aroclor to partial switchovers to this new material and also to the seasonality of their production. He indicated that there was nothing Monsanto could do short of cutting the price on Aroclors 4-5¢/lb to prevent it's possible replacement by this new material.

Recommended Action: Our loss of rapport at this account was a definite handicap in gaining more information about this new product. mentioned that he had been called on by Monsanto about "four times in the last five years". Hopefully, this rapport can be reestablished during the next few months and gain more information about this new competition. Any guidance which can be provided from St. Louis on this matter would be greatly appreciated.



Monsanto

ORGANIC CHEMICALS DIVISION

Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63108
Phone: (314) 894-1000

August 14, 1970

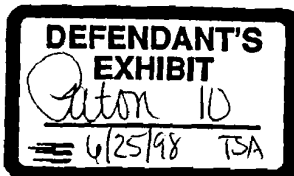
Dear Sir:

You have received our letters of February 27, 1970 and June 1, 1970 covering Monsanto's withdrawal of polychlorinated biphenyls (PCBs) from the market. The February 27 letter reviewed some of the potential hazards of PCBs and of environmental pollution in general. The June 1 letter announced that we were withdrawing all polychlorinated biphenyls used as plasticizers or modifiers from the market, and that the last shipment of these materials would be made August 30, 1970.

In as much as you may have some inventory of these materials which you might be planning to use during the period in which you change over to other products, we felt it imperative to inform you of the latest information concerning PCBs.

It was recently brought to our attention that the Food and Drug Administration has apparently established guidelines setting forth suggested maximum levels of PCBs allowable in certain foods. These levels, as we understand them, are 5 parts per million in fish and 0.2 parts per million in milk. Monsanto, therefore, strongly recommends that PCBs not be used in applications which could lead, either directly or indirectly, to the contamination of food and water supplies for humans or animals. Examples of applications which would seem particularly hazardous would be coatings for water treatment facilities, coatings for food handling equipment, or coatings for such farm items as silos and feed hoppers.

MAE 054468



WATER_PCB-SD0000020480

It has recently come to our attention that PCBs have been found in cows milk. This adds emphasis to Monsanto's recommendation that PCBs not be used in any application where they might come in contact with or otherwise contaminate food, silage, water supplies, etc.

The latest available bulletin on our line of Aroclors is enclosed for your use. This publication replaces and supercedes bulletin O/PL-306 - Aroclor Plasticizers. The only products listed which will be sold after August 31, 1970 are 1) Aroclor 1221, a monochlorinated biphenyl which is readily biodegradable, and 2) Aroclors 5442 and 5460, both chlorinated terphenyls which have not shown themselves to be environmental contaminants. Please pay special attention to the section of this bulletin which relates to environmental hazards.

In addition to the products listed above which will remain on the market, Monsanto will sell a series of blends of Aroclor 1221 and Aroclor 5460 which will replace the polychlorinated biphenyls for many applications.

During this withdrawal of PCBs from the market, Monsanto has had in effect a modified returned goods policy stating that unopened containers less than one year old could be returned for full credit through July 31, 1970. From August 1 through August 31, 1970, 90 percent credit would be allowed. From September 1 through December 31, 1970, 50 percent credit would be allowed. The customer will pay all return freight. All of the dates in the time schedule for this returned goods policy are hereby extended an additional two months.

Monsanto realizes that the removal of these products from the market has caused a great deal of concern and expense for our customers. This is certainly regrettable. However, it appears to us that as a responsible supplier, this is the only reasonable course of action. We stand ready to assist you as we can with your reformulation work.

Very respectfully,



Walter E. Schalk
Director of Sales
Plasticizers

/dbw

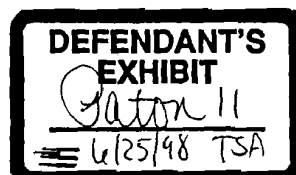
MAE 054469

AROCOR[®] PLASTICIZERS

A series of inert, chemically-resistant, fire-retarding plasticizers compatible with wide variety of resins.

TECHNICAL BULLETIN O/PL-306A

Monsanto



MAE 054470

AROCLOR[®] PLASTICIZERS

A series of inert, chemically-resistant, fire-retarding plasticizers compatible with wide variety of resins.

TECHNICAL BULLETIN O/PL-306A

CAUTION: see sections entitled Toxicity and Safe Handling, and Environmental Hazards, on page 12.

"Nothing contained herein is to be construed as a recommendation to use any product in contact with any person. ARCO AND MAE'S MAKE NO WARRANTIES AS TO THE FITNESS OR MERCHANTABILITY OF ANY PRODUCTS REFERRED TO. We guarantee no satisfactory results from reliance upon confidential information or recommendations, and disclaim all liability for any resulting loss or damage."

Organic Chemicals Division/800 N. Lindbergh Blvd./St. Louis, Missouri 63166

MAE 054471

Introduction

The unique Aroclor[®] plasticizers are among the most versatile chemically produced materials available. One outstanding characteristic -- *inertness* -- makes Aroclor useful in many ways for many different applications. The major benefits offered by Aroclor include:

- Chemical Resistance
- Fire Retardance
- Compatibility with most resins
- Nonoxidation
- Adhesivity
- Low Cost

Monsanto's Aroclor plasticizers comprise a series of chlorinated biphenyls and chlorinated polyphenyls. They vary from mobile, oily liquids to white crystals and hard, transparent resins.

Twelve of the Aroclor plasticizers, each of which represents a series, are discussed in this bulletin. An understanding of the system for designation of each Aroclor should prove useful in the evaluation of the property gradations among them. The last two digits indicate the approximate weight percentage of chlorine in the product, and the first two digits indicate the type of material, as follows:

12 -- chlorinated biphenyls

25 -- blend of chlorinated biphenyls and chlorinated triphenyls (75:25)

44 -- blend of chlorinated biphenyls and chlorinated triphenyls (60:40)

54 -- chlorinated triphenyls

For nearly every Aroclor mentioned, a darker, less-pure grade exists, with about the same physical and chemical characteristics, but lower in price.

Solubility

The Aroclor liquids and resins are readily soluble in most common organic solvents and drying oils. Although all Aroclor plasticizers are insoluble in water, the hard, crystalline materials are generally less soluble than the liquids and softer resins. Solubilities of some Aroclor plasticizers are shown in Table 1.

MAE 054473

SOLUBILITIES OF ARACLORE® PLASTICIZERS IN VARIOUS SOLVENTS									
Solvent	Araclo® 1242 25°C	Araclo® 1248 25°C	Araclo® 1254 25°C	Araclo® 1258 Cold	Araclo® 4465 Cold	Araclo® 5450 25°C			
Acid									
Acetic Acid	S	S	S	—	SS	S	—		
Oleic Acid	S	—	S	—	S	VS	—		
Benzoic Acid	10.0pt	—	—	—	—	—	—		
Aldehyde									
40% Formaldehyde	I	I	I	I	SS	I	—		
Furfural	VS	VS	VS	SS	VS	VS	—		
Amine									
Aniline	S	—	S	—	VS	VS	—		
Pyridine	132.5pt	440pt	114.1pt	425.0pt	—	VS	—		
Chloro derivatives									
Amyl chlorides — mixed	S	S	S	—	VS	VS	—		
Carbon Tetrachloride	S	S	S	S	VS	VS	156		
Chloroform	S	S	S	S	VS	VS	—		
Dichloroethylene	—	—	—	—	VS	VS	—		
Ethylene Dichloride	S	S	S	S	VS	VS	—		
Monochlorobenzene	—	—	—	—	VS	VS	—		
Orthodichlorobenzene	—	—	—	—	VS	VS	—		
Tetrachlorethane	S	S	S	S	VS	VS	—		
Trichlorethane	S	S	S	S	VS	VS	—		
Trichlorethylene	S	S	S	S	VS	VS	—		
Drying Oil									
Tung Oil	S	S	S	S	VS	VS	—		
Linseed Oil	S	S	S	I	VS	VS	—		
Ester									
Amyl Acetate	S	S	S	S	VS	VS	—		
Butyl Acetate	S	S	S	S	VS	VS	—		
Cellulosic Acetate	S	S	S	—	VS	VS	—		
Cottonseed Oil	S	S	S	—	S	VS	—		
Dibutyl Phthalate	S	S	S	S	S	VS	—		

TABLE 2

CHEMICAL AND PHYSICAL PROPERTIES OF REPRESENTATIVE AROCLOR® PLASTICIZERS AND RESINS

Property	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254
Appearance	Clear, mobile oil	Clear, mobile oil	Clear, mobile oil	Clear, mobile oil	Light-yellow viscous liquid
Color, maximum	*100 APIIA	*100 APIIA	*100 APHA	*100 APHA	*100 APHA
Chlorine, percent	20.5-21.5	31.5-32.5	42	48	54
Acidity, mg KOH/g. maximum	*0.014	*0.014	*0.015	*0.010	*0.010
Moisture, ppm, maximum	—	—	*50	*50	*50
Ave. Coefficient of Expansion, cc/cc/°C	0.00071 (15°-40°C)	0.00073 (25°-100°C)	0.00068 (25°-65°C)	0.00070 (25°-65°C)	0.00066 (25°-65°C)
Specific Gravity	*1.182-1.102 (25°/15.5°C)	*1.270-1.280 (25°/15.5°C)	*1.381-1.392 (25°/15.5°C)	*1.405-1.415 (65°/15.5°C)	*1.495-1.505 (65°/15.5°C)
Density, pounds per gallon, 25°C	8.85	10.55	11.50	12.04	12.82
Distillation Range, °C, corrected (ASTM D-20, modified)	275-320	290-325	325-366	340-375	365-390
Evaporation Loss, %, 100°C, 6 hours (ASTM D-6, mod.) 163°C, 5 hours	1.0-1.5	1.0-1.5	0-0.4 3.0-3.6	0-0.3 3.0-4.0	0-0.2 1.1-1.3
Flash Point (Cleveland Open Cup), °C °F	141-150 286-302	152-154 305-310	176-180 348-356	193-196 379-384	None to boiling point
Fire Point (Cleveland Open Cup), °C °F	176 349	238 460	None to boiling point	None to boiling point	None to boiling point
Pour Point (ASTM E-87), °C °F	1 (crystals) 34 (crystals)	-35.5 -32	-19 2	-7 19.4	10 50
Softening Point (ASTM E-28), °C °F	—	—	—	—	—
Refractive Index, n D-20 20°C	1.617-1.618	1.620-1.622	1.627-1.629	1.630-1.631	1.639-1.641
Viscosity, Seconds Saybolt Universal (ASTM D-88)	100°F (37.8°C) *38-41 130°F (54.4°C) 35-37 210°F (98.9°C) 30-31	*44-51 39-41 31-32	*82-92 49-56 34-35	185-240 *73-80 36-37	1800-2500 260-340 *44-48

* Minimum Specifications.

MAE 054425

Aroclor 1260	Aroclor 1262	Aroclor 6442	Aroclor 4455	Aroclor 2565	Aroclor 6460	Aroclor 1268
Light-yellow, soft, sticky resin	Light-yellow sticky, viscous resin	Clear yellow sticky resin	Clear, light-yellow, resin	Black, opaque, brittle resin	Clear, yellow- to-amber, brittle resin or flakes	White to off-white powder
*150 APHA	*150 APHA	*2 NPA (molten)	*2 NPA (molten)	—	*2 NPA (molten)	*1.5 NPA (molten)
80	61.5-82.5	42	66	66	58.5-60.6	68
*0.014	*0.014	0.05	0.05	1.4	0.05	0.05
*50	—	—	—	—	—	—
0.00067 (20°-100°C)	0.00064 (25°-65°C)	0.00123 (25°-99°C)	0.00061 (25°-65°C)	0.00066 (25°-65°C)	0.00179 (25°-124°C)	0.00067 (20°-100°C)
*1.555-1.566 (90°/15.5°C)	*1.572-1.583 (90°/15.5°C)	1.470 (25°/25°C)	1.670 (25°/25°C)	1.734 (25°/25°C)	1.670 (25°/25°C)	1.804-1.811 (25°/25°C)
13.50	13.72	12.24	13.91	14.44	13.91	15.09
385-420	390-425	215-300 (4 mm. Hg)	230-320 (4 mm. Hg)	—	280-335 (5 mm. Hg)	435-450
0-0.1 0.5-0.8	0-0.1 0.5-0.6	0.01 0.2	0-0.02 0.2-0.3	0.2-0.3	0.03	0-0.06 0.1-0.2
None to boiling point	None to boiling point	247 477	None to boiling point	—	None to boiling point	None to boiling point
None to boiling point	None to boiling point	> 350 > 662	None to boiling point	—	None to boiling point	None to boiling point
31 88	38-38 99	46 115	—	—	—	—
—	—	*46-52 115-126	*60-66 140-151	*66-72 149-162	*98-105 208-222	*150-170 (hold 302-338 point)
1.647-1.649	1.6501-1.6517	—	1.664-1.667	—	1.660-1.665	—
3200-4500 *72-78	600-850 (160°F; 71°C) *86-100	300-400	90-150 (266°F; 130°C)	—	—	—

*Measured by Spectrophotometry.

MAE 054476

Density

All the Aroclor plasticizers are heavier than water, a valuable property for many applications. Densities are shown in Figure 1.

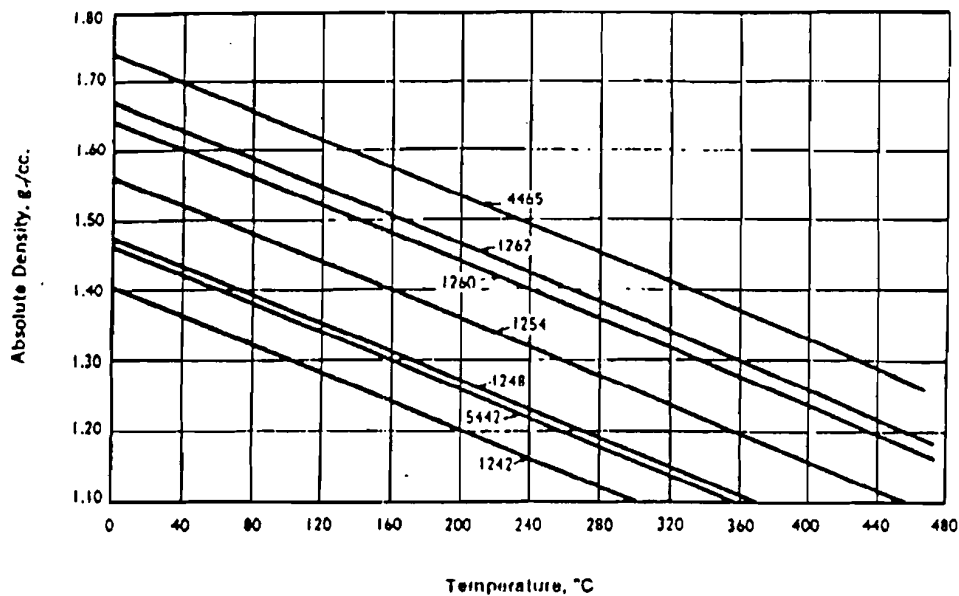


Fig. 1 — Densities of Aroclor® Plasticizers at Various Temperatures

Specific Volume

The specific volume of Aroclor 1248 at different temperatures is as follows:

Temperature (°F)	Aroclor® 1248 Specific Volume (ml/g)
0	0.674
100	0.699
200	0.726
300	0.755
400	0.790
500	0.828
600	0.870

MAE 054477

The low vaporization loss of Aroclor plasticizers is indicated in Table 3.

TABLE 3

VAPORIZATION RATES OF AROCLOR® PLASTICIZERS			
<i>Plasticizer (Surface area: 12.28 sq. cm.)</i>	<i>Wt. Loss (g)</i>	<i>Exposure at 100°C (hr.)</i>	<i>Vaporization Rate (g/sq. cm./hr.)</i>
Aroclor 1221	0.5125	24	0.00174
Aroclor 1232	0.2572	24	0.000874
Aroclor 1242	0.0995	24	0.000338
Aroclor 1248	0.0448	24	0.000152
Cloralin*-42-S	0.0745	48	0.000126
Diethyl phthalate	0.0686	48	0.000117
Dutrex** 25	0.0256	24	0.000087
Aroclor 1254	0.0156	24	0.000053
Shell Dutrex 20	0.0047	24	0.000016
Aroclor 1262	0.0039	24	0.000013
Aroclor 1260	0.0026	24	0.000009
Aroclor 4465	0.0064	72	0.000007
Aroclor 5442	0.0039	72	0.000004
Aroclor 5460	0.0032	72	0.000004
Tricresyl phosphate	0.0010	24	0.000003

It is concluded that the vaporization rates of Aroclor plasticizers — especially the most widely used 1254 and 1260 — compare most favorably with the similar constants of other plasticizers selected specifically for these tests because of their low vaporization rates.

*Trademark of Hercules, Inc.

**Trademark of Shell Oil Co.

MAE 054478

The vapor pressures of several Aroclor plasticizers are indicated in Figure 2 over the temperature range 150° to 300°C.

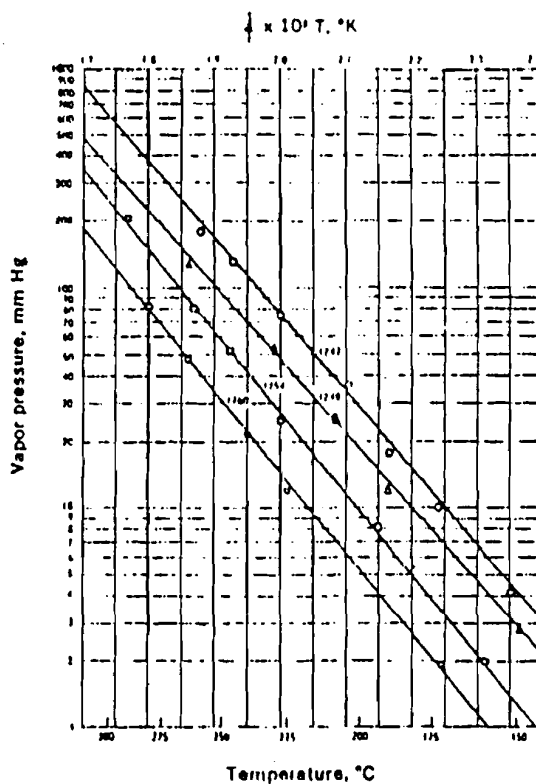


Fig. 2 — Vapor Pressures of Aroclor® Plasticizers

The estimated vapor pressures of several Aroclor plasticizers at 100°F shown in the following table were determined by extrapolation from the values shown in Figure 2.

*Approximate Vapor Pressure of Aroclor® Plasticizers
Estimated at 100° F (37.8° C)*

Aroclor 1232	0.005 mm. Hg
Aroclor 1242	0.001 mm. Hg
Aroclor 1248	0.00037 mm. Hg
Aroclor 1254	0.00006 mm. Hg

MAE 054479

The viscosities of the Aroclor plasticizers vary according to whether the base material is a biphenyl or a polyphenyl and on the degree of chlorination. In general the low-chlorinated biphenyls have the lowest viscosities (Figure 3).

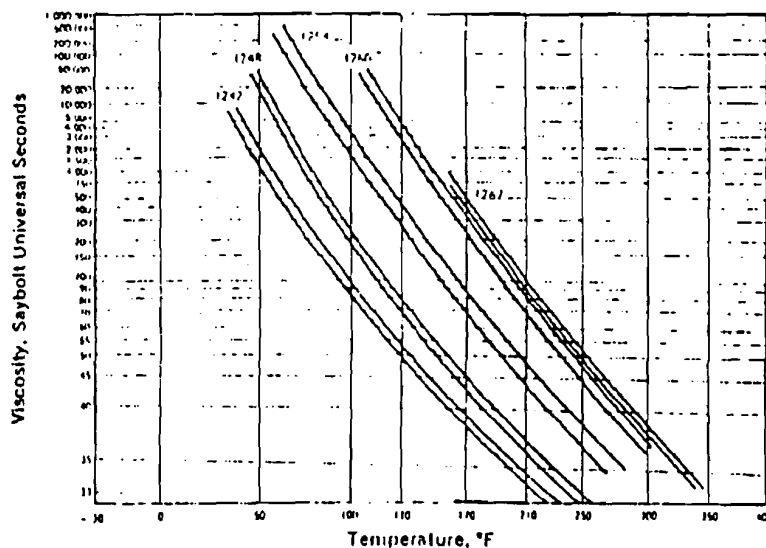


Fig. 3 — Viscosity Ranges of Some Aroclor® Plasticizers

Inhalation

At ordinary temperatures the Aroclor chlorinated polyphenyls have not presented industrial toxicological problems. The hazard of potential toxic exposure varies with their volatility: the lower-chlorinated, more-volatile ones present more of a potential problem from the standpoint of both inhalation and skin contact. When Aroclor plasticizers are used at elevated temperatures, engineering controls must be applied, either by the use of closed systems or by effective local-exhaust ventilation together with general workroom exhaust.

Vapor of the liquid Aroclor plasticizers at room temperature should not be breathed in a confined space, and no vapor of any Aroclor evolved at elevated temperatures should be allowed to be dispersed into the general workroom.

Inhalation tests on animals indicate that the maximum safe concentration of vapor is in the range of from 0.5 to 1.0 milligram of the lower-chlorinated Aroclor plasticizers per cubic meter of air. The threshold limit values (maximum allowable concentration for an 8-hour working day) set by the American Conference of Government Hygienists are 1.0 milligram of the lower-chlorinated Aroclor compounds per cubic meter of air and 0.5 milligram of the more-highly-chlorinated compounds, such as Aroclor 1254, per cubic meter of air.

Skin Contact

Schwartz patch tests on 200 volunteers showed that Aroclor 1254 was neither a primary skin irritant or a sensitizer.

Prolonged or repeated skin contact with the Aroclor plasticizers must be avoided by the use of gloves and protective garments, because of the possible occurrence of a condition called chloracne. Although reports of this condition caused by Aroclor are rare, it can be produced by excessive skin contact. If any Aroclor is spilled on the skin the skin should be washed in the usual manner with a soap solution.

A burn caused by contact with a hot Aroclor should be treated like any ordinary burn. Aroclor plasticizer adhering to the burned area need not be removed immediately, unless treatment of the burn demands it, in which case either soap and water or repeated washings with a vegetable oil are recommended.

MAE 054481

Environmental Hazards

Aroclor 1232, Aroclor 1212, Aroclor 1248, Aroclor 1254, Aroclor 1260, Aroclor 1262, Aroclor 1268, Aroclor 4465, and Montar 1 all contain polychlorinated biphenyls (PCB) of various types and in varying amounts. PCB residues in small amounts have been found in the environment and some studies have indicated that they may be harmful to certain forms of animal life. Extreme care should therefore be taken by all users of PCB-containing products to prevent any entry into the environment through spills, leakage, use, disposal, vaporization or otherwise. Further, the products in which PCB materials are used, or which are formulated using PCB materials as a component, should be given careful study to eliminate the possibility that PCB might reach the environment as a result of use in a given application.

Some specific applications where the use of PCB should definitely be avoided are in paints and sealants for swimming pools, paints and waterproofing agents in silos and other buildings where food products for humans or animals are stored, and as a component of any container or wrapping used in the packaging of food products.

MAE 054482

Shipping

Freight Classification

Aroclor 1221, 1232, 1242, 1248, 1254, 1260, 1262	Synthetic Resin, Liquid, NOIBN
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Rail Classification

Aroclor 1268, 4465, 5442, 5460	Synthetic Resin, Other Than Liquid, NOIBN
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Truck Classification

Aroclor 1268	Synthetic Resin, Powder, NOI
Aroclor 4465, 5442, 5460	Synthetic Resin, Lumps or Solid Mass, NOI

Shipping Regulations

None

Standard Containers

Aroclor 1221	Tank car, 520-lb. steel drum, 50-lb. can
Aroclor 1232	Tank car, 550-lb. steel drum, 50-lb. can
Aroclor 1242, 1248, 1254, 1260, 1262	Tank car, 600-lb. steel drum, 50-lb. can
Aroclor 1268	200-lb. fiber drum, 25-lb. fiber drum
Aroclor 4465	600-lb. steel drum, 50-lb. can
Aroclor 5442	450-lb. steel drum, 50-lb. can
Aroclor 5460 (flake)	50-lb. bag

MAE 054483

MAE 054484

11

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3/70

MAE 054485

7-3042-0670 6 11MO III U.S.A.

WATER_PCB-SD0000020497

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Monsanto

MAE 054486

bcc 1650 P. L. Slayton
1070 H. R. Ford
1940 F. G. Sutton
Paul W. Gann
J. Roder/D. Roush

December 21, 1971

Armstrong Cork Company
2500 Columbia Avenue
Lancaster, Pennsylvania

Attention Mr. Jack Wilkinson, Director of Purchases

Dear Mr. Wilkinson:

Further to our conversation of December 20, 1971 I am enclosing a copy of our customer notification letter on the discontinuation of Therminol FR heat transfer fluid.

As discussed I am also attaching bulletins on Therminol 55 and 66 which you may wish to consider as possible replacements for Therminol FR-1. Both Therminol 55 and 66 do not contain PCBs but, unlike Therminol FR-1, neither has fire-resistant characteristics. Your company may therefore wish to check with your insurers regarding the proposed changes.

Per your request we are sending copies of this information to Mr. Frank White at Lancaster and Mr. Bruce Hettel at Macon.

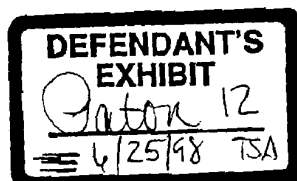
Please do not hesitate to contact Monsanto if we can be of further assistance.

Very truly yours,

Cumming Paton
Product Manager
Heat Transfer, Dielectrics
and Process Fluids

cc
Enclosure

cc Mr. Frank White
Mr. Bruce Hettel



MAE 054596

WATER_PCB-SD0000020499



AREA CODE TELEPHONE
717 397-0611

LANCASTER, PA 17604-

March 7, 1972

Mr. J. E. Springgate
Business Director
Plasticizers
Monsanto Company
800 North Lindberg Boulevard
St. Louis, MO 63166

Dear Jim:

I just wanted to take a few minutes on behalf of all of us here at the Floor Plant to thank you for the help you gave us at the time you visited Lancaster on our problem with your FR-11 material.

I think you would be interested in knowing that your man from St. Louis came to Lancaster shortly after you were here and met with our Safety Director and Engineering people, as well as the Factory Mutual representative. As nearly as I can determine, Jim, things are now under control and various alternates have been suggested to help us out in this particular problem.

I can't begin to tell you how much your interest and effort meant to me personally, as well as your willingness to try and help us out. I think this is just one more evidence of the fine vendor/customer relationship we have had over many years.

I hope it won't be too long before you get a chance to be back in Lancaster again, and perhaps if the weather ever warms up, we can cut a little grass just to keep in shape and sharpen up our putting and counting ability.

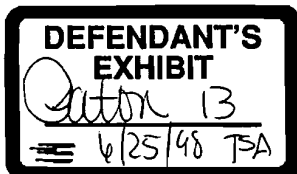
Sincerely yours,

F. P. White
Plant Purchasing Agent
Lancaster Floor Plant

JSK

Mr. Fred C. Sutton
Regional Sales Manager
Plasticizers
Southeast Region
Monsanto Company
3411 Silverside Road
Wilmington, DE 19810

MAE 058885



Monsanto

FROM (NAME & LOCATION): W. B. Papageorge

B2SK

DATE: February 10, 1975

SUBJECT: AROCLOR 1260 - HEW STUDIES

REFERENCE:

TO: H. S. Bergen - B2SL

cc: ~~W. B. Papageorge~~ Bishop - B26A
G. L. Bratsch - B3NA
K. W. Essley - 1920
F. J. Fitzgerald - B3SA
T. L. Gossage - B2SL
G. J. Levinskas - A2SC
C. Paton - B2SC
W. R. Richard - T3A
G. Roush - A2SA
E. Tillman - A2SA
W. W. Withers - B2SA
P. L. Wright - A2SC

The following met on Thursday, February 6 to review the results of a rat feeding study recently completed by Dr. Renate Kimbrough, Center for Disease Control, HEW:

T. L. Gossage	W. R. Richard
G. J. Levinskas	G. Roush
W. B. Papageorge	E. Tillman
C. Paton	W. W. Withers
	P. L. Wright

George Levinskas summarized a meeting held at the National Cancer Institute, Washington, D. C. on January 31, at which sections of liver tissue from Dr. Kimbrough's study were reviewed. Discussion relating to interpretation, significance and required action followed. The following conclusions were drawn:

1. Cancerous liver cells were observed in approximately 8% of the rats exposed to Aroclor 1260 in Dr. Kimbrough's study.
2. This effect was not observed in similar studies conducted for Monsanto Company by Industrial Bio-Test Laboratories.
3. This difference in observed effects could be due to the difference in rat strains used in the two studies.
4. Dr. Kimbrough will in all probability present and/or publish her findings as soon as she can.
5. NIOSH has Dr. Kimbrough's data and certainly, following publication of this information and in the absence of any contradicting reports, the regulatory agencies will be pressured into reviewing their policies and regulations relating to polychlorinated biphenyls. As in the past there will very likely be limited attempts made to distinguish between types of commercial mixtures of polychlorinated biphenyls. The cancer cell formation observed in Dr. Kimbrough's study with Aroclor 1260 under conditions unique to that test will in all probability be quickly and without scientific basis assumed to occur with all polychlorinated biphenyls.

DEFENDANT'S
EXHIBIT

Paton 14
6/25/98 TSA

MAE 021966

The following action plan was developed and is recommended for adoption:

<u>Action</u>	<u>Responsibility</u>	<u>Dates</u>		<u>Estimated Cost</u>
		<u>Start</u>	<u>Complete</u>	
1. Publish the results of the Monsanto studies conducted by Industrial Bio-Test Laboratories.	G. Roush J.P. Stapleton	Immediately	July 1, 1975	-
2. Obtain services of cancer specialist to review both studies and interpret significance to current PCB applications.	G. Roush	Immediately	April 1, 1975	\$2000 - \$5000
3. Obtain National Cancer Institute interpretation.	G. Roush	Following 2 above.		-
4. Discuss with NIOSH, OSHA, FDA, EPA.	G. Roush K.W. Easley W.B. Papageorge	Immediately following 2 and 3 above.		-
5. Discuss with key customers	G. Roush T.L. Gossage W.B. Papageorge	Coincident with 4 above.		-
6. Complete WOK plant employee exposure study.	G. Roush	Immediately	April 1, 1975	
7. Conduct study of Aroclor 1260 with rats to determine effect at 24 months when exposure is withdrawn at 18 months.	G. Roush	Immediately	March, 1977	\$ 70,000
8. Conduct study of Aroclor 1260 with second species (hamster?) to establish if species differences exist.	G. Roush	Immediately		\$ 70,000

MAE
021967

-4-

A possibility does exist that Dr. Kimbrough may be interested in conducting some of the animal feeding studies listed in the action plan. Medical Department representatives will explore this possibility.

W. B. Papageorge/pw
W. B. Papageorge

/pw

MAE 021969