

1 Cerro Copper Products, Co.

2 vs.

3 Monsanto Company

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13 VOLUME 2

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15 Deposition of Michael A. Pierle

16 Taken June 30, 1994

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1 IN THE UNITED STATES DISTRICT COURT

2 SOUTHERN DISTRICT OF ILLINOIS

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4 CERRO COPPER PRODUCTS, CO.,

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6 Plaintiff,

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8 vs. NO. 92-CV-204-WDS

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10 MONSANTO COMPANY,

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12 Defendant.

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15 VOLUME 2

16

17 Continued Deposition of MICHAEL A. PIERLE,

18 taken on behalf of the Plaintiff, at the

19 offices of Coburn & Croft, One Mercantile

20 Center, Suite 2900, in the City of St. Louis,

21 State of Missouri, on the 30th day of June,

22 1994, before Tracey Balsitis, Registered

23 Professional Reporter and Notary Public.

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25

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2

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1 MICHAEL A. PIERLE
2 of lawful age, having been previously duly
3 sworn to testify the truth, the whole truth,
4 and nothing but the truth in the case
5 aforesaid, deposes and says in reply to oral
6 interrogatories propounded as follows, to-wit:

7 EXAMINATION

8 QUESTIONS BY MR. RICCI:

9 Q Good morning, Mr. Pierle. Mr. Pierle,
10 when we concluded on Tuesday, we were talking
11 about a document that had been marked as
12 Exhibit 7 to your deposition, and I had a
13 couple more questions relating to that
14 document.

15 In the first paragraph under the
16 heading "Summary" on the first page, there is
17 a statement that, "From yield losses it is
18 estimated that these losses total 40,000
19 pounds a year to the sewer." And I believe
20 you were talking about aroclor losses; is that
21 correct?

22 A That's correct.

23 Q Can you tell me how you developed that
24 40,000 pound a year figure?

25 A I don't recall.

1 Q The document indicates that the
2 estimate is from yield losses. What do you
3 understand the term yield losses to mean?

4 A Typically that would refer to estimate
5 of balance of material around the production
6 facility, and losses would indicate that
7 amount that is not accounted for in product.

8 Q So, in other words, you take what you
9 are putting into the processes, raw materials,
10 and what you are getting out of the process is
11 product, and to the extent that they don't
12 match up, then you take the difference as a
13 loss to the sewer?

14 A Usually those would be yield losses
15 roughly as you have described. It could be
16 losses to air, sewer, waste sources generally.
17 And in this case, I mean what I have written
18 here, based on that information, that must
19 have been the estimate of the losses that were
20 expected to have gone to the sewer.

21 Q Do you know whether you had any
22 assistance from anyone, for instance, from
23 production, in computing that yield loss
24 figure?

25 A I don't recall the specifics on that,

1 but I would have not been in a position myself
2 to be able to do that.

3 Q Do you have any general recollections
4 of working with anyone in production during
5 this time period regarding the issue of PCB
6 losses to the sewers?

7 A No, I don't.

8 Q And my question makes an assumption
9 that perhaps I should clarify. Would
10 production people be the ones in the position
11 to estimate losses to the sewer by reference
12 to yield losses?

13 A Typically there would have been
14 information on processes that would describe
15 this type of information that would be
16 prepared by production and engineering.

17 Q Would those be the standard
18 manufacturing process sheets?

19 A I recall that terminology. I don't
20 recall if that's precisely where these would
21 have come from or not.

22 Q Do you recall any other documents that
23 were production related that were of
24 assistance in preparing that figure?

25 A Typically this information would be on

1 what they would call flow sheets.

2 Q Can you describe a flow sheet to me?

3 A It would be an engineer's depiction of

4 the process and the flow of material within

5 the process, including quantities and rates.

6 Q Is it a diagram type of document?

7 A Typically it would be a diagram with

8 numbers.

9 Q The estimate of losses to the sewer

10 that you computed from yield losses is in

11 pounds per year. Earlier in the document that

12 we have marked as Exhibit 7 to your

13 deposition, you talk about gallon losses of

14 spent aroclors from Department 245. Do you

15 know how to convert gallons to pounds in terms

16 of aroclor losses, what the conversion factor

17 is?

18 A It would be gallons divided by a

19 specific gravity I believe would give you

20 pounds. I do not recall the specific gravity

21 of the materials except that they were all

22 heavier than water. And I believe there was a

23 reference on one of the pages to a specific

24 gravity number.

25 Q Is there in this document?

1 A Not in this document.

2 Q Can you flip over to the second page
3 of Exhibit 7. In the paragraph identified as
4 A1 -- I'm sorry -- A2 under the heading
5 "Details," there is a reference to aroclor
6 having been detected in the catch pot systems
7 in Department 218 and 217. Do you recall what
8 products were manufactured in Departments 218
9 and 217?

10 A My recollection of that is those were
11 departments, one or both, and I'm not sure,
12 that produced hydrochloric acid.

13 Q Does chlorosulfonic acid ring a bell
14 to you as being manufactured in one of those
15 departments?

16 A It could have been.

17 Q Now, those departments took hydrogen
18 chloride that was a byproduct in the
19 manufacture of aroclors and used it as a raw
20 material; is that true?

21 A My recollection is that the byproduct
22 HCL was collected from around the plant in a
23 header system, some of which was used in
24 chlorosulfonic and some of which was recovered
25 and sold as hydrochloric -- as an aqueous

1 acid.

2 Q Muriatic acid?

3 A Yes.

4 Q And Department 246 was one of the

5 departments that contributed HCL to that

6 process; is that correct?

7 A Yes.

8 Q What is the reference to catch pots or

9 catch pot systems in the paragraph that we are

10 looking at?

11 A My recollection was that as these

12 lines that carried the HCL byproduct off-gas

13 were generally above grade, and that

14 periodically there would be low spots in the

15 line and there would be a catch pot or a

16 collection tank that could be used to collect

17 any liquid materials that would separate or

18 aggregate in those lines.

19 Q Were these low areas specifically

20 designed for that purpose?

21 A I'm not familiar with the reasons for

22 the design of the operation.

23 Q You just knew they were there?

24 A Yes.

25 Q Was there a valve or some sort of an

1 apparatus to clean out -- to allow the catch

2 pots to be cleaned out?

3 A I don't recall.

4 Q Were you involved in the sampling that

5 led to the determination that aroclors had

6 been detected in the catch pot systems?

7 A I remember doing some sampling in the

8 Department 246 gas line itself, actually

9 trying to withdraw vapor samples, gas samples,

10 and check for liquids. I do not recall

11 sampling or working at the catch pots

12 themselves.

13 Q Were there others besides yourself who

14 were involved in aroclor sampling during this

15 time period?

16 A I don't remember exactly who was doing

17 that work. Someone would have been doing it

18 with me, but I don't recall who it was.

19 Q In the next paragraph under details,

20 you indicate that aroclor is readily visible

21 in Department 246 trench sewers. Is that a

22 fair statement?

23 A Yes.

24 Q Did you actually see the aroclors

25 yourself?

1 A Yes.

2 Q What did they look like?

3 A They were clear, heavy, viscous

4 liquids floating at the very bottom of the

5 shallow trench sewers.

6 Q Floating at the bottom of the trench

7 sewers? It sounds like a bit of an oxymoron

8 there.

9 A Thank you for that correction. They

10 were basically separated and heavy and sat at

11 the bottom and moved along the bottom of the

12 sewers.

13 Q And you say they were clear?

14 A That's my recollection.

15 Q Did you ever have occasion to see any

16 spent heat transfer fluids?

17 A It seems to me I did.

18 Q Do you recall what they looked like?

19 A They tended to be a darker --

20 Q Darker?

21 A -- color.

22 Q More or less viscous than, for

23 instance, the aroclors that you saw in the

24 trench sewers?

25 A It seems to me they tended to be more

1 viscous.

2 Q Any other identifying characteristics
3 that you can recall?

4 A Only their, you know, again relative
5 insolubility at very low levels.

6 Q Insolubility in water?

7 A In water.

8 Q Where did you see these spent heat
9 transfer fluids?

10 A I need to be careful here because I
11 have seen these subsequent at other plants.
12 It would tend to be at the sort of heater
13 furnace system areas where you might have a
14 slight leak in the system or a catch pan that
15 would be under a pump and you would be
16 catching materials.

17 Q Do you know if the spent heat transfer
18 fluids or the used heat transfer fluids that
19 you saw were at the Krummrich facility?

20 A I remember seeing the heat transfer
21 units or at least some of them at the
22 Krummrich facility.

23 Q Do you recall which units you saw?

24 A No. The one that -- seems to me there
25 was one in the north area that I recall

1 seeing. My office was in that area, and it is
2 my recollection, but in my mind I don't
3 pinpoint exactly where it is.

4 Q When you say north area, are you
5 talking about north of Monsanto Avenue?

6 A Yes.

7 Q And this would have been during your
8 initial stint at the Krummrich facility from
9 '66 to '70?

10 A Yes.

11 Q Do you recall ever seeing the heat
12 transfer furnace or the heat transfer unit in
13 Department 245 phosphorous pentasulfide?

14 A We talked a bit about that two days
15 ago, and I still don't recollect that unit or
16 its position in that department. I can
17 visualize the department, but I can't
18 visualize that particular unit.

19 Q Under the next heading on the second
20 page of Exhibit 7, the title is "Quantity."
21 And in the second paragraph under paragraph
22 one you talk about vapor losses due to tank
23 breathing. Do you see that?

24 A Are you on page 3?

25 Q No. I'm on page 2. I'm sorry. B1,

1 second paragraph.

2 A Yes.

3 Q You indicate other department losses
4 are from vapor losses due to tank breathing.

5 What departments are you referring to there?

6 A I don't recall.

7 Q Were there departments other than
8 Department 246 that stored aroclors in tanks?

9 A I don't believe so. What I'm not sure
10 is within these departments that had furnace
11 systems whether there was any sort of system
12 that was open to the atmosphere there.

13 Q Did Department 246 store aroclors in
14 tanks?

15 A I believe they did.

16 Q These were above-ground storage tanks?

17 A Yes.

18 Q Do you know whether there was any
19 aroclor loss due to tanks breathing in
20 Department 246?

21 A I don't know that for a fact.

22 Q What do you mean by tank breathing?

23 A Well, as I recall, on aroclors the
24 vapor pressure of this material was very low,
25 so if you had just a pool of this material

1 sitting, the amount that might vaporize up
2 into the aerospace would have been very low.
3 But as one would fill a tank, pump into a
4 tank, for example, and you would push that
5 aerospace up, it would vent, and that's what
6 we typically called part of the breathing
7 cycle. It would also breathe air in as the
8 tank came down.

9 Q At this time in September of 1969,
10 were there any systems in place in Department
11 246 to capture vaporized aroclors that were
12 accumulated in the storage tanks?

13 A I don't recall. Again, my
14 recollection is these losses would have been
15 very, very low, and I don't know whether they
16 would have commanded controls then or not.

17 Q To the extent that vaporized aroclors
18 were -- let me withdraw that. Could you flip
19 over to the next page of Exhibit 7, please.
20 I'd like to direct your attention down to
21 heading C, "Control Measures."

22 We talked a little bit yesterday about
23 the sewerage of aroclors in Department 245,
24 and I'd like to direct your attention now to
25 the discussion with respect to Department 238.

1 You state in this memo, "This material --
2 referring to aroclors in Department 238, I
3 believe -- has and will continue to be
4 disposed of at the landfill." Do you see
5 that?

6 A Yes.

7 Q Do you know why it was that the spent
8 aroclors from Department 238 were being
9 landfilled but the spent aroclors from
10 Department 245 apparently were being sewerred?

11 A I do not.

12 Q Did it ever occur to anybody prior to
13 September of 1969 that the sewerred of spent
14 aroclors was maybe not a good idea?

15 A I don't know.

16 Q Do you know who had authority to
17 release aroclors into the sewer, for instance,
18 spent aroclors, from Department 245?

19 A I don't know that that would have
20 necessarily been a relevant question then.

21 Q I understand that it is probably not
22 an issue that went up through a chain of
23 command, but somebody had to make a
24 determination that we are either going to dump
25 it in the sewer or we are going to take it to

1 the landfill or we are going to do something
2 else with it. Do you know who that person
3 would have been or what the title of that
4 person would have been?

5 A No.

6 Q Would that have been a decision that
7 was made in the production department itself?

8 A I don't know.

9 Q Prior to the time that the company
10 became concerned about releases of aroclors
11 into the environment, did anybody ever come to
12 you or your department under Mr. Hodges or
13 Mr. Buckley to discuss the release of aroclors
14 into the sewers?

15 A I don't recall any conversations or
16 interest prior to this time period.

17 Q So this was not an issue that was
18 brought to the attention of the environmental
19 personnel at the plant prior to the time that
20 attention was given specifically to aroclors
21 in the environment?

22 A Well, I'm vague. I don't recall any
23 conversation.

24 (Plaintiff Deposition Exhibit Number 8
25 marked for identification.)

1 Q (By Mr. Ricci) Mr. Pierle, I'm
2 handing you a document that's been marked as
3 Exhibit 8 to your deposition and ask you to
4 take a look at it. This is a document with
5 Bates No. CER 010886.

6 Mr. Pierle, this appears to be a memo
7 dated September 29, 1969, from Mr. McCutchan
8 to Mr. Kuhn. Do you know who Mr. Kuhn is?

9 A I know Bill Kuhn, but I do not know
10 what his role was during this time period. I
11 had an office next to him in the mid to late
12 '70s.

13 Q Do you know if he is still with the
14 company?

15 A I'm sure he is not.

16 Q Do you recall whether he was at the
17 Krummrich plant in September of 1969?

18 A This letter would indicate he was not,
19 I think, because the B-240-N mailing address
20 would indicate to me that these were general
21 offices.

22 Q Do you know whether Mr. Kuhn had any
23 involvement in this aroclor control program
24 that was evolving at this time?

25 A I don't recall his responsibilities.

1 Q You appear to have been copied on this
2 memo. Could we assume that from that you
3 received a copy in September of 1969?

4 A I would assume so.

5 Q Do you have any recollection of this
6 memo?

7 A No, I don't.

8 Q And I believe you testified yesterday
9 that you are not sure exactly who
10 Mr. McCutchan was?

11 A That's correct.

12 Q Who is Mr. Sprandel?

13 A Lou Sprandel was a senior person at
14 the plant in what I would term plant
15 engineering. Again, I'm not certain as to his
16 title or organizational location.

17 Q And Mr. Bratsch was the plant manager?

18 A I believe he was then, yes.

19 Q Paragraph one of the memo estimates
20 aroclor losses to the sewer from Department
21 246 at 50,000 pounds a year. Do you see that?

22 A Yes.

23 Q In the memo that we looked at that was
24 identified as Exhibit 7, which was dated
25 September 22, 1969, you had estimated the

1 losses at 40,000 pounds a year. Do you know
2 how the estimate increased by 10,000 pounds
3 during the time from September 22 to
4 September 29, 1969?

5 A I believe my report indicated that
6 these were from the production department, the
7 40,000, and I believe that's the same number
8 that is shown on this memo, net production
9 facility losses 40,000 pounds per year. There
10 appears to be an additional item of net
11 blending facility losses of 10,000.

12 Q What is the reference to blending
13 facilities?

14 A I'm not exactly certain.

15 Q Do you know if it was blending in
16 Department 246 or someplace else?

17 A I do not.

18 (Plaintiff Deposition Exhibit Number 9
19 marked for identification.)

20 Q (By Mr. Ricci) Mr. Pierle, I'm
21 handing you a document that's been marked as
22 Exhibit 9 to your deposition, and I would ask
23 you to take a look at it. This is a document
24 with Bates No. CER 013928.

25 A Well, I will just generally peruse it

1 and then come back to it.

2 Q That's fine. This appears to be an
3 October 29, 1969, memo from a Mr. Tucker to
4 yourself. Do you have any recollection of
5 this memo?

6 A Not particularly.

7 Q Who was Mr. Tucker?

8 A I believe he was a laboratory analyst
9 at our research facilities which were part of
10 the Queeny plant site in 1969.

11 Q There are some other names on this
12 memo that we haven't seen previously. Who was
13 Mr. Farrar?

14 A Martin Farrar was a higher level
15 person in research management.

16 Q How about Mr. Keller?

17 A He was again a higher level person in
18 research management.

19 Q How about Mr. Richard?

20 A Mr. Richard fits the same general
21 classification.

22 Q And Mr. Wheeler?

23 A Mr. Wheeler was in the corporate
24 medical department.

25 Q What was Mr. Tucker's involvement in

1 the aroclor control program that was getting
2 under way here?

3 A I believe his expertise was in the
4 analytical detection of PCBs in samples.

5 Q Is he the one that you were sending
6 the samples that you were collecting to?

7 A Yes.

8 Q Was he responsible for developing the
9 protocol for testing for PCBs in environmental
10 media?

11 A He was in the group that did that.

12 I'm not sure, you know, what his
13 responsibilities were.

14 Q Do you know if such a protocol was in
15 place as of October of 1969 or whether it was
16 still evolving?

17 A I don't know that for certain.

18 Q If you flip over to the next page of
19 Exhibit 9, there are some sampling -- what
20 appear to be sampling results. Is that what
21 you understand the information on the second
22 page of this exhibit to be?

23 A Yes.

24 Q Do you recognize the handwriting that
25 appears on that page?

1 A Yes.

2 Q Whose is that?

3 A Mine.

4 Q All of it?

5 A I believe so.

6 Q The first line on the second page of

7 this exhibit, just going across under the

8 heading "Log Number," has 14 WGK. Is that

9 just a number that was assigned to the sample

10 to distinguish it from the other samples?

11 A It appears to be, but I don't recall

12 the notation.

13 Q Under "Sample Identification" there is

14 a notation 24N, No. 1 sewer. Do you know what

15 that means?

16 A It appears to be a sample location

17 number, but again I'm interpreting as opposed

18 to remembering.

19 Q As you sit here today, can you tell me

20 -- can you interpret from that identification

21 where that sample came from?

22 A Well, only that it came out of one of

23 the sewers, but I can't interpret from that

24 precise location.

25 Q The 24N doesn't really have any

1 meaning to you?

2 A Doesn't help me.

3 Q Then in the last column under "Amount

4 Found," there is a .05 which I believe

5 represents parts per million; is that correct?

6 A That's what the column indicates.

7 Q And then next to it there is a

8 handwritten .05. Do you know what the

9 significance of the handwritten notation is?

10 A No.

11 Q Let's go down to the third line,

12 16 WGK. Under sample identification it is

13 SV0, No. 1 sewer. Do you know what the SVO

14 stands for?

15 A I really don't. I can't tell if

16 that's Sauget Village outfall. It could be

17 that, but I don't know whether it is for

18 certain.

19 Q You don't have a recollection of what

20 that is?

21 A No, because I don't know what MVO is

22 that is further down.

23 Q Down to the line that's identified

24 18 WGK.

25 A Yes.

1 Q Going across to the last column, there
2 is a typed figure of 1.87, and then
3 handwritten in next to that is 1.37. Do you
4 have any knowledge as to the significance of
5 the handwritten figure versus the typed in
6 figure?

7 A Well, I'm not certain that that's
8 1.37.

9 Q Does it look like maybe --

10 A It could be 1.87.

11 Q I see what you are saying.

12 A It just looks like a carry over of the
13 number, but I don't understand. Some were
14 carried over and some are different.

15 Q Let me just ask you generally for
16 those situations where the handwritten figure
17 is different than the typed in figure, do you
18 have any knowledge as to the significance of
19 that?

20 A It looks to me like the notations to
21 the left of that, which indicate it is a
22 six-day sample, I have done some
23 multiplication, but again I can't tell what
24 the multiplication was for.

25 Q Okay. It looks like, though, where

1 you have got six-day samples, you take the
2 typed in figure and multiply it by six, and
3 that's how you get the handwritten figure?

4 A That's what it looks like.

5 Q And similarly with the seven-day
6 figure under 99 WGK?

7 A Yes.

8 Q Do you know what that six-day or the
9 seven-day notation means?

10 A I don't. I don't recall.

11 Q See, it just corresponds to the date
12 taken, which to me would indicate that that
13 sample was taken then over those number of
14 days.

15 Q Can you flip back to the first page.
16 In the second paragraph there is a statement,
17 "A portion of the black oil (top layer)
18 present in MVO No. 1 was isolated and
19 analyzed. As suspected, it contained the bulk
20 of the aroclor."

21 Do you know why Mr. Tucker suspected
22 that the top layer of the sample would contain
23 the bulk of the aroclor?

24 A I don't.

25 Q Is that consistent with the

1 expectation that you had testified to earlier
2 that the aroclors being heavier than water
3 would sink to the bottom, for instance, in the
4 sewers?

5 A I need to know and try to remember
6 where the sample was from, what it was mixed
7 with. I recall that during this time period
8 at the waste treatment plant there was a
9 considerable amount of oil lost from the
10 Mobile refinery that gave us quite substantial
11 operational headaches at the waste treatment
12 plant. And this was after all this water
13 would go down the sewer, would be picked up in
14 pumps and basically homogenized and then taken
15 to the waste treatment plant. And then again
16 what happens to the solubility when this stuff
17 gets mixed up, I don't know where it might go,
18 whether it would stay on the bottom or go into
19 the oil or separate. So I guess what I'm
20 describing is not a simple system once some of
21 this stuff tended to mix further in the
22 system.

23 Q Do you know if PCBs were more soluble
24 in oil than they were in water?

25 A I'm not an expert on that.

1 Q Do you have any knowledge on that
2 issue?

3 A Well, I think it would depend on the
4 oil and the solubility index.

5 Q Do you know if PCBs were soluble in
6 acid?

7 A Again, you need to talk with someone
8 that's more of an expert on that.

9 Q Is there anybody at the company who
10 you would view as knowledgeable on those
11 issues?

12 A We don't have many PCB people around,
13 but I think -- I don't know a specific person.
14 I think -- I don't know.

15 Q How about Mr. Papageorge?

16 A Bill was quite knowledgeable about
17 lots of things. I'm not sure this fits into
18 his area of specialization or not.

19 (Plaintiff Deposition Exhibit Number 10
20 marked for identification.)

21 Q (By Mr. Ricci) Mr. Pierle, let me
22 show you a document that's been marked as
23 Exhibit 10 to your deposition and ask you to
24 take a look at it. This is a document with
25 Bates No. CER 010880.

1 A Very attractive printing, isn't it?

2 Q I take it from your last statement

3 that this is your handwriting?

4 A It is my printing.

5 Q Your printing.

6 MR. HEINEMAN: Is this when you are

7 really trying to be neat?

8 THE WITNESS: You haven't seen my

9 handwriting.

10 Q (By Mr. Ricci) This is a document

11 that you authored?

12 A Yes.

13 Q Do you have any recollection of it?

14 A Not specifically.

15 Q In the first paragraph there is a

16 statement that the aroclor losses from the

17 plant averaged 700 pounds a day and ranged

18 from 20 to 3,500 pounds a day. Do you see

19 that?

20 A Yes.

21 Q Previously we had seen an estimate of

22 40,000 pounds, of a 40,000 pound a year loss

23 from Department 246 and an additional 10,000

24 pounds a year from the blending facilities.

25 Do you recall that?

1 A Yes.

2 Q Do you have any -- withdraw that. The
3 700 pound a day average discussed in this
4 memo, if annualized, far exceeds 40 to 50,000
5 pounds a year. Is that a fair statement?

6 A With quick math I think that's right,
7 yes.

8 Q Did you have any idea at this point as
9 to where the difference between the 40 to
10 50,000 pound a year estimate and the 700 pound
11 a day estimate came from?

12 A No.

13 Q You state that the results also show
14 that the aroclors concentrated in the oily
15 surface layer. Do you know what that
16 reference is to?

17 A Again, this memo was written shortly
18 after the receipt of this memo.

19 Q Just to be clear for the record, you
20 are saying Exhibit 10 was written shortly
21 after receipt of Exhibit 9?

22 A Yes. It appears that way. Perhaps
23 within a month, a little more than a month. I
24 don't know what intervened between the two of
25 these. It could be that this references back

1 to this memo, but I don't know what happened
2 during the month.

3 Q Do you know if that oily surface layer
4 that you discuss in Exhibit 10 is from the
5 waste treatment plant or from Monsanto's
6 effluent?

7 A I can't tell from this description.

8 Q Move down to the discussion of grab
9 samples towards the middle of the first page,
10 if you could.

11 You indicate that grab samples had
12 been taken from the following sources, and
13 then you talk about the primary treatment
14 plant scum and sludge. Are scum and sludge
15 the same thing or are they two different
16 things?

17 A They are two different things.

18 Q Can you tell me what the scum is?

19 A The scum is basically referred to I
20 think later on as the oil layer. It would
21 have been the floating materials.

22 Q What about the sludge?

23 A The sludge would have been heavier
24 than water or the materials removed off the
25 bottom of the treatment plant.

1 Q The treatment plant operated so as to
2 remove floaters and sinkers, so to speak,
3 prior to discharge of the liquid into the
4 river; is that correct?

5 A Yes.

6 Q So that to the extent that the aroclor
7 was being concentrated in the floating oil
8 layer that would have been removed from the
9 effluent, that aroclor content would have been
10 removed from the effluent prior to discharge?

11 A I think that's what we are attempting
12 to determine.

13 Q And to the extent that the aroclors
14 continued to sink, as you had indicated you
15 thought would occur, those aroclors would be
16 removed with the sludge, again, prior to
17 discharge of the effluent into the river. Is
18 that a fair statement?

19 A Yes.

20 Q So that at this point it seemed
21 reasonable to assume that the discharge to the
22 river would not contain significant amounts of
23 aroclors; is that true?

24 A Again, I think that's what we were
25 determining or trying to determine.

1 Q Under paragraph B under the heading
2 "Grab Samples," there is a discussion of
3 activated carbon in Department 218. Do you
4 know what that refers to?

5 A I believe in that department as part
6 of the acid, muriatic acid recovery, there was
7 an activated carbon filtration step. And the
8 exercise here was to sample the carbon to see
9 if any PCBs had been collected on the carbon.

10 Q Do you know whether this carbon
11 filtration step was applied to the HCL coming
12 into the process or to the product coming out
13 of the process?

14 A I don't recall.

15 Q There is a discussion of the acid
16 scrubber in Department 217. Do you know what
17 that refers to?

18 A Where is that discussed?

19 Q It is in the same paragraph that talks
20 about the activated carbon.

21 A I don't recollect what that was.

22 Q If you flip over to the next page,
23 there is a diagram of some trench sewers and
24 an indication of the location of the samplers.
25 Do you know if the trench sewers that are

1 depicted on this diagram are trench sewers
2 that preexisted this aroclor control program
3 that began sometime in '69?

4 A Could you repeat that?

5 Q Let me try and restate it. Do you
6 know if the trenches depicted on this diagram
7 were trenches that were newly installed as a
8 result of the company's efforts to control
9 aroclor losses or whether they preexisted
10 those efforts by the company?

11 A I believe those were the existing
12 trench sewers.

13 Q In the last paragraph on that second
14 page, you indicate that a fast speed pump is
15 being used to collect the aroclor that settles
16 out in the trench sewers. Do you see that?

17 A Yes.

18 Q This is -- is that fast speed pump in
19 one of the locations on the diagram that are
20 depicted by the word sampler?

21 A I believe the notation on this
22 diagram, the X indicates where the -- and the
23 term there is solid aroclor. The aroclors
24 were actually being trapped behind these wood
25 gates I had referenced earlier in the

1 deposition. And the pump that is referred to
2 in this document was the pump being used to
3 remove the aroclor that collected behind those
4 gates.

5 Q Okay. So that was being used to
6 collect what you were preventing from going
7 into the sewers as opposed to measuring what
8 was going into the sewers?

9 A Correct.

10 Q What were you doing with the aroclors
11 that were taken out through that pump?

12 A I'm not certain. The department would
13 have handled those, but my assumption would
14 have been that they would have then gone to
15 the landfill.

16 Q Is it fair to say that prior to the
17 installation of these wood gates, those
18 aroclors were being released into the sewer
19 system?

20 A If there were aroclors there
21 beforehand, I believe that would be correct.

22 Q Do you have any reason to believe that
23 there were not?

24 A Again, I indicated earlier that these
25 trenches collected small amounts of what would

1 drip or leak, and those were intermittent
2 streams. My recollection, these were very
3 small amounts we were pulling out here, so
4 without having some understanding of prior
5 operation records, it wouldn't -- I wouldn't
6 be able to try to guesstimate the amount or
7 the frequency of what would be there.

8 Q I don't think I asked you to do that
9 though. I think I just asked you whether you
10 had any reason to believe that there would not
11 be aroclors in that trench prior to the
12 installation of the wood gates?

13 A And I think my answer is that it is
14 possible that there were times when there were
15 no aroclors before then, and there's probably
16 times when it was possible that there were. I
17 don't have any facts to know what the
18 quantities or rates or amounts would be or
19 would have been.

20 Q Can you flip over to the next page.
21 There is a discussion on this page of
22 transformers. Do you see that?

23 A Yes.

24 Q Do you recall how many transformers
25 there were at the Krummrich facility at this

1 time?

2 A No, I do not.

3 Q Was there more than one?

4 A I don't know.

5 Q Do you recall looking into the issue

6 of transformers as part of the aroclor control

7 program that you were involved with?

8 A That doesn't stand out.

9 Q Do you know if there was ever any

10 sewerage of transformer fluids at the

11 Krummrich facility?

12 A I don't recall.

13 Q You state in this memo that, "All

14 material from electrical transformers is

15 drummed off and reused or disposed in drums to

16 the landfill." Do you know if that was the

17 practice prior to 1969?

18 A I do not.

19 (Plaintiff Deposition Exhibit Number 11

20 marked for identification.)

21 Q (By Mr. Ricci) Mr. Pierle, I'm

22 handing you a document that's been marked as

23 Exhibit 11 to your deposition. This is a

24 document with Bates No. CER 013930, and I

25 would ask you to take a look at that. This is

1 a document that you authored; is that correct?

2 A Yes.

3 Q If you flip over to the second page

4 under the heading "Analytical Results," there

5 is a reference to results of initial samples

6 from Scott Tucker on 11/24/69. Are those the

7 results that are set forth in the document

8 that we have marked as Exhibit 9 to your

9 deposition?

10 MR. HEINEMAN: You mean 8?

11 MR. RICCI: I'm sorry. 9.

12 MR. HEINEMAN: I'm sorry. 9.

13 A The date appears to be different.

14 Q (By Mr. Ricci) If you look at the top

15 of Exhibit 9, there is a handwritten notation,

16 "Received WGK 11/24/69"?

17 A Yes.

18 Q Is that your handwriting?

19 A Yes, it is.

20 Q Does that suggest to you that the

21 results referred to in Exhibit 11 are in fact

22 the results that are set forth in Exhibit 9?

23 A Yes.

24 Q In the second paragraph under the

25 heading "Analytical Results," you state that

1 results indicate that influents to the Sauget
2 Village treatment plant, and then you list a
3 number of log numbers. Do those log numbers
4 refer to the numbers in the first column of
5 the second page of Exhibit 9?

6 A They appear to, with the caveat I
7 guess here that the letter -- this memo refers
8 to them as influent to the Sauget Village
9 plant, and I don't see that specific notation
10 on the sample sheet.

11 Q Okay. If you look at the second
12 sentence of this second paragraph under
13 analytical results, you state samples, and
14 then you give a list of log numbers taken
15 downstream of the aroclor manufacturing
16 department contained an average of four pounds
17 a day aroclor. Do you see that?

18 A Yes.

19 Q I guess I'm a little confused because
20 loss No. 19 appears in both the first sentence
21 and the second sentence of that paragraph.

22 A It would appear to be a mistake, that
23 it should not be in the second grouping.

24 Q Why do you say that?

25 A Well, the notation of sample 19 MVO is

1 consistent with the notation in MVO or SVO and
2 all of the samples in the first grouping and
3 is inconsistent with the notation of samples
4 in the second grouping.

5 Q The samples in the second grouping all
6 appear to begin with the notation 24N?

7 A Yes.

8 Q Or actually some have that as the sole
9 notation?

10 A Yes.

11 Q You state a little further down that,
12 "Sample 19 indicates that the aroclor is being
13 concentrated in the light oils present in the
14 sewers." Do you see that?

15 A Yes.

16 Q Were there any light oils that were
17 being discharged by the Krummrich facility?

18 A I don't recall that. As I indicated,
19 the principal oils in the scum sources that I
20 recall were in the sewer that was on the north
21 edge of the plant, which came down both from
22 Mobile, and we had an oil additives was the
23 business we were running on the north side of
24 Monsanto and that from time to time had
25 emulsified materials in it that would float.

1 So I don't recall light oils in the other
2 sewers. My recollection really is that the
3 light oils, as I recall, were predominantly
4 down that other sewer line.

5 Q Now, I think we indicated or we saw
6 yesterday that the effluent from Department
7 246 was for the most part discharged into the
8 village sewers on the south side of the
9 Krummrich plant; is that correct?

10 A I believe that's correct.

11 Q Do you know where in the process or
12 where in the sewer system the sewers exiting
13 the south side of the plant joined up with the
14 sewers exiting from the north side of the
15 plant?

16 A Yes.

17 Q Where did that occur?

18 A It was at a junction box that was west
19 of Route 3, and I believe it was also in the
20 vicinity of but west of a set of railroad
21 tracks yet east of the levee.

22 Q Is it your understanding that the
23 samples of influent to the Sauget Village
24 treatment plant were taken downstream from
25 that mixing of the two streams?

1 A Yes.

2 Q Now, you had indicated that there was
3 some sort of a pump that served to I think you
4 used the term homogenize the effluent in the
5 sewers?

6 A Yes.

7 Q Where was this pump in relation to the
8 junction box where the north and south sewers
9 joined up?

10 A It was down flow from that box.
11 Physically located near the waste treatment
12 facility.

13 Q Do you know whether the influent
14 sampling results were taken upstream or
15 downstream of that pump?

16 A Our sampling typically was taken
17 downstream of that pump, those pumps. There
18 were a series, a set of them.

19 Q How is it that you have a specific
20 recollection of that?

21 A The design of the facility contained
22 what is called a partial flume at the waste
23 treatment plant that was used to measure the
24 total water flow into the plant. And we would
25 -- we had our sample lines fixed into that

1 partial flume. It was an easy access point

2 for sampling.

3 Q What is a partial flume?

4 A It is a device that can be constructed

5 to restrict flow and thereby measure the flow

6 of water through a conveyance.

7 Q In the next to the last paragraph --

8 I'm sorry. In the next to the last sentence

9 of the second paragraph under the heading

10 "Analytical Results," you indicate,

11 "Therefore, it is possible that either the

12 department samples contained only the aroclor

13 in solution or in water emulsion or the

14 aroclor losses are originating elsewhere than

15 at Department 246." Do you see that?

16 A Yes.

17 Q In that sentence you are trying to

18 explain the discrepancy between the measured

19 losses from Department 246 and the measured

20 losses from the plant as a whole; is that

21 correct?

22 A I think that with the state of work

23 and where we were, that was an expression of

24 at least what one or two possibilities were.

25 Q Did you later come to recognize other

1 possibilities?

2 A I don't recollect.

3 Q Do you recall whether you were ever

4 able to confirm whether either one of these

5 two possibilities in fact did explain the

6 discrepancy between the measured losses from

7 Department 246 and the measured losses from

8 the plant as a whole?

9 A I don't remember what the subsequent

10 work revealed.

11 Q You state -- you use the term or the

12 concept that the department samples contained

13 only the aroclor in solution or in water

14 emulsion. What does that mean?

15 A I think what I was trying to depict

16 there is that what we were sampling is -- I

17 mean, we were measuring what we were sampling,

18 and I don't think we were trying to say much

19 more than that. Again, these are hypotheses

20 and possibilities of what we were doing,

21 without being more than two or three months

22 into this study, having pinned down with more

23 precision what was going on.

24 Q I think my question or the intent of

25 my question was a little simpler. I was just

1 trying to understand what you mean when you
2 say the department samples contained only the
3 aroclor in solution or in water emulsion.
4 What do you mean by the terms solution and
5 water emulsion?

6 A What I have tried to say is it was
7 probably describing what we were -- what the
8 possibilities were, that as we pulled the
9 sample out, we could have got the water, or if
10 there was any emulsion there or anything in
11 the water, that we would have got that as
12 well.

13 Q Solution would be the aroclors
14 actually dissolved in the water; is that
15 correct?

16 A Yes.

17 Q What would an emulsion be?

18 A An emulsion could be that if there was
19 any sort of aroclor entrained in any of the
20 water that we were sampling, then we would
21 have gotten that as well.

22 Q Under the heading "Additional Source,"
23 there is again a reference to electrical
24 transformer leaks or system change out. Do
25 you see that?

1 A Yes.

2 Q Do you recall whether you were ever
3 able to confirm that electrical transformers
4 were a source of aroclors in the sewers?

5 A Again, I don't recall.

6 Q Under the Department 218, carbon, you
7 state that the activated carbon used to purify
8 the HCL off-gas from Department 246 is
9 sewerred. Was that activated carbon a liquid
10 or a solid?

11 A It would have been a solid.

12 Q Do you know the mechanism by which
13 that activated carbon was discharged to the
14 sewers?

15 A I do not.

16 Q Does that paragraph suggest to you
17 that the activated carbon -- let me withdraw
18 that.

19 Previously I had asked you whether the
20 activated carbon was used to filter the gas
21 coming into the department or the product
22 coming out of the department. This paragraph
23 seems to suggest that it is purifying the gas
24 coming into the department; is that correct?

25 A I wouldn't read it with that level of

1 precision and the distinction here whether it
2 was a gas and then it became an acid. It
3 would have to purify that off-gas stream, so I
4 think what it is intending to say is that's
5 the carbon that was used in that system to
6 make muriatic acid.

7 Q Do you know if that carbon was used to
8 purify off-gas from departments other than
9 246?

10 A Again, I don't know.

11 Q As I understand --

12 A I think I stated earlier that that was
13 a mixed header stream.

14 Q That's what I was just going to ask
15 you. The off-gas from Department 246 was in
16 effect mixed with HCL from other departments;
17 is that right?

18 A But I don't know the exact point of
19 mixing and the relationship to that carbon
20 system, so I'm not clear on that.

21 Q Can you flip over to page 2 of this
22 memo, numbered page 2.

23 There is a discussion of again
24 electrical transformers, and I'm just
25 wondering whether that discussion in any way

1 refreshes your recollection as to whether
2 there were identified leaks from electrical
3 transformers?

4 A I have read these two statements.

5 Could you repeat your question?

6 Q My question is whether they in any way
7 refresh your recollection as to whether there
8 were identified leaks of aroclors from
9 transformers?

10 A They do not. I mean my recollection
11 was I was getting this input and information
12 from somebody in the electrical department and
13 including this information in the report. I
14 do not recall walking out, are there leaks or
15 are there not leaks, and doing visual
16 observations or measurements.

17 Q Do you recall who your contact was in
18 the electrical department?

19 A I don't.

20 Q Was the electrical department a
21 separate department within the facility?

22 A I believe it was in the maintenance
23 department, but the maintenance department had
24 different, I think what they called area
25 maintenances, so there were sort of different

1 groups responsible for different areas of the
2 plant.

3 Q And you just don't have any
4 recollection as to who was responsible for
5 electrical distribution?

6 A I do not.

7 Q You state that leaks if present are
8 not at this time controllable. Was that your
9 conclusion or the conclusion of the person or
10 persons that you were dealing with in the
11 electrical department?

12 A I don't recall specifically. My
13 assumption here is I was relying on input for
14 that.

15 Q Given that your goal at this time is
16 to minimize discharges of aroclors into the
17 sewer, is the conclusion that leaks, if
18 present, from transformers are not at this
19 time controllable one that you would have
20 accepted at face value?

21 A I think given the work in progress
22 here and the other priorities that were being
23 worked on, and this indicating not a factual
24 knowledge that there are leaks, that that
25 would have been an appropriate response during

1 this time period.

2 Q Is it your feeling that it was
3 appropriate because leaks from transformers
4 were basically insignificant in comparison to
5 the other aroclor discharges that you were
6 aware of at the time?

7 A Well, I'm reading and interpreting it
8 as opposed to remembering. And the fact that
9 it says if they are present, I mean to me
10 would indicate there wasn't enough information
11 to know if they were leaking or not and
12 something needed to be done. I don't know
13 whether there was additional work, follow up
14 on this particular item or not. I just don't
15 recall.

16 Q Is it fair to say that controlling
17 leaks from transformers was not a major focus
18 of the PCB reduction program at this time?

19 A Well, you have predicated your
20 statement that there were leaks, and I guess
21 I'm back to that point again. I would say
22 that we had brought this in -- in reading this
23 document as we had brought it into the could
24 it be, what's the possibility, and this
25 document as a status report simply indicates

1 that as of December 12 when this was written,
2 that we were paying a lot more attention to
3 other areas.

4 Q Why is that?

5 A Are you asking me to interpret the
6 document?

7 Q If you can.

8 A Because it didn't indicate to me from
9 reading this document that there was any
10 reason or justification to do more relative to
11 those based on the information that was
12 available.

13 Q Did the potential for leaks from
14 transformers continue to be a focus of this
15 aroclor control program?

16 A I just don't recall.

17 (Plaintiff Deposition Exhibit Number 12
18 marked for identification.)

19 Q (By Mr. Ricci) Mr. Pierle, let me
20 show you a document that's been marked as
21 Exhibit 12 to your deposition. This is a
22 document with Bates No. CER 010879. I would
23 ask you to take a look at it. This is another
24 memo from Mr. Tucker to yourself. The subject
25 is aroclor-wildlife. Do you see that?

1 A Yes.

2 Q Do you have any recollection of this
3 document?

4 A Not specifically.

5 Q Can we assume by the heading that you
6 did in fact receive a copy of this document in
7 or around December of 1969?

8 A Yes.

9 Q Do you know why the document, the
10 subject of the document is identified as
11 aroclor-wildlife?

12 A I do not.

13 Q The document appears to give sampling
14 results for various sediment samples, and the
15 first sample, which is identified as log
16 No. 77, talks about -- is identified as
17 Mississippi River downstream. Is that
18 downstream from the outfall of the village
19 waste water treatment plant?

20 A I believe that's correct.

21 Q The next sample is identified as
22 Mississippi River Monsanto dock. What is the
23 Monsanto dock?

24 A We had a loading/unloading facility
25 extending into the Mississippi River on a

1 piece of property that we owned sort of west
2 and probably slightly north of our landfill,
3 pretty much at the intersection of I guess
4 that's still Monsanto Avenue and the river.

5 Q Was that dock upstream or downstream
6 of the outfall for the village waste water
7 treatment plant into the river?

8 A It was sort of in the same vicinity.

9 Q Can you elaborate on that?

10 A Well, as I recall, the outfall was
11 sort of an extension of, I believe again
12 that's Monsanto Avenue, and the dock was just
13 sort of -- the access to the dock was south,
14 just south of that through a gate, but the
15 dock itself extended into the river at a point
16 that I think overlapped the two.

17 Q Do you know whether the dock was used
18 for the loading or unloading of aroclors?

19 A I don't ever recall it being used for
20 that.

21 Q Do you know where the upstream samples
22 identified on this memo were taken?

23 A No, I don't.

24 Q Again, I assume it is upstream of the
25 outfall?

1 A I would assume so.

2 Q But you don't know how far upstream
3 they went?

4 A And I'm not sure where the dock
5 samples were taken either.

6 Q Do you know -- let me withdraw that.
7 Were you involved in actually taking these
8 samples?

9 A I remember taking some samples, but I
10 don't know whether it was these or not. I
11 just don't recall.

12 Q You recall taking some river sediment
13 samples?

14 A Yes.

15 Q Understanding that those samples that
16 you were involved in taking may not be the
17 samples that are reflected in this memo, can
18 you tell me the protocol that you followed
19 when you took the samples that you were
20 involved in taking?

21 A What do you mean by protocol?

22 Q Where were the samples taken in
23 relation to the outfall? Where were they
24 taken in relation to the water line of the
25 river? How were they taken? What did you use

1 to actually take the samples? How much was
2 taken?

3 A I don't recall. The samples I recall
4 taking of "the river" on sludge samples, I
5 believe is what these were referred to, or
6 sediment samples, were simply someplace down
7 the bluff and out, you know, in the river, but
8 not in the water but in the river bed.

9 Q So above the water line?

10 A Yes.

11 Q The sampling results set forth on
12 Exhibit 12 to your deposition indicate higher
13 levels of contamination downstream and in the
14 vicinity of the village outfall than exist
15 upstream. Is that a fair statement?

16 A That's what the two sets of samples
17 seem to indicate.

18 Q Did Monsanto report to the village or
19 to any governmental entity at this time the
20 fact that the Mississippi River sediments
21 appeared to be contaminated with PCBs?

22 A I don't recall.

23 Q Did Monsanto take any steps to in any
24 way address the contamination that was
25 revealed in these sampling results?

1 A To my knowledge, as witnessed by the
2 other reports, we were taking lots of steps to
3 try to reduce the amount of materials that
4 were going to the river.

5 Q Did you take any steps with respect to
6 the amount of materials that were already in
7 the river as revealed in these samples?

8 A I don't recall. I mean this is early
9 on in a program trying to just understand
10 what's where.

11 Q Do you recall if Monsanto ever took
12 any steps to address PCB contamination in the
13 sediments of the Mississippi River even to
14 this day?

15 A I don't believe there has ever been a
16 need to do that.

17 Q And so no steps have been taken?

18 A I don't believe so.

19 Q When you say there has never been a
20 need to do that, what would you consider to be
21 such a need?

22 A There has never been an issue of
23 health or safety or environmental damage or a
24 regulatory requirement that has suggested
25 actions need to be taken.

1 Q Do you know if Monsanto has ever
2 reported to any governmental entity the
3 presence of PCB contamination in Mississippi
4 River sediments in the vicinity of the Sauget
5 waste water treatment plant outfall?

6 A I don't recall. I don't know.

7 MR. RICCI: Why don't we take a short
8 break.

9 (Recess)

10 (Plaintiff Deposition Exhibit Number 13
11 marked for identification.)

12 Q (By Mr. Ricci) Mr. Pierle, I'm
13 showing you a document that we have marked as
14 Exhibit 13 to your deposition. This is a
15 document with Bates No. CER 014725. And I
16 will ask you to take a look at that.

17 This is a memo from Mr. Dalton to
18 Mr. Bratsch, and I believe we have established
19 earlier that Mr. Bratsch was the plant manager
20 at this time?

21 A Yes.

22 Q Who is Mr. Dalton?

23 A As I recall, Tom was, and I believe
24 Tom is correct, was a general superintendent
25 at the plant and would have directly reported

1 to Mr. Bratsch.

2 Q Was Mr. Dalton's area of
3 responsibility production or was it
4 engineering or was it something else?

5 A Production.

6 Q You and Mr. Buckley are copied on this
7 memo. Is that in your role as or in
8 conjunction with your responsibilities with
9 respect to the aroclor control program?

10 A I would think so, yes.

11 Q Who is Mr. Greenman?

12 A I know who Mr. Greenman is. I'm not
13 sure what his role or responsibility was at
14 this time.

15 Q There is a list at the top of this
16 memo of potential sources of aroclors entering
17 the sewers. And item No. 7 is shop wash rack.
18 Do you know what that is?

19 A No, I don't.

20 Q Item No. 8 is an aroclor filled
21 transformer at No. 11 sub. Do you know what
22 No. 11 sub refers to?

23 A That's probably substation, and that's
24 the number code it was given for
25 identification.

1 Q Do you know where that substation is
2 located?

3 A No.

4 Q Do you know why that particular
5 transformer was specifically identified in
6 this memo?

7 A No.

8 Q The paragraph right below the
9 identification of that transformer refers to
10 the 700 pound a day plant loss and then talks
11 about a 230 pound a day plant loss. Do you
12 know the explanation for the reduction in
13 aroclor losses to the sewers from 700 pounds a
14 day to 230 pounds a day?

15 A No, I do not. I mean it is
16 conceivable it is measurement accuracy.

17 Q Under the listing of specific actions
18 having been taken, there is a statement that
19 tank car washings at the rip track are now
20 hauled to the sanitary landfill. Is that the
21 -- do you know what landfill he is referring
22 to in this memo?

23 A I'm sure he continues to mean the
24 Monsanto landfill.

25 Q Now, as I recall your testimony

1 yesterday, there was a Monsanto -- there was a
2 landfill on Monsanto's property that was owned
3 by Monsanto and operated by Mr. Sauget. Is
4 that the landfill that -- I'm sorry -- is that
5 the landfill that you believe he is referring
6 to here?

7 A You described the landfill that
8 Monsanto owned, the property it owned?

9 Q Right.

10 A Yes.

11 Q As opposed to the landfill that was in
12 proximity to that landfill but not owned by
13 Monsanto, and I think that second landfill you
14 indicated you sent nonchemical wastes to?

15 A That was the intention.

16 Q But you believe that the reference to
17 the sanitary landfill is the landfill that
18 Monsanto owned the property on which it sat?

19 A Yes.

20 Q There is a reference to weirs having
21 been put into the 246 trench sewers. Are
22 those the wood gates that we have been talking
23 about in the course of your deposition?

24 A I believe so.

25 Q Mr. Dalton states that the value of

1 those weirs is thought to be marginal. Do you
2 know why that is?

3 A Well, I don't know the specific
4 reference here, you know. I had indicated
5 that there wasn't much coming down and then
6 the overall context of what was trying to be
7 accomplished here that was positive, but it
8 wasn't the big loss areas.

9 Q Okay. It was marginal because it
10 wasn't there. They were -- well, let me just
11 withdraw that. He talks about losses from the
12 Department 246 of approximately 130 pounds a
13 day. Do you know how that figure was arrived
14 at?

15 A I don't.

16 Q Do you know if that's based upon yield
17 losses or actual sampling?

18 A I don't.

19 Q At the bottom of the page there are
20 three numbered paragraphs. The first one
21 refers to installation of two piping projects.
22 Do you know what those projects are?

23 A No, I do not.

24 Q Is it fair to say that the losses of
25 aroclors to the sewers prior to 1969 were of

1 the same magnitude as the losses that were
2 being estimated in '69?

3 A I don't know.

4 (Plaintiff Deposition Exhibit Number 14
5 marked for identification.)

6 Q (By Mr. Ricci) Mr. Pierle, let me
7 show you a document that's been marked as
8 Exhibit 14 to your deposition. It is a
9 document with Bates No. CER 010869. This is
10 another memo from Mr. Tucker to yourself.

11 My question with respect to this
12 document is simply is there any way for you to
13 identify the location of the samples, the
14 results of which are set forth in this memo?

15 A No.

16 (Plaintiff Deposition Exhibit Number 15
17 marked for identification.)

18 Q (By Mr. Ricci) Mr. Pierle, let me
19 show you a document that's been marked as
20 Exhibit 15 to your deposition. This is a
21 document with Bates No. CER 010865. And I
22 will ask you to take a look at it. This is a
23 document that you authored; is that correct?

24 A It appears that way.

25 Q Do you have some question as to

1 whether you did in fact author this document?

2 A I don't know. I don't see a signature

3 on it. And so I mean I don't know whether

4 that means it wasn't issued or I didn't sign

5 it, or I don't know what it means. I don't

6 recall the document.

7 Q On the second page, there is a heading

8 "Back-up Facilities." Do you see that?

9 A Yes.

10 Q Do you know what that means, back-up

11 facilities?

12 A The only distinction that I see there

13 is that, you know, the blow tank was sort of

14 part of the production process. The back-up

15 facilities would have been, you know, once you

16 are dealing with the waste streams from the

17 department, but, again, that could have been a

18 secondary facility or something like that.

19 Q Secondary to production?

20 A Well, secondary to the primary

21 production facilities, yes.

22 Q Flip over to the first page for a

23 second. There is a discussion of a project by

24 Mr. Bigge to alter the piping from the blow

25 tank to the scrubber, and that's identified as

1 Estimate 1493. Do you see that?

2 A Yes.

3 Q Do you recall these alterations to the
4 blow tank piping?

5 A No. I really don't.

6 Q Estimate 1493, is that terminology
7 that means anything to you?

8 A It is probably simply a project
9 numbering system.

10 Q You don't look at it and say, oh, yes,
11 I know what that means?

12 A That's correct.

13 Q You are just interpreting?

14 A That's correct.

15 Q Do you know what P & S is?

16 A Not precisely.

17 Q Generally?

18 A Well, I mean again, it is kind of a
19 guess. It could be planning and scheduling.
20 It could be something else, so I really don't
21 know.

22 Q Do you know what the protocol was at
23 this time to get approval for process changes
24 or expenditures for process changes?

25 A Not specifically. In general, for

1 capital improvements there has always been a
2 capital approval process that the department
3 people would have to approve and move up
4 through the system to the level where the
5 capital was authorized, but that's just a
6 general description of what the systems tended
7 to be.

8 Q Under the heading "Blow Tank," there
9 is a planned action to sample exit stream
10 before and after installation of Estimate
11 1493. Were you involved in that sampling at
12 all?

13 A I did some sampling of a gas stream in
14 the department, but I'm not certain that it
15 was this stream.

16 Q Under back-up facilities on the second
17 page, there is a statement that
18 noncontaminated water will be removed from the
19 trenches. Do you know what that's about?

20 A I had mentioned earlier that there
21 were waters that were typically referred to as
22 nonprocessed or cooling waters that generally
23 were not in contact with the process itself.
24 And I believe that's what that terminology
25 meant. We were trying to get out of these

1 trenches any of the water that we knew was
2 clean and couldn't be contaminated so that it
3 wouldn't mix up or dilute the water that was
4 -- the rest of the water in the system.

5 Q What was being done with that
6 noncontaminated water?

7 A I don't recall specifically.

8 Q Do you recall how it was being removed
9 from the trenches?

10 A No.

11 Q Is that something other than these
12 gates that you had testified earlier which
13 would confine the flow of the bottom material
14 and allow only a flow over the top of the
15 gate?

16 A Yes. I think what this would
17 physically refer to is that we were taking the
18 water somehow out of the trenches and not
19 include it in the flows to those weirs.

20 Q Okay. So you are talking about
21 getting the water before it gets into the
22 trench?

23 A Yes.

24 Q Do you know if that project was ever
25 implemented?

1 A I don't recall specifically.

2 Q At the bottom there is a reference
3 that, "M. Pierle will contact Anniston and
4 obtain details on their aroclor removal
5 project." Do you recall what was going on at
6 Anniston at this time with respect to aroclor
7 removal?

8 A Not specifically. Only that Anniston
9 had a department that also made aroclors. I
10 don't know if it made the same ones. And I
11 believe the contacts that I made there were
12 simply to inquire as to what they were doing.

13 Q Do you know if Anniston discharged its
14 effluent to a municipal sewer system?

15 A I believe the Anniston plant at that
16 time had a treatment system, but its effluent
17 may have been going to a municipal system.

18 Q So they treated their discharge before
19 they discharged -- let me rephrase that. They
20 had some sort of an internal effluent
21 treatment system?

22 A For a portion of the plant. I don't
23 know whether it was all or a piece. I just
24 recall I know that they had a treatment
25 facility and that subsequent to that the

1 stream still went into a municipal system.

2 Q Do you know whether the effluent from
3 the PCB manufacturing process at Anniston went
4 through this internal waste water treatment
5 facility?

6 A I don't recall what was reported back
7 from these inquiries.

8 (Plaintiff Deposition Exhibit Numbers 16
9 and 17 marked for identification)

10 Q (By Mr. Ricci) Mr. Pierle, I'm going
11 to hand you two documents that have been
12 marked as Exhibit 16 and 17 to your
13 deposition. 16 is a document with Bates No.
14 CER 013941, and 17 is CER 013939, and ask you
15 to take a look at them. Can you tell me what
16 Exhibit 16 is?

17 A It looks like a handwritten summary of
18 data that Scott gave me over the telephone on
19 a certain set of samples.

20 Q I'm a little confused because the date
21 of the document appears to be 1/14/70, but
22 then over at the top on the right it says,
23 "Analysis by phone 2/27/70." Do you know what
24 that means?

25 A I don't know specifically. I mean it

1 is very possible that I prepared the ledger in
2 January and the analyses were phoned in
3 February, and I entered the analysis data.

4 Q If you flip over to Exhibit 17, on the
5 second page there's a list of typed written
6 sampling results. Do you see that?

7 A Yes.

8 Q Do the log numbers -- or I'm sorry.
9 Do the WGK numbers in the first column on
10 Exhibit 17 correspond to the sample numbers in
11 the first column on Exhibit 16?

12 A They appear to in part.

13 Q Have you noticed any places where they
14 do not appear to so correspond?

15 A Well, the set of data in 17 is much
16 longer than that in 16.

17 Q Okay. So 17 has more samples than are
18 included in 16, but do the -- with respect to
19 the sample numbers identified in Exhibit 16,
20 do those appear to correspond to the WGK
21 numbers in Exhibit 17?

22 A Do the sample numbers?

23 Q Numbers and results.

24 A I haven't looked at them line by line.

25 Q Okay. Well, let me ask you a couple

1 of specific questions, and we will see if we
2 can do it that way. On Exhibit 16, the first
3 line sample No. 20 is 246 Main. Do you know
4 what that 246 Main refers to?

5 A Again, based on the documents, it
6 would seem to indicate that's the main sewer
7 out of Department 246.

8 Q And Exhibit 16 indicates a result of
9 112 parts per billion; is that correct?

10 A Yes.

11 Q And if you look on Exhibit 17, No. 20
12 indicates 112 parts per billion of aroclor
13 A 1242, and then it also indicates 22 parts
14 per billion of aroclor A 1260. Do you see
15 that?

16 A Yes.

17 Q Do you see the reference to the 22 ppb
18 of A 1260 anywhere on Exhibit 16?

19 A No, I don't.

20 Q If you look down, again referring back
21 to Exhibit 16, on sample No. 26, again it is
22 246 Main, and the result on Exhibit 16 is
23 10.33 ppm. Do you see that?

24 A Yes.

25 Q And that appears to correspond to the

1 result set forth on Exhibit 17 for WGK No. 26;

2 is that correct?

3 A Yes.

4 Q And then No. 27 on Exhibit 16 again is

5 246 Main, and the result is 1.50 ppm, and that

6 too appears to correspond to WGK No. 27 on

7 Exhibit 17; is that correct?

8 A Yes.

9 Q Looking down to No. 29 on Exhibit 16,

10 there is a sample 246 trench, grab from

11 surface. Do you see that?

12 A Yes.

13 Q And the result appears, although it is

14 hard to read on Exhibit 16, to be 2.63 ppm.

15 Is that what that appears to be to you?

16 A Yes.

17 Q Okay. And then if you look at Exhibit

18 17 under WGK 29, it does correspond as 2.63

19 ppm?

20 A Yes.

21 Q What do you understand the term grab

22 from surface to mean?

23 A My sense would have been that would

24 have just been a grab sample taken off the

25 surface or at the surface level of the water.

1 Q And that would have been in the trench
2 sewer or in a trench sewer in Department 246?

3 A Yes.

4 Q Based upon your prior testimony that
5 it was your understanding of PCBs being
6 heavier than water, they would sink to the
7 bottom of the trench, does it surprise you to
8 see a reading of 2.63 ppm in a grab sample
9 from the surface of the trench?

10 A I don't know whether it does or not.

11 Q Is that consistent with the idea that
12 the PCBs would sink to the bottom in a trench
13 sewer?

14 A It very well could be.

15 Q And how is that?

16 A I mean I don't know where this was
17 taken in the trench, if it was at an area
18 where you could really separate the surface
19 sampling from what was settling, if it was
20 taken right where maybe there was a leak in
21 the water where there was stuff right at the
22 top and it hadn't had time to settle. I don't
23 know what that actually meant. I don't know
24 what day it was taken on or what sample to
25 compare it to, so these are all pretty low

1 numbers.

2 Q When you say they are all pretty low

3 numbers, low in relation to what?

4 A Well, at 2 parts in a million, I mean

5 that's low in this sample. This is beyond

6 levels that I think you could visually see.

7 They are just extremely low numbers.

8 Q Is there any way that you could

9 translate that 2.63 ppm into a pounds per day

10 number? I guess you need to know what the

11 flow rate was?

12 A You would.

13 Q And that information is not apparent

14 from these documents, is it?

15 A Not on these. No, it is not.

16 Q Sample No. 29 specifically states that

17 it is a grab from the surface. Is that in

18 distinction to the way you normally took

19 samples from the trench sewer?

20 A My sense as a routine is we had a

21 sampler there that was collecting water over a

22 period of time. And the typical way to sample

23 was to have the sampler somewhere in the water

24 layer, typically not at the bottom and

25 typically not at the top.

1 Q The notation at the bottom of
2 Exhibit 16 states, "Comp samples are dated on
3 day taken, not for day they represent." Comp
4 refers to composit?

5 A It probably does.

6 Q Do you understand from the fact that
7 sample No. 29 is specifically identified as a
8 grab sample, that the other samples reflected
9 on this document are composit samples?

10 A I don't know that for a fact. I mean
11 the reality is that I would doubt that the
12 Monsanto dock sample, for example, was a
13 composit sample.

14 Q You don't recall -- I'm sorry. Go
15 ahead.

16 A I don't recall.

17 Q I was going to ask you whether you
18 recalled having any kind of a composit sampler
19 down there?

20 A I don't recall.

21 Q Or in the Mississippi River
22 downstream?

23 A Yes. I don't recall ever having a
24 composit sampler set up there.

25 (Plaintiff Deposition Exhibit Number 18

1 marked for identification.)

2 Q (By Mr. Ricci) Mr. Pierle, I will
3 show you a document that's been identified as
4 Pierle Exhibit 18 and ask you to take a look
5 at it. This is a document with Bates No. CER
6 013947. This is a document that you authored,
7 Mr. Pierle?

8 A It appears that way, yes.

9 Q There is a statement in the third
10 paragraph on the first page that says, "The
11 latter decrease -- referring to a decrease
12 from 230 pounds per day to 45 pounds per day
13 of aroclors being lost to the village
14 treatment plant -- coincides with the
15 installation of a trap in the pipeline to the
16 scrubber." Do you see that?

17 A Yes.

18 Q Is that the scrubber of the gas from
19 the blow tank that that memo is discussing?

20 A I don't know.

21 Q There is a statement that the trap is
22 collecting between 115 and 385 pounds per day.
23 Do you recall sampling a trap in any pipeline
24 to any scrubber in Department 246?

25 A No.

1 Q Do you know if there were others who
2 may have been involved in that sampling?

3 A I don't know.

4 Q Is there a way of arriving at the
5 figure set forth in this memo without sampling
6 the trap and the line to the scrubber?

7 A Well, the way I read this, this was
8 actually what was being collected and probably
9 taken off, so it was a measurement, if that's
10 what you mean by sampling.

11 Q Right.

12 A So someone was doing this.

13 Q It wasn't you though?

14 A No. If it was, I don't recall.

15 Q Do you know when the trap that's
16 referred to in this memo was installed?

17 A Well, it would imply that it was
18 between the two sampling period time frames.

19 Q So sometime between December of '69
20 and February of '70?

21 A That's what's indicated.

22 Q Can you flip over to the next page,
23 please. There is a chart on this page that
24 sets forth aroclor losses from Department 246.
25 If I showed you a map that included 246, I

1 think it is the map we marked yesterday as
2 Exhibit 6, would you be able to identify these
3 sampling locations for me?

4 A Not unless there was a diagram that
5 showed the sampling points.

6 Q Mr. Pierle, let me show you a document
7 that we marked yesterday as Exhibit 5 to your
8 deposition. This was a document that was from
9 Mr. Bigge to Mr. McCutchan, and I think you
10 testified yesterday that you had some
11 involvement in the preparation of this
12 document. Is that a fair statement?

13 A I guess what I said is what I said. I
14 don't recall.

15 Q Okay. There is a map that's included
16 as the last page of this document, and I'm
17 just wondering whether you can identify the
18 sampling locations set forth on Exhibit 18 by
19 reference to the map that's included with
20 Exhibit 5?

21 A I don't think I can do this.

22 Q All right. Can you flip over to the
23 next page of Exhibit 18. Is that your
24 handwriting on that chart, the handwritten
25 sections?

1 A I don't believe so.

2 Q In the heading for Table 2, which is
3 aroclor losses at treatment plant, there are
4 some figures set forth as to both the
5 concentrations and the pounds per day of
6 aroclors in the effluent. Do you see that?

7 A Yes.

8 Q Now, we had talked earlier today about
9 the fact that the waste treatment plant was
10 removing aroclors that were being concentrated
11 in the scum and also aroclors that would
12 settle into the sludge.

13 My question based on this memo is it
14 does not appear that the waste treatment plant
15 was successful in removing all aroclors from
16 the influent. Is that a fair statement?

17 A If your question is were there
18 reported PCBs in the effluent, the answer is
19 yes.

20 Q So that the waste treatment plant was
21 not totally effective in removing aroclors
22 from the flow that was coming into the waste
23 treatment plant?

24 A Well, again, I don't want to quibble
25 with your words, but it may have been totally

1 effective to its capabilities. Do you mean

2 did it remove a hundred percent, the answer

3 would be no.

4 Q Did you have any explanation as to how

5 it was that the waste treatment plant was not

6 removing 100 percent of the aroclors coming

7 into it?

8 A I don't know that that was an

9 expectation. We were just simply trying to

10 find out what the facts were and what it was

11 doing.

12 Q You weren't interested in how or why

13 what was happening was happening?

14 A I think what we were interested in at

15 this point in time is finding out what was

16 happening.

17 Q And this document suggests that what

18 was happening was that aroclors were remaining

19 in the effluent from the waste water treatment

20 plant after the removal of the floaters and

21 the sinkers; is that correct?

22 A I think what it indicates is what was

23 concluded at the bottom, that the treatment

24 plant was removing aroclors based upon what we

25 were seeing in the samples. It didn't talk

1 about the level of efficiency. I mean the
2 data clearly showed that there were still some
3 reported or detected levels in the effluent.
4 I mean we were at a point in time here, you
5 can see where this data was still early on,
6 and just trying to predict and indicate what
7 was going on here at the plant.

8 Q Can you flip over to page 3 of the
9 memo. The second paragraph at the top, if you
10 could just review that paragraph, and I have a
11 couple questions.

12 A I have read it.

13 Q You state that, "All effluent samples
14 are in the solubility range of PCB in water."
15 What does that mean?

16 A That the concentrations that were
17 being reported as in the effluent were within
18 the known values of solubility of aroclor and
19 water.

20 And if that were the case based on
21 your earlier question, the treatment plant
22 would have been probably doing about what it
23 could.

24 Q Which is removing the PCBs that were
25 in the oils that were rising to the top and

1 also removing the PCBs that were sinking to
2 the bottom and collecting in the sludge?

3 A Yes.

4 Q And leaving only that which was
5 dissolved in the water. You state that tests
6 will be conducted to determine if the present
7 sampler is collecting only soluble material or
8 if the results are accurate. Can you explain
9 to me how those two possibilities are mutually
10 exclusive or if they were mutually exclusive?

11 A I'm not sure I understand the
12 question.

13 Q Well, you seem to be saying here that
14 either the present sampler is collecting only
15 soluble materials or the results are accurate.
16 That's the way I understand that sentence. Is
17 that an incorrect understanding?

18 A I think what that is, as I read that,
19 what it says is that we will do more work to
20 verify what we found to date, and that is
21 basically that what it shows is that we have
22 accurate information. The comment about
23 collecting solubles sounds like a cautionary
24 statement to say let's make sure that, you
25 know, if there were any insoluble materials,

1 that we make sure we collect those and measure
2 those as well.

3 Q Okay. So you are going to do further
4 testing?

5 A To verify the results.

6 Q Right. To verify whether there is
7 insoluble material that you are not
8 collecting, or otherwise the results that you
9 have given are probably accurate?

10 A Yes.

11 Q If you can flip over to the next page,
12 please. If you go down to the second
13 paragraph under the chart or under the graph,
14 you state, "It can be concluded from the data
15 that aroclor is present in high concentrations
16 along the river bank." Do you see that?

17 A Yes.

18 Q Based upon that conclusion, are you
19 aware of any steps taken by Monsanto at any
20 time to address these high concentrations on
21 the river bank?

22 A Again, I think that was high
23 concentrations, and it is basically in this
24 sense relative to the upstream concentrations.
25 It did not -- to me does not indicate that

1 they were high to the point where something
2 needed to be done.

3 And I think I answered your question
4 earlier on, had we taken any action, that I do
5 not recall any conversation that says that
6 there was a health or environmental or safety
7 or regulatory reason to take any action.

8 Q Mr. Pierle, are you familiar with PCB
9 related -- let me withdraw that. Are you
10 familiar with a PCB-related Super Fund site in
11 New Bedford Harbor in Massachusetts?

12 A Only that I have heard of the New
13 Bedford Harbor site and that that is a Super
14 Fund -- has been a Super Fund site.

15 Q Do you know if it is a Super Fund site
16 in part because of PCB contamination in harbor
17 sediments?

18 A I don't know any of the specifics
19 about the site itself.

20 Q Are you familiar with a PCB cleanup
21 that General Electric is involved with with
22 respect to the Hudson River?

23 A I have read some things on that.

24 Q Do you know if that cleanup is in any
25 way related to PCB contamination in river

1 sediments?

2 A I believe it is.

3 Q Do you know what PCB levels were

4 identified in the river sediments in the

5 Hudson River?

6 A No.

7 Q Are you aware of any other situations

8 where remediation of sediments from bodies of

9 water have been required because of the

10 presence of PCBs?

11 A There was some debate some time ago

12 about a site up in -- I forget exactly. We

13 were involved, I think, in a lawsuit, I think

14 a site that EPA had produced a Super Fund site

15 and then withdrew. I don't recall the name of

16 it though.

17 Q Do you know what state it was in?

18 A I don't recall specifically.

19 Q Do you recall what region of the EPA

20 you were dealing with?

21 A It was someplace up north, but it was

22 probably in region five, but I'm not certain.

23 Q Do you recall the body of water that

24 was involved?

25 A No.

1 Q Did you have a plant up there?

2 A No.

3 Q Were you named as a potentially
4 responsible party, you, Monsanto?

5 A No. I don't believe so.

6 Q How did this come to your attention?

7 A I think the company had been sued by
8 one of the PRPs.

9 Q Do you recall who it was that sued
10 you?

11 A The name doesn't strike me.

12 Q Do you know how that lawsuit was
13 resolved?

14 A We were -- I don't know that we were
15 involved for very long in it. I don't
16 remember any responsibilities that Monsanto
17 had.

18 Q Was there ever an issue raised with
19 respect to PCB contamination in sediments in
20 bodies of water in the vicinity of the
21 Anniston plant?

22 A I don't know.

23 Q You are not aware of any?

24 A I don't recall. I wasn't -- you know,
25 in the times that I have been involved, I

1 don't recall that being an issue.

2 Q Do you know the last time Monsanto
3 sampled Mississippi River sediments for PCB
4 contamination?

5 A No.

6 Q Do you know if any sampling of river
7 sediments has occurred in conjunction with the
8 closure of the Monsanto landfill?

9 A I don't recall.

10 Q If you could refer on this document
11 that we have marked as Exhibit 18, page 4 at
12 the bottom under the heading "Miscellaneous
13 Samples," there is a discussion of samples of
14 the spent carbon in muriatic acid as
15 containing 8 and 6 parts per billion aroclor.
16 And from that you conclude that the spent
17 carbon which was sewerer did not significantly
18 contribute to aroclor concentrations in the
19 village effluent. What's the basis for that
20 conclusion?

21 A Well, these levels are so low
22 themselves and the amount of carbon here would
23 have been small relative to poundage of the
24 total water flow that they were just very low
25 samples.

1 Q The next paragraph talks about a
2 sample of River Ranney well water?

3 A Yes.

4 Q What is that?

5 A It was a water supply well that we had
6 at the river for cooling water purposes.

7 Q At the Mississippi River?

8 A Yes.

9 Q Can you tell me where that well was
10 located?

11 A Several feet underground below the
12 river in the vicinity of the dock.

13 Q Do you know how deep this well was?

14 A My recollection, it could have been
15 somewhere between 60 and 100 foot deep.

16 Q Do you know where it was screened?

17 A No.

18 Q Do you know the extent to which
19 Monsanto pumped from that well?

20 A It was a pretty significant supplier
21 of water to us for cooling purposes. I don't
22 recall the flows and volumes.

23 Q Do you know if the well is still in
24 operation today?

25 A No, it is not.

1 Q When was it taken out of service?

2 A I don't recall exactly, but it seems

3 to me it was -- may have been taken out even

4 during the late '60s or sometime in the early

5 '70s.

6 Q Why was it taken out of service?

7 A As we began to further expand the

8 waste water treatment facility at Sauget

9 Village, the cost of capital was flow

10 dependent, and it was more economical to put

11 systems in the plant on cooling water and

12 cooling towers and reduce flows, and it got to

13 the point where the well was no longer

14 necessary.

15 Q So when the well was in service, the

16 water was basically pumped from the well,

17 used, and then discharged to the sewers?

18 A Yes.

19 (Plaintiff Deposition Exhibit Number 19

20 marked for identification.)

21 Q (By Mr. Ricci) Mr. Pierle, let me

22 show you a document that's been marked as

23 Exhibit 19 to your deposition. This is a

24 document with Bates No. CER 012903 and ask you

25 to take a look at it.

1 This is a memo from Mr. Engman to
2 Mr. Papageorge, dated June 25, 1970, and you
3 are shown as being copied on this document; is
4 that correct?

5 A Yes.

6 Q Who is Mr. Engman?

7 A I recall Bill at the plant as I think
8 an engineering superintendent in the technical
9 services department.

10 Q What was his role in this PCB control
11 program?

12 A I can only interpret from this that
13 Bill was pulling together the total plans and
14 action, sort of became a program
15 administrator, I guess. I don't really recall
16 much about Bill's direct involvement.

17 Q Did you have any direct contacts with
18 him?

19 A I don't recall. This is getting close
20 to the time when I was getting ready to leave
21 the plant or when I was about to find out I
22 was going to leave the plant. I don't recall
23 much contact with Bill.

24 Q Was he in your chain of command?

25 A No.

1 Q And who was Mr. Papageorge?

2 A Bill at that time I believe was
3 working in St. Louis and had come into a
4 position to manage overall company activities
5 on PCBs.

6 Q When you say manage company activities
7 on PCBs, are you talking about production and
8 distribution and marketing, or are you talking
9 about pollution control or both?

10 A Well, it was broader than what was
11 going on at the Krummrich plant, but I didn't
12 have any idea what the scope of his
13 responsibilities were.

14 Q Do you know if this position that
15 Mr. Papageorge came into was created as a
16 result of the adverse publicity that had hit
17 the press regarding the environmental impact
18 of PCBs?

19 A I don't know why the position was
20 created.

21 Q Do you know if Mr. Papageorge had a
22 title at that time?

23 A I'm sure he did, but I don't know what
24 it was.

25 Q You don't know what it was. Do you

1 know how long the position that Mr. Papageorge
2 moved in that you had described continued?

3 A No.

4 Q Was that position still in existence
5 when you became manager of environmental
6 protection?

7 A I don't know. When I returned to that
8 position, the group I was in, Bill was not in
9 that group, so I don't know what he was doing
10 then.

11 Q He was not in the group that you were
12 in?

13 A That's correct.

14 Q So you don't know whether he was still
15 involved in PCB-related activities in '75, was
16 it, when you became manager of environmental
17 protection?

18 A That's correct. And I do not recall
19 what he was doing then.

20 Q Did Mr. Papageorge, to the best of
21 your knowledge, have any involvement in PCB-
22 related activities at any time after 1975?

23 A I don't know specifically.

24 Q Generally?

25 A I don't know. I mean, I started

1 working for Bill in 1977 sometime. But I
2 don't recall what he was doing up to that
3 point.

4 Q You worked for him in 1977?

5 A Yes, '78. I mean it was sometime in
6 that time frame. I'm not exactly sure.

7 Q Was that while you were still manager
8 of environmental protection?

9 A Yes.

10 Q But it was sometime after you first
11 assumed that position?

12 A Yes.

13 Q What was Mr. Papageorge's title?

14 A When?

15 Q When he was your supervisor as manager
16 of environmental protection.

17 A Director of environmental operations.

18 Q Now, you remained manager of
19 environmental protection until, I believe, it
20 was August of '79; is that correct?

21 A Yes.

22 Q Do you know if Mr. Papageorge stayed
23 in the position of director of environmental
24 operations after you left the position of
25 manager of environmental protection?

1 A Yes.

2 Q Who succeeded you in that position of
3 manager of environmental protection?

4 A I don't recall.

5 Q Do you recall when Mr. Papageorge
6 assumed the position of director of
7 environmental operations?

8 A My best recollection was it was
9 sometime in 1977, but, again, I'm not clear on
10 that.

11 Q Do you recall if it was before or
12 after the time that the company decided that
13 it would get out of the PCB business?

14 A I think this was after that.

15 Q Do you know if it was before or after
16 the time that the company actually stopped
17 manufacturing PCBs?

18 A I don't recall.

19 Q If you flip over to the second page of
20 Exhibit 19, there is an indication that Krull
21 and Pierle will be involved with determining
22 points of loss with respect to PCB levels in
23 the atmosphere. Do you see that?

24 A Yes.

25 Q Do you have any recollection of being

1 involved in such efforts?

2 A That's not -- no, I don't. I don't

3 recall that.

4 Q Does PCB levels in the atmosphere mean

5 air releases?

6 A I don't know what Mr. Engman meant.

7 Q Do you recall working with Mr. Krull

8 on any PCB-related projects?

9 A I don't specifically remember that.

10 Q Do you remember Mr. Krull?

11 A Yes.

12 Q And who was he?

13 A As I recall, he was an engineer in the

14 technical services department.

15 Q You don't recall doing any sampling of

16 PCB levels in the atmosphere?

17 A No.

18 Q Or setting up a routine control

19 sampling?

20 A What are you referring to there?

21 Q I'm referring to item Roman Numeral V,

22 letter D on the second page of Exhibit 19.

23 A No. As I indicated, I left the plant

24 sometime within a month after this memo was

25 written.

1 Q I may have asked you this before, and
2 I'm sorry if I did, but did somebody take over
3 your position after you left Krummrich?

4 A Someone did. I believe it was Mike
5 Foresman.

6 Q Did you have any contact with
7 Mr. Foresman regarding the PCB control program
8 after you left the Krummrich plant?

9 A I don't recall any.

10 Q Do you recall any kind of transitional
11 communications with Mr. Foresman at or around
12 the time that you left Krummrich?

13 A No. As I recall, I'm not even sure if
14 he was in the job when I left.

15 Q Was he at the plant?

16 A I believe he was.

17 Q Doing something else though?

18 A Yes.

19 (Plaintiff Deposition Exhibit Number 20
20 marked for identification.)

21 Q (By Mr. Ricci) Mr. Pierle, let me
22 show you a document that's been marked as
23 Exhibit 20 to your deposition. This document
24 is Bates No. CER 014897. It appears to be a
25 July 10, 1970, memo from Mr. Tucker to

1 yourself. This memo sets forth various
2 sampling results for PCBs; is that correct?

3 A It appears to.

4 Q There is a reference for log No. 299
5 to Mississippi River it looks like north of
6 E-A-D-S Bridge. Do you know what that is?

7 A Well, I believe that's the Eads
8 Bridge.

9 Q Eads Bridge. What's the Eads Bridge?

10 A It is a bridge that crosses the
11 Mississippi River north of the village.

12 Q So that would be an upstream sample?

13 A Yes.

14 Q Upstream from the village waste water
15 treatment plant?

16 A Yes.

17 Q Log No. 309 and 311 refer to samples
18 from the 246 drowning jet. Do you know what
19 that is?

20 A Which log numbers again?

21 Q 309 and 311 at the bottom.

22 A Okay. Well, again, that was -- I
23 believe that was a scrubber of sorts in the
24 246 department, a water scrubber.

25 Q Do you recall if it was off of a blow

1 tank or off of the chlorinator?

2 A Well, it would have had to have been

3 off of the chlorinator piping somewhere, but I

4 don't recall its relationship to the

5 chlorinators or to the blow tank.

6 Q What do you mean when you say it would

7 have to be off of the chlorinator piping

8 system someplace?

9 A Well, my recollection was that this

10 was a jet for drowning HCL gas in the

11 department area.

12 Q Do you know if there was a separate

13 scrubber for chlorinator off-gas than for air

14 from the blow tank?

15 A I don't know.

16 (Plaintiff Deposition Exhibit Number 21

17 marked for identification.)

18 Q (By Mr. Ricci) Mr. Pierle, let me

19 show you a document that's been marked as

20 Exhibit 21 to your deposition. It is a

21 document with Bates No. CER 014896. And I

22 will ask you to take a look at it.

23 This appears to be an August 11, 1970,

24 memo from Mr. Engman to Mr. Papageorge, and

25 there is some handwriting at the bottom. Is

1 that your handwriting or hand printing?

2 A Yes, it is.

3 Q You state in your hand printed note,

4 "The plant goal for losses is 10 ppb." Where

5 did that goal come from?

6 A I don't recall.

7 Q Do you recall the goal at all of

8 10 ppb?

9 A No, I don't.

10 Q Do you recall how that goal translated

11 into a pound per day goal?

12 A Well, again, it would have been times

13 the flow from the plant, which we had pretty

14 good fixes on.

15 Q Do you recall what the goal was in

16 terms of pounds per day?

17 A No.

18 Q You state that, "A 12 gallon loss of

19 aroclor represents two-month allocation of

20 plant losses." What do you mean by that?

21 A It looks to me like this was a note

22 just to emphasize that we had set ourselves a

23 very, very low target that clearly here would

24 have been less than a pound per day we were

25 trying to get to, and that these losses, we

1 just needed to continue to highlight that
2 wherever we had the potential, we needed to
3 make sure that we weren't experiencing these
4 kinds of losses. They were -- I mean we
5 couldn't get to the goal eventually with these
6 kinds of losses.

7 Q You mentioned in that last answer the
8 goal was less than a pound per day. Did I
9 hear you correctly?

10 A Well, I'm computing that if this is
11 two months at 12 gallons -- let me take that
12 back. It would have been less than a gallon a
13 day, which would have been less than whatever
14 that times its specific gravity is. I
15 shouldn't try to make those calculations
16 without the numbers.

17 Q Who was this note written to?

18 A I don't know.

19 (Plaintiff Deposition Exhibit Number 22
20 marked for identification.)

21 Q (By Mr. Ricci) Mr. Pierle, let me
22 show you a document that's been marked as
23 Exhibit 22 to your deposition. This is a
24 document with Bates No. CER 014895. It
25 appears to be a memo from a Mr. Webb and a

1 Mr. Campbell to a number of people including
2 yourself.

3 First of all, can you tell me who
4 Mr. Webb and Mr. Campbell are?

5 A I believe they were both in the plant
6 analytical laboratory.

7 Q Can I assume from that that by August
8 of '70 PCB analyses were being performed at
9 the Krummrich facility as opposed to the
10 Queeny plant?

11 A Well, it looks like this set was.

12 Q Do you recall responsibility for that
13 analysis being shifted from Queeny to
14 Krummrich?

15 A I recall reading in some of these
16 prior documents some reference to the fact
17 that that was going to happen.

18 Q Who was Mr. Jackson?

19 A When I remember Daryl at the plant, he
20 was the general superintendent of technical
21 services.

22 Q Was the lab within the jurisdiction of
23 technical services?

24 A I don't recall.

25 Q How about Mr. Blowers?

1 A I remember Dick Blowers. I don't
2 recall specifically what his job assignment
3 was during this time period.

4 Q How about Mr. Horner?

5 A I believe he was -- I believe he ran
6 the lab.

7 Q And then in the space where the memo
8 is directed to, there is a D. Woods. Do you
9 know who that is?

10 A No, I don't.

11 Q How about B. Corlew?

12 A He was a production person at the
13 plant. That's all I recall.

14 Q There are some sampling locations that
15 I wanted to ask you about. Sediment, J. B.
16 Bridge, do you know what that is?

17 A I believe that's the Jefferson
18 Barracks Bridge.

19 Q Is that upstream or downstream --
20 well, let me withdraw that. Is that a bridge
21 on the Mississippi River?

22 A Yes, it is.

23 Q Is it upstream or downstream from the
24 village outfall?

25 A Downstream.

1 Q How about sediment E. Carondelet?

2 A East Carondelet is a small, I believe

3 incorporated area on the west side of the

4 river, south of Sauget Village.

5 Q Do you know how these sample locations

6 were chosen?

7 A My recollection is they were access

8 points to the river.

9 Q Further down on log No. 85, it is

10 identified as water, No. 4 still, steam

11 condensate. Do you know what that sample

12 location is?

13 A No, I don't.

14 (Plaintiff Deposition Exhibit Number 23

15 marked for identification.)

16 Q (By Mr. Ricci) Mr. Pierle, let me

17 show you a document that's been marked as

18 Exhibit 23 for identification. This is a

19 document with Bates No. CER 011584, and it is

20 dated January 8, 1971, which is after you left

21 the Krummrich facility as I understand it?

22 A That's correct.

23 Q If you could just flip over quickly to

24 page 8 of the document, under the Krummrich

25 plant heading, paragraph 3, there is a

1 statement that, "Sewer samples were taken from
2 the effluents of other industrial plants." Do
3 you know if that sampling took place while you
4 were still at the Krummrich plant?

5 A I don't recall.

6 Q You don't recall having any
7 involvement in any such sampling?

8 A I just don't recall.

9 Q There is a reference just below that
10 to two to three pounds -- "This amounts to
11 about two or three pounds a day. Probable
12 source is aroclor trailer washes at Rogers
13 Terminal." Do you see that?

14 A Yes.

15 Q Are you familiar with Rogers Terminal?

16 A Somewhat.

17 Q What is your familiarity with Rogers
18 Terminal?

19 A I believe they were located in the
20 village somewhere in the vicinity of the
21 village hall and whatever the road is next to
22 the Cerro property. I don't remember a lot
23 about them.

24 Q Do you know what business they were
25 in?

1 A You know, at this time I don't think I
2 knew much about them other than they were
3 there.

4 Q Do you know if they had any
5 involvement with hauling aroclors from
6 Monsanto?

7 A I don't know that. I don't know
8 whether they did or whether they didn't.

9 Q Are you familiar with a company by the
10 name of Waggoner, W-A-G-G-O-N-E-R, in the
11 village?

12 A Again, I have heard of that company
13 but don't have much of a recollection of it.

14 Q Do you have any knowledge of what its
15 business was?

16 A Not particularly.

17 Q Do you know whether Monsanto ever did
18 business with the company by the name of
19 Waggoner?

20 A I don't know.

21 (Plaintiff Deposition Exhibit Number 24
22 marked for identification.)

23 Q (By Mr. Ricci) Mr. Pierle, let me
24 show you a document that's been marked as
25 Exhibit 24 to your deposition. This is a

1 document with Bates No. CER 014500. Is that
2 your signature on the second page of the
3 document?

4 A Yes, it is.

5 Q This appears to be a September 2,
6 1976, letter from yourself to a Mr. Zar of the
7 USEPA. Do you recall Mr. Zar?

8 A I recall the name. I don't recall
9 that I ever met the man.

10 Q In September of 1976, you were manager
11 of environmental protection?

12 A Yes.

13 Q Under paragraph 3 of the letter, there
14 are some analytical results with respect to
15 PCBs. And there is an indication that the
16 result with respect to the Sauget treatment
17 plant influent is .9 pounds per day. And for
18 the effluent it is 2.1 pounds per day.

19 Do you know of any explanation as to
20 why the amount of PCBs coming out of the
21 treatment plant was greater than the amount
22 going in?

23 A These numbers are, again, extremely
24 low, and they represent concentration levels
25 in the probably subpart per billion range or

1 subpart per million range, very low subpart
2 per billion range, and I guess my general
3 reaction to that would be I'm not sure there
4 is really a difference between the two, but
5 you have to report the analyses that you got,
6 and that had to have been an accurate
7 reporting of data that we had.

8 Q You are not saying there is no
9 difference between .9 and 2.1. You are saying
10 more that there is very little difference
11 between the concentration levels that led to
12 the computation of these poundage levels. Is
13 that a fair statement?

14 A Well, no. I think my point was that
15 since you would multiply each of those
16 concentrations by the same flow, and the flow
17 is so large compared to those two, that there
18 is probably not much difference between these
19 two numbers.

20 Q At the top of the second page there is
21 a reference to a visit by Mr. Park and
22 Mr. Nelson to the EPA offices in July. And is
23 Mr. Park, Phocion Park, the attorney that we
24 talked about yesterday?

25 A Yes.

1 Q Who is Mr. Nelson?

2 A I believe that is Robert Nelson.

3 Q Who is Robert Nelson?

4 A He was my supervisor at the time.

5 Q It is not Richard Nelson, is it?

6 A I don't believe so.

7 Q Okay. Was his title director of

8 environmental operations?

9 A It wasn't. He was a director of

10 something. I don't recall the precise title.

11 Q Did he have the position that

12 Mr. Papageorge then took over?

13 A It was pretty much the same position.

14 Q Do you have knowledge of this meeting

15 or this visit that Mr. Park and Mr. Nelson

16 made to the EPA offices in July?

17 A I don't really recall that.

18 Q Do you know how you came to write this

19 letter as opposed to Mr. Nelson or Mr. Park or

20 somebody else?

21 A I can't tell from this letter

22 precisely what we were responding or reacting

23 to.

24 Q Were you still involved in PCB control

25 in September of 1976? I said were you still

1 involved. I don't mean to imply that you were
2 involved continuously. I mean obviously
3 during the time that you were not at the
4 Krummrich plant you were not involved. I
5 think that's true, isn't it?

6 A I'm not sure what your question is
7 now.

8 Q Let me back up again. You were
9 involved in PCB control up until '70 when you
10 left the Krummrich plant?

11 A Yes.

12 Q You left the Krummrich plant and went
13 to New Jersey. And during the time that you
14 were in New Jersey, you were not involved in
15 PCB control?

16 A That's correct.

17 Q And then you went to the USEPA for a
18 year -- I'm sorry -- the Department of
19 Commerce for a year, and again you were not
20 involved in PCB-related issues; is that true?

21 A That's true.

22 Q When you came back to Monsanto as the
23 manager of environmental protection, did you
24 resume some responsibility for PCB control
25 efforts?

1 A Not as you have described it. I mean,
2 I indicated I was in an oversight generalist
3 role. I did not get involved in plant
4 specific pollution control efforts.

5 Q In order to prepare this letter then,
6 did you have to go back to people who were
7 involved in plant specific issues to get the
8 information that you needed?

9 A I would have had to receive the data
10 from someone.

11 Q And that presumably would have been
12 someone at Krummrich?

13 A It doesn't indicate where it came
14 from.

15 Q Who is Mr. Harsh who is copied on this
16 letter?

17 A I don't know. He is mentioned on
18 page 1. Appears to me that it is probably an
19 EPA employee or someone outside Monsanto.

20 Q Is that your handwriting in the top,
21 right-hand corner of the first page?

22 A No.

23 Q Do you know whose handwriting it is?

24 A No, I do not.

25 Q Do you know if Monsanto had made a

1 decision by September of 1976 to stop
2 manufacturing PCBs?

3 A I mean that date's available. I don't
4 recall what the decision time frame was.

5 (Plaintiff Deposition Exhibit Number 25
6 marked for identification.)

7 Q (By Mr. Ricci) Mr. Pierle, this is a
8 document that's been marked as Exhibit 25 to
9 your deposition. This is a document with
10 Bates No. CER 014441. And it appears to be a
11 September 29, 1976, memo from Mr. Buckley to
12 Mr. Heisler, and you appear to have been
13 copied on this memo; is that correct?

14 A Yes.

15 Q The memo refers to some sampling that
16 was conducted by the USEPA and also the
17 Illinois EPA. Do you have any recollection of
18 this sampling?

19 A I vaguely remember the request that
20 was made and our agreement to the request as
21 it pertained to Monsanto.

22 Q Do you know why the EPA was interested
23 in sampling in this regard at this time?

24 A I believe there were still active
25 discussions concerning PCB limits in their

1 waste water discharge permit for the village,
2 and that this sampling was in conjunction with
3 that activity.

4 Q At the bottom of the second paragraph,
5 there is a list of compounds that the EPA will
6 be looking for. Do you see that?

7 A Yes.

8 Q Do you know how that list was
9 developed?

10 A No, I do not.

11 Q Do you know any potential source of
12 hexachlorobenzene in the discharge from the
13 Krummrich facility?

14 A I don't recall.

15 Q How about hexachlorobutadiene?

16 A No.

17 Q No, you don't?

18 A I don't recall really on any of these.

19 Q Okay. You don't recall on
20 pentachlorophenol?

21 A We had a pentachlorophenol department,
22 but I don't know what prompted this particular
23 list. It looks like a generic list of
24 chlorinated polycyclic compounds.

25 Q Did the company use or manufacture

1 polychlorinated terphenyls at the Krummrich
2 facility?

3 A I don't know.

4 Q Do you know if hexachlorobenzene was a
5 byproduct in any of the chlorinated benzene
6 manufacturing processes at the Krummrich
7 facility?

8 A I don't ever recall that.

9 (Plaintiff Deposition Exhibit Number 26
10 marked for identification.)

11 Q (By Mr. Ricci) Mr. Pierle, let me
12 show you a document that's been marked as
13 Exhibit 26 to your deposition and ask you to
14 take a look at it. This is a document with
15 Bates No. CER 014436. Can you identify this
16 document, Mr. Pierle?

17 A What do you mean by that? You just
18 want me to read it?

19 A Do you know what the document is? Do
20 you know what it is other than by reading the
21 heading? Let's start over again.

22 The document appears to be minutes of
23 a meeting that occurred in September of 1976;
24 is that correct?

25 A Yes.

1 Q And you are indicated as being an
2 attendee at the meeting; is that correct?

3 A Yes.

4 Q Do you have any recollection of this
5 meeting?

6 A I do recall conversations and
7 discussions. I don't know that I recall this
8 specific meeting.

9 Q The document was authored by
10 Mr. Leisy. Do you know who Mr. Leisy was?

11 A I believe Art was still a production
12 superintendent at the Krummrich plant then.

13 Q The subject of this meeting is the
14 decontamination and disposal of the PCB
15 department at the Krummrich facility; is that
16 correct?

17 A Yes.

18 Q Is it fair to say that by this point
19 in time the company had decided to get out of
20 the PCB business, at least the Krummrich
21 facility?

22 A I believe so.

23 Q Did you have any involvement in the
24 decision to discontinue the manufacture of
25 PCBs?

1 A No.

2 Q Do you know who was involved in that
3 decision-making process?

4 A No, I do not.

5 Q Do you know if Mr. Papageorge was
6 involved?

7 A He may have been.

8 Q Do you know why the decision to stop
9 manufacturing PCBs was made?

10 A I really don't know the whole decision
11 process.

12 Q Do you know anything about it?

13 A I mean, I know there were lots of
14 discussions and lots of implications on PCBs,
15 but I don't know the full sense of the
16 conversations or discussions.

17 Q Can you tell me what you do know?

18 A Well, I mean I think I just did.

19 Q Do you know how high up within the
20 management of the company the decision-making
21 process went?

22 A No, I don't.

23 Q Did you have any involvement in the
24 decommissioning of the PCB plant at the
25 Krummrich facility?

1 A Not firsthand. Again, it was -- the
2 environment here was more in the sort of
3 policy aspects of what would we do, not how
4 would it be done.

5 Q When you say the policy aspects of
6 what we would do, do you mean in terms of
7 actually -- well, what do you mean by that,
8 the policy and implications of what we would
9 do?

10 A Well, there were questions with
11 respect to the fleet. Do we sell the cars?
12 Do we not? Do we clean them and put them in
13 service? A whole series of questions about
14 how do we manage the fleet cars, the
15 department, and all the rest of it. And I was
16 involved in those discussions as to making at
17 least recommendations on what should be done.

18 Q Did you have a recommendation as to
19 what to do with the tank car fleet?

20 A My sense is, without reading each of
21 those lines, was that this group was pretty
22 much in concurrence with what was being laid
23 out here.

24 Q The decision was made to basically
25 dismantle the PCB manufacturing plant; is that

1 correct?

2 A Yes.

3 Q Why was that decision made?

4 A Well, to me, I mean that's a natural.

5 You have decided to go out of the business,

6 and you have got to take the department down.

7 The other option is to leave it stand. And I

8 mean we wouldn't do that.

9 Q Was the -- did the company cease

10 manufacturing PCBs at the Anniston plant as

11 well?

12 A I know they did, but again, I don't

13 know anything about the timing or that

14 decision process.

15 Q Did the -- was the PCB manufacturing

16 plant at Anniston dismantled as well?

17 A I believe it was, but I'm not -- I

18 don't recall those details.

19 Q Did you have any involvement in the

20 development of guidelines for dismantling the

21 department in Anniston?

22 A No. I don't believe I did.

23 Q Was Anniston within your jurisdiction

24 as manager of environmental protection?

25 A No.

1 Q Why is that?

2 A I believe we talked about that two
3 days ago. It was in a different division.

4 Q Okay. If you could refresh my
5 recollection as to what division you were in
6 versus what division Anniston was?

7 A Well, it was within the ag company,
8 and I was within generally the chemical
9 company.

10 Q Did you have a counterpart in the ag
11 company?

12 A Yes.

13 Q Who was that?

14 A I'm not sure who it was during this
15 time period.

16 Q Did Monsanto continue to sample for
17 PCBs into the village sewer system after the
18 PCB department was shut down?

19 A I believe we did.

20 Q Do you know how long after the
21 shutdown you continued to sample?

22 A My recollection was that there was
23 still sampling in conjunction with the village
24 outfall permit. That went on for quite some
25 time, but I don't recall if it is still going

1 on or not. I just don't know.

2 Q Was this sampling of the influent to
3 the waste water treatment plant?

4 A I don't recall.

5 Q Do you know if this was sampling by
6 Monsanto or by the village?

7 A I don't recall who was taking the
8 samples and who was doing the analyses.

9 Q Did you continue to get PCB hits in
10 the sewer samples after the PCB department
11 shut down?

12 A I don't recall the specifics. I know
13 that there was a permit requirement at one
14 time to get zero or nil or something. And I
15 know we debated that because there were still
16 very low concentration levels. I don't recall
17 the time period of that.

18 MR. RICCI: Let's go off the record
19 for a second.

20 (Recess)

21 Q (By Mr. Ricci) Mr. Pierle, with
22 respect to the decommissioning of the PCB
23 plant, do you recall if any steps were taken
24 to ensure against further emissions of PCBs
25 from the sewer in that department? For

1 instance, with respect to PCB contaminated
2 sediments that might still be there and rain
3 water infiltration and things like that?

4 A My recollection is part of what I
5 assumed was indicated here is that the
6 dismantling was done down in and included
7 removing of some of the surface dirt and
8 hauled off to an approved landfill.

9 Q What about was there anything done
10 with respect to the underground sewer lines in
11 the department?

12 A I don't recall specifically.
13 (Plaintiff Deposition Exhibit Number 27
14 marked for identification.)

15 Q (By Mr. Ricci) I will show you a
16 document that's been marked as Exhibit 27 to
17 your deposition. This is a document with
18 Bates No. CER 013190. It appears to be an
19 October 18, 1976, memo from a Mr. Hunter to
20 Mr. Buckley. And you appear to be copied on
21 the document; is that true?

22 A Yes.

23 Q Who is Mr. Hunter?

24 A I don't know.

25 Q The reference of September 29, 1976,

1 to a Mr. Heisler from Mr. Buckley, who is

2 Mr. Heisler?

3 A He was a general superintendent at the

4 Krummrich plant that I believe during this

5 time frame had responsibilities for the

6 environmental program.

7 Q Do you know if these sample results,

8 as set forth in this memo, relate to the

9 sampling requested by the EPA as documented in

10 the memo that we had previously marked as

11 Exhibit 25?

12 A I don't know whether they are or not.

13 They could be, but I'm not certain.

14 Q The memo indicates a hit of 1.9 parts

15 per billion hexachlorobenzene in the Krummrich

16 effluent.

17 A Which memo?

18 Q I'm sorry. The memo that we have

19 marked as Exhibit 27. Do you see that?

20 A Yes.

21 Q Do you recall any discussions in the

22 wake of this memo as to the possible source of

23 that hexachlorobenzene?

24 A No.

25 Q Do you have any idea of what the

1 source of that hexachlorobenzene could have
2 been?

3 A No. Again, I would say these are
4 extremely low numbers. I don't know that one
5 would ever know where to go to begin to look
6 for something that small.

7 Q The pentachlorophenol numbers appear
8 to be translated into -- the concentrations
9 appear to be translated into a pounds per day
10 figure. Is that your handwriting there?

11 A No.

12 Q Do you know whose handwriting it is?

13 A No, I do not.

14 Q There are again some new names that
15 are included in the ccs of this document. Do
16 you know who Mr. Basill is?

17 MR. HEINEMAN: Basile.

18 Q (By Mr. Ricci) Basile.

19 A He was, I believe, in the
20 environmental control department at the plant.

21 Q Are there any individuals that you see
22 on this list that were not Krummrich personnel
23 at the time?

24 A The mail zone code would indicate all
25 names with the No. 1740 after them were at the

1 plant.

2 Q Okay.

3 A And the others were not.

4 Q Okay. Who is M. W. Dietrich?

5 A I recall that name from an analytical
6 perspective.

7 Q How about J. P. Mieure?

8 A I think he was also in the analytical
9 section.

10 Q R. S. Nelson, is that Mr. Nelson who
11 was your superior?

12 A I believe so.

13 Q How about W. E. Scruggs?

14 A I believe he was in engineering.

15 Q Corporate?

16 A I believe so.

17 Q And J. C. Weber?

18 A He was I think somewhere in the
19 product acceptability function in one of the
20 business groups.

21 (Plaintiff Deposition Exhibit Number 28
22 marked for identification.)

23 Q (By Mr. Ricci) Mr. Pierle, let me
24 show you a document that's been marked as
25 Exhibit 28 to your deposition. This is a

1 document with Bates No. CER 013186. And I
2 would ask you to take a look at it. It
3 appears to be a memo from Mr. Basile to
4 yourself. Do you recall having received this
5 memo?

6 A Vaguely.

7 Q Do you recall if this memo was
8 prepared at your request?

9 A I don't recall what precipitated it.

10 Q Do you recall the circumstances that
11 necessitated the compilation of the
12 information that's attached to the memo?

13 A No. I really do not.

14 Q Do you have any knowledge of the data
15 which region five has on file as reported by
16 W. Papageorge in December of 1975?

17 A I don't.

18 Q You don't know what that reference is
19 to?

20 A No. Bill was, as I had said, kind of
21 a point person. But I don't know what the
22 information flow was. I don't recall.

23 Q Referring to the attachment, the plant
24 concentrations are in milligrams per liter; is
25 that correct?

1 A Yes.

2 Q Is that the same as parts per million?

3 A I believe it is.

4 Q And then there is a column that sets
5 forth total plant flow in GPM is the second
6 column?

7 A Yes.

8 Q Or actually the third column, the
9 first column being the date. GPM stands for
10 gallons per minute?

11 A I believe so.

12 Q Do you know how that 5300 GPM was
13 arrived at?

14 A No, I don't.

15 Q Do you know if that was the correct
16 volume of the Krummrich plant flow as of the
17 time of the sampling events set forth herein?

18 A I would assume so, but I don't know
19 that for a fact.

20 Q Is there a method -- withdraw that.
21 Is it possible to convert the plant
22 concentrations into pounds per day with the
23 information that's provided in this memo?

24 A It should be doable.

25 Q How would you do that?

1 A You would have to multiply the two
2 numbers together and then put in the
3 appropriate conversion factors for volume and
4 weight relationships, and then you would have
5 to factor in the time elements depending upon
6 whether you wanted pounds per minute, pounds
7 per hour or pounds per day, month, week, year.

8 (Plaintiff Deposition Exhibit Number 29
9 marked for identification.)

10 Q (By Mr. Ricci) Mr. Pierle, I'm
11 handing you a document that's been marked as
12 Exhibit 29 to your deposition. This is a
13 document with Bates No. CER 008156, and it is
14 dated October 3, 1980.

15 Now, in October of 1980, I believe it
16 was your testimony that your position with the
17 company was division of regulatory -- director
18 of regulatory management for water?

19 A That's correct.

20 Q And in that position you did not have
21 any involvement with the Krummrich facility in
22 particular?

23 A That's correct.

24 Q This document discusses a meeting
25 between employees of Monsanto and members of

1 the Illinois EPA and the State of Illinois

2 Attorney General's Office.

3 You are free to review the document in
4 as much detail as you want. I have just some
5 general questions about it though. The first
6 question is at the time that you got -- at
7 that time that you became involved in
8 discussions with employees from Marmon or
9 Cerro after early 1986 regarding Dead Creek,
10 were you aware that discussions between
11 Monsanto and the IEPA had occurred in or
12 around October of 1980?

13 A I don't believe I had conversations
14 about that.

15 Q Were you aware that any such
16 conversations or contacts had occurred?

17 A Not particularly. I could recall that
18 there were things in the newspaper about Dead
19 Creek that had happened years ago, but that's
20 the extent of my recollection.

21 Q Are you familiar with a Jim Kelty or a
22 John Renkes from the Illinois EPA?

23 A No.

24 Q How about a Reed Neuman from the State
25 Attorney General's office?

1 A Doesn't sound familiar.

2 Q How about a Stan Parsons?

3 A No.

4 Q Were any of the Monsanto employees

5 identified on this memo that we have marked as

6 Exhibit 29 involved in the discussions that

7 you were involved with with Marmon or Cerro in

8 1986?

9 A Are you referring to this group of

10 people?

11 Q Anybody, either the people in

12 attendance at the meeting or the people cc'd,

13 the author or the direct recipients of the

14 memo?

15 A I think I had mentioned that perhaps

16 Jack Molloy was at some point involved. The

17 others I don't believe so.

18 Q Do you know who Mr. Sinise was?

19 A I recall him as an engineer in the

20 environmental group. I don't think he was

21 around very long.

22 Q Your responsibilities in 1980 were

23 such that you would not necessarily have had

24 any reason to be aware of these discussions;

25 is that correct?

1 A That's correct.

2 (Plaintiff Deposition Exhibit Number 30

3 marked for identification.)

4 Q (By Mr. Ricci) Mr. Pierle, I'm

5 handing you a document that's been marked as

6 Exhibit 30 to your deposition. This is a

7 document with Bates No. CER 037285. And it is

8 just some handwritten notes that were produced

9 in the course of this deposition. Do you

10 recognize the handwriting on this?

11 A No, I don't.

12 Q If you look at the last page, there is

13 a copy of what appears to be a note pad of

14 some sort that has printed on it, "From the

15 desk of Earl N. Brasfield." Do you see that?

16 A Yes.

17 Q Do you know who Mr. Brasfield is?

18 A Yes.

19 Q Who is he?

20 A He is a retired employee.

21 Q Do you know when he retired?

22 A Sometime in the last year or so.

23 Q What was his position immediately

24 before he retired?

25 A He was a corporate vice president.

1 Q For any particular division or any
2 title more specific than that?

3 A I don't recall.

4 Q Do you know what Mr. Brasfield's
5 position was in 1980?

6 A I'm not sure.

7 Q Do you know if he was in corporate, in
8 corporate headquarters at that time?

9 A I believe he was in one of the
10 chemical entities.

11 Q Do you recall Mr. Brasfield ever
12 getting involved in preparation of any kind of
13 chronology with respect to waste disposal
14 activities at the Krummrich facility?

15 A No.

16 Q Was the nature of his position such
17 that he had responsibility for the Krummrich
18 facility?

19 A I don't recall what his position was
20 right then.

21 Q Do you know if his position had
22 anything to do with environmental issues or
23 environmental control or anything like that?

24 A Not from a functional standpoint. He
25 was not an environmental vice president or

1 that sort of thing.

2 (Plaintiff Deposition Exhibit Number 31

3 marked for identification.)

4 Q (By Mr. Ricci) Let me show you a

5 document that's been marked as Exhibit 31 to

6 your deposition. This is a document with

7 Bates No. CER 008162. The document appears to

8 be a memo prepared by a Sarah Gainer Collins,

9 and it appears to be a fact sheet on the

10 Krummrich plant waste disposal. Have you ever

11 seen the fact sheet that's attached to this

12 memo before today?

13 A I don't recall seeing this.

14 Q Do you know who Ms. Collins was?

15 A She was in the public relations

16 department.

17 Q Do you know who J. J. Spano,

18 S-P-A-N-O, is?

19 A He was also in the public relations

20 area.

21 Q How about C. P. Cunningham?

22 A He was an executive in the chemical

23 unit.

24 Q Do you know what his position was in

25 October of 1980?

1 A I do not.

2 Q Is he still with the company?

3 A No. He is retired.

4 Q Do you know when he retired?

5 A Several years ago.

6 Q Do you know what his position was

7 immediately prior to his retirement?

8 A He was a senior corporate officer. I

9 do not recall his specific title.

10 Q What do you mean by senior corporate

11 officer? Vice president or higher?

12 A Yes.

13 Q Higher than vice president?

14 A Vice president or higher.

15 (Discussion off the record)

16 Q (By Mr. Ricci) Do you recall

17 Mr. Cunningham having any involvement in

18 questions relating to the cleanup of Dead

19 Creek in 1986 when you were involved in your

20 discussions with Marmon or Cerro?

21 A No. Repeat the question again.

22 MR. RICCI: Why don't you read it

23 back.

24 (The requested portion of the

25 record read by the reporter)

1 A The answer is no.

2 Q (By Mr. Ricci) Do you recall

3 Mr. Cunningham having any involvement at any

4 time with issues relating to the cleanup of

5 Dead Creek?

6 A No.

7 Q Do you recall him having any

8 involvement with the remediation of any sites

9 in Sauget?

10 A No.

11 Q Do you recall that Mr. Cunningham was

12 responsible in any way for environmental

13 issues for the company?

14 A Again, not from a functional

15 standpoint.

16 Q Do you know whether environmental

17 issues or concerns were incidental to any

18 position held by Mr. Cunningham with the

19 company?

20 A Well, if he was running businesses,

21 and therefore he would have had within his

22 organizations responsibility for the issues

23 that arose under him, but I don't know what

24 his personal involvement was in issues.

25 Q I didn't hear you. Did you say if he

1 was running businesses or he was running

2 businesses?

3 A I believe he was.

4 Q Do you know which businesses he was

5 involved with or which business groups?

6 A No, I don't.

7 (Plaintiff Deposition Exhibit Number 32

8 marked for identification.)

9 Q (By Mr. Ricci) Mr. Pierle, I will

10 show you a document that's been marked as

11 Exhibit 32 to your deposition. This is a

12 document with Bates No. CER 008280 dated

13 October 28, 1980.

14 This document discusses sampling of

15 sediments from Dead Creek that apparently

16 occurred sometime in 1980. Are you familiar

17 with Monsanto engaging in sampling of Dead

18 Creek in or around 1980?

19 A I don't recall having known this.

20 Q Were the results of any sampling

21 efforts undertaken by Monsanto with respect to

22 Dead Creek revealed to you during the time

23 that you were involved in discussions with

24 Marmon or Cerro regarding Dead Creek?

25 A The only thing I recall understanding

1 then was the -- or seeing was the, you know,
 2 the state work, but I don't recall that they
 3 had had analytical information in it.

4 Q You don't recall if the state had
 5 analytical information?

6 A Right.

7 Q You don't recall seeing any analytical
 8 information from Monsanto?

9 A I do not.

10 Q Do you know who Robert G. Kaley is?

11 A Yes, I do.

12 Q Who is he?

13 A Bob was in analytical section.

14 Q Analytical section of what?

15 A Well, whatever this group was. It
 16 looks like the MIC environmental science
 17 group.

18 Q What's MIC?

19 A It was a notation for one of the
 20 operating units. I think it was industrial
 21 chemicals at the time.

22 Q Are you familiar with any of the
 23 distributors as identified on the first page
 24 of this memo?

25 A No.

1 Q I'd like to go through some of the
2 other names that appear on this memo. At the
3 bottom there is a D. R. Bishop?

4 A Yes.

5 Q Do you know who that is?

6 A Yes.

7 Q Who is that?

8 A He is retired. He was in public
9 relations.

10 Q How about C. F. Callis?

11 A I know him. He was in research as I
12 recall.

13 (Recess)

14 Q (By Mr. Ricci) Mr. Pierle, the next
15 individual I'd like to ask you about is J. H.
16 Craddock. Do you know who that is?

17 A Yes.

18 Q Who is it?

19 A He is retired. He was a specialist on
20 PCB regulations. I don't know what his title
21 -- at this time I don't think that's what he
22 was doing. I think he was a product
23 acceptability person for one of the business
24 groups.

25 Q And subsequently he became a

1 specialist on PCB regulations?

2 A Yes.

3 Q How about R. G. Hord?

4 A Don't know that name.

5 Q How about R. L. Wasson?

6 A Not familiar with that one.

7 Q C. R. Sisco?

8 A No.

9 Q In the abstract on the first page of
10 this memo, there is a listing of the chemicals
11 that were analyzed for. Take a look at that
12 quickly. Does that list of chemicals have any
13 significance to you in terms of the operations
14 at the Krummrich facility?

15 A They appear to be materials that were
16 made there at one time or another.

17 Q Mr. Pierle, do you know if Monsanto's
18 worldwide environmental guidelines were in
19 effect in 1980?

20 A There were some.

21 Q Do you know if there were any
22 guidelines in 1980 related to remediation of
23 hazardous waste sites?

24 A I don't believe so.

25 Q Were you aware that in the fall of

1 1980 the Illinois EPA requested that Monsanto
2 participate in remediation of Dead Creek?

3 A No.

4 Q I assume then you were not aware that
5 Monsanto declined to so participate?

6 A No.

7 (Plaintiff Deposition Exhibit Number 33
8 marked for identification.)

9 Q (By Mr. Ricci) Let me show you a
10 document that's been marked as Exhibit 33 to
11 your deposition and ask you to take a look at
12 it. This is a document with Bates No. CER
13 009054. It appears to be a November 18, 1980,
14 memo from Mr. Cunningham to a Mr. Mahoney. Is
15 R. J. Mahoney the chairman of the board of
16 Monsanto?

17 A I believe so.

18 Q Do you know if he held that position
19 in November of 1980?

20 A No, he did not.

21 Q Do you know what his position was at
22 that time?

23 A No, I do not.

24 Q I assume it was a senior management
25 position though?

1 A Yes.

2 Q And C. Preston Cunningham is the name
3 we discussed a few minutes ago?

4 A Yes.

5 Q Were you aware of any contacts between
6 anyone and Mr. Mahoney regarding conditions at
7 Dead Creek?

8 A No.

9 Q There is a list of people copied or
10 blind copied on this memo that I'd like to
11 review with you. Do you know who
12 Mr. L. Fernandez is?

13 A I believe that's Dr. Louis Fernandez.

14 Q And who is he?

15 A I don't know what his specific title
16 was then. He was one of the senior officers
17 at the corporation.

18 Q Were you aware of Mr. Fernandez having
19 any involvement or input with respect to
20 conditions at Dead Creek?

21 A No.

22 Q I guess it was Dr. Fernandez. Excuse
23 me. How about J. W. Hanley?

24 A Well, I believe that is John Hanley
25 who was the COE.

1 Q Who was the COE in November of '80?

2 A I believe so.

3 Q How about M. Dmytryszyn?

4 A He was, I believe, a general manager
5 of technology.

6 Q Is general manager a position above or
7 below vice president?

8 A Below.

9 Q Do you know what area of
10 responsibility the general manager of
11 technology has? Or to be more specific, do
12 you know whether general manager of technology
13 had any involvement in environmental issues?

14 A I believe Mr. Papageorge reported to
15 Mr. Dmytryszyn.

16 Q How about Mr. Nolan? Do you know who
17 that is, J. T. Nolan?

18 A Yes.

19 Q Who is that?

20 A He was the head of a corporate public
21 relations department.

22 Q F. E. Reese?

23 A I believe at that time Mr. Reese was
24 head of the corporate staff for engineering.

25 Q And then Mr. Throdahl I believe you

1 testified yesterday was a senior vice

2 president of the company?

3 A Yes.

4 Q And he was your supervisor in 1980, I

5 believe?

6 A That's correct.

7 Q Did you ever have any discussions with

8 Mr. Throdahl regarding issues relating to Dead

9 Creek?

10 A I don't recall any.

11 Q Did you have any discussions with him

12 relating to any of the Sauget sites?

13 A Not during this time frame.

14 Q At other time frames?

15 A Well, later on in '83 I think we had

16 conversations about the Monsanto landfill.

17 Q Are you aware of trichlorobenzene or

18 tetrachlorobenzene ever being manufactured at

19 the Krummrich facility?

20 A I don't recall.

21 Q Do you recall whether trichlorobenzene

22 or tetrachlorobenzene were ingredients in any

23 transformer fluids manufactured at the

24 Krummrich facility?

25 A I don't know that for a fact.

1 Q Do you know if they were ingredients
2 in any heat transfer fluids manufactured at
3 the Krummrich facility?

4 A I don't know that.

5 (Plaintiff Deposition Exhibit Number 34
6 marked for identification.)

7 Q (By Mr. Ricci) Mr. Pierle, let me
8 show you a document that's been marked as
9 Exhibit 34 to your deposition. This is a
10 document with Bates No. CER 008105. It is
11 dated April 8, 1981.

12 This appears to be a letter from the
13 Attorney General of the State of Illinois to
14 Monsanto requesting information in part
15 regarding current or past discharges to Dead
16 Creek. Do you see that?

17 A Yes.

18 Q Were you aware of Monsanto getting an
19 information request such as this one in or
20 around April of 1981?

21 A No.

22 Q Did you ever become aware that
23 Monsanto received an information request
24 regarding discharges into Dead Creek?

25 A I don't believe so.

1 Q Is this the first time you have seen
2 this document, today?

3 A Yes.

4 Q I don't know if that last question
5 came out clear on the record, so I'm going to
6 ask it again. Is today the first time you
7 have ever seen the document that we have
8 marked as Exhibit 34?

9 A I believe so, yes.

10 Q I take it you had no involvement in
11 responding to this information request?

12 A I sure don't recall it.

13 (Plaintiff Deposition Exhibit Number 35
14 marked for identification)

15 Q (By Mr. Ricci) I'm handing you a
16 document that's been marked as Exhibit 35 to
17 your deposition. This is a document with
18 Bates No. CER 008113, and I will ask you to
19 take a look at it.

20 This document appears to be Monsanto's
21 response to the document that we have just
22 marked as Exhibit 34. Have you ever seen this
23 document that we have marked as Exhibit 35
24 before?

25 A I don't recall seeing it.

1 Q Were you ever made aware of Monsanto
2 responding to an information request from the
3 Illinois Attorney General relating to
4 discharges to Dead Creek?

5 A I don't believe so.

6 Q Do you know what investigation, if
7 any, was conducted by Monsanto prior to
8 submitting this response?

9 A No, I do not.

10 Q This document appears to have
11 originated with Phocion S. Park. Do you know
12 what the procedure was, if any, in 1981 in
13 responding to information requests such as the
14 one that we have marked as Exhibit 34?

15 A I don't believe there was. I don't
16 recall a written procedure.

17 Q Do you have any unwritten procedure as
18 to what was generally done?

19 A No.

20 Q Were you made aware of either the fact
21 of this response or the substance of this
22 response in 1986 when you were engaging in
23 discussions with people from Marmon or Cerro
24 regarding Dead Creek?

25 A No.

1 Q During the time that you were engaging
2 in discussions with Marmon or Cerro regarding
3 Dead Creek, did anyone from the company, other
4 than counsel, ever tell you that there were no
5 current or past discharges of waste materials
6 by Monsanto into Dead Creek?

7 A Again, my conversations were
8 principally around not the Dead Creek subject
9 but the subject of sort of a plan or programs
10 that could be broadly around the village. And
11 clearly any conversation about specific who
12 put what where during those initial
13 conversations, and I think what we talked
14 about two days ago, was that it was sort of
15 fait accompli. It was about Dead Creek, and
16 those conversations were pretty much taken up
17 with counsel and the plant people around what
18 are the specifics of what is in the report and
19 what are the -- you know, what are they
20 suggesting.

21 And then my personal involvement in
22 that, in those conversations, pretty much
23 ended, so I don't recall a detailed discussion
24 about Dead Creek and its contaminants.

25 Q Were you involved in any deliberations

1 within Monsanto regarding use of Dead Creek as
2 a storm water retention pond by the Village of
3 Sauget?

4 A I think we discussed this briefly.

5 Again, I don't recall that -- I don't recall
6 that as being a topic of discussion.

7 Q Do you recall issues arising in the
8 early to mid 1980's regarding what the Village
9 of Sauget was going to be doing with its storm
10 water?

11 A No.

12 Q Were you ever made aware of concerns
13 by people at the Krummrich plant regarding the
14 village's use of Dead Creek as a storm water
15 pond, again in the 1980's?

16 A No.

17 MR. RICCI: That's it.

18

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1 COMES NOW THE WITNESS, MICHAEL A. PIERLE,
2 and having read the foregoing transcript of
3 the deposition taken on the 30th day of June,
4 1994, acknowledges by signature hereto that it
5 is a true and accurate transcript of the
6 testimony given on the date hereinabove
7 mentioned.

8 _____

9 Michael A. Pierle

10

11 Subscribed and sworn to me before this _____

12 day of _____, 1994.

13 My Commission expires: _____

14

15

16 _____

17 Notary Public

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1 State of Illinois

2 SS.

3 County of Madison

4 I, Tracey Balsitis, a Notary Public in and

5 for the State of Illinois, duly commissioned,

6 qualified and authorized to administer oaths

7 and to certify to depositions, do hereby

8 certify that pursuant to Notice in the civil

9 cause now pending and undetermined in the

10 United States District Court, Southern

11 District of Illinois, to be used in the trial

12 of said cause in said court, I was attended at

13 the offices of Coburn & Croft, in the City of

14 St. Louis, State of Missouri, by the aforesaid

15 witness; and by the aforesaid attorneys; on

16 the 30th day of June, 1994.

17 The said witness, being of sound mind and

18 being by me first carefully examined and duly

19 cautioned and sworn to testify the truth, the

20 whole truth, and nothing but the truth in the

21 case aforesaid, thereupon testified as is

22 shown in the foregoing transcript, said

23 testimony being by me reported in shorthand

24 and caused to be transcribed into typewriting,

25 and that the foregoing pages correctly set

1 forth the testimony of the aforementioned
2 witness, together with the questions
3 propounded by counsel and remarks and
4 objections of counsel thereto, and is in all
5 respects a full, true, correct and complete
6 transcript of the questions propounded to and
7 the answers given by said witness; that
8 signature of the deponent was not waived by
9 agreement of counsel.

10 I further certify that I am not of counsel
11 or attorney for either of the parties to said
12 suit, not related to nor interested in any of
13 the parties or their attorneys.

14 Witness my hand and notarial seal at St.
15 Louis, Missouri, this 4th day of July, 1994.
16 My Commission expires January 24, 1995.

17 _____
18 Notary Public in and for the
19 State of Illinois

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25</Transcript>
</TRN>