

COPY

IN THE DISTRICT COURT OF THE UNITED STATES
EASTERN DISTRICT OF KENTUCKY
PIKEVILLE DIVISION

EQUITABLE RESOURCES ENERGY
COMPANY, a West Virginia
Corporation,

Plaintiff,

VS.

MONSANTO COMPANY, a
Delaware Corporation,

Defendant.

No. 91-441

CONTINUED DEPOSITION OF WILLIAM B. PAPAGEORGE
TAKEN ON BEHALF OF THE PLAINTIFF.

Volume 2

October 8, 1992

RICHARD E. SCHROEDER

Registered Professional Reporters
818 Olive
St. Louis, MO 63101
621-0107

1 IN THE DISTRICT COURT OF THE UNITED STATES
2 EASTERN DISTRICT OF MISSOURI
3 EASTERN DIVISION

4 EQUITABLE RESOURCES ENERGY)
5 COMPANY, a West Virginia)
6 Corporation,)
7)
8)
9)
10)
11)
12)
13)
14)
15)
16)
17)
18)
19)
20)
21)
22)
23)
24)
25)
26)
27)
28)
29)
30)
31)
32)
33)
34)
35)
36)
37)
38)
39)
40)
41)
42)
43)
44)
45)
46)
47)
48)
49)
50)
51)
52)
53)
54)
55)
56)
57)
58)
59)
60)
61)
62)
63)
64)
65)
66)
67)
68)
69)
70)
71)
72)
73)
74)
75)
76)
77)
78)
79)
80)
81)
82)
83)
84)
85)
86)
87)
88)
89)
90)
91)
92)
93)
94)
95)
96)
97)
98)
99)
100)
101)
102)
103)
104)
105)
106)
107)
108)
109)
110)
111)
112)
113)
114)
115)
116)
117)
118)
119)
120)
121)
122)
123)
124)
125)
126)
127)
128)
129)
130)
131)
132)
133)
134)
135)
136)
137)
138)
139)
140)
141)
142)
143)
144)
145)
146)
147)
148)
149)
150)
151)
152)
153)
154)
155)
156)
157)
158)
159)
160)
161)
162)
163)
164)
165)
166)
167)
168)
169)
170)
171)
172)
173)
174)
175)
176)
177)
178)
179)
180)
181)
182)
183)
184)
185)
186)
187)
188)
189)
190)
191)
192)
193)
194)
195)
196)
197)
198)
199)
200)
201)
202)
203)
204)
205)
206)
207)
208)
209)
210)
211)
212)
213)
214)
215)
216)
217)
218)
219)
220)
221)
222)
223)
224)
225)
226)
227)
228)
229)
230)
231)
232)
233)
234)
235)
236)
237)
238)
239)
240)
241)
242)
243)
244)
245)
246)
247)
248)
249)
250)
251)
252)
253)
254)
255)
256)
257)
258)
259)
260)
261)
262)
263)
264)
265)
266)
267)
268)
269)
270)
271)
272)
273)
274)
275)
276)
277)
278)
279)
280)
281)
282)
283)
284)
285)
286)
287)
288)
289)
290)
291)
292)
293)
294)
295)
296)
297)
298)
299)
300)
301)
302)
303)
304)
305)
306)
307)
308)
309)
310)
311)
312)
313)
314)
315)
316)
317)
318)
319)
320)
321)
322)
323)
324)
325)
326)
327)
328)
329)
330)
331)
332)
333)
334)
335)
336)
337)
338)
339)
340)
341)
342)
343)
344)
345)
346)
347)
348)
349)
350)
351)
352)
353)
354)
355)
356)
357)
358)
359)
360)
361)
362)
363)
364)
365)
366)
367)
368)
369)
370)
371)
372)
373)
374)
375)
376)
377)
378)
379)
380)
381)
382)
383)
384)
385)
386)
387)
388)
389)
390)
391)
392)
393)
394)
395)
396)
397)
398)
399)
400)
401)
402)
403)
404)
405)
406)
407)
408)
409)
410)
411)
412)
413)
414)
415)
416)
417)
418)
419)
420)
421)
422)
423)
424)
425)
426)
427)
428)
429)
430)
431)
432)
433)
434)
435)
436)
437)
438)
439)
440)
441)
442)
443)
444)
445)
446)
447)
448)
449)
450)
451)
452)
453)
454)
455)
456)
457)
458)
459)
460)
461)
462)
463)
464)
465)
466)
467)
468)
469)
470)
471)
472)
473)
474)
475)
476)
477)
478)
479)
480)
481)
482)
483)
484)
485)
486)
487)
488)
489)
490)
491)
492)
493)
494)
495)
496)
497)
498)
499)
500)
501)
502)
503)
504)
505)
506)
507)
508)
509)
510)
511)
512)
513)
514)
515)
516)
517)
518)
519)
520)
521)
522)
523)
524)
525)
526)
527)
528)
529)
530)
531)
532)
533)
534)
535)
536)
537)
538)
539)
540)
541)
542)
543)
544)
545)
546)
547)
548)
549)
550)
551)
552)
553)
554)
555)
556)
557)
558)
559)
560)
561)
562)
563)
564)
565)
566)
567)
568)
569)
570)
571)
572)
573)
574)
575)
576)
577)
578)
579)
580)
581)
582)
583)
584)
585)
586)
587)
588)
589)
590)
591)
592)
593)
594)
595)
596)
597)
598)
599)
600)
601)
602)
603)
604)
605)
606)
607)
608)
609)
610)
611)
612)
613)
614)
615)
616)
617)
618)
619)
620)
621)
622)
623)
624)
625)
626)
627)
628)
629)
630)
631)
632)
633)
634)
635)
636)
637)
638)
639)
640)
641)
642)
643)
644)
645)
646)
647)
648)
649)
650)
651)
652)
653)
654)
655)
656)
657)
658)
659)
660)
661)
662)
663)
664)
665)
666)
667)
668)
669)
670)
671)
672)
673)
674)
675)
676)
677)
678)
679)
680)
681)
682)
683)
684)
685)
686)
687)
688)
689)
690)
691)
692)
693)
694)
695)
696)
697)
698)
699)
700)
701)
702)
703)
704)
705)
706)
707)
708)
709)
710)
711)
712)
713)
714)
715)
716)
717)
718)
719)
720)
721)
722)
723)
724)
725)
726)
727)
728)
729)
730)
731)
732)
733)
734)
735)
736)
737)
738)
739)
740)
741)
742)
743)
744)
745)
746)
747)
748)
749)
750)
751)
752)
753)
754)
755)
756)
757)
758)
759)
760)
761)
762)
763)
764)
765)
766)
767)
768)
769)
770)
771)
772)
773)
774)
775)
776)
777)
778)
779)
780)
781)
782)
783)
784)
785)
786)
787)
788)
789)
790)
791)
792)
793)
794)
795)
796)
797)
798)
799)
800)
801)
802)
803)
804)
805)
806)
807)
808)
809)
810)
811)
812)
813)
814)
815)
816)
817)
818)
819)
820)
821)
822)
823)
824)
825)
826)
827)
828)
829)
830)
831)
832)
833)
834)
835)
836)
837)
838)
839)
840)
841)
842)
843)
844)
845)
846)
847)
848)
849)
850)
851)
852)
853)
854)
855)
856)
857)
858)
859)
860)
861)
862)
863)
864)
865)
866)
867)
868)
869)
870)
871)
872)
873)
874)
875)
876)
877)
878)
879)
880)
881)
882)
883)
884)
885)
886)
88

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

EXHIBIT INDEX

<u>PLAINTIFF'S</u>	<u>PAGE</u>
58	199
67	239
2	255
40	260
66	274
37	292
38	292
39	295
42	302
47	310
63	313

WILLIAM B. PAPAGEORGE,

of lawful age, produced, sworn, and examined on
behalf of the PLAINTIFF, deposes and says:

DIRECT EXAMINATION

BY MR. BAKER:

Q. Mr. Papageorge, this is a continuation of
your deposition we started in this case back a few
weeks ago. As the Court Reporter has reminded you,
you are still under oath and he will not reswear
you.

I will not repeat everything that I
said at the beginning of the other deposition but
simply remind you that if at any time I ask you a
question you don't understand, feel free to stop and

1 ask me to repeat it, rephrase it or if you'd like,
2 take a break and confer with counsel.

3 We have in the past two days taken
4 depositions of Dr. Kelly and of Cumming Paton and a
5 few things that came up in those depositions I want
6 to start off with now because they are fresh in our
7 minds and then we'll jump back to some of the other
8 things we had planned to ask you.

9 First, I want to show you a copy of an
10 exhibit marked Plaintiff's Exhibit 58 and ask you to
11 review that, please.

12 A. I have glanced at it. I note a missing
13 page number 2. Unless it's -- oh, there it is,
14 okay.

15 Q. Mr. Papageorge, have you seen this document
16 before?

17 A. Yes, I have.

18 Q. Did you prepare this document?

19 A. I did.

20 Q. It is dated February 10, 1972, and says the
21 subject is the PCB/PCT Action Plan. Did you prepare
22 the document on or about February 10, 1972?

23 A. Yes, sir.

24 Q. When you were last here we talked primarily
25 about PCB's. Some of your testimony in that

1 deposition has caused us to begin to think we need
2 to ask a few questions about PCT's also, so I will
3 be asking you some questions about PCT's at this
4 time also.

5 You testified in the last deposition
6 that Pydraul AC A contained PCT's and not PCB's; is
7 that correct?

8 A. That is correct.

9 MR. CHAMBERS: Let me go ahead and
10 interpose the objection to the question about PCT's
11 as opposed to PCB's since there aren't any claims
12 related to PCT's in this case.

13 MR. BAKER: And I will simply say I'm
14 afraid there may have to be soon because we've
15 recently learned that our client may have purchased
16 one order of Pydraul AC A in addition to Pydraul AC.

17 Q. (By Mr. Baker) This document is labeled
18 PCB/PCT Action Plan. Were you responsible for both
19 the PCB and the PCT programs after 1970?

20 A. I was assigned responsibility for PCB's.
21 PCT's entered my consideration for two reasons. One
22 is the consideration that was given at the time as a
23 possible substitute for PCB's, and the other was the
24 close ties that existed in the production unit where
25 common equipment was used to manufacture both PCB's

1 and PCT's.

2 Q. I believe in your prior testimony you
3 indicated that on or about January 1st 1970 you came
4 back to St. Louis and you were put in charge of
5 dealing with the PCB problem; is that a fair
6 statement?

7 A. That is correct.

8 Q. And a portion of that was phasing out PCB's
9 and developing replacement products I assume, was it
10 not?

11 A. Yes.

12 Q. At some point did the PCB Action Plan
13 expand to include the phasing out of PCT products
14 and the replacement of those products?

15 A. PCT's were eventually phased out. I
16 personally don't include them as a part of the PCB
17 plan. They were, in essence, affected by the
18 actions taken for PCB's to the point where
19 eventually when the PCB unit in Anniston was shut
20 down, the PCT unit was also terminated. I would
21 suggest that the effect on PCT's was almost a
22 by-product of the PCB plan.

23 Q. When you had your meetings to discuss the
24 phaseout of PCB's did you also discuss the phaseout
25 of PCT's?

1 A. It depends on the point in time.

2 Q. You began working on the phaseout of PCB's

3 at the beginning of 1970, did you not?

4 A. That's right.

5 Q. Approximately when did you begin working on

6 the phaseout of PCT's?

7 A. About two years later.

8 Q. So when you wrote this memorandum in

9 February of 1972 you were involved in the phaseout

10 of PCB's and PCT's; is that correct?

11 A. I'll have to read this document a little

12 closer regarding the PCT part. Yes, this document

13 does refer to the phasing out of PCT's.

14 Q. Who was responsible for making the decision

15 to phase out PCT's?

16 A. Responsibility was ultimately Howard

17 Bergen's and he conveyed that, of course, to his

18 upper management and was supported.

19 Q. What other persons had input in that

20 decision to the best of your recollection?

21 A. Virtually all of these individuals listed

22 on the first page of this document we're looking at.

23 Q. Do you know where Mr. Bradford is now?

24 A. No, I don't.

25 Q. Do you know when he left Monsanto

1 approximately?

2 A. At about the time of this memo, '72.

3 Q. To the best of your recollection,
4 Mr. Papageorge, when did Mr. Bergen or yourself or
5 any of these persons first begin discussions
6 concerning the possible phaseout of PCT's?

7 A. As best I can recall, it was the latter
8 part of 1971. That's as close as I can come to it
9 now.

10 Q. That discussions first began?

11 A. Yes, the initial --

12 Q. To the best that you can recall, when was
13 the decision finally made by Monsanto to phase out
14 PCT's?

15 A. In '72.

16 Q. Do you know if it was before or after this
17 February 10, 1972 memorandum?

18 A. It was after this.

19 Q. With regard to Pydraul AC, to the best of
20 your recollection when did Monsanto cease production
21 and marketing of Pydraul AC with PCB's?

22 A. Cease production?

23 Q. Production and marketing. May be two
24 different dates, but --

25 A. As best I recall, it was about 1971, latter

1 part of '71.

2 Q. And what was the replacement product at
3 that time?

4 A. It was an interim formulation introduced at
5 that time and it contained PCT as the fire-resistant
6 ingredient.

7 Q. And was that product called Pydraul AC A?

8 A. That is correct.

9 Q. Do you know when Monsanto first began
10 marketing Pydraul AC A?

11 A. About the latter part of '71.

12 Q. Do you recall how long Monsanto produced
13 and marketed Pydraul AC A with PCT's?

14 A. Not exactly, but it's a period of about six
15 or nine months, less than a year.

16 Q. And the product that you replaced that with
17 was Pydraul 90 E; is that correct?

18 A. That is correct.

19 Q. And that contained neither PCB's nor PCT's?

20 A. That is correct.

21 Q. Pydraul 90 E was a phosphate ester product?

22 A. Phosphate ester was the fire-resistant
23 ingredient, yes.

24 Q. The phosphate ester was the chemical that,
25 in essence, replaced the PCB and the PCT; is that a

1 fair statement?

2 A. To a great degree, yes. Not totally.

3 Q. When Monsanto began producing and marketing
4 Pydraul AC A with PCT's had you already begun at
5 that time discussing the phaseout of PCT's?

6 A. Yes.

7 Q. What factors were discussed in your
8 discussions concerning whether to phase out PCT's or
9 not?

10 A. The apparent availability of substitute
11 materials based on phosphate esters to serve as the
12 fire-resistant ingredient in industrial hydraulic
13 fluids successfully had a lot to do with the need
14 for a chlorinated chemical to serve that purpose.

15 Other considerations. I don't propose
16 to recall all of them. There were the unanswered
17 questions regarding chlorinated hydrocarbons in
18 general and their impact on the environment. There
19 was virtually nothing known about PCT's in the
20 environment, and as I understand it, that exists to
21 this day. But having gone through the PCB
22 experience and having an acceptable substitute
23 material, Monsanto chose not to go down the PCT
24 path. That was a business decision based on
25 availability of phosphate esters primarily.

1 Q. And to the best of your recollection you
2 only manufactured Pydraul AC A, the PCT product, for
3 six to nine months, or certainly not a lengthy
4 period?

5 A. That is true.

6 Q. In 1971 your testimony is that you ceased
7 production of Pydraul AC, the PCB product, and
8 replaced that with a PCT product.

9 At that time what did Monsanto know
10 concerning any potential environmental risks of
11 PCT's?

12 A. It was nothing known and nothing available
13 relating to PCT's and the environment.

14 Q. You testified in response to an earlier
15 question about the unanswered questions concerning
16 PCT's. At the time you began marketing Pydraul AC A
17 had you taken any steps to attempt to answer any of
18 those unanswered questions?

19 A. There were steps taken and they included
20 such activities as developing analytical methodology
21 to detect PCT's and environmental samples at
22 extremely low levels. As I remember, there were
23 some biodegradation studies in which PCT's were
24 tested. There was some toxicology work started -- I
25 don't recall the specifics -- on some of the PCT's.

1 That's all that comes to mind at present.

2 Q. Who was responsible for the biodegradation
3 studies on PCT's?

4 A. That was done in Dr. Keller's analytical
5 research group. As I recall, Dr. Scott Tucker was
6 the key chemist that supervised that activity.

7 Q. You say Dr. Keller?

8 A. Robert Keller.

9 Q. Robert Keller's group?

10 A. Yes.

11 Q. Did they report to you concerning these
12 studies?

13 A. Periodically, yes.

14 Q. To the best of your recollection, when did
15 the biodegradation studies on PCT's begin?

16 A. Late '70 on into '71.

17 Q. Did they report any conclusions from those
18 biodegradation studies?

19 A. On PCT's?

20 Q. Yes.

21 A. I recall some status reports on those
22 studies. I don't remember the dates any longer but
23 there were some reports. I know there were many
24 oral reports made to me and there were some written
25 summaries that I recall.

1 Q. Do you recall whether any of these reports
2 were completed prior to the production, first
3 production, and marketing of Pydraul AC A?

4 A. No, they were not, they were underway.

5 Q. Do you know whether any of these reports
6 were completed prior to the decision to discontinue
7 producing and marketing Pydraul AC A?

8 A. They were not.

9 Q. Do you recall in general terms what these
10 people reported to you concerning the biodegradation
11 studies on PCT's?

12 A. At the moment it would have to be very
13 general. As I recall, they seemed to be similar to
14 the PCB results in that the less chlorine present,
15 the more amount they were to be degraded. Those
16 with higher chlorine content were more difficult to
17 degrade under the conditions of the test.

18 Q. Do you recall any significant differences
19 in biodegradability between the PCT's and the PCB's?

20 A. No, I would suggest that the results were
21 no surprise when compared to PCB's, so the
22 differences were not great.

23 Q. You testified that prior to the completion
24 of these biodegradation studies Monsanto made the
25 decision to cease production of Pydraul AC A, the

1 PCT product.

2 Did Monsanto continue production of
3 other PCT products after that time?

4 MR. CHAMBERS: Just interpose an objection
5 on the grounds of relevance since we're getting now
6 even away from Pydraul AC A, but subject to that,
7 you're welcome to answer.

8 A. I am having difficulty remembering the
9 exact date when all PCT production and sales was
10 terminated for any use. The best I can recall is
11 that 1972 was the year of transition and that period
12 as it relates to Pydraul hydraulic fluids, they were
13 phased out through the period -- they were not all
14 terminated on one day. It depended on when the
15 testing demonstrated that the alternative material
16 was acceptable, and that varied from Pydraul to
17 Pydraul. Once all of the Pydrauls were reformulated
18 without PCT's, the remaining PCT markets had found
19 other acceptable fire-resistant ingredients; at that
20 point all PCT's were terminated. Which, as the best
21 I remember, was late 1972.

22 Q. So whether it was late 1972 or sometime
23 months or a year more either direction, you don't
24 recall?

25 A. I just don't -- could be '73 but not much

1 beyond that.

2 Q. In any event, you continued producing PCB's
3 for some purposes after you ceased production of
4 PCT's?

5 A. Oh, yes.

6 Q. You testified that there was also some
7 toxicology work done on PCT's. Who was responsible
8 for that?

9 A. Dr. Kelly's Medical Department.

10 Q. I will tell you to the best of my
11 recollection from two days ago, Dr. Kelly could not
12 recall when he would have done this toxicology work
13 on PCT's and we have not yet asked for or been given
14 copies of those reports, so I'm asking you this for
15 our initial information purposes.

16 To the best you can recall, when was
17 that work begun?

18 A. As best as I recall, there was some early
19 work in the 1950's and there was some other work
20 done in the '71, plus or minus a year or so, that
21 period of time. The work in the '70's was the acute
22 and subacute type as best I recall. It never got to
23 the long-term lifetime feeding study stage because
24 the production was terminated before that. That's
25 as close as my memory will take me. I do remember

1 studies, I do remember some reports. I don't recall
2 the contents of those reports. I'd have to read
3 them again.

4 Q. Do you recall whether there were
5 similarities or significant differences in the
6 conclusions concerning toxicology of PCT's as
7 compared with Monsanto's conclusions as to
8 toxicology of PCB's?

9 A. I recall that the toxicity of PCT's as
10 determined by the acute toxicity testing, which was
11 the accepted protocol at the time, ranked them at
12 about the order of toxicity that PCB's were
13 considered. Moderately toxic I think was the
14 expression used. There was no report to my
15 knowledge that associated liver enlargement or egg
16 hatchability that I relate to some of the PCB's. I
17 don't recall any such conclusion coming out of the
18 PCT studies.

19 Q. You also testified that at some point
20 around the early 1970's Monsanto developed
21 instruments to measure in more minute detail PCT's
22 in the environment; is that a true statement?

23 MR. CHAMBERS: Let me just object because I
24 think the testimony was analytical methods, which
25 might well include instruments, but there can be

1 more to it than that.

2 Q. (By Mr. Baker) I was just trying to repeat
3 it from memory. Analytical methods; were there new
4 instruments involved in that or just new methods of
5 interpreting data?

6 A. The new instruments were new in the sense
7 that they were the type that were used for the
8 analysis of PCB's at extremely low levels. Using
9 those instruments and developing methodologies how
10 to take a sample, how to treat the sample and get it
11 ready to be introduced into the instrument, that was
12 the part that was being studied and developed for
13 PCT's as distinguished from PCB's.

14 Q. Let me ask you a few questions about that.
15 First, I know you're familiar with Jensen's reports
16 from 1966, early 1967, from Sweden.

17 Do you know whether the testing that
18 he did when he was looking for DDT and found
19 something that he believed to be PCB's, do you know
20 whether that testing would have found PCT's if they
21 were present in those specimens?

22 A. I'm no analytical chemist but I'm led to
23 understand that that procedure would not have
24 detected PCT's.

25 Q. What Monsanto developed then, was it using

1 instrumentation similar to what Dr. Jensen used but
2 running other kinds of tests and taking other kinds
3 of data with those instruments or did it involve
4 other kinds of instruments also?

5 A. Best of my knowledge, it involved the same
6 basic instrument. I don't know if they used other
7 instruments in preparing the sample up front. I
8 don't know that.

9 Q. Did Monsanto, prior to marketing
10 Pydraul AC A, do any tissue sampling to determine
11 whether PCT's were present in fish, birds or other
12 kinds of specimens?

13 A. I recall once they developed the
14 methodology which they felt would give them reliable
15 answers, I recall samples from the environment were
16 analyzed. What I don't recall is just what type of
17 samples, whether they included fish, bird tissue or
18 just included soil and river sediment and the like.
19 I don't know the type of sample study.

20 Q. What persons were responsible for that?

21 A. This would be Scott, Dr. Scott Tucker's
22 group reporting in to Dr. Keller, and I believe
23 about this time Dr. James Mieure was involved.

24 Q. How do you spell his name?

25 A. M-I-E-U-R-E.

1 Q. You testified you didn't know what kinds of
2 samples that Monsanto used. Do you know when they
3 did this sampling?

4 A. It would have to be the latter part of '71
5 at the earliest, going on into '72 and '73 as best I
6 recall.

7 Q. Would it be a fair statement then to say
8 that at the time Monsanto first marketed
9 Pydraul AC A that they had not completed any studies
10 to determine whether PCT's were found in the
11 environment?

12 A. That is correct.

13 Q. What were PCT's used for before 1970?

14 A. Oh, there were many uses. They were used
15 in some paints, they were used in caulking
16 materials. They were used in adhesives of all
17 kinds, the hot melt in particular. This is adhesive
18 that has to be heated before it flows and can be
19 used.

20 There were some applications in which
21 it was added as a fire retardant. I've forgotten
22 all the other uses, but that is a sample.

23 Q. That's fine for our purposes today. When
24 did Monsanto first -- approximately when Monsanto
25 first began producing PCT's?

1 A. As best I recall, they started producing
2 those about World War II time.

3 Q. Were there other domestic producers of
4 PCT's?

5 A. Not to my knowledge.

6 Q. Did Monsanto develop PCT's or acquire
7 another company that had developed them or how did
8 Monsanto come to begin production?

9 A. Well, of course, they had the terphenyls
10 that resulted from the manufacture of biphenyls, and
11 the terphenyls as I understood it were sold as
12 terphenyls for many years. And I have nothing that
13 I recall that will help me with a date as to when
14 they decided to chlorinate them, but I do recall
15 that about World War II time is when chlorinated
16 terphenyls were produced and were offered as fire
17 retardant materials for coating such things as army
18 tent canvass and the like.

19 Q. And so Monsanto developed that product
20 in-house?

21 A. To the best of my knowledge, yes.

22 Q. Were there other producers in other
23 countries?

24 A. I have never heard of any.

25 Q. In general terms, how did the volume of PCT

1 production at Monsanto compare with the volume of
2 PCB production?

3 A. I'm going to have to make an estimate. I
4 don't recall the numbers. Just relating it to the
5 United States production of PCB's by Monsanto, I
6 would suggest that the PCT production was 10 to 15
7 percent of that.

8 Q. And the only PCT production in the world
9 that you are aware of was domestic Monsanto
10 production?

11 A. Monsanto made some PCT's in the United
12 Kingdom in their Wales Plant.

13 Q. In your 10 to 15 percent figure did you
14 include the production of PCT's in the Wales Plant?

15 A. No, that was so much smaller it couldn't
16 have added more than another percent or so.

17 Q. You have before you Plaintiff's Exhibit 58
18 and you already testified that you prepared this.
19 Tell us what your purpose in preparing this document
20 was.

21 A. My purpose, really, was to try to put in
22 one document the many many activities that were
23 taking place to the point where the left hand didn't
24 know what the right was up to, and this was a draft
25 attempt. And I call it a draft because, as I

1 remember, it underwent some later revisions. But,
2 anyway, it was an attempt in February to put in
3 writing what all the individuals involved with PCB's
4 and PCT's were doing, what they hoped to achieve and
5 an idea of the dates involved.

6 Q. And you believe there were subsequent
7 drafts of this?

8 A. Yes, at least one more that kind of brought
9 it up to date.

10 MR. BAKER: I will ask, and then we will
11 include this in our letter to you, Rolly, counsel
12 for Monsanto provide us with any other drafts of
13 this document or similar document.

14 MR. BAKER: That will be fine.

15 (A brief recess was taken.)

16 Q. (By Mr. Baker) Mr. Papageorge, I'll ask
17 you to turn to pages 4 and 5 of Exhibit 58.

18 A. I have them.

19 Q. The heading at the top of page 4 says
20 "PCB/PCT Action Plan" and beneath that it says
21 "Industrial Fluids."

22 Was this your plan or your company's
23 plan in February of 1972 concerning industrial
24 fluids?

25 A. Well, this represents many of the

1 elements. I don't know that I covered everything
2 that one would call a plan.

3 Q. At least all the items on here were part of
4 the plan?

5 A. Correct.

6 Q. And Mr. Bradford was responsible for or had
7 the specific assignment to see that each of these
8 actions were carried out; is that correct?

9 A. At that time, yes, sir.

10 Q. Who replaced Mr. Bradford in that position?

11 A. I would suggest a Jerry Davidson came the
12 closest to replacing him.

13 Q. Do you know whether or not Mr. Davidson was
14 -- or what his job was in February of 1972?

15 A. I believe at that time he was working for
16 Mr. Bradford.

17 Q. I just noted he was not on the list of
18 persons to whom this memorandum was addressed.

19 A. Yeah, this did not try to include the
20 entire team, just the principal person.

21 Q. At this time were you still making
22 industrial fluids that had PCB's in them?

23 A. In early '72, yes, we were in the midst of
24 converting and some were still formulated with
25 PCB's.

1 Q. What was Santovac?

2 A. Santovac was a fluid containing PCB's used

3 in vacuum pumps.

4 Q. Did that fluid contain PCB's?

5 A. Yes.

6 Q. Did the Turbinols that you were

7 manufacturing at this time contain PCB's?

8 A. Yes.

9 Q. Were there any Pydrauls still being

10 manufactured at this time containing PCB's?

11 A. Yes.

12 Q. Do you recall which ones they were?

13 A. No, I don't. As you know, there was a

14 series of Pydrauls. At this point in time some had

15 already been reformulated, some were under study and

16 some were still to be looked at.

17 Q. Now, at this time, February of 1972, you

18 were also manufacturing some Pydrauls with PCT's; is

19 that correct?

20 A. That is correct.

21 Q. Including Pydraul AC A?

22 A. Yes.

23 Q. But you had already decided to phase out

24 the PCT Pydrauls, had you not?

25 A. That is correct.

1 Q. See if you can help me understand why you
2 developed some Pydrauls with PCT's and made the
3 decision to phase those out while at the same time
4 you were still manufacturing some Pydrauls with
5 PCB's.

6 A. Well, this has to do quite a bit with the
7 testing that is required to demonstrate that the
8 reformulated material satisfies a whole battery of
9 requirements, and in order to conduct those studies
10 it just takes time. Although we tried to accelerate
11 all this, of course, it still takes time. These
12 materials must be placed in test machinery and the
13 machinery must be operated as they are intended to
14 be operated and then observe the effect of the new
15 fluid on that piece of equipment. Of course, this
16 part of the test is pretty far down the line. Prior
17 to that, the material has to be tested for
18 stability, for effect on metal, ball bearings,
19 machinery, metal, the inner workings of these
20 machines, the effect on seals, gaskets in the
21 system; does it settle out and deposit unnecessary
22 gummy materials or does it stay fluid? And does it
23 lubricate properly or do you end up with scored ball
24 bearings and shafts? Does it meet the fire
25 resistance? And in order to do that it has to be

1 sent to a reputable outside laboratory. In this
2 case it was the Underwriters Laboratories I recall,
3 where they, in turn, have a their protocols that
4 they must follow.

5 Going through this involved testing of
6 many formulations where the materials and the
7 amounts of materials were changed each time to try
8 to meet some end result, lubricity, fire resistance,
9 on and on, some of those tests from our previous
10 experience used to take years to get the results
11 back. Under the accelerated program we were able to
12 cut that down to months, maybe a year and a half at
13 the most, until the satisfactory results were
14 obtained. We had two ways to go. One is to stay
15 with the original approved formula containing
16 PCB's. The other was a reformulated material in
17 which PCT's were used that passed the test as an
18 interim while we're waiting for the results of the
19 preferred mixture out here in the future somewhere.

20 I talked a lot but I don't know if I
21 helped any.

22 MR. CHAMBERS: Can we go off the record for
23 just a second?

24 MR. BAKER: Sure.

25 (Discussion was had off the record.)

1 Q. (By Mr. Baker) Thank you for that answer,
2 Mr. Papageorge. I'm having a difficult time
3 understanding the rationale behind the temporary
4 replacement of Pydraul AC with Pydraul AC A because
5 what I've seen here may not be a complete picture,
6 but what I'm seeing is you were testing the
7 phosphate esters for use in Pydraul at the time you
8 developed this or marketed this temporary
9 replacement with PCT's; is that correct?

10 A. Correct.

11 Q. And you continued to produce some
12 industrial fluid with PCB's during this time period
13 that you produced Pydraul AC A; is that correct?

14 A. Yes.

15 Q. So maybe you can focus your explanation to
16 me on why you used the temporary replacement with
17 PCT's for Pydraul AC when you did not use a similar
18 replacement with PCT's for some other Pydrauls?

19 A. I can show you my understanding. The
20 requirements for the other Pydrauls were such that
21 the PCT's didn't quite do the job, at least in the
22 amounts we tested. At the same time the other
23 formulations were perceived to be a lot closer to
24 having a phosphate that was acceptable. The interim
25 time was not perceived to be too long, whereas the

1 Pydraul AC was at that time considered. This is
2 going to be a difficult one. It may take a couple
3 years or several years, no one knew, so rather than
4 put up with PCB's through those multi-year periods,
5 let's go with something that so far do not associate
6 with any problem while we're working on the
7 phosphate ester.

8 Now, speaking of phosphate esters,
9 keep in mind there are many, many, many phosphate
10 esters and we were looking, really, for -- let's
11 call it the ideal one, if we could find it.

12 Q. Was there any consideration or concern that
13 perhaps PCB's in Pydraul AC might cause or might
14 have more potential for environmental harm than the
15 PCB's in some other Pydraul product?

16 A. No, there was no distinction of that kind
17 mentioned or even considered. They were all
18 considered to be the same potential for
19 environmental impact.

20 Q. Was there any concern that Pydraul AC was
21 the kind of product that customers who may have
22 heard about the PCB problem could replace with some
23 other company's product?

24 A. That concern existed for the whole Pydraul
25 line, it was not unique to AC. There were

1 competitive materials out there.

2 Q. Was that more or less so for Pydraul AC
3 than for the Pydraul products that you did not
4 manufacture in interim replacement with PCT's?

5 A. Not to my understanding.

6 Q. Would it be a fair statement that one of
7 the reasons you developed and marketed Pydraul AC A
8 was so you could sell that to customers as a non-PCB
9 product and avoid losing sales to other companies
10 who had fire-resistant lubricants that did not
11 contain PCB's?

12 A. I believe the first part of your
13 description does apply. We wanted to be in a
14 position where we had a Pydraul without PCB's in it,
15 so once we removed the PCB, that would be a truthful
16 statement.

17 With regard to replacement by
18 competitive materials, that always existed for the
19 entire line of Pydrauls throughout the years. The
20 products were vulnerable to competition, so that was
21 not a new thought at all. And the presence of PCB's
22 in all of the Pydrauls would have made them equally
23 vulnerable.

24 Q. Did you market Pydraul AC A as a
25 fire-resistant lubricant that did not contain PCB's?

1 A. Yes.

2 Q. In your marketing literature did you
3 mention that Pydraul AC A did contain PCT's?

4 A. I recall some reference to PCT's.

5 MR. CHAMBERS: I didn't quite hear whether
6 that was PCB's or PCT's.

7 MR. BAKER: I thought he said PC D, but
8 we're talking about PCT's.

9 THE WITNESS: I'm sorry.

10 MR. CHAMBERS: That's okay.

11 A. PCT's were mentioned in some literature
12 from especially letters to customers informing them
13 of the change. I don't remember if it appeared in
14 all literature relating to the AC A formulation.

15 Q. (By Mr. Baker) at any time before or
16 during the marketing of Pydraul AC A did you inform
17 customers that you had not completed biodegradation
18 studies on PCT's?

19 MR. CHAMBERS: Let me interpose the
20 relevance objection since we're now off on to PCT's
21 instead of PCB's.

22 But subject to that, you can answer.

23 A. I don't recall any formal document that did
24 that. I do know that the marketing people were
25 aware of this and they were encouraged and asked to

1 share it with their customers. I have no way of
2 knowing whether that was done.

3 Q. (By Mr. Baker) Had Monsanto encouraged its
4 salesmen to tell its customers that you hadn't
5 completed biodegradation studies on PCT's?

6 A. They were encouraged to share with them
7 that we have them under test and they are testing
8 very much like PCB's in terms of degradation, that
9 kind of thought, yes.

10 Q. So while you changed the formula to market
11 Pydraul AC A as a non-PCB lubricant, you instructed
12 your salesmen to tell customers that your tests
13 showed that PCT was similar to PCB's?

14 A. In its degradation testing, not in presence
15 in the environment. Hasn't been found in the
16 environment.

17 Q. Let me ask you a question about that then.
18 At the time you marketed Pydraul AC A, there had
19 been no studies completed to determine whether PCT's
20 were found in the environment; is that correct?

21 A. There were attempts made to identify it in
22 the environment. I don't know that you call that a
23 completed test. It's an ongoing kind of thing. No
24 laboratory in the world to this day has found any
25 and there's evidence -- I know Monsanto did some

1 studies and there's evidence that other laboratories
2 have tried and gave up.

3 Q. I would prefer at this stage not to focus
4 on whether or PCT's were found in the environment
5 now, but my question is focused on what Monsanto
6 knew at the time it marketed Pydraul AC A and what
7 you may have told your customers about PCT's.

8 What were your salesmen instructed to
9 tell customers concerning potential environmental
10 risk of PCT's?

11 A. They were told that it seems to be
12 persistent, there are no known effects in the
13 environment, there are no reports of presence in the
14 environment. That's what existed at that time.

15 Q. Were they instructed to tell that the test
16 that had found PCB's in the environment would not
17 have found PCT's, even if they were there?

18 A. I don't know that they were instructed --
19 that's not the way analytical methods are
20 described. It's a little bit like saying the test
21 for Mercury won't find PCT. It's a different
22 procedure altogether. What they were told to pass
23 on is that Monsanto is developing methodology, there
24 are other laboratories that appear to be
25 interested. So far, no samples from the environment

1 have shown the presence of PCT's.

2 Q. Do you know whether Monsanto had done any
3 testing on samples from the environment prior to
4 marketing Pydraul AC A and by testing those samples
5 I mean to attempt to find PCT's?

6 A. As I said earlier, I recall some
7 environmental samples. What I don't recall is the
8 specific type. I do know of river sediment samples
9 and water samples. We had earlier talked about bird
10 tissue and fish tissue. I believe there's some
11 reference to fish tissue by a government
12 laboratory. I just don't recall the -- I recall a
13 summary in which PCT's were mentioned from a natural
14 sample of fish. I have to see the document again to
15 refresh my memory.

16 Q. Do you have any idea when that was
17 published or made available?

18 A. It was about the time we're talking here.
19 I can't pinpoint it too well. Early to mid '70's,
20 somewhere in there.

21 Q. You know if by mid 1970, six months after
22 you took over the PCB program at Monsanto, do you
23 know whether Monsanto had done any environmental
24 testing searching for PCT's?

25 A. When I said mid '70's I'm talking a period

1 '70 to '75 or so.

2 Q. It may well become important to us at some
3 point whether this was done in 1970 or 1975 or at
4 what point in between, and I'm just trying to find
5 out what you know about it now.

6 A. And your latest question had to do from
7 January to June of 1970?

8 Q. Yes, sir.

9 A. No.

10 Q. There had not been any done before June of
11 1970?

12 A. That is correct.

13 Q. Do you recall whether there was any done in
14 the second half of 1970?

15 A. Biodegradation studies were started in that
16 period of time, yes.

17 Q. Any searches for PCT's in the environment
18 started before that time?

19 A. Before June of 1970?

20 Q. No, between June of 1970 and the end of
21 1970.

22 A. End of '70? I just don't recall.

23 Q. I'll ask you one more question about this
24 and move on. Do you recall whether there were any
25 begun in 1971?

1 A. As I remember, the activity grew in '71 or
2 there was something going on in '71.

3 Q. You have before you pages 4 and 5 of
4 Plaintiff's Exhibit 58. If you would turn to page
5 5, there's an entry there, No. 16. It says, "No old
6 fluid accepted for credit after this date." And the
7 target date is May 1, I assume, 1972.

8 What does that entry mean?

9 A. It refers -- by "old" they are talking
10 about the PCB formulation. The intent was to pull
11 in those materials promptly, and one way to do that
12 is to let it be known that as of May 1st you can't
13 return that stuff to us for disposal, you better do
14 it before that.

15 Q. This says "accepted for credit." Did you
16 have a program where you gave customers credit for
17 returning PCB fluids?

18 A. For materials still in the original
19 package.

20 Q. And did this apply to all PCB fluids,
21 industrial fluids?

22 A. Yes.

23 Q. What form of credit did you give the
24 customers?

25 A. This varied with the sales negotiations

1 that are made between the marketing people and the
2 customer.

3 Q. Did this only apply to fluids in unopened
4 original containers?

5 A. That's my understanding, yes.

6 Q. Did you give customers any credit or
7 assistance in cleansing, cleaning out, systems that
8 used PCB industrial fluids?

9 A. I'm not aware of any personally. This does
10 not mean it didn't happen, based on the
11 relationships of the salesmen and the customer.

12 Q. Did Monsanto advise its customers of PCB
13 industrial fluids that they should flush their
14 systems and rid the systems of all the fluid?

15 A. Not as a general rule, no.

16 Q. Was your advice that they can add the
17 replacement fluids to top off the existing fluids in
18 the system?

19 A. Yes.

20 Q. Who made that decision?

21 A. I don't know that it's any one person. It
22 was the consensus that emphasis on maintaining the
23 system so there were no leaks or losses was the
24 wiser more responsible approach rather than to open
25 up Pandora's box and start draining systems with all

1 these PCB's and then run the risk of improper
2 disposal, creating leaks and escape into the
3 environment. The draining of systems and replacing
4 was perceived to pose a greater threat to loss to
5 the environment than careful maintenance and topping
6 off and using the material properly. And that
7 decision really was concurred in by Mr. Bergen and,
8 of course, on up into the Monsanto organization.

9 Q. Had you had some complaints from heat
10 transfer fluid customers previously when you had
11 advised those customers to drain their systems?

12 MR. CHAMBERS: Let me object to the form
13 just to clarify. Previous to what?

14 MR. BAKER: We are in February 1972 now.

15 THE WITNESS: February '72.

16 Q. (By Mr. Baker) I'll change the "previous"
17 and say at any time, and if the answer is yes, you
18 can tell us when you believe you had those
19 complaints.

20 A. We got some complaints and they were --
21 primarily the complaints that I was made aware of
22 were primarily of the nature that indicated that the
23 customer could not afford shutting down the unit,
24 sacrificing production, having idle workers. There
25 were -- I would call them economically-based. The

1 customer was losing money and they didn't like
2 that. There was, of course, some grumbling about
3 why do it, I don't have any problem, it's a good
4 product.

5 And then going back to the economic
6 condition, the biggest complaint from the heat
7 transfer people were the fact that they had to
8 redesign their systems to provide for using a fluid
9 that would burn, and this meant totally enclosed
10 vaults, fire systems, increased fire insurance
11 rates, premiums and so on. So, yeah, we did get
12 complaints of many types.

13 Q. Did your experience with the heat transfer
14 customers play a role in your decision not to advise
15 industrial fluid customers to flush their systems?

16 A. No, each of these applications were
17 considered on their own. The heat transfer news was
18 driven primarily by the fact that many were involved
19 with food applications or animal feed applications
20 which could lead to the human food chain.

21 The industrial fluids application was
22 perceived to be one of the type that one associates
23 with automobile factories and foundries and the like
24 and it was considered to be one that with the proper
25 kind of attention and maintenance there shouldn't be

1 any problems regarding entering into the
2 environment, which was really the thrust of this
3 whole program.

4 Q. But you knew in 1971 and 1972 that there
5 were PCB's entering the environment from plants
6 using industrial fluids, did you not?

7 A. In '71 and '72?

8 Q. Yes, sir.

9 A. By '71 and '72 the message was coming back
10 that the customers were tightening up their systems,
11 they were controlling the material or making every
12 effort to reach a point where they had total
13 control, so the message I got was there was
14 improvement going on out there.

15 Q. But you knew that for many years these
16 PCB's had been entering the environment from
17 facilities that used industrial fluid?

18 A. I eventually was informed so, yes.

19 Q. When were you first informed to the best of
20 your recollection?

21 A. I'm trying to recall the dates. There was
22 this report I was trying to recall earlier about
23 PCT, there was a report put out in which
24 environmental samples containing PCB's were reported
25 and the PCB's that were identified as the -- what

1 I'm going to call the lower chlorinated mixtures
2 were identified and they were traced back to an
3 industrial site. The conclusion was reached that
4 the PCB's that were analyzed came from that site.

5 I'm trying to remember the dates but
6 I'm having a difficult time. This would have to be
7 the '71-'72 time frame because some of these reports
8 were reflected in the Interagency Task Force Report
9 of 1972, so there were reports of PCB's and
10 hydraulic fluids ending up in rivers and streams,
11 and the one that stands out in my mind, there's one
12 up in Waukegan Harbor as I remember, a foundry for
13 making parts for outboard motors.

14 Q. What did you expect to happen to PCB
15 industrial fluids that remained in your customers'
16 systems after they started adding replacement
17 fluids?

18 A. In a well-maintained plant those materials
19 will stay in there, perform their job and make it
20 fireproof, fire-resistant, and nothing would happen,
21 really.

22 Q. Did you consider it Monsanto's
23 responsibility to advise customers as to how to
24 maintain their systems to avoid the escape of PCB's
25 into the environment?

1 A. Monsanto is not an equipment manufacturer,
2 designer. They are in a very poor position to know
3 everything that takes place in a customer's plant
4 and tell them how to do -- the best Monsanto could
5 do was telling them what the end result should be.

6 Q. That was what I really meant the question
7 to be. Would you consider it Monsanto's
8 responsibility to advise customers that they should
9 not allow these fluids to escape into the
10 environment?

11 A. Oh, yes, that was the message that we,
12 frankly, preached loud and long.

13 Q. And you consider it Monsanto's
14 responsibility to advise customers as to how these
15 fluids should be disposed of after they were used,
16 did you not?

17 A. We gave them some suggestions regarding
18 disposal. We could not be in any position to tell
19 them exactly what incinerator to use or what
20 landfill to use or what trucking firm. Those are
21 the hows that had to be determined by those close to
22 the problem that knew everything there was to know.

23 Q. Did you consider it Monsanto's
24 responsibility to advise your customers that PCB
25 fluids should not be treated as petroleum-based

1 fluids but should be disposed of in a special way?

2 A. When it comes to environmental
3 contamination, the PCB's and the petroleum base
4 should be treated alike.

5 Q. Do you need the same kind of incinerator to
6 dispose of petroleum-based fluids?

7 A. The conditions of incineration should be
8 such that the material doesn't end up in the
9 environment. What you're attempting to incinerate
10 will dictate the conditions required, and they are
11 different for mineral oils than they are for PCB's.

12 Q. And in disposing of the PCB's or the
13 industrial fluids containing PCB's, it would be
14 helpful, would it not, to know that you had PCB's
15 there and they need to be incinerated in a different
16 way from the mineral oils?

17 A. Naturally, yes, that's true of any fluid
18 introduced into an incinerator.

19 MR. CHAMBERS: Let me object to the form
20 just to clarify whether you're talking from the
21 perspective of the customer or asking from the
22 perspective of whoever is actually doing the
23 incineration of the material. Helpful to who I
24 think is what I'm asking.

25 Q. (By Mr. Baker) I would ask it both ways.

1 First, you didn't tell your customers that had PCB
2 fluids -- you wouldn't expect them to know what to
3 do with them in disposal, would you?

4 A. Depends on the point in time you're talking
5 about. After 1970 the emphasis would be on
6 environmental contamination. Prior to 1970 the
7 emphasis would be treat these like you do any other
8 industrial chemical. There was no reason to treat
9 them any differently.

10 Q. Also, on page 5 of Exhibit 58, Nos. 17, 18,
11 19 and 21 refer to the ceasing of activity with PCT
12 fluids. 17 says, "Stop manufacturing." 18 says,
13 "Consolidate PCT warehouse stocks." 19 says Sell
14 the last of the PCT fluids. And 21 says Incinerate
15 any remaining ones. The target dates there range
16 from the 1st of May 1972 through the end of June
17 1972.

18 Is that the time frame in which you
19 actually did cease manufacturing and ultimately
20 ceased any activity with regard to PCT industrial
21 fluids?

22 A. It's very close. This was the target date
23 listed here. The actual date is not listed on this
24 document, but the middle of 1972, that's about the
25 time all this did take place.

1 Q. Did you manage to sell most or all of the
2 PCT fluids or did you have any significant amount
3 that you had to incinerate?

4 A. That, I don't remember any more. We did
5 incinerate some but I just don't know how to compare
6 that to the total amount produced.

7 Q. I will show you another document. This was
8 dated July 17, 1972, and marked as Plaintiff's
9 Exhibit 67. It appears to have been authored by
10 Mr. Paton, and from my recollection he testified
11 yesterday that he knows of no reason not to believe
12 that he did author this document. It shows on the
13 face that a copy was sent to you.

14 I'll ask you to review this and,
15 first, tell us -- after you've reviewed it, tell us
16 if you remember seeing this document previously.
17 And I will tell you, Mr. Papageorge, that this
18 particular exhibit, while the cover pages refer to
19 an attached draft of a letter, that is not attached
20 to these and we haven't seen it. Also, the opening
21 paragraph refers to four of the letters that are
22 attached and then paragraphs one, two and three
23 refer to three particular dates. Only the February
24 1 and April 15 letters are attached to this exhibit
25 and this is the way it was given to us by Monsanto.

1 I don't have an explanation for why the draft that
2 Mr. Paton prepared is not included or why the other
3 one or two letters for Pydraul customers are not
4 attached.

5 A. I have reviewed this exhibit.

6 Q. Have you seen this document previously?

7 A. Yes, I have.

8 Q. Do you recall whether sometime on or about
9 July 17, 1972, you would have received a copy of
10 this?

11 A. Yes.

12 Q. Have you reviewed it recently prior to my
13 showing it to you this morning?

14 A. No.

15 Q. I will attempt to paraphrase what Mr. Paton
16 told us yesterday, and if I misstate anything,
17 Rolly, please correct me. I'm sure you will.

18 MR. CHAMBERS: I will try to.

19 Q. (By Mr. Baker) First, as I recall,
20 Mr. Paton said a purpose of this memorandum was to
21 initiate some discussion and perhaps some meetings
22 concerning the subject of this memorandum.

23 Do you know whether there were any
24 such meetings?

25 A. I've attended so many meetings, I'm trying

1 to recall. I know the subject was covered very
2 thoroughly. I don't at the moment recall a
3 conference room with people around a table, just
4 where and when it happened. This does not mean a
5 meeting did not take place. I just don't recall the
6 specific action of the meeting. I do recall the
7 subject though and it did get a lot of attention.

8 Q. Who were some of the persons who
9 participated in discussions, whether it was actually
10 a single formal meeting or a group of meetings where
11 this discussion came up? Who were the people
12 involved in those discussions?

13 A. The people listed on this document were.

14 Q. Do you know if there were any other persons
15 not listed on this document who were involved in
16 those discussions?

17 A. I don't recall any others.

18 Q. In the last paragraph of the first page
19 Mr. Paton is telling you and these other persons,
20 "I would like you to consider sending the attached
21 letter, modified as you may suggest, to the attached
22 customer list."

23 I will tell you, in all honesty, I
24 have never seen a copy of the attached letter and do
25 not know what the attached letter says.

1 Can you offer any guidance as to what
2 the letter that Mr. Paton attached to this
3 memorandum would have said?

4 A. I believe I can. I recall a letter that
5 Dr. Paton sent in which he refers to the Pydrauls
6 sold to the customer containing PCB's, PCB's have
7 been found to be an environmental problem. They
8 have also been found to be present in some food and
9 food packaging. Every effort should be made not to
10 contaminate the products. Those are not the exact
11 words but those are the thoughts that the letter
12 conveyed. I don't know what else to add at this
13 point.

14 Q. (By Mr. Baker) Do you know whether such a
15 letter was mailed to a group of Pydraul customers?

16 A. Yes.

17 Q. Do you have any idea when that letter would
18 have been mailed?

19 A. I would suggest shortly after this document
20 -- within a month.

21 Q. Was there any information that Mr. Paton
22 suggested you give to Pydraul customers that
23 Monsanto ultimately decided not to include in a
24 letter to Pydraul customers?

25 A. Not that I know of.

1 Q. Let me try to focus in on one particular
2 point. In the large paragraph just before the last
3 paragraph on the front page, it begins, "We know
4 certain companies are concerned about PCB's...".
5 He refers to the heat transfer experience and states
6 that, "...certain PCB-affected customers have tried
7 to pin cost on Monsanto because of alleged failure
8 to properly warn them on need for system cleanout,"
9 et cetera.

10 MR. CHAMBERS: Just for the sake of
11 completeness I'd just ask to read the whole sentence
12 because of cost of conversion and related problems.

13 MR. BAKER: I'll read the whole sentence.
14 I was just trying to be brief.

15 MR. CHAMBERS: I appreciate that.

16 Q. (By Mr. Baker) It says, "Further, we know
17 from heat transfer experience that certain
18 PCB-affected customers have tried to pin the cost of
19 conversion and related problems on MICC because of
20 alleged failure to properly warn them on need for
21 system cleanout," et cetera.

22 Now, do you recall any discussions
23 concerning possibly warning Pydraul customers on
24 need for system cleanout, et cetera?

25 A. The topic was discussed, and as I recall,

1 the decision was made to inform the users of Pydraul
2 in their system and share with them the potential
3 for problems to exist under several types of
4 conditions and to depend on the customer then to
5 evaluate his circumstances and come up with
6 corrective action as appropriate.

7 Q. Did Mr. Paton to your recollection
8 recommend that you should inform at least this
9 subgroup of Pydraul customers that they should clean
10 out their systems?

11 A. I don't remember cleanout. I do remember
12 he was a proponent of informing them of the
13 potential for getting into food use and that FDA was
14 interested, I do know that.

15 Q. But you don't recall any effort by
16 Mr. Paton to persuade these other persons at
17 Monsanto to advise Pydraul customers that they
18 should drain their system or clean out their system?

19 A. I don't recall the discussion as being one
20 of Mr. Paton persuading Monsanto. He was raising
21 the question and seeking advice from the group.

22 Q. I've been in meetings and sometimes we sit
23 around the table and don't seem to do anything.
24 Sometimes we have big arguments. And I've been at
25 meetings everywhere in between.

1 Let me ask you, did any of these
2 persons involved in the discussions about what you
3 should tell your Pydraul customers, did any of them
4 take the position that you should advise Pydraul
5 customers to clean out the system?

6 A. Not that I recall. The decision was made
7 informing the potential of the problem and if they
8 want to clean out the system, that's their
9 decision. We wanted to be in a position of having
10 told them that there is a potential for getting into
11 the product. If your system is of that type, you
12 better review it and take necessary steps to either
13 tighten it up or change the fluid or test your
14 materials that you're producing and discard that
15 which has been tainted, whatever was appropriate for
16 your operation.

17 Q. Was that something that just went to
18 Pydraul customers involved in food processing?

19 A. To my knowledge, yes, for food.

20 Q. But you didn't provide that kind of
21 information to other Pydraul customers?

22 A. Which kind?

23 Q. What you've just mentioned.

24 A. The other customers were told, don't get it
25 into the environment, which is different from don't

1 get it in your product.

2 Q. Did you ever ask for written confirmation
3 from any of your Pydraul customers that they had
4 complied with any of your advice?

5 A. No.

6 Q. You did, did you not, ask for written
7 confirmation from heat transfer customers concerning
8 the conversion of their machinery?

9 A. Yes.

10 Q. Why did you ask for written confirmation
11 from heat transfer customers and not from Pydraul
12 customers?

13 A. The heat transfer application was perceived
14 to be one where entry into the food chain presented
15 an unacceptable risk. It just was something that
16 Monsanto didn't feel ought to take place. And the
17 approach to the heat transfer application, based on
18 that understanding and concern, stimulated by at
19 least two events that took place, one with -- both
20 with poultry, through the contamination of
21 ingredients that went into poultry feed; that
22 underscored, really, Monsanto's thinking regarding
23 heat transfer applications and this is why heat
24 transfer fluids were handled the way they were. Not
25 handled, but the communications regarding heat

1 transfer fluids were handled the way they were.

2 Q. And you did not feel the need for
3 confirmation that Pydraul customers were doing what
4 you had asked them to do?

5 A. Not as it related to PCB's, Pydrauls and
6 entry into the environment, this is correct.

7 Q. What kind of procedure did Monsanto have in
8 place to determine whether all your Pydraul
9 customers received various letters that you intended
10 to send to Pydraul customers?

11 A. We relied on the field representative when
12 he made his calls, either personally or by
13 telephone, to determine that, indeed, the message or
14 the letter or the communication had been received,
15 understood, or if there were any questions, he would
16 attempt to answer them or get somebody at Monsanto
17 to answer them, depending on the complexity of the
18 question.

19 Q. And if you had a small customer who did not
20 receive any visit or communication from your field
21 representative, then you had no means of determining
22 whether he received the information?

23 A. Well, obviously, if we had no contacts, how
24 would we know? That's true.

25 Q. And you didn't send out any letters by

1 certified mail or any other means to determine
2 whether they were received by any particular
3 customers of Pydraul?

4 A. For the Pydraul? No, we did not.

5 Q. Did you do that for other products?

6 A. It was done for some heat transfer
7 customers as I recall and that's all.

8 Q. Did Monsanto have a facility in Pensacola,
9 Florida?

10 A. Yes.

11 Q. What kind of plant was that?

12 A. That produced nylon fiber.

13 Q. You didn't manufacture PCB's in that plant
14 I don't believe, did you?

15 A. We did not.

16 Q. Did you use PCB's in that plant?

17 A. Yes.

18 Q. Do you know in the 1960's what means of
19 disposal the Pensacola plant used for the PCB's that
20 they utilized in their facility?

21 A. What little there was, and there wasn't a
22 lot, they would dispose of in landfills.

23 Q. Are you aware of any discharges by the
24 Pensacola plant of PCB's?

25 A. Yes.

1 Q. When did that occur?

2 A. There was a PCB discharge from a compressor
3 I'd say about 1968 or so. There was a leak in the
4 piping system that supplied the compressor with the
5 Pydraul, and I have forgotten which of the Pydrauls.

6 Nevertheless, this leak occurred at a
7 compressor that was remotely located from the main
8 plant and it was not discovered immediately. Some
9 amount of Pydraul fluid ended up in the estuary
10 there, Escambia Bay. Yes, Escambia Bay. As I
11 remember, that was followed by a cleanup activity
12 where they dredged up some of the contaminated silt
13 and so on out of the estuary. The leak was
14 repaired. I believe that's the incident you had in
15 mind.

16 Q. Were there any other instance of discharges
17 at the Pensacola plant?

18 A. Not to my knowledge.

19 Q. You believe this occurred in approximately
20 1968?

21 A. Yes, '68, '69, somewhere in there.

22 Q. You said that the leak was not discovered
23 immediately. Do you know approximately how long it
24 took to discover the leak?

25 A. As best I remember, it was estimated that

1 the leak may have gone on for about three days. It
2 was not a major rupture but it was a respectable
3 amount where the individual checking the unit's
4 reservoir of liquid -- it was in a small tank --
5 noticed that the reservoir level had dropped and
6 then went out to determine what had happened and saw
7 the leak.

8 Q. Are you aware of any other discharges by
9 other Monsanto plants of PCB's into the environment?

10 MR. CHAMBERS: Let me object to form just
11 to ask whether you mean discharges from equipment
12 not functioning correctly like the incident that's
13 just occurred or whether you're talking in a broader
14 sense of manufacturing and so forth where there's
15 going to be a little different situation but you
16 still could have some PCB's, or both? It doesn't
17 matter, but --

18 Q. (By Mr. Baker) I mean for it to be asked
19 in the broadest sense possible because I don't know
20 what the answer to the question is.

21 So would you like me to break it into
22 subquestions or do you want to start with the broad
23 question?

24 A. Whatever helps you.

25 Q. Are you aware of, at any other Monsanto

1 facility, whether they manufacture PCB's or merely
2 use products that contain PCB's? Are you aware,
3 first, of any intentional discharges of fluids or
4 other products containing PCB's into the
5 environment?

6 A. Intentional discharges?

7 Q. Intentional discharges.

8 A. No.

9 Q. Are you aware of any other discharges into
10 the environment of PCB's that Monsanto caused by the
11 malfunction of equipment or of leaks or other kinds
12 of unintentional discharges?

13 A. The only release to the environment that
14 I'm aware of of an unintentional nature is the PCB
15 that was present on plant property that was
16 transferred from that property by, say, a rainstorm
17 and surface water which resulted in that PCB ending
18 up in nearby creek beds, and I have in mind
19 specifically the Anniston Plant.

20 After a severe thunderstorm or
21 rainstorm would wash the surface, this water would
22 flow into nearby drainage ditches, which are
23 sometimes called creeks that are dry-bed creeks, and
24 it would end up then eventually in a man-made lake
25 nearby. I am not aware of any other throughout

1 Monsanto's 50 plants or so where such a situation
2 has been identified.

3 Q. The Anniston plant, was this a single
4 instance or something that happened over a period of
5 time?

6 A. These are many incidents that happened over
7 decades prior to the awareness of the need to keep
8 it out of the environment.

9 Q. Other than the instance you mentioned at
10 Anniston, are you aware of any escape of PCB's into
11 the environment that was a product of the
12 manufacturing process of PCB's?

13 A. I don't remember any.

14 Q. Do you know whether PCB's from the Sauget
15 plant have been found in any sewers?

16 A. Area sewers?

17 Q. Any sewers.

18 A. Any sewers. I just don't remember any
19 analytical report reporting sewer samples with
20 PCB's. They don't come to mind.

21 Q. Do you know whether PCB's have been
22 released or have found their way into the
23 Mississippi River?

24 A. I recall samples taken of the Mississippi
25 River of PCB's, yes. I don't recall the source.

1 Q. Do you recall when that was done?

2 A. No, I don't. Now, there were samples --
3 you mentioned the sewer samples. May have
4 misunderstood your word of "sewer" or reference to
5 sewer. There were samples taken of the waste water
6 that went to the municipal treatment plant from
7 which the plant was able to determine how many
8 pounds per day equivalent of PCB's went to the
9 municipal treatment plant.

10 Q. Do you recall when that was done?

11 A. Yes, that was done in '70 for sure.

12 Q. Was that from the Sauget plant?

13 A. Yes.

14 Q. And were PCB's escaping the Sauget plant
15 into the treatment plant?

16 A. Yes.

17 Q. Can you give us any idea of the quantities?

18 A. I remember such numbers as a hundred pounds
19 per day and a program to reduce that to 10 pounds
20 per day or a pound per day. There was a program
21 based on these findings. I'd have to look at the
22 documents again to get the exact numbers, but --

23 Q. But there were PCB's escaping the Sauget
24 plant in quantities of pounds per day, if not
25 hundreds of pounds per day?

1 A. Yes, they were going to the municipal
2 treatment plant and the sludge from that plant
3 captured them and that sludge was landfilled.

4 Q. And how was this product escaping their
5 facility?

6 A. It depends again on how far back in time
7 you go. Some of it came from drips and leaks on the
8 concrete pavement of the operating unit. They would
9 at that time, instead of trying to capture it and
10 dry it up and bury it, they would hose it down the
11 sewer. That was the practice.

12 Q. During what time period was that the
13 practice?

14 A. That was the practice from the '40's to the
15 late '60's. Starting in '70 we put curbs around the
16 unit that contained it so it didn't get into the
17 sewers. Blocked the sewers to keep it out of
18 there. I have forgotten the question right now,
19 but --

20 Q. The question was: How were PCB's escaping
21 the Sauget plant?

22 A. These would be --

23 Q. And find their way into the treatment
24 plant. And you gave us one example.

25 A. That was the principal way. Occasionally a

1 pipeline might develop a leak as it's being
2 transferred from one location to another, and that
3 would drip on the crushed rock or soil or concrete,
4 whatever the surface underneath it was, and in the
5 old days that would be hosed down or rain water
6 would carry it away. Starting in 1970 that would be
7 carefully picked up and buried.

8 MR. BAKER: It is now 12:00 o'clock your
9 time, 1:00 o'clock our time. I would propose that
10 we take a medium-sized break here and come back
11 after lunch.

12 (The lunch recess was taken, after
13 which the proceedings resumed as
14 follows.)

15 Q. (By Mr. Baker) Mr. Papageorge, I'm going
16 to show you a document that has been marked as
17 Plaintiff's Exhibit 2. This is a memorandum
18 prepared by Mr. Paton and it shows a copy going to
19 you. It's dated July 30th 1973 with the subject
20 being FDA proposals on PCB's.

21 I would ask you if you could look at
22 this document and tell us if you have seen it
23 before.

24 A. I have seen this document before.

25 Q. Do you recall whether you received a copy

1 of this sometime around July 30th 1973?

2 A. I did.

3 Q. On the second paragraph of the first page
4 it says, "It has been decided that we should notify
5 all customers who bought PCB or PCT-containing
6 Pydrauls of this regulation," and it's referring to
7 a federal regulation dated July of 1973.

8 Do you recall who decided that
9 Monsanto should notify all customers of this
10 regulation?

11 A. It was the consensus of a group which
12 included, of course, the marketing representatives,
13 the director of the Business Group, the Medical
14 Department representatives. I was involved. That's
15 about it as best I remember.

16 Q. Do you recall how it was decided what
17 persons would be sent these notification letters?

18 A. Yes, it would be the customers on record
19 with Monsanto who had received industrial fluids
20 that contained chlorine, the PCB and the PCB types.

21 Q. Do you know why PCT customers were included
22 in this mailing?

23 A. Well, primarily because most of the
24 applications that we were aware of that had received
25 the PCT alternate were using it to top off, so the

1 perception was that the fluids still in the system
2 would contain PCB's.

3 Q. My reason for asking that is I believe the
4 federal regulations just related to PCB's; is that
5 correct?

6 A. That's correct.

7 Q. Do you know if there were customers who
8 acquired, purchased from you, PCT-containing
9 Pydrauls who had not used the PCB products?

10 A. I'm not aware of any. The material was not
11 on the market long enough to even pick up any new
12 fills, total new systems.

13 Q. You testified at the last time we were here
14 concerning a list of customers that received,
15 according to your testimony, a series of letters.

16 Do you recall that?

17 A. I do.

18 Q. Was this July 1973 letter meant to be sent
19 to the persons who were on that prior list?

20 A. Yes.

21 Q. Do you know whether there were any
22 additions to that list?

23 A. I personally don't know of the additions,
24 but the intent was to include anyone who had
25 purchased these materials on that list, whether they

1 purchased recently or somebody recalled having sold
2 it to them and did not include it on previous
3 opportunities to add to the list.

4 Q. To the best of your recollection were there
5 customers who were discovered in July 1973 for the
6 purpose of this mailing of the federal regulations
7 who had not been included in any of the other
8 mailings concerning Pydraul?

9 A. I don't know that detail.

10 Q. Do you believe that it is possible that
11 small customers who bought Pydraul in the '50's and
12 '60's could have been left off this list?

13 MR. CHAMBERS: Let me object, just
14 interpose that that calls for speculation.

15 But subject to the objection, you're
16 welcome to answer.

17 A. All I can say, it's possible.

18 Q. (By Mr. Baker) On the second page of
19 Exhibit 2, in the middle paragraph, Mr. Paton said,
20 "We never really sent out as many letters on PCB's
21 to all Pydraul customers as we did on heat
22 transfer."

23 Do you believe that that was a true
24 statement when written?

25 A. Oh, yes. The need for more correspondence

1 for food use was there and different from the
2 industrial Pydraul use.

3 Q. So you agree with that statement then, that
4 you did not send out as many letters on PCB's to
5 Pydraul customers?

6 A. That's true, yes.

7 Q. Can you identify any persons living today
8 who would have been responsible for developing and
9 maintaining the list of customers to whom these PCB
10 letters were sent?

11 A. I can identify the individual who was held
12 responsible for the development of such a list for
13 the Pydraul fluids.

14 Q. And who was that person?

15 A. Mr. Norman Johnson. And now I hesitated
16 because I don't really know who he assigned the task
17 to. It's my understanding that many people were
18 involved.

19 Q. I may have asked you this the last time you
20 were here, I don't recall, I've asked witnesses this
21 week the question and haven't found one who can tell
22 you us.

23 Do you know where Mr. Johnson is now?

24 A. The last I heard, he was near the Chicago
25 area.

1 Q. Do you know when he left Monsanto? I
2 believe our witness yesterday said he thought it was
3 shortly after 1972.

4 A. I was going to say '73 or so, yes.

5 Q. Do you know what job he took at that time?

6 A. I do not remember any more.

7 Q. Do you know what company he went to work
8 for?

9 A. No, I don't.

10 Q. Do you know why he left Monsanto?

11 A. No, I don't.

12 Q. Other than Mr. Johnson, do you know of any
13 of the persons who were responsible for developing
14 or maintaining the list of Pydraul customers to
15 receive these letters?

16 A. Certainly, his successors who are
17 responsible for maintaining and in terms of
18 developing it would be one of primarily of adding on
19 to the original list. I would suggest that
20 Dr. Cumming Paton would be a key individual in
21 subsequent mailings.

22 Q. I'm going to show you a document that's
23 marked Plaintiff's Exhibit 40 and ask you to please
24 review this.

25 A. I have reviewed it.

1 Q. Have you seen this document before?

2 A. I have.

3 Q. It has a heading, "Management Plan,
4 Polychlorinated Biphenyls Environmental Problem,"
5 and a date of April 16, 1970.

6 Did you see this first sometime around
7 April 16, 1970?

8 A. I developed the document.

9 Q. That was my next question but I won't ask
10 it. Did you personally draft this document or was
11 it developed under your direction?

12 A. Oh, this is the final draft of a series of
13 rough drafts. The original drafts were really
14 editorializing on my part where I took contributions
15 from many individuals and made a single document and
16 after reviewing, modifying, I ended up with this
17 particular document.

18 Q. This says "Management Plan" and you said
19 this was a final draft. Is this in a form that was
20 approved by management?

21 A. This is the form that I used in making a
22 presentation to a high-level corporate committee in
23 April.

24 Q. Did that committee take any action on this
25 proposal?

1 A. They did.

2 Q. And what was that action?

3 A. In short, they approved the proposals but
4 suggested that those of us involved with the PCB
5 issue go back and come up with dates that would
6 accelerate the program.

7 Q. Let's look at just a few parts of this.
8 First, for purposes of the record, can you briefly
9 summarize what this management plan was designed to
10 address?

11 A. It was designed to describe Monsanto's
12 approach to addressing the PCB environmental issue
13 in a responsible manner. That was the intent.

14 Q. And as a basic strategy you listed five
15 particular items on the first two pages, did you
16 not?

17 A. Yes.

18 Q. And the first of those was to seek more
19 information on identification, toxicity and
20 degradability of Aroclors; is that correct?

21 A. That is correct.

22 Q. The second one was to work closely with
23 your plants and your customers to control discharge
24 of Aroclors into the environment?

25 A. Correct.

1 Q. And third was for certain uses of Aroclors
2 which you said cannot be contained, are resistant to
3 degrade and are harmful to the environment, you will
4 replace those with either modified chlorinated
5 biphenyls which do degrade or with substitute
6 products; is that correct?

7 A. That is correct.

8 Q. Was Pydraul AC in this particular category?

9 A. Yes, because of the type of Aroclor that
10 was present in Pydraul AC.

11 Q. Then your fourth component of your basic
12 strategy was to develop processes for reclaiming
13 Aroclor-containing fluids recovered from customers?

14 A. That's true.

15 Q. Now, was that aimed at unused fluids in
16 original containers or was that aimed at used fluids
17 recovered from equipment that had already been using
18 this?

19 A. This was aimed at used material.

20 Q. Did you ultimately decide not to carry
21 through with that portion of your strategy?

22 A. That is correct.

23 Q. And then, finally, to design and install
24 incineration facilities for the total destruction of
25 unreclaimable fluid?

1 A. That is correct.

2 Q. Did you design and install such facilities?

3 A. Yes.

4 Q. In April of 1970 or shortly thereafter did

5 Monsanto's management adopt all of these basic

6 strategies?

7 A. These five points, yes.

8 Q. At what point did they decide not to carry

9 through with the fourth of the five?

10 A. Sometime in 1970, I believe about the fall

11 of 1970, it was determined that the reclaiming of

12 used PCB-containing fluids was unfeasible. The

13 contaminations from returned products was so varied

14 that the technology was too costly, and by that time

15 we had assurance that incineration could destroy

16 them properly, so it was decided that reclaiming was

17 not a viable option.

18 Q. Did the discovery or the decision that

19 reclaiming these fluids was not a viable option play

20 any role in Monsanto's decision not to advise

21 Pydraul customers to completely clean out their

22 systems?

23 A. No. To help clarify, by this point in time

24 the remaining use that was perceived for PCB fluids

25 was the dielectrics. That calls for a very -- let

1 me call it very pure type of PCB. Working with used
2 PCB's it was extremely difficult to get to the
3 equivalent of the virgin material. This is why the
4 reclaiming effort failed, really.

5 Q. Perhaps I misunderstood you. Did you
6 intend to say that Pydraul with PCB's was not being
7 used at the time that you prepared this document?

8 A. Oh, it was being used.

9 Q. I must have misunderstood you.

10 A. But under the statement where I guess it
11 comes under Category C, you will replace with either
12 the chlorinated types or substitute products.

13 Q. Yes.

14 A. Pydraul fell into that kind of category.

15 Q. In D, the 4th of these basic strategies, is
16 it your testimony then that your consideration of
17 reclaiming Aroclor fluids was only directed at
18 dielectrics and not at Pydraul?

19 A. We attempted to reclaim Pydrauls as a
20 mixture. That did not work out at all. Then the
21 intent was made to remove the PCB portions and clean
22 those up and see if they can be used in dielectric
23 fluids which was the use that was perceived to be
24 the one that would survive. That also proved
25 unsuccessful.

1 Q. Then my question to you was whether your
2 lack of success in reclaiming Pydraul played a role
3 in your decision not to advise Pydraul customers to
4 take all the PCB Pydraul out of their systems?

5 A. No, that's not the driving force at all.

6 Q. Did it play any role at all?

7 A. No.

8 Q. That's a definite answer. I won't ask you
9 any more about that today.

10 Bottom of page 2 under "Objectives" it
11 says, "The overall objective of this plan is to
12 manage the PCB pollution problem to prevent it from
13 adversely affecting the established
14 return-on-investment objectives of the Functional
15 Fluids and Plasticizers Groups, while maintaining
16 the corporate image of Monsanto as a responsible and
17 respected member of industry world wide."

18 Was that the overall objective that
19 was approved by Monsanto's management?

20 A. Yes, sir.

21 Q. Then within that objective you had eight
22 supporting objectives, and I won't go through all of
23 these with you, but I do want to ask you about a
24 couple of them.

25 First, reduce and effectively control

1 the PCB content of all effluent from Monsanto
2 plants. Now, the first objective of this plan was
3 to stop the problem of PCB effluent discharges from
4 Monsanto plants?

5 A. In the first listed one. It doesn't mean
6 it's the highest priority.

7 Q. But the first one you listed was to reduce
8 and effectively control the PCB content of all
9 effluent from Monsanto plants?

10 A. Yes.

11 Q. Now, by "reduce and effectively control"
12 did you mean to stop all discharges or just to limit
13 the discharges?

14 A. To limit it to a level that would be
15 perceived to have been acceptable, based on
16 information as it came in from many sources.

17 Q. Perceived by whom to be acceptable?

18 A. By Monsanto management.

19 Q. And based upon what Monsanto management
20 knew in April or May of 1970, they adopted an action
21 plan to reduce the PCB content of effluent; is that
22 correct?

23 MR. CHAMBERS: Let me just object to the
24 form of the question to the extent you mentioned May
25 '70, since it's an April document. But other than

1 that, you're welcome to answer.

2 Q. (By Mr. Baker) Before you answer that, did
3 Monsanto approve this before the end of April 1970?

4 A. No.

5 Q. When did they approve it?

6 A. It was finally approved in May of 1970.

7 MR. CHAMBERS: Fair enough, yeah.

8 MR. BAKER: You still object?

9 MR. CHAMBERS: No, I withdraw that
10 objection. I appreciate your clearing that up.

11 Q. (By Mr. Baker) Based upon what Monsanto
12 management knew in May of 1970, did they approve an
13 action plan to reduce PCB effluent emissions to what
14 they considered to be an acceptable level?

15 A. Yes.

16 Q. And can you tell from this document or from
17 your recollection what that acceptable level was
18 determined by Monsanto in May of 1970?

19 A. Yes, I remember it was 10 pounds per day as
20 a target.

21 Q. Is that 10 pounds per day per plant?

22 A. Yes, sir.

23 Q. Do you know what information and
24 considerations went into adopting the 10-pound per
25 day target?

1 A. The principal consideration was the ability
2 to analyze reliably the amount of PCB in water and
3 based on that level of detection and multiplying by
4 the millions of gallons of water involved, they end
5 up then, by arithmetic, with a number like 10
6 pounds.

7 Q. Now, this was at that time a problem at
8 three plants of Monsanto's, the three that produced
9 PCB's; is that correct?

10 A. It's a potential problem -- I have
11 difficulty with the word "problem." It is a
12 possibility at virtually all of Monsanto's plants
13 but more likely to happen in those plants that
14 either produced the PCB's or blended it.

15 Q. Okay, so it was more than just the three
16 plants that produced PCB's that you were targeting
17 with this action plan?

18 A. It's all of Monsanto's plants that had some
19 PCB's on site, whether they be in equipment, heat
20 transfer units and transformers and the like, or
21 some of them were even used as area warehousing for
22 shipping out to the customer.

23 Q. And your 10 pounds per day was applicable
24 to every Monsanto plant?

25 A. Yes.

1 Q. Including those that did not manufacture
2 PCB's?

3 A. That is correct.

4 Q. And that was based upon your perceived
5 ability to limit the discharges to 10 pounds per day
6 or was it based upon something else?

7 A. It was based on the ability to control the
8 presence of PCB's in waste water down to -- I think
9 it's a part per trillion of PCB's and taking the
10 amount of waste water from the Sauget, Illinois,
11 plant and multiplying that parts per trillion times
12 so many gallons per hour or per day you end up with
13 a number of about 10 pounds, and that became then
14 sort of the target. If we can reach 10 pounds per
15 day we think the environment can tolerate it, and we
16 took that number because there was no other number
17 available from anybody; federal government, state
18 government, what have you.

19 Q. If someone from Kentucky Hydrocarbon had
20 called you in April or May of 1970 and said, How
21 much PCB's should we discharge per day? what would
22 you have told them?

23 A. I would have told them, I can't tell you
24 that, but I can tell you what we do, and you're
25 going to have to review your own situation and come

1 up with a number that you think is responsible for
2 your particular area. That was my answer. So I
3 would share with them our target is 10 pounds. We
4 hope we can not only meet it but beat it.

5 Q. Your supporting objective number two at the
6 top of page 3 said, "Inform customers of the PCB
7 problem and the importance of preventing
8 environmental pollution, both at their plants or by
9 their products, and encourage them to take
10 responsible action by offering assistance on
11 reclamation, substitute products and proper
12 disposal."

13 Now, was that adopted by Monsanto
14 management in May of 1970?

15 A. Yes.

16 Q. Now, this importance of preventing
17 environmental pollution at your customers' plants
18 was the information you wanted to give them that you
19 should reduce and control emissions to a level of no
20 more than 10 pounds per day?

21 A. No, it wasn't -- we were in no position to
22 give a specific number for each and every location.
23 All we could do is share with them what we were
24 doing and suggesting that they consider their
25 particular situation and compare it with Monsanto's

1 and we hope that our approach could help them come
2 up with some target.

3 Q. But you weren't suggesting to your
4 customers that they should reduce PCB emissions to
5 zero at this time, were you?

6 A. We were not.

7 Q. A portion of supporting objective 2 refers
8 to offering assistance on reclamation, substitute
9 products and proper disposal.

10 At some point did Monsanto management
11 decide to drop the assistance on the reclamation
12 portion of this objective?

13 A. Yes.

14 Q. And when was that?

15 A. Best I can recall, it happened about 1971
16 or so. After these attempts and the studies made to
17 reclaim the material proved unfeasible we had to
18 drop that assistance there.

19 Q. So your testimony is that the assistance on
20 reclamation was not reclaiming portions of plants or
21 soil but was merely reclaiming used product?

22 A. Correct.

23 Q. Did you ever consider offering any
24 assistance to your customers for reclaiming polluted
25 areas or for remediation?

1 MR. CHAMBERS: Object to the extent that it
2 assumes that there was, quote, "polluted areas,"
3 close quote.

4 A. No, we were not in that business, no.

5 Q. (By Mr. Baker) And you never had any
6 discussions about whether you should offer that kind
7 of assistance to your customers?

8 A. That is correct.

9 Q. Your supporting objective No. 7 said,
10 "Determine effects of PCB's on birds, aquatic life,
11 animals and humans."

12 Was that an objective adopted in May
13 of 1970 by Monsanto management?

14 A. Yes.

15 Q. If you will turn over to page 9 where it
16 begins at the bottom of page 8, the part I'm going
17 to refer to is on page 9. You have under objective
18 7, "Determine effects of PCB's on birds, aquatic
19 life, animals and humans," and you have several
20 categories. One says "Status," the next says
21 "Action" and then the next says "Responsibility"
22 and "Date."

23 Under "Action" on page 9 it says,
24 "Continue studies now underway. Evaluate need for
25 extending studies to include chlorinated

1 terphenyls..." and then other products are listed
2 there.

3 Does this indicate to you that as of
4 May of 1970 you had not begun studies as to the
5 effects of PCB's on bird, aquatic life, animals and
6 humans as to chlorinated terphenyls?

7 MR. CHAMBERS: Object for the record to the
8 relevancy of the question insofar as it involves
9 PCT's. However, you can answer it.

10 A. Yeah, in April that is correct.

11 Q. (By Mr. Baker) And is it not also correct
12 that at the time of this report and its adoption by
13 the management of Monsanto in May of 1970, you had
14 not yet determined whether you would expand these
15 studies to include PCT's?

16 A. That is correct.

17 Q. Mr. Papageorge, I'm going to show you an
18 exhibit marked Plaintiff's Exhibit 66 and ask you if
19 you would please review this.

20 A. I have read the document, reviewed it.

21 Q. Mr. Papageorge, have you seen this document
22 before?

23 A. I have seen the document plus some attached
24 letters, yes.

25 Q. This is a memorandum from Mr. Norm Johnson

1 dated February 16, 1970, to several persons, I
2 believe primarily persons involved in Marketing.
3 You are not shown on the face of the document as
4 being one of the persons to whom it was addressed.

5 A. That is correct.

6 Q. Do you know if you got a copy of this at
7 some point near February 16, 1970?

8 A. I eventually saw a copy. As best I
9 remember, it was several months after the date of
10 the document.

11 Q. But you think it was sometime in 1970?

12 A. Yes.

13 Q. When you saw a copy of the document, did
14 you object to any of the wording of the document?

15 A. Oh, I questioned the wording, wondered what
16 his intentions were, yes.

17 Q. Did you state to Mr. Johnson or to anyone
18 else involved with this particular document that
19 there were portions of it that were not accurate or
20 not consistent with Monsanto policy?

21 A. I did.

22 Q. Which portions of that to the best of your
23 recollection did you inform Mr. Johnson were
24 contrary to Monsanto policy or were not true?

25 A. To answer that I'd have to go over this

1 very carefully because there were several parts here
2 that I had personally wondered about.

3 Q. Well, I'd be happy for you to tell me any
4 parts you personally wondered about, but
5 specifically I'd like you to tell me which parts you
6 informed Mr. Johnson or someone else associated with
7 this that you thought were either not true or were
8 contrary to Monsanto policy.

9 A. All right, I'll just to take the time then
10 to go over each item then.

11 (Discussion was had off the record.)

12 Q. (By Mr. Baker) Are you ready,
13 Mr. Papageorge?

14 A. I think I'm ready, after a quick reading.

15 Q. I'm not asking you now which parts of this
16 that you today believe were contrary to Monsanto
17 policy or that you today believe were not true,
18 though you will have an opportunity to address that
19 in a few moments if you would like, but what I'm
20 asking you right now is which parts of this do you
21 recall that you mentioned to Mr. Johnson or someone
22 else involved in marketing that you told them when
23 you learned of this memorandum that that's contrary
24 to Monsanto policy or that is not true?

25 A. The one that sticks out for me there is on

1 page 1, the underlined, "We don't want to take fluid
2 back." I recall raising this with Mr. Johnson
3 because as a practice if they -- and I'm talking now
4 about fluid still in the original container, sealed
5 uncontaminated. It's always been a practice at
6 Monsanto to take back a product that the customer
7 decides he no longer can use or wants and as long as
8 it's not contaminated with unknowns there's no
9 reason Monsanto shouldn't take it back, and after
10 our discussion, Mr. Johnson agreed that if a
11 customer wanted to send it back, he really couldn't
12 tell him no.

13 Q. Do you recall approximately when you had
14 this discussion with Mr. Johnson?

15 A. When I first saw this memo was about three
16 months or so after this February, so about the
17 middle of 1970 is when I approached Mr. Johnson.

18 Q. Was this a friendly casual conversation you
19 had with him or was it in a formal meeting?

20 A. It was a case where I went to his office
21 and sat down with him and said, "Hey, I just got
22 caught up with a copy of your letter and I see this
23 statement. How realistic is it, really? You're
24 different from all the other product lines. Why
25 point to this one?"

1 And I don't know how long our
2 discussion took but the net result was that he
3 agreed that he was kind of bluffing his way through
4 this with the salespeople.

5 Q. The paragraph that contains the statement
6 that you refer to begins, "We want to avoid any
7 situation where a customer wants to return fluid";
8 now is that portion of the statement true?

9 A. Well, there, as I understood him, he was
10 talking about used fluid in equipment that was
11 performing well and he was trying to avoid -- that
12 doesn't mean he would discourage or absolutely
13 refuse to deal with it but he wanted to avoid a
14 situation, and at that time is when we got in a
15 situation about opening Pandora's box of potential
16 problems in shipping and handling and leakage and
17 loss to the environment.

18 Q. So Mr. Johnson told his salespeople in
19 February 1970 that we want to avoid any situation
20 where a customer wants to return fluid and you
21 agreed that that was the position of Monsanto?

22 A. That's the responsible position. Notice
23 the word "avoid." That doesn't mean we refuse.

24 Q. But you certainly preferred not to have
25 that happen?

1 A. We preferred not to having thousands of
2 these units suddenly drained, creating a real
3 disposal problem when the loss to the environment
4 could be controlled by other means. That's the
5 intent here.

6 Q. The next sentence says, "The new
7 reformulated products will be available within a
8 month." I have no reason to believe that to be true
9 or untrue.

10 I assume when you met with him in May
11 of 1970 you didn't correct him on that point, did
12 you?

13 A. No, because that was still the bright hope
14 of the day then.

15 Q. "We would prefer that the customer use up
16 his current inventory and purchase Pydraul 625 A,
17 Pydraul AC A, Pydraul AC A Winter Grade and Pydraul
18 540A when available."

19 You didn't chastise Mr. Johnson for
20 making that statement, did you?

21 A. No, there's nothing wrong with that
22 health-wise or environmentally.

23 Q. "He will then top off with the new fluid
24 and eventually all Aroclor 1254 and Aroclor 1260
25 will be out of his system."

1 You didn't criticize him for that
2 statement either, did you?

3 A. No, but then we did discuss what he meant
4 by "eventually." This could be decades. But the
5 key there is that the absence of the material in the
6 equipment does not necessarily imply that that
7 material entered the environment. Depends on how
8 well it was collected and what happened to it after
9 collection.

10 Q. But you recognized when you met with
11 Mr. Johnson in May of 1970 that if customers topped
12 off with the new fluid that they could have Aroclor
13 1254 or 1260 in their system for decades?

14 A. Yes.

15 Q. Then the next statement was, "We don't want
16 to take fluid back." And you've already said you
17 questioned him about that statement.

18 A. I did.

19 Q. And I assume sell them the replacement, so
20 you were in agreement with --

21 A. If the man needs the material, certainly,
22 sell him the replacement.

23 Q. Okay, if we could back up to the first
24 paragraph, it refers to a list of questions and
25 answers which may be asked about customers.

1 Were you involved in any way in
2 preparation or giving input into the preparation of
3 the list of questions and answers?

4 A. This particular list?

5 Q. Yes.

6 A. No.

7 Q. Were you involved in the preparation of any
8 other question and answer lists concerning potential
9 questions the customers might ask?

10 A. On occasion I was involved with some
11 questions and answers. Nothing sticks out in my
12 mind that relates to Mr. Jones in this particular
13 activity. I just don't remember having anything to
14 do with that.

15 Q. Then his next statement says -- he's
16 talking to the salesman again -- "You can give
17 verbal answers; no answer should be given in
18 writing."

19 Did you chastise him for telling
20 salesman not to give written answers to these
21 questions?

22 A. Yes, I told him he certainly could have put
23 in writing what he told them verbally but I agreed
24 that if it involved answering, say, a medical
25 question, that he should ask the Medical Department

1 to respond in writing or over the telephone. In
2 other words, don't get into fields for which he
3 wasn't qualified. That was my comment at the time.

4 Q. Did you ask Mr. Johnson in May of 1970 or
5 any point thereafter to send a writing to his
6 salespeople and tell them, yes, you should, you can
7 give answers in writing; yes, we do want to take
8 fluid back?

9 A. No, I didn't do that.

10 Q. To the best of your knowledge do you know
11 whether Mr. Johnson did give new instructions
12 following your meeting of May of 1970?

13 A. I was led to believe that he did, yes.

14 Q. What were you led to believe that he told
15 his salespeople after that?

16 A. Well, in his way, Mr. Johnson came around,
17 says, "Well, Bill, I did what you told me." And
18 then I had that confirmed by not all, but a few did
19 comment they were sending some material back and, in
20 truth, it returned and we had to incinerate it.

21 Q. Now, if we could for a moment turn over to
22 the questions and answers beginning at page EQU 3542
23 I believe.

24 A. I have it.

25 Q. You testified that you weren't involved in

1 the preparation of these questions and answers.

2 I will ask you if in May or so of 1970
3 when you received this memorandum, did it have these
4 questions and answers attached to it?

5 A. Yes, it did.

6 Q. Did you review them at that time?

7 A. Yes.

8 Q. Were there any of the answers that you
9 believed to be inaccurate or not a proper reflection
10 of Monsanto policy at that time?

11 A. Well, as I just reviewed it, nothing came
12 out at me as being totally erroneous or totally
13 misleading. I may have missed a line or two here
14 but I -- nothing stood out. I may find it on
15 further review but I didn't the first pass.

16 Q. If you would turn over to page 3545, page 4
17 of the questions and answers.

18 A. I have it.

19 Q. At the bottom of that page the Question 1
20 under Effluent And Its Control, the question is:
21 "How do I dispose of Aroclor 1254/1260, etc.
22 effluent from my plant?" And I won't read the whole
23 answer, though if you or your counsel would like it
24 to be read, I certainly have no objection, but
25 included within that answer is the statement, "We

1 don't recommend feeding this material," referring to
2 the effluent, "to local sewage plants or taking it
3 out to sea in drums for dumping. These methods do
4 not solve the problem of contamination."

5 Is that an accurate reflection of
6 Monsanto's position on the effluent containing PCB's
7 in February or May of 1970?

8 MR. CHAMBERS: Let me object to the form.
9 Just when you say "PCB's" I assume you're referring
10 to the Aroclor 1254/1260 mentioned in the question
11 on that page.

12 MR. BAKER: Yes.

13 MR. CHAMBERS: Or are you asking about
14 everything?

15 MR. BAKER: Well, specifically, Aroclor
16 1254/1260 effluent.

17 A. What this is referring to is the highly
18 concentrated wastes being deliberately dumped into a
19 sewer that leads to the sewage treatment plant. It
20 does not -- and we discussed it at the time. It
21 does not reflect the kind of waste water that was
22 coming out of Monsanto's plants in 19 -- at this
23 period of time it still had what we decided was too
24 much PCB's, but it was not the kind where it's
25 visible in the water. It's in there but you can't

1 see it by eye as distinguished from the kinds of
2 things he had in mind here where you had a drum full
3 of PCB-containing industrial fluid and at midnight
4 you dump it into the sewer in hopes that no one will
5 catch it, that kind of thing.

6 Q. If you'll turn over to page 6, Question No.
7 Four says, "You must have quite a control problem at
8 your plants. I would think Monsanto's Aroclor
9 plants are the major polluters. How are you
10 handling control?"

11 The suggested answer it appears to me
12 is kind of like some of these politicians might
13 answer, is ignore the question altogether.

14 MR. CHAMBERS: I object to characterization
15 of the evidence. It says what it says.

16 Q. (By Mr. Baker) Your suggested answer then
17 says, "The Aroclor products we make to sell at a
18 profit, so economics dictate maximum housekeeping,
19 minimum --" appears to say "loses." I assume it
20 meant "loss" or "losses." "The Aroclor process is a
21 dry process or closed system."

22 Was it Monsanto policy at this time to
23 attempt to avoid answering questions such as
24 Question 4?

25 A. I don't understand -- I don't really

1 believe Mr. Johnson was trying to avoid -- he may
2 have had a poor choice of words in describing the
3 process. Many chemical processes use water in the
4 process to transfer and blend their chemicals and
5 heat them and what-have-you. The PCB manufacturing
6 process doesn't have a drop of water in the
7 pipelines, in the tanks anywhere. The only time
8 water and PCB's get together is when the employee
9 hoses down the floor or if there's a rain and the
10 department is not in a closed-in department, it's an
11 outdoor department, so rain will wash down the sides
12 of tanks, the pipes, and everything ends up on the
13 floor and down the sewer.

14 Q. The Aroclor process was not a closed
15 system, was it?

16 A. The Aroclor process is a closed system.
17 Everything is inside of steel pipes and tanks, and
18 the manhole covers are bolted down. I don't know
19 how else to describe it.

20 Mr. Johnson here, if he's guilty of
21 anything, he's guilty of not putting some more words
22 in there to describe what he meant by this answer
23 here, the dry process closed system.

24 Q. But the true answer to Question 4 would
25 have been your emitting hundreds of pounds of PCB's

1 per day and by May of 1970 had decided to try to
2 limit that to no more than 10 pounds per day per
3 plant?

4 MR. CHAMBERS: Objection. Object to the
5 question. Subject to my objection --

6 A. This is in February.

7 MR. BAKER: I'm sorry, let him finish his
8 objection.

9 MR. CHAMBERS: Yeah, I object to the use of
10 what the true response or whatever is going to be.
11 I think that mischaracterizes the statements that
12 are set out in the document.

13 But subject to my objection, to the
14 extent you can answer the question, you're welcome
15 to, Mr. Papageorge.

16 A. I'll try. By February we were -- I had
17 just come on the job literally, or almost. We were
18 discussing controlling plant effluents. In February
19 when this document was put together, the amount of
20 PCB's in the producing units' waste water and the
21 intent to lower it to some value, they were
22 discussed but nothing definite had yet been arrived
23 at. Mr. Johnson was under the correct impression
24 that these are closed systems, that no water is
25 introduced into the process deliberately. I have no

1 way of knowing that he understood that if water and
2 PCB's are found in the sewer, that comes from a
3 cleaning down activity or rain water. I personally
4 don't -- not knowing what help Mr. Johnson got in
5 putting these together, I don't know that he was
6 aware of the full picture at the plants in
7 Monsanto. So I would suggest that insofar as it
8 goes, it's correct. I don't personally believe that
9 he meant to be misleading because that would not
10 have been really helpful to anybody.

11 Q. You do agree, do you not, that in February
12 of 1970 when this document was written and in May of
13 1970 or so when you first saw it that Monsanto, at
14 least in the production plants, was emitting
15 hundreds of pounds, or a hundred pounds or more per
16 day, of PCB's?

17 A. Yes.

18 Q. And that your means of handling control of
19 that by May of 1970 when you reviewed this document
20 were to attempt to reduce that to 10 pounds per day
21 or less at all facilities, in each facility?

22 A. Correct.

23 Q. Turn one more page and I believe we'll be
24 finished with this document. On page 7 under
25 toxicity, Question 1, the way the question is worded

1 here, it says, "If PCB is a danger to fish and
2 birds, how about humans?" And the suggested answer
3 is: "The amounts being found in the environment are
4 not considered a danger to humans or fish. The
5 whole question on chlorinated pesticides relates to
6 birds."

7 Do you believe that was a true
8 statement in February of 1970?

9 A. Yes, and it was supported later by the
10 investigators. DDT was finally found to be the
11 culprit.

12 Q. Had there been any problems with PCB's in
13 shrimp in the Gulf of Mexico?

14 A. Yes, from that incident we talked about
15 earlier.

16 Q. The Anniston -- I'm sorry, the Pensacola
17 incident?

18 A. Yes.

19 Q. And that was prior to February of 1970, was
20 it not?

21 A. Yes.

22 MR. BAKER: Mr. Papageorge, we've been
23 going for about an hour and 15 minutes since the
24 lunch break. I would move that we take a short
25 recess, if there is no objection.

1 MR. CHAMBERS: No need for a motion.

2 (A brief recess was taken.)

3 Q. (By Mr. Baker) Mr. Papageorge, what was
4 Norm Johnson's position with Monsanto in February of
5 1970?

6 A. I believe his title was manager, marketing,
7 industrial fluids.

8 Q. Would that have placed him in a job
9 responsibility for all industrial fluids, including
10 Pydraul?

11 A. Yes, industrial fluid as defined by
12 Monsanto's Business Group.

13 Q. Pydraul is included in that?

14 A. Correct.

15 Q. All Pydrauls?

16 A. Yes.

17 Q. Was he in the same position in May of 1970
18 when you talked to him about this memorandum?

19 A. Yes.

20 Q. Do you know in what form, and whether
21 written or oral, Mr. Johnson conveyed any of your
22 suggestions to his sales force?

23 A. Oral is the only indication I have.

24 Q. You never saw a writing as a follow-up to
25 your May of 1970 meeting?

1 A. I did not.

2 Q. And he never told you that he sent out a
3 writing to salespeople?

4 A. That is correct.

5 Q. Was Mr. Johnson reprimanded in any way by
6 Monsanto for sending out this February 1970
7 memorandum?

8 A. Not to my knowledge.

9 Q. Did you recommend to anyone that he should
10 be?

11 A. I don't know that I used the word
12 "reprimand," but in reviewing, as I did
13 periodically with my supervisor, Mr. Bergen, I would
14 run down the kinds of things that happened over the
15 previous period of time, and I recall mentioning
16 this and I repeated to Mr. Bergen the kinds of
17 comment I made to Mr. Johnson, including the comment
18 that it would be most helpful in the future if he
19 put out documents like this, he might want to run it
20 by me and others, or at least indicate who he worked
21 with.

22 Q. Did he in the future put out any more
23 documents like that?

24 A. I have trouble with "like that." He did
25 put out some documents.

1 Q. I chose your words.

2 A. Question and answer type document is what I
3 should have said when I said "like this," referring
4 to the environmental issues and PCB's. He did put
5 some out and there were many that he would show me a
6 pencil draft as he was preparing them or call me on
7 the 'phone and read off a paragraph or two, so
8 communications did improve, yes.

9 Q. Did Mr. Johnson's mailing of this February
10 1970 memorandum or issuance, whether it was mailed
11 or not, did his drafting and distribution of it play
12 any part in his decision to leave Monsanto?

13 A. Oh, I have no way of knowing.

14 Q. I will show you a document marked
15 Plaintiff's Exhibit 37. It's a one-page memorandum
16 with your name at the top, and ask you to please
17 review that and tell me whether you prepared it.

18 A. I have read it. I did prepare it.

19 Q. I will show you a document marked
20 Plaintiff's Exhibit 38 and ask you to please review
21 that and tell us whether it appears to be the
22 enclosure to the memorandum marked Plaintiff's
23 Exhibit 37.

24 A. No, these are not related documents. Oh,
25 let me withdraw that. This last exhibit, No. 33 you

1 just gave me --

2 Q. It looks like 33. It's really 38.

3 A. 38, my apologies. This is the text of the
4 presentation I made before the Corporate
5 Administration Committee in April of 1970. The
6 previous exhibit, Exhibit 37, had to it attached a
7 rough draft of the document that eventually ended up
8 as Exhibit No. 40. Now, Exhibit No. 40 became the
9 basis for the text that I read off and is marked
10 Exhibit 38.

11 Q. Let me be sure I understand this. Exhibit
12 37 was a March 30th memorandum that included a rough
13 draft of a management plan?

14 A. Yes.

15 Q. And we have not yet today seen that rough
16 draft?

17 A. That is correct.

18 Q. That rough draft in a matter of a couple of
19 weeks became the final draft that is Exhibit No. 40?

20 A. That is correct.

21 Q. And when you presented the plan to
22 management in April of 1970 you based your
23 presentation on a typewritten text that is Exhibit
24 38?

25 A. That is correct, and the audience was given

1 a copy of Exhibit 40 for their files.

2 Q. I don't believe we have the rough draft of
3 the plan that was attached to Exhibit 37.

4 I will ask you if you can recall any
5 significant changes between your initial draft that
6 you distributed to these persons listed on Exhibit
7 37 and the draft you presented to Monsanto
8 management that is now Exhibit No. 40.

9 MR. CHAMBERS: Object to the form just to
10 the extent you're talking about "significant"
11 because that may give it a spin. If you want to ask
12 him any changes, I don't have any problem with that.

13 Q. (By Mr. Baker) I'd be happy for you to
14 testify about any insignificant changes you can
15 recall. I suspect you wouldn't recall them now, but
16 any changes at all in what was your in your initial
17 draft presented to Mr. Bergen and others and the
18 final draft you ultimately presented to Monsanto
19 management on April 16th.

20 A. I do recall that the initial drafts
21 contained many more pages than shown in this Exhibit
22 40. It's my recollection that the difference really
23 was one in choice of words and making more concise
24 statements. I don't recall any significant
25 objective or activity being removed from the initial

1 text and not included in this final text.

2 Q. Do you recall any portions of the final
3 text that were not included in the first draft?

4 A. I do not.

5 Q. Exhibit 37 refers to a meeting scheduled
6 for April 2nd. Do you recall attending that
7 meeting?

8 A. Yes, sir, I chaired it.

9 Q. Did most of the persons listed on Exhibit
10 37 also attend the meeting?

11 A. To the best of my recollection they did
12 attend, plus some of their new Lieutenants, their
13 team members.

14 Q. Can you recall any portions of the draft
15 management plan that met with objection from any of
16 these persons?

17 A. I cannot.

18 Q. Can you recall any of these persons
19 suggesting that there should be any material
20 addition to the draft management plan?

21 A. I cannot.

22 Q. Mr. Papageorge, I will show you an exhibit
23 marked Plaintiff's Exhibit No. 39, ask you to please
24 review this.

25 A. I've reviewed the document.

1 Q. Mr. Papageorge, have you previously seen
2 the document marked Plaintiff's Exhibit 39?

3 A. I had.

4 Q. It isn't completely clear but it appears to
5 me that this is a memorandum that was directed to
6 you; is that correct?

7 A. Yes, it is.

8 Q. And it is from Mr. John Mason?

9 A. That is correct.

10 Q. Who was Mr. Mason?

11 A. Mr. Mason was an Assistant General Manager
12 of the Monsanto operating unit to which the business
13 groups that marketed PCB products reported.

14 Q. Mr. Mason, in the beginning of his
15 memorandum, refers to a revised plan dated April 7.

16 Was that a draft that was prepared by
17 you after this April 2nd meeting?

18 A. Yes, sir.

19 Q. Mr. Mason is not listed on Plaintiff's
20 Exhibit 37 as one of the persons getting your first
21 draft of the plan.

22 Can you tell us why he would not have
23 been listed on the Exhibit 37 and/or why he would
24 have received a copy of the April 7th draft?

25 A. The individuals listed on Exhibit 37 were

1 the group that I perceived to be the group capable
2 or knowledgeable enough of all the details to put
3 together a document for forwarding later to
4 individuals higher up in the organization like
5 Mr. Mason and his supervisor and the vice presidents
6 and so on, so it's a matter, really, of trying to
7 get a good bit of the work done at lower levels
8 within the company so that the material that went to
9 the general managers and vice presidents was pretty
10 well polished and ready for further consideration.

11 Q. So after the April 2nd meeting you prepared
12 a revised draft and forwarded that up through the
13 line?

14 A. Yes.

15 Q. Mr. Mason refers to a planned meeting or
16 review with a Mr. T. K. Smith and Howard Minckler on
17 Friday afternoon.

18 A. Correct.

19 Q. Was Mr. Mason also to be involved in that
20 meeting?

21 A. Yes, sir.

22 Q. Who was Mr. Smith?

23 A. Mr. Smith was the vice president who was
24 the top individual in the operating unit in Monsanto
25 which was responsible for PCB products.

1 Q. And who was Mr. Minckler?

2 A. Mr. Minckler was the general manager of
3 that unit reporting to Mr. Smith.

4 Q. To the best of your recollection were there
5 other persons to be involved in this Friday
6 afternoon meeting?

7 A. Yes, I was there. Mr. Bergen, who reported
8 to Mr. Mason; Mr. Springgate, who reported to
9 another Mr. Smith, a Charles Smith, who was also
10 there.

11 Q. Mr. Mason, in his memorandum, states his
12 opinion that, "...we need to take a much more
13 aggressive attitude to this subject...".

14 Do you know what he meant by that?

15 A. Yes.

16 MR. CHAMBERS: Let me object to the form.
17 I think it would be difficult for Mr. Papageorge to
18 know what somebody else meant, but I appreciate what
19 you're getting at. Maybe there's a different way we
20 can get it. Maybe he can answer anyway.

21 MR. BAKER: I think he probably knows and
22 maybe he will tell us how he came to know it, but I
23 understand your objection also.

24 Q. (By Mr. Baker) What did you understand him
25 to mean by that?

1 A. Mr. Mason, in reading that draft, got the
2 impression that it was too much of the
3 business-as-usual timing, you know, take our time
4 doing the research and go at it as we would under
5 normal conditions. He was looking for a much more
6 accelerated approach, even to the point of jumping
7 into some conclusions without waiting for all the
8 data to come in.

9 For example, the one that the top
10 corporate committee finally came up with was target
11 dates that were shortened rather than drawn out too
12 long into the future, so that's what Mr. Mason meant
13 by "aggressive attitude," is hurry up and let's get
14 this thing done.

15 Q. Previous to that he stated, "I do not think
16 it will satisfy the CMC," referring to your April
17 7th plan. First, what was the CMC?

18 A. That's the top level committee that I
19 mentioned earlier. At that time it was referred to
20 as the Corporate Management Committee.

21 Q. And that was the committee that you
22 ultimately presented your plan to on April 16, 1970?

23 A. Yes.

24 Q. And that was the committee that approved
25 the plan in May of 1970?

1 A. Yes.

2 Q. Did you understand at this time why
3 Mr. Mason thought that the draft plan would not
4 satisfy the CMC?

5 A. Timing was the problem that bothered John.
6 And he was correct, the CMC wanted faster action.

7 Q. I'll get off this subject for a moment,
8 then come back to it. But so we can go through this
9 memorandum in order, I noticed under 4.b. he says,
10 "List major developments." It says,
11 "Identification of PCB's in cows' milk in Ohio."

12 What was he referring to there?

13 A. In Ohio, in about March of 1970, which was
14 a few weeks before this memo, we got reports from
15 the Department of Agriculture, the dairy portion,
16 that some milk in Ohio had been found to contain
17 PCB's and, therefore, was withheld from the
18 marketplace. The source of the PCB's was finally
19 determined to be a coating that was applied to silos
20 to prevent their deterioration of the concrete walls
21 by the acidic silage liquids. That's what John is
22 referring to in that initial report.

23 Q. So you subsequently did confirm that there
24 were PCB's in this cows' milk in Ohio?

25 A. Subsequently, yes.

1 Q. Did you ever learn of any other
2 contamination of cows' milk by PCB's?

3 A. Yes.

4 Q. Where else?

5 MR. CHAMBERS: Let me interpose an
6 objection on the grounds of relevancy to the extent
7 these questions relate to PCB's used in a coating
8 and sealant application rather than lubricating
9 application. But go ahead.

10 A. We had reports of PCB's in milk in Georgia,
11 Indiana and Michigan in addition to Ohio.

12 Q. (By Mr. Baker) If you will turn to the
13 second page of Mr. Mason's memorandum under section
14 5.a., he is suggesting that you should consider in
15 your report to the CMC, "Report on progress to
16 control emissions from our own plants, defining long
17 and short-term targets and report by plant what has
18 been achieved so far. If we need capital we should
19 ask for it."

20 We've already seen that in the plan
21 you submitted to the CMC there was an objective to
22 control your emissions. The first one you listed in
23 that plan.

24 Did you report on progress to them and
25 did you ask for capital?

1 A. My answer to both of those questions is
2 yes. What I am missing, frankly, are the copies of
3 the transparencies that went with this document. As
4 I remember, I had on there bar graphs reflecting --

5 MR. CHAMBERS: Just for sake of clarifying
6 the record, we might let it show that the witness is
7 referring to Plaintiff's Exhibit 38.

8 A. That is correct. There were some copies of
9 transparencies that went with this, and if I
10 remember correctly, there were bar graphs showing
11 the -- reflecting the amount of PCB's in the
12 effluent.

13 Q. (By Mr. Baker) I believe I can help you
14 with this. I'll show you a document marked
15 Plaintiff's Exhibit 42.

16 MR. CHAMBERS: Let's go off the record for
17 a second.

18 MR. BAKER: Sure.

19 (Discussion was had off the record.)

20 Q. (By Mr. Baker) Mr. Papageorge, I have just
21 shown you a copy of a document marked Plaintiff's
22 Exhibit 42. This is a memoranda apparently from
23 John Mason to Mr. Bergen and Mr. Springgate and
24 shows a copy going to you. It's dated May 11, 1970,
25 and the first page indicates that it contains copies

1 of charts that Mr. Mason used in a May 11, 1970,
2 presentation to the CMC.

3 I will ask you first if you have
4 reviewed this document?

5 A. I have seen it and I have briefly reviewed
6 it just now.

7 Q. Do you recall having received a copy of
8 this document sometime around May 11, 1970?

9 A. Close to that date.

10 Q. Do you recall there being a meeting of the
11 CMC sometime around May 11, 1970, when Mr. Mason
12 made a presentation?

13 A. Yes.

14 Q. Was that prior to the CMC's approval of the
15 management plan we've referred to today?

16 A. It was at this meeting that the CMC
17 approved the approach.

18 Q. There are some charts and graphs included
19 in Exhibit 42. Are those the charts and graphs that
20 you used in your April 1970 meeting or do they
21 appear to be different?

22 A. Graphically, they are different. I think
23 that the basic information is the same as that
24 information which I had shown on a different set of
25 transparencies.

1 MR. BAKER: Well, I will ask counsel for
2 Monsanto to produce for us any copies that are in
3 existence of the charts and graphs or other
4 transparencies that Mr. Papageorge used in his April
5 1970 presentation to the CMC.

6 MR. CHAMBERS: We acknowledge the request,
7 just ask that it be included with the other items.

8 Q. (By Mr. Baker) Did you ask the CMC to
9 approve capital for the emissions control program at
10 Monsanto?

11 A. I asked for approval of monies to be
12 expended on this kind of activity. I don't recall
13 at the moment whether it was capital as defined by
14 good accounting practices or whether it was an
15 expense item.

16 Q. And I didn't intend to mean "capital" to be
17 a technical term. Maybe I could replace that word
18 in that question with "money."

19 Did you ask them to approve funds for
20 this program?

21 A. Yes, funds, exactly.

22 Q. Finally, in No. 10 on page 2 of Exhibit 39,
23 Mr. Mason is suggesting to you I believe that you
24 might want to back off from the proposal to
25 discontinue manufacture of 1254 and 1260 but,

1 rather, propose a plan to restrict the use of those
2 products.

3 Do you recall that being a part of
4 Mr. Mason's suggestions to you?

5 A. I do.

6 Q. Was there a difference of opinion among the
7 persons involved here as to which direction you
8 should go in presenting this topic to the CMC?

9 A. There was initially, but the group was
10 swayed very much by the fact that the electrical
11 transformer industry went on record very strongly
12 that they could not manufacture the proper kind of
13 transformers without the availability of Aroclor
14 1254 and they pleaded with Monsanto not to
15 discontinue that manufacture, so 1254 was supplied,
16 continued to be supplied to the electrical
17 applications. Aroclor 1260, which was the other
18 type mentioned in Mr. Mason's letter or memorandum,
19 was discontinued.

20 Q. Mr. Papageorge, let me see if I understand
21 this correctly. Were you in late March or early
22 April of 1970 personally advocating the
23 discontinuance of Aroclor 1254 and 1260?

24 A. The timing -- I was going through a
25 transition. When I based my thinking on the

1 continued discovery in environmental samples of 1254
2 and 1260 type of PCB's I was convinced that the
3 material of that type should no longer be supplied.
4 It is only after I heard the persuasive arguments of
5 the electrical people where I decided that under the
6 proposed use in closed steel transformers and proper
7 handling during servicing use and disposal, that the
8 1254 should not represent an unmanageable situation;
9 that I, frankly, changed my mind and agreed that for
10 the electrical use it made some sense. But I
11 certainly didn't think it was appropriate to
12 continue to use it in traffic lane paint, for
13 example. So for some uses I was against it, but for
14 the electrical use I supported it.

15 Q. Did that change of opinion come after
16 Mr. Mason's memo to you of April 9 or had you
17 already made that change before that time?

18 A. I personally had made that change somewhere
19 between February and April when I talked to the
20 electrical people.

21 Q. Prior to your presentation on April 16th to
22 the CMC, did you have a feeling that the CMC wanted
23 to discontinue 1254 or that they wanted to continue
24 it for a certain uses?

25 A. I have forgotten the exact words but the

1 understanding I had was regarding these higher
2 chlorinated PCB's, let's look into them thoroughly
3 and do what is responsible.

4 Q. Reason I'm asking, maybe I should quote
5 from No. 10 here in Mr. Mason's memorandum and then
6 ask you a follow-up question. He says, "Summarize,"
7 and I assume he meant for you to summarize your
8 presentation to the CMC, "by requesting that we be
9 allowed to implement the plan as presented to the
10 CMC and particularly that they agree to the
11 modification in the strategy, emphasizing that at
12 this stage there is no point in discontinuing the
13 manufacture of 1254 or 1260, and that restriction of
14 their uses is far more likely to get us off the hook
15 and enable us to maintain maximum profitability
16 while preserving a responsible image as a company."

17 Now, he said in there, attempt to
18 persuade the CMC to "agree to the modification in
19 the strategy."

20 Did you have an understanding of what
21 he meant by that language?

22 A. "Modification of the strategy" refers to a
23 discussion that was held with the equivalent
24 committee at that time; I think it was called the
25 Corporate Administration Committee, same group,

1 different name, back in November of 1969 in which
2 there was considerable emphasis raised about the
3 discovery of the 1254, 1260 and all of these
4 samples; therefore, we should have a program to
5 phase out of 1254 and 1260, and that's the
6 impression that we thought we had left with that
7 group of key people. John now wanted to come back
8 and say, in spite of what we said, here's a critical
9 need for one of them. Let's change that position,
10 and by doing that, not only will we keep making some
11 monies, which is truthful, but when he talks about
12 being responsible he meant perceived responsible by
13 the electrical equipment manufacturers, the
14 firefighters and the people who enforce electrical
15 codes and so on.

16 Q. Did you have an understanding that the CMC
17 or its predecessor committee agreed with the
18 strategy in the fall of 1969 to totally discontinue
19 manufacture of 1254?

20 A. Yes, they supported any activities that
21 would lead to that result, yes.

22 Q. And then in April of 1970 after you became
23 convinced that that strategy should be modified --

24 A. Well, I did, plus others.

25 Q. Plus others, right, but you personally on

1 April 16 presented to the CMC a modified strategy
2 saying we will limit the use of 1254 to particular
3 purposes but we will continue to manufacture?

4 A. It's a singular purpose.

5 Q. Was the strategy you presented modified to
6 allow the continued manufacture of 1260 or did you
7 limit that modification to just 1254?

8 A. Just 54.

9 Q. Now, at that time you and the CMC were
10 aware, were you not, that in your process of
11 producing 1254 you had PCB's escaping into the
12 environment?

13 A. It was not limited to just 1254, it was
14 1242 and all the others, yeah.

15 Q. But included within the hundred pounds per
16 day of PCB's escaping your plant was some portion of
17 1254?

18 A. Yes.

19 Q. Do you have any indication of what
20 proportion of that hundred pounds per day in PCB was
21 1254 and what portion was 1242 or any other type?

22 A. No, I don't. The analyses of a mixture of
23 all these PCB's doesn't make that clean a
24 distinction. It just says you've got so many five
25 chloros and six chloros and four, but they don't say

1 it came from 1260 or 1254 or 1248 or 1242.

2 Q. Do you recall roughly what proportion of
3 five chloros, six chloros, et cetera, were contained
4 in those effluent emissions?

5 A. No, I do not. I don't know that I ever
6 knew. It was just so many milligrams.

7 Q. Mr. Papageorge, I'm going to show you
8 another in a long line of memoranda. This one's
9 marked Plaintiff's Exhibit 47 and it appears to be
10 from Mr. Bradford and Mr. Johnson and to
11 Mr. Gossage. There is no indication on this
12 memorandum that it was sent to you but I'm going to
13 ask you that you review it and tell us whether you
14 received it or have seen it before.

15 A. I have reviewed this exhibit.

16 Q. Mr. Papageorge, did you receive a copy of
17 this memorandum at some point near November 1971?

18 A. I did not.

19 Q. Have you seen a copy of this before today?

20 A. Yes.

21 Q. Do you recall approximately when you first
22 saw this memorandum?

23 A. About three years ago.

24 Q. Was that with regard to litigation over
25 PCB's?

1 A. Yes, sir.

2 Q. Were you involved in the fall of 1971 or
3 winter of 1971 in any discussions with Mr. Bradford,
4 Mr. Johnson or Mr. Gossage concerning the effect of
5 removing from the market PCB's and PCT's that were
6 in your industrial fluid?

7 A. I was not.

8 Q. Ask you to turn to page 3 of this
9 memorandum. The second paragraph on page 3 says,
10 "For the air compressor lubricants we recommend
11 replacing free of charge approximately 25,000
12 gallons of fluid now out in the industry and
13 incinerating that amount at our own expense. Cost
14 of incineration and freight would possibly be around
15 \$12,500 and the replacement products would be
16 Pydraul 30 E, Pydraul 65 F and Pydraul 115 E."

17 Were you ever made aware of that
18 recommendation?

19 MR. CHAMBERS: Let me just interpose an
20 objection to form. What appears to be 65 F, I think
21 is just a misprint or not a clear 65 E.

22 MR. BAKER: That probably is 65 E.

23 MR. CHAMBERS: Okay.

24 Q. (By Mr. Baker) Mr. Papageorge, the "E"
25 here, does that refer to ester?

1 A. Yes, sir.

2 MR. BAKER: I'm sure it's 65 E because

3 that's fuzzy on this page.

4 MR. CHAMBERS: I think that's right.

5 Q. (By Mr. Baker) The question I believe

6 was: Were you ever made aware of this

7 recommendation?

8 A. Not at that time. Only when I saw this

9 document a few years ago was I aware of it.

10 Q. Do you know what Mr. Gossage did with that

11 recommendation?

12 A. I do not.

13 MR. CHAMBERS: He's already answered, but

14 I'll object. I don't see any way he could know if

15 he wasn't involved or didn't even see the document

16 until about three years ago.

17 MR. BAKER: I thought he might have learned

18 since then.

19 MR. CHAMBERS: Okay.

20 MR. BAKER: It's theoretically possible.

21 MR. CHAMBERS: All right.

22 Q. (By Mr. Baker) Is it a fair statement,

23 Mr. Papageorge, that Monsanto did not adopt as its

24 own policy the recommendation of Mr. Bradford or

25 Mr. Johnson concerning replacing fluid and

1 incinerating that at your own expense?

2 A. I don't know.

3 Q. Do you know of any program at Monsanto to
4 replace fluid free of charge and incinerate that
5 fluid at Monsanto's expense?

6 A. I don't know of any program.

7 Q. Mr. Papageorge, I'm going to show you an
8 exhibit marked Plaintiff's Exhibit 63 and ask you if
9 you would please review that.

10 A. I have reviewed it.

11 Q. Mr. Papageorge, this is a memorandum from
12 Mr. Davidson to Mr. Bradford. It's dated April 3,
13 1972, concerning various discussions with personnel
14 at Ralston Purina. It does not show a copy going to
15 you but you are mentioned there in a couple of
16 spots, so I'll ask you first whether you received a
17 copy of this memorandum contemporaneous to April 3,
18 1972.

19 A. I did not.

20 Q. Have you seen a copy of this before today?

21 A. I had not.

22 Q. With that said, you recall the Ralston
23 Purina discussions that occurred in 1971 and 1972?

24 A. I do.

25 Q. Tell us, please, what you recall from those

1 discussions.

2 A. I had inquiries from representatives of
3 Ralston Purina regarding PCB's and their detection
4 in some of their Purina's products. Those
5 discussions were started before Mr. Davidson came to
6 me, so this was just a confirmation that the problem
7 still existed. I tried to help, over the telephone,
8 the Purina representatives regarding possible
9 sources of PCB's.

10 I remember talking with him about
11 incidences in the animal feed and food industry of
12 heat transfer units that might have leaked, so that
13 some of the ingredients he was using could have been
14 contaminated before they arrived at his facilities,
15 so that pollution need not necessarily have occurred
16 in his plants but could have occurred elsewhere.

17 I talked to him about various paints
18 and coatings in silos and the possibility that some
19 of the ingredients he was using could have been
20 contaminated in that manner. I really had nothing
21 specific to offer the Purina representative. All I
22 could do was speculate with him as to where the
23 sources could be. I offered him help analytically,
24 and as I remember, his chemist and Monsanto's
25 chemist got together, and that was productive.

1 I, to this day, never heard the end of
2 their study. I do not know what they attributed the
3 contamination to.

4 Q. Did Monsanto confirm that Ralston Purina
5 did have contaminated animal feed?

6 A. Yes, they sent some samples to our
7 laboratory and we were able to confirm their
8 findings, yes.

9 Q. And you don't personally recall whether
10 Monsanto ever agreed as to the source of that PCB
11 contamination?

12 A. That is correct.

13 Q. You don't know that they didn't, you just
14 don't know whether it was ever worked out?

15 A. It never came to my attention as to whether
16 the puzzle was ever solved.

17 Q. There are a couple of items in here that
18 interests me. First, there's a mention of a
19 Pydraul A fluid that was contaminated with PCB's.

20 Are you familiar with that situation?

21 A. Yes, yes.

22 Q. Do you know when that occurred?

23 A. As best as I can recall, it was the latter
24 part of '71, somewhere in there.

25 Q. Do you know what Pydraul A product Ralston

1 Purina used? Was it Pydraul AC A or one of the
2 others?

3 A. I don't remember any more.

4 Q. Do you know whether the contamination of
5 Pydraul A products was across-the-board all the A
6 products or whether it was limited to one or more of
7 the different varieties?

8 A. It was just a few batches of a few types
9 because they were all made from one or two batches
10 of PCT that was contaminated.

11 Q. Did you ever determine what caused that?

12 A. No.

13 Q. The second item that interests me is
14 Mr. Davidson indicates in this memorandum that at
15 least on a couple of occasions he offered free
16 incineration to Ralston Purina.

17 Do you know whether Monsanto ever
18 followed through with that offer to Ralston Purina?

19 A. I do not.

20 Q. Can you tell us why Monsanto would have
21 offered free incineration to Ralston Purina while at
22 the same time charging other customers for
23 incineration?

24 A. I do not. That's all part of marketing
25 strategy. I know nothing about it.

1 Q. Was Ralston Purina a large customer of
2 Monsanto?

3 A. I have no information to help me to
4 determine that.

5 Q. What do you know about Monsanto's
6 procedures and policies for the retention or
7 destruction of old documents?

8 A. I do know that Monsanto for decades had a
9 retention, records retention policy, that was
10 published in a booklet that was given to all
11 employees and we were expected to follow that
12 booklet where in the booklet there were descriptions
13 of the type of document and how long it should be
14 held before destruction. I do not remember today
15 the specifics as it relates to each type of
16 document.

17 Q. Do you remember whether that policy changed
18 at any point from the 1950's through the 1970's?

19 A. There were revisions in the booklet, so
20 there must have been some changes. I don't remember
21 the details.

22 Q. In the 1970's, beginning when you came back
23 to St. Louis, January 1, 1970, do you know what
24 persons were responsible for maintaining the
25 documents relating to PCB's?

1 A. Each individual was responsible for
2 maintaining his files intact and not to discard them
3 without clearing with the Legal Department.

4 Q. Did that start January 1st 1970 or was that
5 the policy before you came or did it start sometime
6 after you came?

7 A. As best as I remember, it started sometime
8 after I came on board where I, for one, would bring
9 this up at all of our PCB meetings and I would
10 personally make certain that when an assignment was
11 changed from one person to another I reminded the
12 current owner to make certain that he passed on that
13 information to the successor. And, also, when an
14 activity that involved PCB's was terminated and
15 there was no successor custodian appointed, that
16 those records be sent to Monsanto's central records
17 center and that the Legal Department be informed
18 that a box of documents was shipped and is stored
19 under catalogue number so and so. This really
20 evolved gradually through 1970 and as far as I know
21 continued for years.

22 Q. Do you know what the policy was prior to
23 January 1970?

24 A. It followed the booklet which was put out
25 for the whole company. The PCB documents were

1 treated like all other.

2 Q. You said sometime after January 1st 1970
3 the procedure with regard to PCB documents was
4 changed.

5 Was one of the changes the requirement
6 that any destruction go through the Legal
7 Department?

8 A. Any instructions you say?

9 Q. Destruction, that prior to destruction of
10 any PCB documents you go through the Legal
11 Department?

12 MR. CHAMBERS: Let me interpose an
13 objection at this point to the extent we get into
14 issues that relate to attorney-client privilege
15 issues I'm going to need to instruct Mr. Papageorge
16 not to answer those. And I've let this go very far
17 but I'm concerned that we're getting to a point
18 where I may have to interject myself.

19 MR. BAKER: I will try to avoid that if at
20 all possible but if you think I step over the line,
21 be sure to jump in.

22 Q. (By Mr. Baker) The question was -- and I
23 thought I was trying to restate what you had already
24 said, and I'm trying to get to a time where this
25 happened. But I believe your testimony was that at

1 sometime after you got here in January of 1970 there
2 was adopted a policy that you did not destroy PCB
3 documents without clearing with the Legal
4 Department.

5 Is that what you testified to? If
6 not, correct me.

7 A. I didn't think I used the word "destroy."
8 The documents were to be passed on to the successor
9 custodian. If there is no successor, they are to be
10 stored, and the fact that they are stored was to be
11 passed on to the Legal Department so that they are
12 aware of the presence of such a box of documents.

13 Q. Perhaps I misunderstood you. Were you or
14 other employees allowed under any circumstances
15 after January 1970 to destroy any PCB documents?

16 A. No, as long as you kept a copy. In other
17 words, if I had 15 copies of something I could
18 destroy the 14 but I better keep the one.

19 Q. So was your policy to maintain every
20 document forever if that document pertained to PCB's
21 in any way?

22 A. That was my understanding.

23 Q. When do you believe that policy was
24 adopted?

25 A. I think it was pretty well understood by

1 about April or May of 1970.

2 Q. By mid 1970 had all PCB documents been
3 gathered together and were they stored in a common
4 place or were they still spread out throughout
5 different departments?

6 A. They were spread out.

7 (Counsel requested the following
8 question be certified to The Court.)

9 Q. (By Mr. Baker) To your knowledge did there
10 come a point when all of those documents were
11 gathered together in a common location?

12 A. You say to my knowledge, all I know is
13 that --

14 MR. CHAMBERS: I'm going to object and
15 instruct him not to answer at this point on the
16 grounds that we're getting into information that
17 touches on and involves potentially the work product
18 privilege and the attorney-client privilege.

19 If you want to go off the record and
20 discuss if there's a way to get at some of these
21 things in a different manner, I'll be happy to do
22 that.

23 MR. BAKER: I just want to be sure that I
24 understand your objection so I can respond to it.
25 You are instructing him not to answer our question

1 as to whether at some point in time all PCB
2 documents were collected and stored in a common
3 location? That's the question?

4 MR. CHAMBERS: Correct.

5 MR. BAKER: And your basis for that is
6 attorney-client privilege?

7 MR. CHAMBERS: And/or work product.

8 MR. BAKER: Well, I don't want to push the
9 judge to argue about peripheral issues and I don't
10 intend to do that today but I think we probably want
11 to certify that question. We do want to certify
12 that question, because the question was: Were the
13 documents gathered together and stored in a common
14 location? And part of what we're trying to do here
15 is find documents, and I haven't asked you who did
16 it or why anybody did it or who told you to do it.
17 I just asked if it's ever been done, so we will
18 certify that question.

19 Let me ask you a couple more, then
20 we'll move on, try to draw the same objection. I'm
21 not trying to sneak one in on you here.

22 MR. CHAMBERS: No, that's all right.

23 Q. (By Mr. Baker) Do you know where PCB
24 documents of Monsanto are kept now?

25 A. Physically?

1 Q. Yes.

2 A. No.

3 Q. Do you know where they were kept when you
4 left Monsanto's employ?

5 A. I can, in a general way, describe it. They
6 were kept in steel file cabinets adjacent to the
7 work area of people still working on PCB's.

8 Q. I'm going to shift from that area now.

9 We discussed for some time this
10 afternoon various presentations to the Corporate
11 Management Committee and you mentioned an earlier
12 meeting with the same committee with a different
13 name in the fall of 1969 I believe, did you not?

14 A. I did.

15 Q. Do you know when the issue of how to deal
16 with the PCB problem was first presented to a top
17 management committee of Monsanto?

18 A. The best of my information it was presented
19 at that November 1969 meeting.

20 Q. Are you aware of any time prior to November
21 of 1969 that this issue was presented to a top
22 management committee of Monsanto?

23 A. I am not aware.

24 Q. What person or persons presented the issue
25 to that Monsanto committee in November of 1969?

1 A. The two business directors, Howard Bergen
2 and James Springgate, presented, along with Elmer
3 Wheeler, with Dr. Kelly. I believe those four
4 individuals made virtually the full presentation.

5 Q. Were you present for that presentation?

6 A. No.

7 Q. Was this at a time after you had decided to
8 come back to St. Louis and accept the job of
9 managing the problem but prior to your actual
10 arrival?

11 A. No, I was approached for that assignment
12 after that particular meeting because at that
13 meeting this position was approved.

14 Q. You mentioned -- is it Dr. Wheeler?

15 A. No, he's Master of Science, Mr. Wheeler,
16 yes.

17 Q. Sometimes there is a fine line between --

18 A. Oh, yeah, some people take it seriously.

19 Q. Do you know if Mr. Wheeler is still alive?

20 A. He is deceased.

21 MR. BAKER: Could we take about a
22 five-minute break now?

23 (A brief recess was taken and the
24 deposition was concluded.)
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

SIGNATURE OF WITNESS

William B. Papageorge

Subscribed and sworn before me this _____
day of _____, 1992.

Notary Public

My Commission Expires:

