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WITNESSES:

DR. GEORGE ROUSH

Clarification Examination by Mr. Heineman 8

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IN CHAMBERS CONFERENCES HELD ON PAGES 2 AND 79

1 BE IT REMEMBERED AND CERTIFIED, that heretofore, on
2 to-wit: July 23, 1985, the matter as hereinbefore set forth
3 came on for hearing before the Honorable Richard P. Goldenhersh,
4 Circuit Judge, Twentieth Judicial Circuit, State of Illinois,
5 and the following matter was had of record, to-wit:

6
7 (The following proceedings were held in chambers.)

8 MR. HEINEMAN: Your Honor, for the record, in light of
9 the Court's ruling this morning and the basis for Mr. Carr's
10 objection, I asked George Roush to call out to Monsanto at the
11 lunch hour to find out whether indeed this program of putting
12 the two, the data from the two tests together and running it and
13 analyzing it had ever been done before he began his testimony
14 on July the 8th. He informed me that he talked to Bill Gaffey
15 at Monsanto and learned that indeed it had not been done before.
16 I think he had speculated on the stand that it was possible that
17 it could have been done in connection with the Nitro case. He
18 has learned that it was not done in connection with the Nitro
19 case, that the first time that those two sets of data had been
20 put together in the program was in July after he began to
21 testify.

22 THE COURT: When after he began to testify, do you know?
23 Do you have a date, or was it just after he began to testify?

24 MR. HEINEMAN: Well, it would be--I'm just trying to

1 think of the date it was raised with him. I don't know, I don't
2 have an answer to that. I can give the Court a pretty good
3 approximation as to when it was done.

4 THE COURT: That's fine.

5 MR. HEINEMAN: And it would have been within a few days
6 after it was first brought up by Mr. Carr in examining him and
7 combining the two, which I think occurred around the 8th or 10th
8 of July.

9 THE COURT: Okay, all right. That's fine. Go ahead, I
10 just wanted to clarify that point.

11 MR. HEINEMAN: Based upon that, the fact that it has not
12 been used before, it couldn't have been turned over to Mr. Carr
13 in the prior discovery, because it hadn't been done before, and
14 therefore we would ask that the Court reconsider its ruling and
15 permit us to go into it, permit--I would ask the Court to reconsider
16 its ruling and permit us to question Dr. Roush on this computer
17 printout that we had marked as an exhibit this morning.

18 THE COURT: Mr. Carr, what is your position?

19 MR. CARR: Two things. First of all, the statement that
20 Roush has given us now that he talked to somebody at the plant
21 is not probative and it is not something this Court can consider
22 as to whether or not this document did or did not exist. That
23 person who made that statement is not here and is not subject
24 to cross examination and it is not even the person that Dr. Roush

1 said this morning was the one that did it. He said this morning
2 Strauss was the one that did it, and he talked to somebody by the
3 name of Gaffey, they are not even the same individuals. And
4 further, even if they could have some way laid a predicate that
5 it was created at the time that we brought this matter to them,
6 we should have been furnished a copy of it when it was created
7 prior to their bringing it into Court, and the person that
8 created the document is not here. Dr. Roush did not create the
9 document. He had to go to Gaffey to find out when it was created.
10 He did not, and he testified yesterday that Gaffey created it.
11 I've checked the values on the Gaffey exhibit that counsel
12 offered yesterday. Roush swore under oath that Gaffey did it,
13 and the values on that handwritten paper that I got yesterday is
14 exactly the same as the value on this computer study that Strauss
15 created, so the person that made the computer study is the person
16 that needs to be here to lay the foundation for that.

17 I have a lot of questions to ask as to what they put
18 in that computer, what they added, what they deleted before any
19 such document could come into evidence. This person did not
20 produce it, he did not create it, he pushed a button for something
21 that somebody else put in the computer.

22 THE COURT: Any short reply?

23 MR. HEINEMAN: Yes, sir. The understanding I have is
24 that indeed the data which Mr. Carr agrees is the same data that

1 he has was input--

2 MR. CARR: Stop a moment. I agree that the two documents
3 that you were referring to was data that I was given, period.
4 What was put in that computer study, I have absolutely no
5 knowledge of, the list of 122 people that were in the accident,
6 you gave that to me, I have that, I have the other document
7 that you gave me.

8 THE COURT: Well, go ahead.

9 MR. HEINEMAN: The other data that I would have gone on
10 to demonstrate that you also had was the data in support of the
11 Zack/Gaffey study which was also put in. In other words, as I
12 understand it--

13 THE COURT: I understand what you are saying. I am
14 assuming for the sake of this argument that that is so. You may
15 continue with your argument.

16 MR. HEINEMAN: That data is in it. The program which is
17 a publicly available program as I understand it, this Marsh and
18 this Monson thing are publicly available, was used by Marcy
19 Strauss and Bill Gaffey to run this combined analysis of the raw
20 data for the first time on the occasion that I estimated for
21 you before, sometime probably around the 9th or 10th of July.
22 When we asked Dr. Roush to testify about it yesterday morning,
23 all he had with him was the note, the report that Bill Gaffey
24 had prepared from that first run. When that was objected to and

1 sustained by the Court, we then had George go out and run it
2 himself so he could come in with his own report, with his own
3 computer run to determine what the computer said those two studies
4 should look like if they were indeed combined, taking into account
5 the adjustment for age and date of death as he testified to on
6 Monday. And that is what he did yesterday afternoon, that's the
7 document that he brought to Court this morning.

8 THE COURT: Yeah, I understand the difference between the
9 two documents.

10 MR. HEINEMAN: All right, I wasn't sure that--

11 THE COURT: Yesterday it was run by Gaffey and today it
12 was run by Roush?

13 MR. HEINEMAN: Right.

14 THE COURT: After appropriate booting up to get the program
15 and then printing it out.

16 MR. HEINEMAN: Now our position is that we would want
17 the Court to, well, as I said before, to change its ruling, to
18 permit Dr. Roush to testify about what that document shows on
19 the grounds that it isn't something that we've kept from Mr.
20 Carr, because it wasn't created until just a few days ago.

21 THE COURT: Okay. My ruling stays the same. I think
22 on both of the points that you raised, Mr. Carr, my ruling was
23 correct and also I would note that calling up a program and
24 getting a printed out result is a lot different than actually

1 putting the program in, programming in the data, determining the
2 way in which the data is going to be handled in the computer and
3 programming a format for an outcome, choosing the parameters of
4 the use of the data and the criteria. All of those are a lot
5 different than calling up an already completed program and
6 printing out your own response on that, so there is a qualitative
7 difference between the two, I think, on both points that you
8 raised by argument was correct. We have all our jurors here.

9 MR. CARR: You meant to say ruling, I believe.

10 THE COURT: No, the argument you made, and I think it
11 supports the ruling that I made. If you wish to do any offer
12 of proof, we will do it after Court since we have all our jurors
13 here, we will go back into Court at this time.

14 MR. HEINEMAN: Now, can I ask this of the Court? On
15 an offer of proof, will you permit testimony from the witness,
16 or will you insist upon it to be done by me in chambers?

17 THE COURT: I would insist that it be done by you in
18 chambers.

19 MR. HEINEMAN: You will not permit me to have the witness
20 testify as to what he would have testified to?

21 THE COURT: Do you have any objection to that?

22 MR. CARR: I don't care. They can make their offer of
23 proof any way they want.

24 THE COURT: Without objection, then, you can have it by

1 testimony if you wish. That testimony will be subject to cross
2 examination, you realize that?

3 MR. HEINEMAN: Um hmm.

4 THE COURT: Okay, fine. You can do it however you wish.

5 (The following proceedings were held in
6 open Court.)

7 CLARIFICATION EXAMINATION

8 BY MR. HEINEMAN

9 Q Dr. Roush, do you still have before you the J. Linn
10 document that we were looking at before the luncheon break?

11 A Yes, sir.

12 Q And what is that exhibit number, sir?

13 A 1494.

14 Q I'm sorry, I didn't hear you.

15 A 1494.

16 Q Now, sir, that document reflects, does it not, the
17 scope of the work that was going to be performed pursuant to
18 the document, does it not?

19 A Yes, sir.

20 Q I'm referring specifically, I believe, to the third page
21 of it. I'm sorry, the second, well, it is the third page of
22 the exhibit, it's Page 2 on the top.

23 A Yes, sir.

24 Q Now, before lunch you were talking about the fact that

1 one of the things they were going to do would be to take off
2 the insulation, is that right?

3 A Yes, sir.

4 Q As a matter of fact, in addition to that, they were to
5 actually dismantle and in a sense dismember the equipment itself,
6 were they not?

7 A Yes, sir.

8 Q As a matter of fact, the page that I have reference to
9 talks about cutting it to steel mill specifications, rendering
10 it nonusable, damaging it beyond repair, correct?

11 A Yes, sir.

12 Q Where it would be transported to Luria Brothers and
13 Company of Granite City to be melted down, is that right, sir?

14 A Yes, sir.

15 Q Now, you mentioned before lunch, sir, that any dioxins
16 that were in existence in the still pot would be more concentrated,
17 did you not, sir?

18 A Yes, sir.

19 Q And how was it that the still pot was emptied at the
20 plant?

21 A Well, since this is a place for collecting the residues,
22 from time to time after a number of productions of the chlorophenols,
23 it would be a gradually accumulation of residues and it would
24 have to be taken out, so they had to have some way that they

1 had a valve that they took off and took it in some container
2 for disposal.

3 Q So they would take it from the still pot to a valve to
4 a residue tank?

5 A Yes.

6 Q Now, because of the nature of the dioxins in the still
7 pot versus the nature of the dioxins that might be found in the
8 product itself, would there need to be a difference in the
9 warnings given between disassembling the still pot on the one
10 hand and dealing with the product itself?

11 A When we had a spill of the product itself, we would use
12 the same kind of protective gear to protect the men as we are
13 recommending here for the cleanup of the still bottoms, so we
14 use protection, but the protection was primarily because of the
15 fact that these things are terribly irritating and can produce
16 reaction in the worker. They can produce severe skin lesions
17 and burns and blisters, so that's the reason we had to make sure
18 that they were not being exposed to this material. So we had
19 been doing this for years, and every cleanup was treated just
20 exactly as by the procedure outlined here. But there is the
21 added problem here that there are residues in the residue tank
22 and the concentration of dioxin would be higher there and so
23 there is an additional warning about the presence of dioxin.

24 Q Sir, I'd like to hand you next Plaintiff's Exhibit 1436.

1 You recall discussing that article with Mr. Carr, do you, sir?

2 A Yes, sir.

3 Q This is the portion of a, well, it's Chapter 19 of a
4 book, apparently, is it not?

5 A Yes, sir.

6 Q And this is the one by Arnold Schecter and a host of
7 other authors relating to the Binghampton fire episode, is that
8 right?

9 A Yes, sir.

10 Q Now, as I recall, sir, if I can direct your attention
11 to Page 249, do you have that, sir?

12 A Yes, sir.

13 Q There is a statement in there relating to the amount of
14 contaminants found in the soot, do you see that, sir?

15 A Yes.

16 Q Would you read that first sentence of that second full
17 paragraph that talks about those contamination levels?

18 A "The Binghampton soot was initially found to have
19 100,000,000 parts per billion of PCBs as Aroclor 1254, 50,000
20 ppb of biphenylenes, 20,000 ppb of polychlorinated dibenzofurans,
21 PCDF, and 10,000 ppb of polychlorinated dibenzo-para-dioxins,
22 PCDD."

23 Q All right, sir. Now, is there any place in this document
24 that you recall in which the polychlorinated dibenzodioxins found

1 at 10,000 parts per billion were identified as 2,3,7,8 TCDD?

2 A I think there was.

3 Q In this document, sir?

4 A Yes. No, it was the furans, I think, that were 2,3,7,8.

5 Q Now, if I could direct your attention to Page 251, sir.

6 Mr. Carr was asking you about this page, and the prior page

7 relating to three patients, A, B, and C, correct?

8 A Yes, sir.

9 Q These were people upon whom liver biopsies had been
10 done?

11 A Yes, sir.

12 Q And these were people who, as to whom in this report
13 there is no mention of finding chloracne, correct?

14 A Yes, sir.

15 Q And the discussion between you and Mr. Carr as I recall
16 had to do with whether or not it was necessary to find chloracne
17 before there could be other conditions that would appear.

18 A Yes, sir.

19 Q Do you recall that, sir? Now, what are the isomers of
20 dioxin that produce chloracne?

21 A The 2,3,7,8, the tetrachlorodibenzodioxin. I don't know
22 whether the other isomers have been shown to produce chloracne
23 or not. I don't think they have.

24 Q You mean the other tetra isomers?

1 A Right, the other tetras. The hexachlorodibenzodioxins,
2 some of them will produce chloracne, and the heptas probably
3 do, but to a much lesser extent, and the octas do not.

4 Q So which--do pentachlorodibenzodioxins produce chloracne?

5 A I don't know.

6 Q All right, but you--tetra, certainly 2,3,7,8 does?

7 A Yes, sir.

8 Q You know that hexa does?

9 A Some of them.

10 Q Right. It is the hexas that are found in pentachloro-
11 phenol?

12 A Right.

13 Q To what extent do the heptas produce chloracne?

14 A I think they do, but to a much lesser extent. It takes
15 a good sized dose in order to produce chloracne in the heptas.

16 Q And the octas do not?

17 A Right.

18 Q If you look on Page 251, sir, you see that there were
19 fat biopsies done on each of these patients, do you not?

20 A Yes, sir.

21 Q There was a fat biopsy done on Patient A in which they
22 found heptachlorinated dibenzodioxins at 130 parts per trillion
23 and octa at 300 parts per trillion, correct, sir?

24 A Yes, sir.

1 Q There was no tetra found?

2 A No.

3 Q Now, would 130 parts per trillion of hepta and any level
4 of octa cause chloracne, sir?

5 A I can't relate this to whether they get chloracne, because
6 this is as found in fat, and I can't relate it back to, we would
7 have to look at their exposure levels rather than how much was
8 in the fat.

9 Q All right. The exposure levels do not categorize the
10 dibenzodioxins by isomer, do they, sir?

11 A No, sir.

12 Q So that all it says, at least as far as I can see, and
13 maybe I've overlooked it, all I can see is that the dioxins are
14 identified as polychlorinated?

15 A Yes, sir.

16 Q Which could be any number over one, correct?

17 A Yes, sir.

18 Q So there isn't anything to tell you whether or not they
19 were exposed to any tetras, is there, sir?

20 A No, sir.

21 Q Now, there was another article that Mr. Carr referred
22 to, I think it's 1437. Let me hand you what's been marked
23 Plaintiff's Exhibit 1437 and ask you to look at the first page
24 of it there, sir. Do you see that? Do you remember discussing

1 this article with Mr. Carr?

2 A I remember the article, but I don't remember discussing
3 it.

4 Q All right. It was in this article, I believe that he
5 pointed out a statement that 2,3,7,8 TCDD was found in the soot
6 at 2.8 parts per million.

7 A Yes, sir.

8 Q Do you recall that, sir? And there is a reference to
9 Smith, et al., is there not, sir?

10 A Yes, sir.

11 Q Okay, dated 1982?

12 A Yes, sir.

13 Q Now, sir, if indeed someone had been exposed to soot
14 containing 2.8 parts per million of 2,3,7,8 TCDD, based upon
15 the other information we have been looking at, would it be
16 possible that that dose could be insufficient to cause chloracne?

17 A Yes, sir.

18 Q In any event, those dioxins which were found in their
19 fat were heptas and octas, correct?

20 A I'm not sure it was in each one of them.

21 Q Well, let me direct your attention again to Page 251, sir,
22 of Exhibit 1436.

23 A Right.

24 Q And you will see for Patient A at the top of the page,

1 it says the levels that I just read to you earlier?

2 A Right.

3 Q For Patient B at the end of the second paragraph, it
4 says, "This patient's fat biopsy revealed 1500 parts per trillion
5 heptachlorinated dibenzofurans and 1400 parts per trillion
6 octachlorinated dibenzodioxins, correct?

7 A Yes, sir.

8 Q So he didn't get any heptadioxins at all, at least none
9 were found in his fat?

10 A Any what?

11 Q Any heptadioxins.

12 A No.

13 Q None were found in his fat?

14 A That's right.

15 Q The only dioxin found in his fat is not a chloracnogen?

16 A That's right.

17 Q Would not cause chloracne?

18 A That's right.

19 Q In the first man's fat, there were some heptachlorinated
20 dioxins found, and maybe heptas cause chloracne?

21 A Yes.

22 Q In the third man's fat, which is found at the bottom
23 of the page, again there were heptadioxins found and octadioxins
24 found in his fat, correct?

1 A Right.

2 Q No tetras or pentas or hexas?

3 A Right.

4 Q In the fat? So the octa would not cause chloracne, would
5 it, sir?

6 A No.

7 Q And the hepta might, but you don't know what level he
8 was actually exposed to, do you, sir?

9 A No, sir.

10 Q Now, based upon the information that you have both in
11 Exhibit 1436 and 1437, is it reasonable based upon that information
12 that none of these three people had chloracne?

13 A Yes, and not due to dioxin.

14 Q What do you mean by "not due to dioxin", sir?

15 A We do have PCBs that are known to be chloracnogenic,
16 at least whether that does it by itself or whether it is the
17 dibenzofurans that were here at higher concentrations and we
18 don't know the isomers of these either, except we do have that
19 one definition that they did find 2,3,7,8 dibenzo--tetrachloro-
20 dibenzofuran, which could well be chloracnogenic.

21 Q They found a 2,3,7,8 furan?

22 A Right.

23 Q Not a dioxin?

24 A Right.

1 Q All right, sir. Now, the PCB exposure level, was it
2 ten percent, wasn't it?

3 A Yes, sir.

4 Q Ten million parts per billion?

5 A Right.

6 Q Do you know, sir, whether or not PCBs can cause any of
7 the symptoms that were revealed by these people?

8 A These are such high concentrations of PCBs, it's hard
9 for me to say what would happen at such levels such as this, or
10 with the furans as high as they were.

11 Q The furans were at .2 percent, is that right?

12 A Right.

13 Q The diphenylenes were at 50 parts per million?

14 A Yes.

15 Q So with these enormous concentrations there, it's hard
16 to say what could cause what, is that right?

17 A That's right.

18 Q Sir, one of the things that Mr. Carr discussed with you
19 was whether or not Dr. Suskind's report to you on the Krummrich
20 study submitted in September of 1980 was a final report.

21 A Yes, sir.

22 Q Do you recall that, sir?

23 A Yes, sir.

24 Q And your testimony at that time, sir, was what? That

1 it was a final report?

2 A No, sir, it was a preliminary report until in June or
3 July, whatever the time was, when he asked for payment and he
4 said consider it a final report.

5 Q All right.

6 (Defendant's Exhibit 915 was marked for identification.)

7 Q Let me hand you, sir, what's been marked as Defendant's
8 Exhibit 915 and ask you to examine that and identify it for me,
9 please.

10 A Yes, sir.

11 Q Can you identify it for me, please?

12 A This is a contract written by Monsanto to the executive
13 director of the Medical Center Fund of Cincinnati related to the
14 clinical study to be conducted by Dr. Suskind at our Krummrich
15 plant.

16 Q And it's dated October 15, 1979, is it not, sir?

17 A Yes, sir.

18 Q And it's been signed by Monsanto Company, and who signed
19 it on behalf of Monsanto?

20 A I signed it.

21 Q And it's signed by Dr. Cagnetti, the executive director
22 of the Medical Center Fund of Cincinnati?

23 A Yes, sir.

24 Q And it's also signed by Dr. Raymond R. Suskind, is that

1 correct?

2 A Yes, sir.

3 Q The director of the Department of Environmental Health?

4 A Yes, sir.

5 Q And if I can direct your attention, sir, to the paragraph
6 numbered 2 on the first page?

7 A Yes, sir.

8 Q Would you read to the jury that sentence in the contract
9 that starts, "It is agreed--"?

10 A "It is agreed that the final ten percent of this fee
11 amount shall be paid to the Fund only after Monsanto receives
12 the final report of the study."

13 Q All right, sir. And what was the amount that was
14 supposed to be the contract amount?

15 A The total amount is listed as \$40,454, so that the final
16 payment would be \$4,000, but I think there is a place in here
17 some place about additional expenses that could inflate that.

18 Q Okay. Immediately after the sentence you just read,
19 there is another sentence about that, isn't there, sir? Would
20 you read that?

21 A "Upon receipt of said report, Monsanto will also pay
22 the Fund for reasonable expenses connected with the principle
23 investigator's performance under this agreement, actually incurred
24 by the Fund above the estimated budget amount for the expense,

1 upon submission by the principle investigator and approval by
2 Monsanto of any itemized account of expenses for which payment
3 is sought."

4 (Defendant's Exhibit 916 was marked for
5 identification.)

6 Q Let me hand you next, sir, what's been marked Defendant's
7 Exhibit 916. Do you see that, sir?

8 A Yes, sir.

9 Q Would you identify that for me, please?

10 A This is an invoice from the Kettering Laboratory business
11 office at the University of Cincinnati in Cincinnati, Ohio,
12 and it's an invoice to Monsanto, attention George Roush.

13 Q And it's dated what date, sir?

14 A May 30, 1984.

15 Q I'm sorry?

16 A May 30, 1985, I'm sorry.

17 Q May 30, 1985?

18 A Yes, sir.

19 Q Now, that is the date upon which you commenced your
20 testimony in this case, isn't it, sir?

21 A Yes, sir.

22 Q Now, the document, the amount of the invoice, is how
23 much?

24 A \$8,607.

1 Q The description says what?

2 A It's for completion of Dr. Suskind's Krummrich study.

3 Q And there is a handwritten note on there, is there not,
4 sir?

5 A Yes.

6 Q Do you recognize the handwriting?

7 A Yes, sir. It's signed by Dr. Spraul, who is the doctor
8 who has responsibility for the Krummrich plant and what he says,
9 "Final report has been received. Okay to pay."

10 Q All right. Now, would you tell us, sir, how it came about
11 that this report, well, first of all, was there any report
12 received by you from Dr. Suskind relating to the Krummrich study
13 after the one dated September 28, 1980?

14 A No, sir.

15 Q Would you describe for us what occurred in the meeting,
16 what were the circumstances under which it was decided that this
17 should now become the final report?

18 A I had a phone call from Dr. Suskind.

19 Q All right, sir.

20 A And they were looking for us to pay the Fund the \$8,607.
21 Dr. Suskind wanted to get this budget item, and what he owed to
22 the University of Cincinnati off of his debit as far as Kettering
23 Laboratory is concerned, and he was asking for this payment so
24 that he could take care of that obligation.

1 Q And sir, did he give you a reason why he wanted to do
2 that?

3 A He is retiring and he is the head of the laboratory,
4 the Kettering Laboratory, and his replacement is taking, has
5 taken over, he is taking over as head today or this week or
6 last week, it is that close in timing when his replacement is
7 taking over as head of the Department.

8 (Defendant's Exhibit 917 was marked for
9 identification.)

10 Q Sir, let me hand you now what's been marked as Defendant's
11 Exhibit 917. Can you identify that for me, please?

12 A Yes, sir. This is the cover is a memo from Robert
13 Murphy, who is superindendent of health and safety at the
14 Krummrich plant who is writing this memo to the Union Committee.

15 Q What's the date of the memo, sir?

16 A And it's dated June 14, 1985, and the letter to the
17 Union reads as follows, "Attached is a preliminary draft report
18 from Dr. Raymond R. Suskind entitled 'A Study of the Health
19 Workers Involved in the Production of Pentachlorophenol and
20 Other Chlorinated Phenols.' The report is dated September 29,
21 1980. Dr. Suskind is now calling this preliminary report his
22 final report and it has been accepted for payment as such by
23 Monsanto's DMEH."

24 Q DMEH being?

1 A Department of the Medicine and Environmental Health.

2 Q Would you look at the second page of that exhibit, sir?

3 A Yes, sir.

4 Q What is that document?

5 A This is a letter from Dr. Suskind to me on University
6 of Cincinnati Medical Center stationery from the Institute of
7 Environmental Health dated September 30, 1980.

8 Q Copy to Dr. W.B. Papageorge, Bill Papageorge?

9 A Yes, sir. He is responsible for environmental matters for
10 the environmental chemicals business for Monsanto.

11 Q Would you read the first sentence in the letter please,
12 sir?

13 A "The enclosed is a preliminary report of our findings
14 from the clinical survey of workers at the W.G. Krummrich plant
15 in Sauget, Illinois."

16 Q So in the letter to you dated September 30, 1980
17 transmitting a report September 29, 1980, Dr. Suskind referred
18 to this as a preliminary report?

19 A Yes, sir.

20 (Defendant's Exhibit 918 was marked for
21 identification.)

22 Q Let me hand you, sir, what's been marked as Defendant's
23 Exhibit 918 and ask you to examine that and identify it for me,
24 please.

1 A Yes, sir.

2 Q What is that, sir?

3 A This is a letter to me signed by Dr. Raymond Suskind and
4 it is also on University of Cincinnati stationery from the
5 Institute of the Environmental Health, Kettering Laboratory in
6 Cincinnati dated July 10, 1980.

7 Q And would you read the first sentence of that letter,
8 please?

9 A "In connection with your inquiry late last week, letters
10 have been sent to personal physicians for 85 persons who were
11 examined by us at Sauget, Illinois."

12 Q So Dr. Suskind informed you on July the 10th, 1980
13 that he had sent the letters?

14 A Yes, sir.

15 Q That you referred to in your discussions with Mr. Carr?

16 A Yes, sir.

17 (Defendant's Exhibit 919 was marked for
18 identification.)

19 Q Sir, let me hand you next what's been marked as Defendant's
20 Exhibit No. 919 and ask you to examine that and identify it for
21 me, please.

22 A This consists of two documents. The first is a memo
23 dated December 2nd, a Monsanto memo dated December 2, 1982 from
24 Harry Keating, responsible for environmental safety at all the

1 industrial chemicals plants, and he is writing to H.W. Curtis,
2 I don't know who Mr. Curtis is.

3 Q All right. And attached to that memo as the third page
4 of the exhibit is what, sir?

5 A It is an invoice from the Kettering Laboratory at the
6 University of Cincinnati asking for a check to be made payable
7 to the Medical Center Fund of Cincinnati.

8 Q And what is the amount of that check?

9 A The unpaid invoice is listed as--

10 Q Invoice, yes, I used the wrong term.

11 A Invoice is unpaid amount past due, \$8,607.

12 Q And the date of the invoice is what, sir?

13 A March 25, 1982.

14 Q And would you read the memo, which is the first page
15 of the exhibit, sir?

16 A This is Harry Keating, the environmental man responsible
17 for industrial chemicals writing to Curtis saying, "Dr. Gaffey
18 has been holding this invoice pending receipt of the final report
19 of the W.G.K. study from Dr. Suskind. The earlier invoices were
20 sent to Paul Heisler for payment. We are not recommending that
21 the plant make this final payment until a final report is received
22 by DMEH. However, with the year end approaching, you may want
23 to establish an accrual account for the balance to avoid having
24 a charge in 1983 as a new MIC expense."

1 Q So as of December of 1982 you were not paying this invoice
2 because you didn't have a final report?

3 A Yes, sir.

4 Q And is this sum the same as the final amount which you
5 finally paid, sir?

6 A Yes, sir.

7 Q \$8,607?

8 MR. HEINEMAN: Your Honor, I'd like to point out to the
9 Court and to the jury if I may that when Mr. Carr was questioning
10 Dr. Roush, he did not have these documents, they had not yet
11 been found or produced to him so that he didn't know the existence
12 of these documents, nor their content when he was questioning
13 Dr. Roush on this subject.

14 THE COURT: So noted on the record. Thank you. Now,
15 which particular ones are you covering by that?

16 MR. HEINEMAN: The ones I'm referring to are--which did
17 it start with?

18 MR. CARR: 916, counsel.

19 MR. HEINEMAN: 916, 917, 918, and 919. 915, I'm sorry,
20 it starts with 915.

21 MR. CARR: 915 you had previously supplied, you had not
22 given me these other documents.

23 MR. HEINEMAN: I'm sorry, 915 you previously had.

24 THE COURT: 16, 17, 18, and 19, right? Is that correct?

1 MR. CARR: That's correct, your Honor.

2 THE COURT: Thank you.

3 BY MR. HEINEMAN:

4 Q Now, sir, in your discussions with Mr. Carr, his
5 questioning of you relating to the question of what the workers
6 at the Krummrich plant were told about whether or not there was
7 any dioxins in the chlorophenols, do you remember that, sir?

8 A Yes, sir.

9 (Defendant's Exhibit 920 was marked
10 for identification.)

11 Q I'm handing you now, sir, what's been marked as Defendant's
12 Exhibit No. 920. Can you identify that for me, please, sir?

13 A Yes. This is an industrial hygiene manual dated
14 December, 1979 for the chlorophenols Department 237, and it was
15 prepared by the, I'm not sure what Phil Kirk is, but Paul
16 Easterday was industrial hygienist for the plant at that time.

17 Q Well, the jury has met Phil Kirk on a couple of prior
18 occasions, but the other gentleman, Paul Easterday?

19 A He is an industrial hygienist.

20 Q An industrial hygienist at the plant?

21 A Yes, sir.

22 Q And this is for the chlorophenols Department 237?

23 A Yes, sir.

24 Q Dated December, 1979?

1 A Yes, sir.

2 A Was the penta department, pentachlorophenol department
3 open at this time, sir?

4 A Yes, sir.

5 Q In December of 1979?

6 A Yes, sir.

7 MR. CARR: No, Doctor, it was closed in '78.

8 A Oh, that's right. I'm sorry, right, sure, obviously,
9 yes.

10 Q All right. The penta department was closed in '78?

11 A Absolutely, yes.

12 Q Now, if you look at the second page of the exhibit--

13 A They're not numbered. Are you talking about the table
14 of contents?

15 Q No, sir, the second page of the exhibit is this page here,
16 sir, with Phil Kirk's name and the date?

17 A Yes, right.

18 Q All right. Would you read that first sentence, just
19 read the whole, it is a short paragraph, would you read the
20 whole paragraph?

21 A Yes. Again it states, this is the chlorophenol
22 department industrial hygiene manual and it reads, "This manual
23 will serve as an introduction to the chlorophenols department,
24 industrial hygiene program for the operator training. It will

1 cover some of the engineering controls designed into the
2 production facility, give you information about the nature of
3 the chemicals used in the department and describe some of the
4 work practices that will be used in the department."

5 Q All right, sir. Now, I'd like to direct your attention
6 to the page that bears the number, roman numeral II-3, which
7 is the 6th page, as I count them, of the exhibit. Do you see
8 that, sir?

9 A Two what? Two dash what?

10 Q Roman numeral II-3.

11 A Yes.

12 Q Now, would you read that short section there? It is
13 entitled Health Hazards-Specific, correct?

14 A Yes, sir.

15 Q Would you read that to us, please?

16 A Hazards for phenol chlorine and the specific chlorophenols
17 are described in appendix E. Chlorophenols may contain a minute
18 quantity of impurities known as chlorinated dibenzodioxins or dioxins,
19 special mention is made of these substances as there has been
20 much concern by environmentalists and government officials over
21 their potential health hazards. To date very little is known
22 concerning the potential toxicity of dioxins, although it is
23 known that exposure to dioxins may result in a skin condition
24 called chloracne. Some reversible liver effects have also been

1 reported. Thus, all operators are urged to follow good industrial
2 hygiene practices as outlined in this manual. Attached also
3 are the results of the Nitro plant mortality study related to
4 dioxins." Then it gives references.

5 Q Now, the next document, the next page or three pages
6 are an environmental bulletin relating to the Nitro plant
7 mortality study, correct, sir?

8 A Yes, sir.

9 Q Dated October 22, 1979?

10 A Yes, sir.

11 Q And that's relating to what study, sir?

12 A This was the Zack/Suskind study, the study of the
13 chlorophenol, TCP exposure group and the accident developed
14 chloracne.

15 Q Now, if you look at the third page of that environmental
16 bulletin, there are three short paragraphs there, are there not?

17 A Yes, sir.

18 Q Would you read those to the jury, please?

19 A "This study will become a part of a larger analysis of
20 not only mortality data, but also of health information gathered
21 last June in examination of over 400 present and former Nitro
22 plant employees by Dr. Suskind and his medical team from the
23 University of Cincinnati Institute of Environmental Health.
24 Included in that study are both workers exposed in the 1949

1 accident, and those not exposed at that time but who work in
2 the 2,4,5-T operation between 1948 when the unit started up and
3 1969 when Monsanto ceased production of the product. A control
4 group of employees who worked in other areas of the plant during
5 that time frame is also being studied for comparative purposes.
6 This extensive medical investigation is being directed by
7 Dr. Suskind. His findings are expected to be published later
8 this year or early next year."

9 Q All right. Now, the first paragraph that you read
10 relates to it, says, "This study will become part of a larger
11 analysis of not only mortality data, but also of health information,"
12 is the first part of that relating to the Zack/Gaffey study?

13 A The first part, I think this doesn't refer to the
14 Zack/Gaffey at all. This refers only to the fact that in addition
15 to the Zack/Suskind study, they were going to have these 400
16 people examined by Dr. Suskind.

17 Q Now, let me direct your attention to a page which is
18 marked Page 13 in the upper right-hand corner.

19 A Yes, sir.

20 Q Do you see it's entitled Appendix A?

21 A Yes, sir.

22 Q Chlorophenols spill procedure, correct?

23 A Yes, sir.

24 Q It says, does it not, sir, as soon as a spill is detected

1 they should notify the department personnel, should notify
2 supervision, and obtain face shield, respirator, and rubber
3 gloves from control room or safety station, correct?

4 A Yes, sir.

5 Q And there is a note at the bottom of the page, is
6 there not, sir?

7 A Yes, sir.

8 Q Would you read that note?

9 A "At all times, when working with spilled material, the
10 department of personnel will wear full protective equipment,
11 rubber boots, rubber gloves, face shield, respirator, and rain
12 suit, as needed."

13 Q Sir, when Mr. Carr was examining you, do I not correctly
14 recall that you gave him your impression that people at the plant
15 knew about the presence of dioxins in chlorophenols?

16 A Yes, sir.

17 Q And this document does indeed state that, does it not?

18 MR. CARR: Your Honor, I object to the leading form of
19 the question.

20 THE COURT: Objection sustained. Would you please
21 rephrase it?

22 Q And sir, on Page II-3 that we referred to, is there
23 mention--

24 A That's roman numeral II-3?

1 Q Roman numeral II-3.

2 A Yes, sir.

3 Q Chlorinated dibenzodioxin?

4 A Yes, sir.

5 Q And is there not also mention--

6 MR. CARR: Leading form of the question, your Honor.

7 THE COURT: Objection sustained.

8 Q Is there any mention there, sir, of concern by environ-
9 mentalists and government officials over their potential health
10 hazard?

11 A Yes, sir.

12 Q Now, sir, if I can direct your attention in the same
13 exhibit, Defendant's Exhibit 920, to what is the 12th page in
14 the exhibit, it is entitled Medical Surveillance, do you see that,
15 sir?

16 A Not roman numeral--

17 Q It doesn't have a number on it, I'm sorry, or I would
18 give it to you. I think it is the 12th page of the Exhibit and
19 it is entitled Medical Surveillance.

20 A Yes, sir.

21 Q Does this set out the, well, is there a medical
22 surveillance undertaken of the chlorophenols Department 237,
23 or was there in December of 1979?

24 A They had the general medical surveillance procedure that

1 we use in all of our plants which includes a medical history,
2 physicia examination, blood count, and with all of the what it
3 means by blood count, as well as a serum bilirubin. In addition,
4 these people all get audiometric and pulmonary function testing,
5 and in addition to that, every six months the workers who are
6 assigned to the chlorophenols have an examination by the doctor
7 for the presence of chloracne.

8 Q Now, sir, is this something that was in existence at the
9 time that the pentachlorophenol department was in operation?

10 A Yes, sir.

11 Q The semi-annual chloracne examination was begun in the
12 pentachlorophenol department, is that right?

13 A Yes, sir.

14 Q At the time that the pentachlorophenol department closed,
15 did people from that department transfer to the chlorophenols
16 department?

17 A I'm sure some of them did.

18 Q And has that or did that surveillance that was begun
19 years ago in Department 236, did that surveillance continue until,
20 or it has continued, does it continue today?

21 A Well, when we stopped the production of chlorophenols,
22 the routine check of everyone who worked in that plant would
23 drop out, but those who had chloracne at that time would be
24 followed until they thought that they didn't need more medical

1 care.

2 Q So that as of the time when the chlorophenol production
3 was discontinued, the pursuit of new cases was discontinued,
4 is that right?

5 A That's right.

6 Q But you continued to care for those who had had chloracne
7 in the past?

8 A Yes, sir.

9 Q And you told us, I think there was a doctor here in
10 Belleville to whom you sent some of those people?

11 A Yes.

12 Q A dermatologist?

13 A Yes, sir.

14 THE COURT: Before you get into this next document,
15 is this a good point for a short break?

16 MR. HEINEMAN: Oh, sure, Judge, it will be fine.

17 THE COURT: Ladies and gentlemen, we will take a short
18 recess at this time. The admonishments that I have given you
19 earlier will apply during this break also. The Court is in
20 recess.

21 (At this time, Court was in recess.)

22 BY MR. HEINEMAN:

23 Q Dr. Roush, the next item I'd like to talk to you about
24 is the Suskind/Hertzberg morbidity study. Now, Mr. Carr went

1 through a number of items with you in connection with that
2 study, did he not, sir?

3 A Yes, sir.

4 Q One of the things he gave you was Plaintiff's Exhibit
5 1468? All right, sir, I hand you what's been marked Plaintiff's
6 Group Exhibit 1468, sir. Is that the body of interviews and
7 physical exam results and lab results that Mr. Carr gave you in
8 connection with the Suskind morbidity study?

9 A Yes, sir.

10 Q And in addition to that, sir, he gave you Plaintiff's
11 Exhibit 1470, as I recall, which was a list of I.D. numbers?

12 A Yes, sir.

13 Q Names and I.D. numbers. Let me hand you, sir, what's been
14 marked as Plaintiff's Exhibit 1470, and that was a list of names,
15 social security numbers, and new I.D. numbers, correct?

16 A Yes, sir.

17 Q So that you could identify the documents in 1478 by
18 name, correct?

19 A Yes, sir.

20 Q Because each of those documents in 1468 contains a little
21 number in the upper right-hand corner, does it not?

22 A Right, right.

23 Q And that corresponds to the new I.D. number on 1470,
24 correct, sir?

1 A Yes, sir.

2 Q He also showed you Plaintiff's Exhibit 1471A. Let me
3 hand you 1471A, sir. He showed that document to you, did he
4 not?

5 A Yes, sir.

6 Q And he showed you 1471, which is an enlargement of
7 1471A, is it not, sir?

8 A Yes, sir.

9 Q And 1471 shows Table 1 from the Suskind/Hertzberg
10 report?

11 A Yes, sir.

12 Q Now, sir, the Suskind/Hertzberg report is Plaintiff's
13 Exhibit 1467. Plaintiff's Exhibit 1467, can you identify that
14 as the Suskind/Hertzberg report, sir?

15 A Yes, sir.

16 Q And it's published in the Journal of the American
17 Medical Association?

18 A Yes, sir.

19 Q In 1984?

20 A Yes, sir.

21 Q Right about the same time that the Moses study was
22 published, shortly thereafter, is that right?

23 A Yes, sir.

24 Q He also showed you, as I recall, Plaintiff's Exhibit 1472

1 which is a computer printout, is that right, sir?

2 A Yes, sir.

3 Q Now, we've seen the industrial hygiene manual of
4 December, '79, which we just looked at, didn't we, sir?

5 A Yes, sir.

6 Q And there was a memorandum included in there, an
7 environmental bulletin dated October of 1979, correct, sir?

8 A Yes, sir.

9 Q And that October of '79 environmental bulletin said
10 that there had been a, well, let me make sure so I don't state
11 it incorrectly, it says that there was a larger analysis of health
12 information gathered last June in examinations of over 400
13 present and former Nitro plant employees by Dr. Suskind, correct?

14 A Yes, sir.

15 Q So that as of June, 1979, that study was already under
16 way, that being the Suskind/Hertzberg morbidity study?

17 A Yes, sir.

18 Q Now, what is a morbidity study, sir?

19 A A morbidity study is an epidemiologic study, and what
20 you are looking at is you look at either all health effects
21 or only specific health effects. If we are talking about a man
22 working with carbon tetrachloride, quite often, though, it would
23 be reported in the morbidity study if they had a hundred people
24 exposed to carbon tetrachloride, how many of them had liver

1 effects as defined by liver function test protocol. Each one
2 of the morbidity studies can be defined for a variety of
3 purposes, and this one was whether there could be anything
4 found as a result of looking at this population that would show
5 abnormalities that would be different than was found in the
6 control by a variety of tests, including history, physical,
7 laboratory tests, nerve conduction tests.

8 Q That sort of thing. Now, sir, the mortality study
9 obviously studies death. Morbidity study studies the condition
10 of health.

11 A The state of health.

12 Q The state of health. All right. Now, how did the
13 morbidity study come about?

14 A Dr. Suskind, when he had been to this Seveso meeting,
15 had told the people who were assembled to help the Seveso
16 people in either their study of their people as well as the
17 advising the people who had been involved in the Seveso incident,
18 and he came back saying that our population, those 122 exposed
19 in that acute episode, would be the best opportunity available
20 as a result of the Seveso review whether there was an effect
21 on mortality from an exposure to dioxin. He also said that
22 since he had examined these workers back in '49 through about
23 1955, the same episode following the people who had been involved
24 in the episode and had chloracne, he followed them long enough

1 A No, sir.

2 Q All right. Did you have any input into any change from
3 1483 to what was published?

4 A No, sir, and we were supposed to have a chance to look
5 at it.

6 Q All right. So the fact is you did not get a copy of
7 the draft that was published?

8 A No, sir.

9 Q Prior to its publication?

10 A That's right.

11 Q You did learn that it was going to be published?

12 A Yes, sir. He told us that it was.

13 Q That it had been accepted?

14 A He told us that he had to make some revisions in the
15 first draft that was submitted to him. It was not accepted
16 without some corrections, whether cosmetic or substantial, I
17 don't know.

18 Q Those are the peer review corrections--

19 A Yes.

20 Q --you talked about the other day?

21 A Yes.

22 Q So he said there were changes he had to make?

23 A Yes, sir.

24 Q But he didn't send you either what had been submitted

1 to say most of the adverse effects went away, and he is saying
2 now after thirty years, do they still have some of the things
3 that he saw when he examined them, or do they have something
4 else that's come on since then related to their exposure to dioxin
5 back in that 1949 episode.

6 Q Now, there were included in this morbidity study then
7 the people in the '49 incident who had chloracne who were still
8 alive?

9 A Yes.

10 Q All right. And who would agree to participate?

11 A Yes.

12 Q Now, there were also included other people?

13 A Yes.

14 Q All right. Now, how did that come about?

15 A Well, he was particularly interested in seeing those
16 he had seen before, but in addition to that, he wanted to find
17 out of those who had been working during the entire period in
18 which the TCP had been produced, as well as the 2,4,5-T had been
19 produced at Nitro and whether there could be any abnormalities
20 by history, examination, physical findings, or laboratory findings
21 which would indicate an adverse effect from that long term
22 exposure.

23 Q All right. Now, what did Monsanto do in order to provide
24 him the information that he needed for the study?

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1 Q All right. So how did you go about identifying this
2 larger group of people?

3 A They did it by word of mouth, just asking and finding
4 out who in addition had been working in that area by discussion
5 with personnel and trying to pick up the names.

6 Q All right. So there was an ultimate group to which,
7 or to whom invitations were extended?

8 A Yes.

9 Q And this was to be a voluntary program?

10 A Yes, sir.

11 Q And this was to take place in and around June of 1979?

12 A Yes, sir.

13 Q And who sent out the invitations?

14 A Dr. Suskind sent out invitations, but they were--also
15 had a letter sent out from the plant.

16 Q All right. Now, tell me how that got started? In
17 other words, how did the names get together? They put together
18 a list of names? Who put together the list?

19 A Monsanto did.

20 Q And who at Monsanto, do you recall?

21 A Judy Zack and Jan Young both worked on it, and I can't--
22 I think they both worked on it in putting together the list.

23 Q All right. And they put together a list that was based
24 on work records?

1 A Yes, sir.

2 Q And what other types of records, do you know?

3 A The chloracne records.

4 Q The chloracne records? Anything else?

5 A I don't think so.

6 Q At least none that you can recall right at the moment?

7 A That's right.

8 Q And they gathered this group and they sent that list of
9 names to Dr. Suskind?

10 A Yes, sir.

11 Q All right. What did he do with it?

12 A He sent out letters to all of this group.

13 Q All right. And that included a letter from the plant?

14 A Yes.

15 Q And it was just the plant inviting them to participate?

16 A Notifying them that they were going to do this study.

17 Q So there was a letter from the plant notifying the
18 present and former employees that they were going to do the
19 study. Who actually extended the invitation? Was it Dr. Suskind
20 or was it the plant?

21 A I think Dr. Suskind did.

22 Q And they got responses?

23 A Yes.

24 Q All right. Now, at that point, what participation did

1 Monsanto have?

2 A I think it was the order of about, of those who were
3 called and written to, there were something in the order of 60
4 percent participation.

5 Q Well, I guess my question wasn't very clear. Let me try
6 again. I'm talking about your department at Monsanto, Judy
7 Zack, Jan Young, what were they doing, if anything, in connection
8 with this study after they sent Dr. Suskind the lists?

9 A They did nothing unless he might have called them and
10 asked some questions about their information that they had sent
11 him.

12 Q All right. Was there information at Nitro which was
13 available to him?

14 A The personnel were there to help them in understanding
15 job assignments, what it meant by a man who was a maintenance
16 operator, or whatever, and if he was an operator, what that
17 meant. So each one of the job assignments required some definition,
18 so they worked with Dr. Suskind in understanding the different
19 work record designations of jobs.

20 Q Now, was this done before anybody had any idea what the
21 health condition was of these people?

22 A Yes, sir.

23 Q So there was discussion by Dr. Suskind with somebody
24 from the plant about what job assignments meant?

1 A Yes, sir.

2 Q Now, who was this person?

3 A I know that Max Galloway was involved in it. Who else
4 helped him would be--there were a lot of questions asked about
5 the early operation that Max Galloway wouldn't be able to
6 answer without help, so he would call on various people,
7 production people who were involved back in helping them describe
8 what a job was at that time.

9 Q What was the reason for wanting to find out what a job
10 was?

11 A Somehow a decision had to be made who was exposed to the
12 TCDD potentially in the TCP operation or in the 2,4,5-T operation
13 or in maintenance.

14 Q So someone had to decide that, had to come down with a
15 decision as to who was exposed and who wasn't?

16 A Yes, sir.

17 Q And who was it that made that decision?

18 A Finally it was Dr. Suskind.

19 Q Did Monsanto have any participation in that decision
20 with Dr. Suskind?

21 A Only in what we told him the job assignments were and
22 our description what those job assignments meant.

23 Q And that came from somebody at the plant?

24 A Yes.

1 Q Max Galloway and perhaps others?

2 A Right.

3 Q Now, what was Max Galloway's title?

4 A Personnel at one time, and environment. It's hard to
5 say when that changed.

6 Q So at one time he was involved in personnel?

7 A And then he became environmental.

8 Q And then he was involved in the environmental aspects
9 of the plant? And he was there to tell Dr. Suskind what a
10 utility operator did?

11 A Yes.

12 Q Or what a maintenance man did?

13 A Yes, sir.

14 Q And where they would be in the plant?

15 A Yes, sir.

16 Q Correct? All right. And Dr. Suskind had access to
17 records?

18 A Yes.

19 Q What records did he have access to?

20 MR. CARR: Counsel is slipping back into the habit of
21 testifying for the witness.

22 THE COURT: Could you rephrase your question so they
23 aren't leading?

24 Q Did he have any access to records?

1 A Yes, he had the work records and in addition to that
2 he had access to the medical records of these people.

3 Q At the plant?

4 A Yes.

5 Q Okay. So then what was the next step, sir?

6 A The next thing was to issue the letters and to see what
7 percentage of people who were invited would come.

8 Q Um hmm.

9 A And that was done.

10 Q All right. And were there people that did not come?

11 A Yes, sir.

12 Q And did anybody find out why?

13 A No, sir.

14 Q So there was no inquiry as to why people did not come?

15 A No, sir.

16 Q What Dr. Suskind did was then, when they got the
17 answers from the people that wanted to do it, what did he do?

18 MR. CARR: Objection, your Honor.

19 THE COURT: Objection sustained.

20 Q What did he do at that point, sir?

21 A After getting the responses back?

22 Q Yes, sir.

23 A He set up the examination procedure and had a task group
24 of physicians, general physicians, neurologists, nerve conduction,

1 pulmonary physiologist, as well as nurses who were to do the
2 questioning as putting together the medical history, and they
3 were all ready to do the examination with that work force.

4 Q Now, the first one, I wasn't sure whether the first
5 doctor you named was a neurologist or a urologist.

6 A The first one, there is a general internist who did the
7 general medical examination, but there was a neurologist who did
8 specific examinations.

9 Q Neurological exams?

10 A Yes.

11 Q And there was some sort of physiologist, did I understand
12 you to say?

13 A There was a pulmonary physiologist.

14 Q Pulmonary physiologist?

15 A And there was a nerve conduction.

16 Q All right. Now, when did the, were there interviews
17 that occurred?

18 A Every man who participated in this examination had an
19 interview by a nurse who was trained in the handling of this
20 questionnaire.

21 Q Now, when did the interview occur as opposed to the
22 physical examination? How did that come about?

23 A They started the histories and the physical examinations
24 about the same time, so there was some overlap with the history

1 being taken out of relationship to the physical examination,
2 but overall it was trying to keep down the time that the men
3 were involved in this study because there was complaint by the
4 people who had been involved in the Selikoff study, Moses study,
5 about the length of time they were involved in the examination,
6 so the attempt was made to streamline it so that they didn't
7 have to sit around a great deal of time. So there was an
8 overlap in how they, they mixed them up in order to keep the
9 time down and the big holdup they had was doing nerve conduction,
10 that took in a long time, and so they had to work around that
11 in keeping that schedule going.

12 Q All right. So that there were interviews and physical
13 exams going on simultaneously, but obviously not on the same
14 people?

15 A Yes, sir.

16 Q So the person that did the interview would not do the
17 physical?

18 A That's right.

19 Q Now, if you would look at one of these lab results here,
20 sir, or reports. There is a portion of it which relates to
21 findings by the physician?

22 A Yes, sir.

23 Q Is there not?

24 A Yes, sir.

1 Q Now, did the physicians take any history, too?

2 A Yes, sir.

3 Q Did that accompany the physical examination?

4 A Yes, sir. We called it review of systems, and any
5 examination you go in and say, "I've got a cold," the doctor
6 will check for the cold. But he may check some other organ
7 systems that may be related to that. In other words, if he had
8 a cold in the chest, he may look to see whether you've got any
9 problem with your urine or he may look to see whether you have
10 a neurologic deficit with it, or he could look to see if you have
11 any sign of generalized infection. So the review of systems is
12 not looking at a present illness but looking at a general review
13 of effects related to all of the organ systems of the body.

14 Q Go through item by item?

15 A Item by item.

16 Q And insofar as the cancer history is concerned, sir, who
17 inquired about that?

18 A The nurse questionnaire asked the question, and it's
19 stated her finding, and it is specifically listed on Page 13.

20 Q All right. Was there anybody else that would inquire--

21 MR. CARR: Your Honor, I would object unless counsel
22 establishes that this witness was there and knew who inquired
23 and under what circumstances.

24 MR. HEINEMAN: Well, I think it is apparent from the

1 record, your Honor, it was information in the physician's notes
2 about cancer.

3 MR. CARR: That's sure, but you're not asking about what
4 the notes say, counsel, you're asking this witness who got that
5 information from particular people, and this witness I submit
6 has testified earlier that he wasn't there.

7 THE COURT: Objection sustained.

8 Q Doctor, what if anything is demonstrated by the records
9 that you have before you in Plaintiff's Exhibit 1468 as to
10 whether or not the physicians obtained any information about
11 cancer history?

12 A The record is made up of at least two physicians on each
13 one of these records. The dermatologists did the examination
14 of the skin and the general internist did the rest of the
15 examination. So in this record by the physician, he would look
16 at each one of these organ systems, not only did he look at the
17 organ system, but he also asked--

18 MR. CARR: Object to that unless the witness was there.
19 He can state what the record shows, he can't state what took
20 place unless he was there.

21 THE COURT: Objection sustained.

22 MR. CARR: If he was there, I sure don't mind, but
23 I'd like to make it clear that he is testifying to what he deduces
24 from the record and not from having been there.

1 THE COURT: Could you rephrase your questions accordingly?
2 Objection sustained.

3 Q Doctor, you were not there at the time?

4 A No, sir.

5 Q And never did maintain that you were there?

6 A No, sir.

7 Q What you are describing is--is what you are describing
8 now what you are deriving from the records that you have looked
9 at?

10 A Yes, sir.

11 Q Okay. Now, what do the records demonstrate about what
12 these physicians did?

13 A This record I have before me, I just look at the one
14 on the top, and under skin it lists that the doctor looked at
15 this man and said he was of Irish and Dutch ancestry, retired
16 since 1967, living in Florida, recently had ten skin lesions
17 burned off. Prior to this denies any skin disorder. No job
18 related complaints and no acne. That's history related to the
19 skin, and this was written by the dermatologist.

20 MR. CARR: I object to that unless he knows it was
21 written by the dermatologist.

22 THE COURT: Objection is sustained. Could you go into
23 that, if you would?

24 Q You're reading from what appears on the record, correct,

1 sir?

2 A Yes, sir. This was written by a physician, this section.

3 Q And how do you know that, sir?

4 A Because the physical findings are listed and the physical
5 findings would be done by a physician. Now, the skin findings
6 are written by different handwriting than the rest of the
7 examination. Not only that, but in the summary, if there was
8 significant abnormalities on history or in physical findings,
9 the dermatologist would list that as well.

10 Q All right. So you can tell by looking at the record
11 that a dermatologist did one portion and the internist did
12 another?

13 A Yes, sir.

14 Q And in the skin portion of this first record that you
15 are looking at, there is a notation that the man is of what?

16 A Of Irish and Dutch ancestry.

17 Q So that's certainly not something he'd find by looking
18 at his skin, is it, sir?

19 A No, sir.

20 Q So can you assume that he took some sort of history at
21 the time that he did that skin examination?

22 A Yes, sir.

23 Q Now, why would he be interested in the man's ancestry in
24 looking at his skin?

1 A Because in this case, the man of Irish and Dutch
2 ancestry, he then describes him as having fair skin and blue
3 eyes, and that's what he is relating those to.

4 Q And does he describe him as having been in Florida?

5 A Yes, sir.

6 Q Living in Florida?

7 A Yes, sir.

8 Q And having had how many skin lesions removed?

9 A Ten skin lesions burned off.

10 Q Ten?

11 A Right.

12 Q All right. Now, do you know, sir, whether having skin
13 lesions and living in Florida is related in any way?

14 A The implication of the dermatologist is that he was
15 concerned about this man being exposed to the sun in the south
16 where the sun certainly is a great deal more prevalent in days,
17 as well as intensity as here in St. Louis or in Nitro, West
18 Virginia.

19 Q Do you know whether there--is there any relationship
20 between skin lesions and sun exposure?

21 A This is one of the best described environmental effects
22 is the effect of the sunlight on the skin.

23 Q As a matter of fact, sir, is there a word called
24 actinic in the medical dictionary?

1 A Yes, sir.

2 Q What does actinic mean?

3 A I'm not sure, but I think it means it is related to
4 ultraviolet damage.

5 Q Related to ultraviolet damage as far as you know? Now,
6 sir, at the time that the physical exam was taken, and obviously
7 from the records some history was taken by the physician?

8 A Yes, they were.

9 Q What occurred after that, or simultaneously?

10 A By whom, by the dermatologist? The dermatologist did
11 an examination on this man, and he stated that in addition to
12 having fair skin and blue eyes, he had extensive actinic damage
13 on his forehead, face, neck, and arms. There was a five millimeter
14 dome-shaped lesion with central crater on the right side of his
15 nose, two small open comedones were seen on the right cheek.

16 Q Now, at or about the time of the dermatologist exam,
17 another physician performed additional physical examination?

18 A Yes, sir.

19 Q Now, at the time or after the time of the physical
20 examinations, then what happened? What else was done with these
21 people?

22 A After the physical examination?

23 Q Yes, sir.

24 A Either before or after, he had the laboratory tests run,

1 that means blood was drawn, a urinalysis was obtained, pulmonary
2 function testing was done, chest x-ray was done, electrocardio-
3 gram was done, and nerve conduction was done, at least that.

4 Q And so the results of all that information would be
5 gathered and then what was done with all of that?

6 A It was assembled and the decision was then as to how
7 to relate all of these examinations in some form. But in
8 addition to that, a letter was written to each one of the
9 employees who was examined if he wanted a report of his examination.

10 Q Asking if he wanted one?

11 A Yes, sir. He had to sign a release in order for
12 Dr. Suskind to send a report to his family doctor.

13 Q All right. And we've seen the letter a few moments ago
14 to you from Dr. Suskind about writing those letters to the
15 physicians, is that right?

16 A Yes, sir.

17 Q And in order to do that, he had to have a release from
18 the individual person?

19 A Yes.

20 Q Now, in the examination of you by Mr. Carr, there was
21 some discussion, as I recall, about what Dr. Suskind wanted in
22 terms of his relationship with those people, vis a vis, Monsanto's
23 relationship with the people, do you remember that?

24 A Yes, sir.

1 Q What was it that Dr. Suskind wanted in connection with
2 the relationship to those people?

3 A Dr. Suskind wanted these people to know that his
4 examination that was being done was independent of Monsanto and
5 he had no relationship to us on what he did, and he therefore
6 was going to write his own letters to those involved, and he
7 wanted to know the workers could talk to him independently of
8 what Monsanto would know, because these records would not be
9 made available to us.

10 Q Now, the fact, of course, is, Doctor, that he was paid for
11 these studies?

12 A Yes, sir.

13 Q Now, how, indeed, did that payment occur? Was he paid
14 directly by Monsanto Comapny?

15 A I don't recall the organization, but this one was
16 funded, a figure was made as to estimates as to how much was going
17 to cost and it was so much money we had to give him immediately
18 when he went there because he had to pay for both the transportation
19 from Cincinnati to Charleston by airplane for each one of those
20 involved. He had to pay for their hotel rooms or motel rooms
21 and for their meals while they were there, plus any other
22 expenses that might be accrued. So he had to have some money
23 right away. And then the subsequent payment was related to
24 how much we said was still owed and how we were going to keep

1 out ten percent again for final payment.

2 Q Was there a ten percent clause in that relationship?

3 A Yes, sir.

4 Q Now, do you know as you sit here now whether or not
5 the payment by Monsanto went directly to him or whether it went
6 to the University of Cincinnati who then paid his expenses? Do
7 you know how that works?

8 A It went to the University of Cincinnati.

9 Q Went to the University of Cincinnati, and they would
10 pay the expenses?

11 A Yes.

12 Q Now, other than his expenses, sir, in connection with
13 this study, was he paid anything by Monsanto Company, any fee
14 for services or anything like that?

15 A No, I can't give you the details, but by and large a
16 university would do a study like that, there would be direct
17 expenses plus there would be an overhead charge for whatever the
18 university--every study done by a university has an overhead
19 charge which pays for other things that the university does,
20 and so this would include an overhead charge.

21 Q Now, what would that overhead charge cover, sir?

22 A It would be unrelated to what the Kettering Laboratory
23 was doing, but that overhead charge would go to the university.

24 Q Now, you said every university, now, when you were at the

1 University of Pittsburg, is that the way that university did it?

2 A Yes, sir.

3 Q When you were at the University of Cincinnati, is that
4 the way that he did it?

5 A Yes, sir.

6 Q When you were at Tulane University in the medical school,
7 is that the way they did it?

8 A Yes, sir.

9 Q So there is an overhead charge?

10 A Yes, sir.

11 Q Now, does Suskind get paid or does he just get his
12 salary?

13 A He gets his salary whether he does this study or not.

14 Q All right. He gets a salary from the university?

15 A That's right.

16 Q And then he gets expenses reimbursed in connection with
17 this study?

18 A Yes, sir.

19 Q And is there anything else that he personally gets,
20 financial, that is?

21 A Not for him, he doesn't get any more salary, his salary
22 is fixed and this fund is used to pay for the out-of-pocket
23 expenses, whether it's for the people who went down to Charleston,
24 all those who went down there, their expenses, as well as paying

1 to the university for their time in doing that examination, all
2 the laboratory people that went down there, the pulmonary
3 physiologists and the nerve conduction, their expenses had to
4 be paid as well as paying the university for their time. Then
5 the computer time had to be paid for, as well as the technician
6 who operated the computer.

7 Q Now, that's university computer?

8 A Yes.

9 Q That isn't Monsanto's computer?

10 A No, sir.

11 Q That's a computer at the University of Cincinnati?

12 A That's right.

13 Q Now, sir, if all he gets is his salary and expenses,
14 why in the world did it make any difference to him to get this
15 final \$8600 bill paid before he retired?

16 A There is a ledger with his name on it, and in there it
17 states that there is outstanding \$8600 that is due the university
18 and it is listed on his name and he wanted to clear up those
19 books before he retired, saying the money was, if he could get
20 it, he wanted to have that as clean as he could get it.

21 Q Now, was there a ledger like that maintained when you
22 were at the University of Cincinnati?

23 A Yes, sir.

24 Q So that's the reason he wanted the \$8600 bill cleared up?

1 A Yes, sir.

2 Q I mean, was that money going to come to him?

3 A No, sir.

4 Q Now, once they got all of the data that the lab reports,
5 correct? You will have to answer out loud.

6 A Yes, sir.

7 Q The lab reports, they've got the results of interviews,
8 correct?

9 A Yes, sir.

10 Q They've got the results of physical exams and histories
11 from the physicians?

12 A Yes, sir.

13 Q They've got nerve conduction tests and various other
14 tests other than just blood and urine?

15 A Yes, sir.

16 Q That have been done, pulmonary function, I think you
17 said? Now, that data all goes back to Cincinnati, any of that
18 come to St. Louis?

19 A No, sir.

20 Q Any of it come to Monsanto?

21 A No, sir.

22 Q Did you have anybody look at any of that data at any
23 time prior to the time when Mr. Carr showed you this Group
24 Exhibit 1468?

1 A No, sir.

2 Q Now, why did Suskind, I think you mentioned that he wanted
3 it that way?

4 A Yes, sir.

5 Q He wanted it that way?

6 A Yes, sir.

7 Q Why did he want it that way?

8 A Because he hoped that if there was something that the
9 workers would tell him that they hadn't told us, that he would
10 be able to get it. In other words, there would be a freer
11 communication between that man and his private doctor than there
12 would between that man and Monsanto in terms of his health.

13 Q Now, some of these fellows did, well, did any of them
14 have the Nitro plant physicians as their personal physician?
15 Are you aware of any of them that did?

16 A Yes, sir.

17 Q All right. Now, what would happen with that information?

18 A The information would go to him.

19 Q To the plant physician?

20 A If the letter was written in agreement with the man, the
21 letter would be written from Suskind to Dr. Wallace.

22 Q All right. So if the man said that Dr. Wallace was his
23 personal physician because he didn't have another physician?

24 A Yes, sir.

1 Q And if he signed a release form?

2 A Yes.

3 Q Then Suskind would send that information to him?

4 A Yes, sir.

5 Q All right. Did you get any of that information?

6 A No, sir.

7 Q Why not?

8 A Because it was between Dr. Suskind and that man.

9 Q But the plant physician got a copy of some of those?

10 A Only when he was a personal physician.

11 Q And so are you telling me, sir, that when Dr. Wallace
12 at the Nitro plant had a copy of John Jones' lab results and
13 physical exam results, that he didn't give that to you?

14 A I don't know whether he put it into the medical report
15 or not. He may have.

16 Q Well, did he give it to you?

17 A No, sir.

18 Q Did he send it to St. Louis?

19 A No, sir.

20 Q He may have put it in a medical file at the plant?

21 A That's right.

22 Q And you don't know that one way or the other?

23 A No, sir.

24 Q Was there any effort by your department to find out what

1 those letters from Suskind to Wallace had to say?

2 A No, sir.

3 Q Why not?

4 A It was an intrusion into the privacy that he had established
5 with the man.

6 Q Now, once this data was assembled in Cincinnati, what
7 did they do with it?

8 A He had to put--organize the data in some form so that he
9 could put together similar items rather than going through that
10 record, he could have just taken the records and started a
11 tabulation by history, by physical examination, by laboratory
12 on each man and kept a list of them just by sheer writing out
13 the data. That would have been so laborious, that would have
14 taken longer than the five years that it took him. So instead
15 of that, he computerized this data base and apparently he started
16 up and became frustrated and then started up again in 1982 or
17 1983 when he got a new person in the computer that enabled him
18 to get the report out.

19 Q You say there was a gap from '79 until '82 or '82?

20 A Yes, sir.

21 Q Now, was Monsanto raising any cane about this?

22 A Yes, sir.

23 Q Who was doing it?

24 A Mr. Throdahl, my boss.

1 Q All right. I gather that sort of thing flows downhill,
2 did any of that come down on you?

3 A Yes, sir.

4 Q Did you make your feelings known to Dr. Suskind?

5 A Yes, sir.

6 Q And what did you let him know?

7 A Well, Dr. Suskind already knew about it. Mr. Throdahl
8 had taken me and Dr. Suskind to HEW to tell them that we had
9 some knowledge about dioxin and he had promised the HEW man,
10 I don't know who it was now, that within a year or two years
11 we would have the report to him. So along about 1982,
12 Mr. Throdahl was beginning to be concerned about he wasn't
13 keeping his promise.

14 Q Now, let me understand this. In 1980--when was the trip
15 to HEW?

16 A I don't remember. I think it was 1982, but I could be
17 wrong by a year.

18 Q It could be '81?

19 A Sure.

20 Q Did you have any of these results by then?

21 A No, sir.

22 Q Did you have any knowledge of what the outcome of that
23 study was at that time?

24 A No, sir.

1 Q And at that time Monty Throdahl, senior vice president
2 of Monsanto--

3 A Yes, sir.

4 Q --went to the Health, Education and Welfare Department
5 in Washington?

6 A Yes.

7 Q And told them what, sir?

8 A That we had a report that we're going to be getting out
9 on the health experience of our Charleston, West Virginia plant.

10 Q But he didn't have the report?

11 A No.

12 Q So he got exercised?

13 A Yes.

14 Q And that got you exercised?

15 A Yes, sir.

16 Q And you started talking to Suskind about it?

17 A Yes.

18 Q Had you had any prior conversations with Suskind about
19 getting that report out?

20 A When they would send, I've forgotten, there were several
21 invoices from the first one until the final ten percent, and
22 when he would ask for more money, we would say where is our
23 report.

24 Q So you were having that problem with the Nitro report

1 as well as with the Krummrich report?

2 A Yes, sir.

3 Q Now, what did he do from '79 to '81? You said something
4 about him being frustrated?

5 A He had difficulty, he didn't tell us all that, but we
6 did talk to him and he was having difficulty getting the data
7 computerized or getting into a data base where he could handle
8 it.

9 Q All right. And who was it that came on the scene that
10 permitted him to get that done?

11 A Vicky Hertzberg.

12 Q Who was a computer specialist?

13 A Yes.

14 Q And so he could get it on the computer beginning sometime
15 in '82?

16 A Or '83, sometime '82-'83, in that time frame.

17 Q Now, the first time that you saw a draft was when, sir?

18 A I've forgotten the date, I don't remember.

19 Q Now, this was a draft of the report, right?

20 A Yes, yes, I don't remember what that date was.

21 Q Okay, let me show you what's been marked as Plaintiff's
22 Exhibit No. 1479.

23 A Yes.

24 Q You remember going over that with Mr. Carr?

1 A Yes, sir.

2 Q That's dated February 22, 1982?

3 A Right.

4 Q Letter to Suskind from whom?

5 A From me.

6 Q From you? Enclosing your, a copy of the draft that had
7 been sent to you and your notes on it?

8 A Yes, sir.

9 Q And that's the one where you talked about, you mention
10 porphyrins, but there is nothing in the--

11 A Right, right.

12 Q --report about porphyrins, and there were a number of
13 other things you pointed out, correct? So February of '82 you
14 wrote back about the first draft so you obviously got it
15 sometime before then?

16 A Yes, sir, shortly before that.

17 Q All right. Now, had Vicky Hertzberg done all of the
18 computerizing by the time that that draft was sent to you?

19 A I can't answer that, but my impression is that it is
20 not, because this is a very small report, and that's part of
21 the problem that Suskind had was trying to put together all the
22 data, so the report after this was a large volume as compared
23 to this preliminary draft.

24 Q So later on there was a thick one?

1 A Right.

2 Q That you got? And that's exhibit--

3 MR. CARR: Counsel, is he saying that this is the report?

4 MR. HEINEMAN: I'm sorry?

5 MR. CARR: Is he saying 1479 is the report that he
6 received?

7 THE WITNESS: Yes, sir.

8 MR. HEINEMAN: A draft.

9 MR. CARR: I just wanted to make that clear.

10 THE WITNESS: A draft, yes.

11 Q Now, and my question, sir, was with respect to the
12 computer work that Vicky Hertzberg came on board to do, whether
13 you know that that was done before you received that draft?

14 A I don't know, I think not, though.

15 Q All right. At the time that you got that draft, that's
16 reflected in 1479--

17 A Yes, sir.

18 Q --had you seen, well, I guess you couldn't have seen any
19 of the back-up data because you never saw it?

20 A No, sir.

21 Q Had anyone in your department received any of that data
22 to your knowledge?

23 A No, sir.

24 Q So your remarks on that draft went back to Dr. Suskind?

1 A Yes, sir.

2 Q Is that right? And then there was a subsequent draft?

3 A Yes.

4 Q And that is, or was that, let me ask you, Plaintiff's
5 Exhibit 1483 to the best of your recollection?

6 A That's the next one, not dated.

7 Q It doesn't have a date on it?

8 A Yes, sir.

9 Q Now, as I recall, when Mr. Carr was questioning you you
10 said something about remembering that it came in some sort of
11 binder, some sort of folder or something, do you remember that?

12 A Yes, it had a brown or a tan--a gray color, a paper
13 color, so it was bound. It had a black binding over the top of
14 it, but that's all. It was semi-looking like it was a final
15 report.

16 Q All right. Did you make any comments to Dr. Suskind
17 after receipt of Plaintiff's Exhibit 1483?

18 A We went to Cincinnati to discuss the report, but I don't
19 recall writing to him about this one.

20 Q All right. You don't recall any letter?

21 A No.

22 Q You do recall going to Cincinnati and talking to him
23 about it?

24 A Yes, sir.

1 Q You didn't see any back-up data at that time?

2 A No, sir.

3 Q And do you recall what you told him?

4 A We were satisfied with what he had put together.

5 Q Well, what about the Table 35, sir, with respect to
6 the porphyrins, isn't that in there?

7 A Yes, sir.

8 Q Do you recall making any complaint to him about that?

9 A No, because of the asterisk at the bottom saying these
10 were done from single void samples.

11 Q So you don't recall complaining to him about that draft?

12 A No, sir.

13 Q What did you discuss with him in Cincinnati?

14 A We went through the entire document and made some
15 suggestions, but they were minor suggestions.

16 Q Do you recall now as you sit here what those suggestions
17 were?

18 A No.

19 Q Were they largely cosmetic or were they meant or offered
20 to change substantive things in the report?

21 A No, they were not substantial.

22 Q What about, well, was there anything in there that you
23 thought should not be in there? Did you ask him to take anything
24 out?

1 A I don't recall.

2 Q You don't recall asking him to take anything out?

3 A No.

4 Q Do you recall asking him to put anything in?

5 A No, if I went through, I might be able to think of
6 something, but it was nothing that we talked about that was
7 substantial in nature, as I recall.

8 Q As you sit there right now, you don't remember anything?

9 A Yes.

10 Q Now, once you went and talked to him about Exhibit 1483,
11 did you talk to him about the substance of the report again?

12 A We were trying to get him to tell us whether there was
13 a final report, and he said it was the final report.

14 Q He said that was the final report?

15 A Yes, yes.

16 Q When did he tell you that, sir?

17 A I don't remember.

18 Q Do you have any idea when this visit was?

19 A No, I'm not even sure when we received this.

20 Q Now, eventually there was a publication, was there not,
21 in the American Medical Association Journal?

22 A Yes, sir.

23 Q And that's obviously 1483, it is not what was published,
24 is it?

A No, sir.

Q All right. Did you have any input into any change from 1483 to what was published?

A No, sir, and we were supposed to have a chance to look at it.

Q All right. So the fact is you did not get a copy of the draft that was published?

A No, sir.

Q Prior to its publication?

A That's right.

Q You did learn that it was going to be published?

A Yes, sir. He told us that it was.

Q That it had been accepted?

A He told us that he had to make some revisions in the first draft that was submitted to him. It was not accepted without some corrections, whether cosmetic or substantial, I don't know.

Q Those are the peer review corrections--

A Yes.

Q --you talked about the other day?

A Yes.

Q So he said there were changes he had to make?

A Yes, sir.

Q But he didn't send you either what had been submitted

1 previously to the change or subsequent to the change?

2 A No, sir.

3 Q And then you saw the final report that was published
4 after it was published?

5 A Yes, sir.

6 Q Did he ever tell you why he changed from 1483 to what
7 was published?

8 A No, sir.

9 Q Other than that there were peer review changes that
10 were ordered, but he didn't tell you what they were?

11 A No, sir.

12 Q All right, sir. Now, in the course of the interview
13 with these men in Charleston, West Virginia or Nitro, I guess,
14 was that the plant where it was done?

15 A There is another suburb, it wasn't in Nitro, but it was an
16 adjacent town.

17 Q All right. They took work histories, did they not?

18 A Yes, sir.

19 Q From the individuals?

20 A Yes, sir.

21 Q And do you know, sir, whether based upon the report
22 that you are looking at, that you looked at, is there any
23 conflict between the work histories on the one hand in some
24 circumstances and what the physicians learned on the other hand?

1 A In the records I review, that I reviewed, I don't think
2 there were.

3 Q The records make it clear that the physicians did inquire
4 about that, do they not?

5 A Yes.

6 Q And as I sit here now, do you recall any that were in
7 conflict, by conflict I'm talking about what the man told the
8 physician when the physician talked to him and what the man
9 told the interviewer when the interviewer talked to him?

10 A No, sir.

11 Q All right, that's with respect to work history?

12 A Yes.

13 Q What about with respect to history of illnesses such as
14 cancer?

15 A Yes, sir, there were differences.

16 Q There were differences?

17 A Yes.

18 Q Now, in what respect were there differences?

19 A Sometimes a man would say that he had had a cancer, a
20 skin cancer particularly, and the dermatologist would make no
21 mention of it in his history or in his examination. There are
22 reports of the men having had an operation and he had an
23 operation for cancer and the worker himself would say no, he
24 didn't have cancer. There are other--well, let me see, anything

1 else--there were men who said they had cancer and the examining
2 doctor would say he had a benign tumor.

3 Q Now, one of the things that they were looking for in
4 this study was skin cancer, wasn't it, that's specifically set
5 out as a separate criteria or item on Table 1, isn't it?

6 A Yes, sir.

7 Q Now, does the records, this Exhibit 1468, do those
8 records indicate that there was a history taken by the dermatologist
9 for skin cancer? Do any of those people report to the dermatologist
10 that they did have skin cancer?

11 A Yes.

12 Q So obviously the dermatologist, he did ask him--

13 MR. CARR: I'll object, counsel, I'm trying to make an
14 objection and you are going ahead with your leading question
15 anyway, and you know that's the objection I'm making.

16 THE COURT: Objection is sustained. Please rephrase
17 the question.

18 Q Do the records indicate, sir, that that was something
19 that was asked by the dermatologist?

20 A Sometimes.

21 Q So sometimes there is a statement, what do you mean
22 sometimes?

23 MR. CARR: Objection, your Honor.

24 A Some physicians would list that they had asked about skin

1 cancer and others would, whether they asked the question or
2 not, you can't tell, but all you get is the notation of what he
3 thought from his interview was pertinent and should be listed
4 on the examination form.

5 Q All right. So in some of these--

6 MR. CARR: Objection to the leading form of the question,
7 your Honor.

8 THE COURT: Objection sustained.

9 Q Sir, there isn't any question, is there, in your mind--

10 MR. CARR: That's leading also, your Honor.

11 THE COURT: Objection is sustained. It is leading.

12 Q Was skin cancer one of the things they were looking for?

13 A Yes, sir.

14 Q Do any of those records demonstrate that skin cancer was
15 inquired about?

16 A Yes, sir.

17 Q Is there any reason in reviewing those records to believe
18 that in a particular case a physician didn't ask?

19 A No, sir.

20 Q Are there instances in those records where there is no
21 report one way or the other whether there was skin cancer?

22 A Yes.

23 Q And in the record of the physician, of the dermatologist
24 exam--

1 MR. CARR: Objection, leading form of the question,
2 your Honor.

3 THE COURT: Can you rephrase it?

4 Q I'd like to direct your attention, sir, to that portion
5 of these records that the dermatologist filled out. Would there
6 be occasions when it would be reported there and not in the
7 history that was taken in the interview?

8 A I don't recall.

9 MR. HEINEMAN: Your Honor, I don't want to encroach on
10 the jury's time. I see it's after four o'clock.

11 THE COURT: It is. Okay, ladies and gentlemen, we will
12 recess for the day, we will start again tomorrow morning at
13 nine o'clock. I would remind you as I do on any of these
14 overnight breaks that you are not to read, listen to, or watch
15 anything about this case in particular or subject matter in
16 general in any of the media. Thank you for your attention and
17 cooperation. Court is adjourned. Gentlemen, could I see you
18 in chambers, please?

19 (At this time Court adjourned for the day, and

20 the following proceedings were held in chambers.)

21 THE COURT: Before we start on this offer of proof,
22 I would like to know when you found those documents 916 through
23 -19, and when they were produced.

24 MR. NASSIF: We found them, and I should say I got them

1 from my legal assistant the night before we produced them to
2 Rex, and I don't remember, was it last Friday I produced them
3 to you? I told you about them Thursday, and we gave them to
4 you that day, the day I told you about them, you got them, and
5 I can't remember, but it was before the break, Judge, Friday,
6 Saturday, and Sunday break, we were off Friday, it was before
7 the break.

8 MR. CARR: For this past weekend.

9 MR. NASSIF: And I told Rex when I got them, I told him
10 what I had found, that he would get them that day, and I told
11 him the substance of what it was and that we might use them later
12 the following week.

13 MR. CARR: I might break in there, it was my understanding
14 that I was going to have the opportunity to use them first before
15 you used them.

16 MR. NASSIF: I asked him to tell me on Monday if he was
17 planning to use them.

18 MR. CARR: And you went ahead and used them.

19 MR. NASSIF: I didn't hear anything from him and I guess
20 I should have asked again, but I didn't hear anything from Rex
21 about wanting to use them.

22 MR. CARR: I wanted to use them, there was no point in
23 me objecting to it, I didn't want to make it seem as if there
24 was something I wanted to keep out of the evidence.

1 THE COURT: Since they obviously have some relationship
2 to the questions at hand, why weren't they produced before?

3 MR. NASSIF: Judge, they were in a financial person's--
4 Keating's and another financial person's file, and some of them
5 were there because they pertained to payments to Suskind which
6 had not been retained in the medical department's files, they were
7 not in Roush's or DMEH's files, so they were not uncovered in
8 search of like toxicity files or things having to do with dioxin
9 because they were kept in a financial file having to do with
10 billings, with the correspondence, some of the correspondence,
11 and that was why they weren't kicked out. Another one, some of
12 them were earlier drafts or other drafts of things we had produced
13 to Mr. Carr, but they had modifications on them.

14 MR. CARR: No, the documents were financial documents.

15 MR. NASSIF: The ones that you are talking about there,
16 primarily those statements, Judge, were found in a financial
17 person's file, they were not found in Dr. Roush's or anybody
18 in DMEH's files. Those documents that you were referring to there.
19 One exception was that a union committee memo which was not
20 generated until June the 14th, '85 which was during the hiatus
21 on discovery, and quite frankly I did not see it until after
22 we started back up. The thing that that document had attached
23 to it that I had never seen before and we had never found before
24 was the Dr. Roush memo from Suskind, and I don't know why that

1 didn't come up in our search of the plant files, but it was not
2 in DMEH's files, but we did not have it prior to obtaining the
3 union committee materials, which we went back and checked after
4 Mr. Carr identified that he had sent the materials to the union
5 and I inquired at that point did we send the union anything, and
6 that document came up as a part of that inquiry, and I received
7 it from the same person who delivered the other documents to
8 me and produced it the day that I got it, or the next day if I
9 got it that night, I can't recall.

10 THE COURT: So basically, when was that? These were
11 basically produced around July 18th?

12 MR. CARR: July 18th is when they were produced.

13 MR. NASSIF: Judge, that would have been a Thursday.

14 MR. CARR: Last Friday.

15 MR. NASSIF: Friday morning.

16 THE COURT: They were produced the 18th or the 19th?

17 MR. CARR: I'm sorry, we were off on the 19th.

18 MR. NASSIF: So they were produced on Thursday.

19 MR. CARR: I don't know, you delivered them to the office.

20 MR. NASSIF: Yeah.

21 MR. CARR: So they were on the 19th.

22 THE COURT: So are you telling me that the finance
23 department or financial officers, or however you have it organized
24 have not been part of prior notice to search for documents?

1 MR. NASSIF: That was the financial guy at the plant,
2 that is where we had a situation where that had not been searched.
3 The financial structure out at the general offices had been
4 inquired of, but that was a man at the plant who had retained
5 those because the plant was the one responsible for making the
6 payments, and so we--it was tracked that way when we inquired
7 of the general offices, they said that the plant was the one
8 that was making the billing arrangements, and that's where it
9 was picked up.

10 THE COURT: Have you checked other records of the plant
11 to make, like with prior requests?

12 MR. NASSIF: Yes, sir, we sent a group of people, the
13 prior request, the prior submissions followed sending down to
14 the plant a number of people from Coburn, Croft, and Putzell's
15 law firm to go through files and interview people for where
16 their files would be. That has been done and that submission
17 has previously been made to Mr. Carr.

18 THE COURT: Okay.

19 MR. CARR: Judge, for the Plaintiff's comment, I feel
20 that the failure to produce these before was a good faith
21 failure and I can understand the deficiency, the deficit at
22 this time. I would have objected to it if I thought that it
23 was laying back on it, and I have no reason to doubt what
24 Mr. Nassif says is correct.

1 THE COURT: Fine. You wanted to make an offer of proof,
2 I believe?

3 MR. HEINEMAN: Yes, sir.

4 THE COURT: How do you wish to make it?

5 MR. HEINEMAN: I'll make it on the record myself.

6 THE COURT: Fine.

7 MR. HEINEMAN: Judge, we believe the evidence would be
8 that if Doctor--first of all, if the Court were to admit
9 Plaintiff's, or, excuse me, Defendant's Exhibit 913, which is
10 the portion of the computer record, computer print-out which we
11 had marked and which the Court excluded, it would demonstrate
12 and as would any testimony by Dr. Roush about Defendant's Exhibit
13 913, which is necessarily barred by virtue of the fact that it
14 is not in evidence, it would establish that if one does combine
15 the two cohorts in the Zack/Suskind and Zack/Gaffey studies,
16 that the expected numbers or rates of the causes of death and
17 the total cancers and the specific types of cancers enumerated
18 by Mr. Carr in his exhibits would be higher than Mr. Carr
19 calculated them to be because of the fact that the computer
20 program evidenced by Defendant's Exhibit 913 includes variations
21 for age and date of death and for a larger number of people to
22 be included in the study. One must therefore recalculate the
23 expected number of cancers based upon the total of the two
24 cohorts combined.

1 In addition, this Zack/Suskind study is based upon a
2 standard mortality ratio, and the Zack/Gaffey study is based
3 upon a proportional mortality ratio, and that factor is also
4 reflected and included into Defendant's Exhibit 913, which is
5 another factor that is not included--

6 MR. CARR: Your Honor, I thought counsel was making an
7 offer of proof. Now, I don't hear this as an offer of proof.
8 I know he cannot testify to that, and an offer of proof has
9 got to be that some witness, that this witness he has here,
10 Dr. Roush, can testify to these facts, and this Doctor has
11 already said that he can't, that all he did was push a button.
12 I don't know why we're taking this time, unless Heineman is
13 the witness.

14 MR. HEINEMAN: Well, sir, I'm suggesting that that is
15 what Dr. Roush would testify to, and that is what is demonstrated
16 by Defendant's Exhibit 913 that is being omitted from evidence.
17 And it is further demonstrated by Defendant's Exhibit 913 and
18 would be further demonstrated by the testimony of Dr. Roush,
19 that when these various factors that I have just described are
20 taken into consideration and the total number of the two groups
21 is combined, the expected number of deaths is raised and the
22 age and date of death are taken into consideration, then there
23 is no statistical significance to any increased number of cancers
24 reported in the combined studies, except for the bladder cancer

1 and lung cancers. Those are the only two as to which there
2 would be statistically significant numbers of cancers reported.
3 The genito-urinary cancers would not be significant except to
4 the extent that it reflects the bladder cancer. The lymph
5 cancers would not be significant statistically. The other
6 cancers would not be significant statistically, and the total
7 cancers would not be significant statistically.

8 In addition to that, the heart disorders would not be
9 significant statistically, and that is what is expressly set out
10 on Defendant's Exhibit 913 and would be testified to by
11 Dr. Roush.

12 THE COURT: Mr. Carr?

13 MR. CARR: Your Honor, he hasn't laid any foundation for
14 the exhibit. He has said how this witness would interpret this
15 exhibit. He hasn't laid a foundation for the admission of this
16 exhibit into evidence, there is nothing that's stated as to show
17 that this witness knows what was fed into the computer, what
18 information was put in, nothing to show that this witness knows
19 which was adjusted for age and which wasn't adjusted for age and
20 how that was taken into account, whose program it was, who designed
21 the program. Mr. Heineman has said nothing further at this
22 point by way of offer of proof than what he said at the time
23 the Court ruled on it, and my objection is exactly the same,
24 inadequate foundation laid for the admission of this exhibit

1 along with the fact that the witness that he proposes to
2 testify to it has already admitted that his knowledge is second-
3 hand and not first-hand.

4 MR. HEINEMAN: Your Honor, I don't recall, were the
5 statements that I made when I requested this meeting with respect
6 to what Dr. Roush found out on the record or not?

7 THE COURT: Yes, they were.

8 MR. HEINEMAN: Okay, all right, I would like to include
9 that in my offer of proof as well.

10 THE COURT: I'll include the argument that both of you
11 made earlier this afternoon.

12 MR. HEINEMAN: As well as the testimony elicited from
13 Dr. Roush in Court about--

14 THE COURT: Oh, of course, both direct and cross
15 examination.

16 MR. HEINEMAN: --about this document, Defendant's Exhibit
17 913.

18 THE COURT: That's why I had it done, sure. Okay, I
19 think my ruling was correct on a number of grounds. I would
20 reaffirm my ruling after the offer of proof.

21 (At this time, the proceedings held in
22 chambers was adjourned.)
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1 STATE OF ILLINOIS)
2 COUNTY OF ST. CLAIR) SS.

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7 I, Patricia A. Gandy, CSR, RPR, Official Court Reporter
8 in and for the Twentieth Judicial Circuit, and the Official
9 Court Reporter who transcribed the above-styled cause had on
10 July 23, 1985, do hereby certify that the foregoing transcript
11 of proceedings is a true, correct and complete transcript of
12 the proceedings had on said date.

13 DATED this 28th day of July, 1985.

14
15 *Patricia A. Gandy*
16 _____
17 PATRICIA A. GANDY, CSR, RPR
18 Official Court Reporter
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1 STATE OF ILLINOIS)
2) SS.
3 COUNTY OF ST. CLAIR)
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6

7 I, RICHARD P. GOLDENHERSH, Circuit Judge in and for
8 the Twentieth Judicial Circuit, hereby certify that the above is
9 a true and correct transcript of the proceedings had in the
10 case captioned: FRANCES E. KEMNER, et al., v. MONSANTO COMPANY,
11 Cause No. 80-L-970, heard on July 23, 1985.

12 DATED this 31ST day of July, 1985.
13

14 ENTER:

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17 RICHARD P. GOLDENHERSH, Circuit Judge
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EXHIBIT INDEX

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1 BE IT REMEMBERED AND CERTIFIED, that heretofore, on
2 to-wit: July 23, 1985, the matter as hereinbefore set forth
3 came on for hearing before the Honorable Richard P.
4 Goldenhersh, Circuit Judge in and for the Twentieth Judicial
5 Circuit, State of Illinois, and the following was had of
6 record, to-wit:

7 GEORGE ROUSH,

8 (being called as a witness, having been duly
9 sworn, on oath testified as follows:)

10 CLARIFICATION EXAMINATION

11 BY MR. HEINEMAN:

12 Q Dr. Roush, in the examination of you by Mr. Carr,
13 there was some discussion with respect to when laboratory tests
14 are done, whether or not a certain percentage of normal people
15 are expected to have abnormal results, is that right?

16 A Yes, sir.

17 Q Would you explain that?

18 A Any single laboratory test that any one of us have
19 done, the results of that laboratory test, if it's a blood
20 count, the doctor looks at it in terms of some range --
21 reference range he uses for deciding whether that's normal or
22 not normal. That definition of normal is based on taking a
23 population that's normal and taking five percent of that,
24 just statistically calling it abnormal. It may be normal,

1 everything says it's normal. For a way of handling it, we're
2 quite comfortable with the normal range that two and a half
3 above or two and a half percent below or five percent above
4 and five percent below, depending on who's doing it. That
5 means it's abnormal, listed as abnormal because of the
6 statistical way of handling it. So when you go to a doctor
7 there's a five percent chance, if you get any tests run, that
8 it's going to be abnormal just by virtue of chance. Now, if
9 you do five tests, five different tests, there is a 22 percent
10 chance that one of them will be abnormal. So if you go -- if
11 you do five tests, one of those is going to be abnormal just
12 by chance in 22 percent of the testing and the bigger the
13 number it gets, the more tests run, the more likelihood it's
14 going to be abnormal. It doesn't mean it has any health
15 significance, all it means -- the doctor has to look it over.
16 What he does if you have a white count out of the range of
17 normal, you say that may be abnormal. What he'll do the next
18 time you come back, I'll repeat that blood test and do the
19 blood count. And if the blood count comes back and then he
20 makes a judgment of whether he sees lots of them that are like
21 that. If it stays abnormal and if everything else about the
22 blood count -- if he did a blood count, if the red cells are
23 the right size and they're the right shape and the hemoglobin
24 content is right, it can't be important because it's just a

1 chance in variation. But quite often the doctor will follow
2 people with white counts that are over 10,000 which some
3 people say is abnormal. There are few people that will carry
4 white counts 11,000 all of their life and nothing is ever
5 found. So every single number that's taken, the doctor has to
6 make a judgment on those that are outside of normal range and
7 what he usually does is to repeat that test.

8 Q Now, sir, I want to address the subject of whether
9 or not there can be -- the larger the number of tests you do,
10 the more chances there are that there's going to be an
11 abnormal result. You're familiar with the Todd & Sanford
12 Text?

13 A It's a generally accepted text, laboratory.

14 Q Diagnosis and management by laboratory methods,
15 Todd & Sanford?

16 A Yes, sir.

17 Q And it's an authoritative work, is it not, sir?

18 A Yes, sir, often quoted.

19 Q This defense Exhibit 144 which has been previously
20 identified as representing a table from the Todd & Sanford
21 Clinical Diagnosis and Management by Laboratory Methods, 1984
22 Edition on Page 54. Do you see that, sir?

23 A Yes, sir.

24 Q Now, this table is entitled Relationship of Expected

1 Abnormal Results to Number of Measured Constituents. Is this
2 table talking about the same kind of principle you were just
3 talking about?

4 A Yes. And it says that if there are 20 different
5 studies done the likelihood of you having one abnormal is 64
6 percent chance. In other words, if you had -- if you go in
7 there and you get a blood test, there's a standard thing that
8 they run through an autoanalyzer that will give you 20
9 different measurements and -- all done at the same time. They
10 do 20 of them and the likelihood, if he does 20, one of yours
11 is going to be abnormal. When they say abnormal they don't
12 mean abnormal, see, it's in quotes, that doesn't mean abnormal,
13 abnormal, saying that's a normal range. What we're doing now,
14 better to say rather than abnormal, normal, that five percent
15 from a normal population. What they're saying, that abnormal
16 really means reference range and a reference range means it's
17 outside of that range. Doctors do something about it, decide
18 whether it's abnormal or normal.

19 Q So if you have 20 constituents measured there can
20 be -- there's a 64 percent chance, 64 chances out of 100 that
21 you're going to have one or more abnormal results?

22 A That's right.

23 Q If you have as many as 20 tests done?

24 A That's right.

1 Q And the standard blood test that you're talking
2 about runs 20 different tests?

3 A That's right.

4 Q Thank you, sir. Now, yesterday we were talking
5 about the Zach-Siskind and Zach-Gaffey tests. Do you remember
6 that, sir?

7 A Yes, sir.

8 Q Those studies?

9 A Yes, sir.

10 Q Putting the two figures together, do you recall
11 that?

12 A Yes, sir.

13 Q And in connection with the Monson Computer Program.
14 Is this a computer program that is employed by Monsanto
15 Company in your Hepademiology Department?

16 A Yes, sir.

17 Q And did you cause certain tests or certain computer
18 runs to take place on that program?

19 A Yes, sir.

20 Q When did you do this?

21 A Yesterday afternoon.

22 Q All right. Now, tell us what you did, sir?

23 A I didn't have to do much. We have the data base,
24 which means each one of the health records and work records on

1 each one of the 32 deaths recorded in the Zach-Suskind Study,
2 there were 32 deaths. All of that data was already in the
3 computer base and also in that computer was the mortality
4 experience of the 58 people that were recorded in the Zach-
5 Gaffey as having died. So that was already there. We also
6 have a program in the computer, and it wasn't as simple as
7 what Mr. Heineman said, we use the Marsh Proportional
8 Mortality Program which means if you've got the data base in
9 there like I've said, and if we have that computer program,
10 all we've got to do is call that computer program and say
11 print out the data from that data using this Marsh PMR and a
12 part of that Marsh PMR is the definition of what is expected
13 cancer and mortality experiences for people with every age
14 group. So every five years there's another sample. How many
15 people in that age group. If we had one man that's 40, what
16 should be the mortality experience of people 40 years old?
17 Everything is adjusted according to the Monson Table of
18 Expected Mortality by age, that's a part of the Marsh Program
19 as we put it together. Once we had that, the data base in
20 place, no one had to do anything. All we do is push a button
21 using the Marsh Program and out came the PMR Program.

22 Q Doctor, let me -- doctor, let me hand you what's
23 been marked as Defendant's Exhibit No. 913. Would you examine
24 that and identify it for me, please?

1 MR. CARR: May I see a copy, counsel?

2 MR. HEINEMAN: Certainly.

3 Q Can you tell me what that is?

4 A Well, this is the printout from our computer using
5 the health data in our computer base plus the Marsh PMR
6 Program. This is a standard program that can be -- just put
7 those things together by computer.

8 Q Now, sir, this is a portion of the entire printout,
9 is it not?

10 A Yes, sir.

11 Q This is not the entire printout. Now, sir, this
12 says at the top --

13 MR. CARR: Your Honor, I object to what it says at
14 the top. I object to anything about it. It's obviously
15 something that's dated 1981. It's something that should have
16 been produced to us years ago or at least a year ago.

17 MR. HEINEMAN: Your Honor, the witness has just
18 testified that this document was created yesterday afternoon.

19 MR. CARR: Your Honor, the witness has testified
20 that it was created by pushing a button. All he did was go
21 in there and push a button. It's something they had all this
22 time.

23 MR. HEINEMAN: No, sir.

24 MR. CARR: Did he push a button or did he do more

1 than push a button, is what I heard. All he did was push a
2 button, isn't that right, Dr. Roush?

3 THE WITNESS: Yes, sir.

4 BY MR. HEINEMAN:

5 Q Now, Dr. Roush --

6 MR. CARR: Your Honor, may I be heard on this before
7 there's any additional question?

8 THE COURT: Go ahead, Mr. Carr.

9 MR. CARR: If it's -- this is dated -- Monsanto had
10 possession and it's been in their possession apparently since
11 April of 1981. It's data we should have had. Nitro employees
12 exposed to dioxin. It's something they had in there all these
13 years apparently. Something that they can look at on their
14 screen at their convenience, that they can print out at their
15 convenience, and that they have obviously printed out in the
16 past. And now on a so-called clarification examination of
17 Dr. Roush, for it to be put to the plaintiff the first time,
18 to allow the witness to testify to it or any use whatsoever,
19 I say is completely unfair and contrary to all rules of
20 discovery that this Court and other Courts have established.

21 MR. HEINEMAN: Your Honor --

22 MR. CARR: I'd like to know if there is more
23 information that's in your computer that we haven't been
24 given.

1 MR. HEINEMAN: It's my understanding, Judge, is that
2 the April 1981 refers to the Proportional Mortality Ratio
3 Analysis Program but not to the organization of this data in
4 this fashion.

5 MR. CARR: How long has this data been in your
6 possession in this fashion? How long has it been on that
7 computer?

8 MR. HEINEMAN: How long has this data been in --

9 MR. CARR: How long has this information been in the
10 computer?

11 THE WITNESS: The data and the Suskind data have
12 been there since 1979. They haven't been brought together,
13 the putting of the Zach-Suskind and Zach-Gaffey Study was only
14 put together because of the question raised at Nitro's lawsuit.

15 MR. CARR: Who put it together?

16 THE WITNESS: Marcie Strauss put it together.

17 MR. CARR: And that was done in 1984?

18 THE WITNESS: No, sir.

19 MR. CARR: When was it done?

20 THE WITNESS: I don't know.

21 MR. CARR: Your Honor, I repeat my remarks. This
22 data was brought together, they have it. All he did was push
23 a button to spit it out. They had it and they knew they had
24 it and they hadn't given it to us.

1 MR. HEINEMAN: Your Honor, this is the same data
2 that Mr. Carr has.

3 MR. CARR: The data that I calculated, that I took
4 off of the tables, it wasn't given to me. I took it from your
5 studies, from your reports and analyzed it myself. This is
6 something you had analyzed through Marcie Strauss. I would
7 be willing to bet 1984, I have a lot of documents signed by
8 Marcie Strauss dated 1984.

9 THE WITNESS: No, that's not the case.

10 THE COURT: Mr. Heineman, do you have any further
11 argument?

12 MR. HEINEMAN: Your Honor, I'd like to staighthen
13 out -- Mr. Carr has made some allegations here with respect to
14 how long this data has been here and what was done with it and
15 I would like to straighten that out with this witness, if I
16 may?

17 THE COURT: Go ahead.

18 BY MR. HEINEMAN:

19 Q Now, Dr. Roush, the data --

20 MR. CARR: Your Honor, I will object unless he asks
21 a question rather than submitting a suggested answer.

22 THE COURT: You'll have to ask the questions in a
23 nonleading form, Mr. Heineman. I'll interrupt you if I decide
24 they're leading.

1 MR. HEINEMAN: That's fine.

2 Q If you will, sir, tell us what is the data upon
3 which this computer printout is based?

4 A There's two sets of data. The health experience of
5 those involved in the Nitro Zach-Suskind Study and a separate
6 group that includes the Zach-Gaffey population of 58 deaths
7 and these were two separate studies. Not together, they've
8 never been put together.

9 Q The -- so the data --

10 MR. CARR: Object, leading form of the question.
11 Just starting out that way.

12 THE COURT: Objection sustained. Rephrase it,
13 please.

14 BY MR. HEINEMAN:

15 Q What is the form in which the data from the Zach-
16 Suskind Study was gathered?

17 A Well, once that data was in place, the sum total
18 just listing of each single one of those people in that
19 study, including date of birth, date of hire, date of exposure,
20 date of termination, and date of death, and cause of death,
21 each one of those 32 have that data in the Zach-Suskind Study.
22 Those are listed. In addition, the identical data is in the
23 data base on the Zach-Gaffey 58 people. In other words, you
24 can just go down the list and, just as I've said, each one of

1 them have that data.

2 Q Now, excuse me, sir. Mr. Carr showed you an Exhibit
3 and I think it was Exhibit 1460, if I'm not mistaken. It was
4 a list of people with their date of hire, date of death, do
5 you remember that?

6 A Yes.

7 Q Let me hand you what's been marked Plaintiffs'
8 Exhibit 1460. It talks about the Nitro TCP accident, correct,
9 at the top?

10 MR. CARR: Your Honor, leading question. I object
11 to it.

12 THE COURT: Objection sustained.
13 BY MR. HEINEMAN:

14 Q Doctor, what is the relationship between this data
15 and the Suskind data you were just talking about?

16 A This is a listing of -- I'm trying to decide whether
17 it's complete, but this is a listing of those people that have
18 been identified as having worked at Monsanto and had chloracne
19 that was found, related in time to that accident at Nitro in
20 the TCP operation.

21 Q And it totals 122, sir?

22 A I didn't check to see -- I can't read all this but --
23 the first number is out but I assume that's 122.

24 Q For the 1949 accident?

1 A Yes, sir.

2 Q All right. And what is the relationship between
3 this list and the data you were referring to in connection
4 with the Zach-Suskind Study?

5 A This is the data base that was in the computer for
6 those 122. This is their health experience. The question is
7 when were they born and were they alive at the end of the
8 experiment, at the end of the study, and then what was the
9 cause of death, if they had it.

10 Q Now, so this --

11 MR. CARR: Objection, your Honor, leading form of
12 the question.

13 THE COURT: Objection sustained.

14 BY MR. HEINEMAN:

15 Q Now, what is the information listed in the second
16 column from the right on Plaintiffs' Exhibit 460?

17 A This is 460?

18 Q Yes, sir -- 1460.

19 A The second last column is a listing of where they
20 were at the end of the study. That means, if they were there
21 and working, that means that obviously they were not dead.
22 So, they're trying to squeeze down those who had died based
23 on the information available here.

24 Q All right. What is the letter in front of the first

1 name? I'm sorry, the first statistic that you just referred
2 to for the first name?

3 A That refers to their status, whether they were dead
4 or whether they were alive, whether they were retiring, so
5 it's really their circumstance as of that date.

6 Q The first one is a D ?

7 A Right.

8 Q What does that mean?

9 A That means he was dead.

10 Q The third one is an A ?

11 A That means alive and working.

12 Q The next one is an R ?

13 A R means he's retired from Nitro.

14 Q But alive?

15 A Yes.

16 Q So when Mr. Carr --

17 MR. CARR: Objection to the leading form of the
18 question.

19 THE COURT: Objection sustained.

20 BY MR. HEINEMAN:

21 Q Dr. Roush, where did you get the information to
22 answer Mr. Carr's question about which of these people were
23 the 32 deceased ones?

24 A They came out of this list here.

1 Q Right out of Plaintiffs' Exhibit 1460?

2 A Yes.

3 MR. CARR: I object to the leading form of the
4 question, your Honor.

5 THE COURT: Objection sustained. Mr. Heineman, you
6 have to quit asking these leading questions.

7 MR. HEINEMAN: All right.

8 Q Sir, let me hand you what's been marked as
9 Plaintiffs' Exhibit 1461. Can you identify that, please?

10 A It's a series of death certificates.

11 Q Sir, would you compare 1461 with Plaintiffs'
12 Exhibit 1460?

13 A Well, the first one is Robert Arther on Monsanto's
14 listing. You can correct it, the Social Security number is
15 the same on the both of them so that we're talking about the
16 same person. And of -- on the right side the status as of
17 December 31st, 1978, he was listed as dead and the -- there's
18 a 201.0, that's a classification of death and it refers to
19 the immediate cause of death as Hodgkin's disease.

20 Q Sir, go ahead.

21 A You want to do the next one?

22 Q Please.

23 A The next name is Howard Cochran.

24 MR. CARR: Your Honor, unless counsel has abandoned

1 his efforts to get this later day study before us, I see that
2 this has no relevance to the question that the Court has asked
3 for evidence on.

4 THE COURT: Okay. Gentlemen, could you approach
5 the bench for a minute, please?

6 (The following proceedings were held at the
7 bench out of the hearing of the jury.)

8 THE COURT: Where are you headed with this?

9 MR. HEINEMAN: What I'm doing, your Honor, is
10 demonstrating that the data that he's referring to as being
11 the subject of that computer run is the very data that is in
12 evidence, placed here by the plaintiffs.

13 MR. CARR: I don't quarrel with that in the least,
14 that's not relevant.

15 MR. HEINEMAN: Of course it is because you're
16 complaining about the fact that this is something that's not
17 based upon --

18 MR. CARR: Don't be so -- you know good and well
19 what I'm complaining about is this computer study that you've
20 had all these years. I know I was given the raw data. What
21 I'm complaining --

22 THE COURT: If there's no dispute as to that point,
23 move on to whatever else you want to show in clarification
24 and then I'll consider the objection, then I'll rule on the

1 objection.

2 MR. HEINEMAN: What I want to show, your Honor, is
3 the data of the two are the same. That there isn't any more
4 data in that study, in that computer, other than what's already
5 in evidence here.

6 MR. CARR: Any more raw data.

7 MR. HEINEMAN: Mr. Carr had that.

8 MR. CARR: I had the raw data.

9 MR. HEINEMAN: The only other thing is the program.

10 THE COURT: I understand the difference. I under-
11 stand the difference.

12 MR. HEINEMAN: The witness said that the two have
13 never been put together before.

14 MR. CARR: Until Strauss did it which was sometime
15 back -- that's exactly what he said, that's my objection. You
16 brought the raw data together, you put a Marsh and a Monson
17 PMR with that data, you kicked out this thing, you had this
18 literally for years. I'm not at all making a point that I
19 wasn't given the raw data. I was given these death certifi-
20 cates and I was given this list of people but I wasn't given
21 anything else. I wasn't given this program, computer study
22 that you've had in your possession for years and under direct
23 order of this Court to bring in to me and you didn't do it.

24 MR. HEINEMAN: What I'm telling you is my

1 understanding is from this witness that that computer study
2 was created for the first time.

3 MR. CARR: By Strauss and he doesn't know when.

4 THE COURT: That is what he said.

5 MR. HEINEMAN: Let me see if I can straighten that
6 out.

7 THE COURT: Go ahead.

8 (The following proceedings were held in the
9 presence and hearing of the jury.)

10 BY MR. HEINEMAN:

11 Q Now, Doctor, when was the program whereby the data
12 from the two studies was put together, created for the first
13 time?

14 A Put them together?

15 Q Yes. (Nod)

16 A To my knowledge it was put together for this
17 lawsuit. Based on the -- what has been brought out here, we
18 went back and tried to find out if he put these two together.

19 MR. CARR: That really isn't an answer to the
20 question. The question was when was it put together?

21 THE WITNESS: I can't be sure.

22 BY MR. HEINEMAN:

23 Q Has it been within the last few days?

24 A As far as I know. I think it is, but I don't know

1 whether it was done for Nitro or not. I don't know whether
2 the same question was raised there so I can't answer that
3 because it could have been produced there because the same
4 question could have been asked. I wasn't told about it but it
5 could well be and we can establish that from our record. It
6 could've been done just related to this lawsuit.

7 MR. CARR: It could've been done two years ago, too,
8 couldn't it, Doctor?

9 THE WITNESS: I don't know.

10 MR. CARR: Correct.

11 BY MR. HEINEMAN:

12 Q What is it that you know as you sit here now about
13 when it was put together?

14 A I asked for it after I was involved in this
15 testimony. I asked for it for the first time and they went
16 through the process and did it for me. Whether they had done
17 it before, I don't know.

18 Q So that all you know is that it began after --

19 MR. CARR: Object to the leading form of the
20 question.

21 THE COURT: Objection sustained. Rephrase it,
22 please.

23 BY MR. HEINEMAN:

24 Q And as far as when your testimony began, sir, did

1 you ask for it after the 8th of July when you came back and
2 initiated testimony again?

3 A Yes, sir.

4 Q So you asked for it after the 8th of July?

5 MR. CARR: Object to the leading form of the
6 question.

7 THE COURT: Objection sustained.

8 BY MR. HEINEMAN:

9 Q And when did you go out and produce this printout?

10 A I went out and produced it yesterday.

11 Q To your knowledge had a printout like that ever been
12 produced before?

13 A After I came back and took place in this trial,
14 after the recess.

15 Q After July the 8th?

16 A Yes.

17 MR. HEINEMAN: One moment, your Honor. Your Honor,
18 that's all the questions I have on that subject.

19 THE COURT: Mr. Carr, do you wish to cross-examine
20 on that subject?

21 CROSS EXAMINATION

22 BY MR. CARR:

23 Q Dr. Roush, what you do know, this was prepared for
24 the Nitro case, don't you, sir?

1 A No, sir.

2 Q It says all Nitro employees exposed to dioxin,
3 doesn't it, the project title?

4 A Yes. But it doesn't mean we produced it for the
5 Nitro case.

6 Q And you do know Marcie Strauss made it?

7 A After July 8th.

8 Q You know that now, sir?

9 A I know that she did it, but I don't know whether
10 she did it before as well.

11 Q Well, when did she do it, to your knowledge, for
12 the first time? When did she make this computer study up for
13 the first time?

14 A To my knowledge, after July 8th.

15 Q I thought you testified a moment earlier, Dr. Roush,
16 that you didn't know when she put it together?

17 A I know she did it this time.

18 Q My question is, do you know when she first did it,
19 sir?

20 A No, sir.

21 Q It could've been two years ago, couldn't it, sir?

22 A I have to ask that, so I don't know.

23 Q What you do know, that it was in the computer, this
24 and more data in the computer and more tables are in the

1 computer because this talks about just Table 5 and Table 3 and
2 Table 4, so there are other tables in this computer, aren't
3 there, sir?

4 A Yes, sir.

5 Q That you have not brought here today?

6 A Yes, sir.

7 Q And we don't know what those tables show, do we, sir?

8 MR. HEINEMAN: I'd be happy to have them marked, your
9 Honor.

10 MR. CARR: Your Honor, it's not just that I want and
11 the Court has ordered for months, for years now, the Court has
12 ordered that we receive this information and we have not
13 received it today and my objections still stand. There's no --
14 the whole idea of discovery is that we can have this long
15 enough ahead of time that we can give it to people that we
16 trust and rely upon to determine the accuracy and the truth-
17 fulness of this data so that I'll have an opportunity to study
18 it instead of being confronted with it for the first time in
19 the Courtroom. That's the whole idea of it. I renew my
20 objection to any use of it whatsoever.

21 MR. HEINEMAN: Your Honor, may I address that?

22 THE COURT: Yes, you may.

23 MR. HEINEMAN: Your Honor, the only evidence in this
24 Courtroom about this data, this document, is that it was