

1 IN THE CIRCUIT COURT
2 TWENTIETH JUDICIAL CIRCUIT OF ILLINOIS
 ST. CLAIR COUNTY

3 FRANCES E. KEMNER, et. al.)
)
4 Plaintiffs,)
)
5 VS.) NO: 80-L-970
)
6 MONSANTO COMPANY,)
)
7 Defendant.)

8
9
10 REPORT OF PROCEEDINGS

11 Before the HON. RICHARD P. GOLDENHERSH

12 JURY TRIAL

13 March 25, 1986
14 (Afternoon session)

15 APPEARANCES:

16 Mr. Rex Carr
17 Mr. Jerome Seigfreid
 On Behalf of the Plaintiffs;

18 Mr. Kenneth Heineman
19 Mr. Joseph Nassif
 On Behalf of the Defendant.

20
21
22
23 Debra M. Musielak, CSR, CM
24 Official Court Reporter

INDEX

PAGE

WITNESSES CALLED ON BEHALF OF THE DEFENDANT:

1. RAYMOND SUSKIND

Cross Examination. 2

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

EXHIBITS

	<u>Page</u> <u>Identified</u>	<u>Page</u> <u>Admitted</u>
--	----------------------------------	--------------------------------

EXHIBITS SUBMITTED ON BEHALF OF THE PLAINTIFF

Plaintiff's Exhibit No.:

1800	(article)	13	15
1801	(article)	42	
1802	(panel discussion).	116	118

1 BE IT REMEMBERED, that on the 25th day of March,
2 1986, the same being one of the regular judicial days of said
3 court, the above-styled cause came on regularly for hearing
4 before the HONORABLE RICHARD P. GOLDENHERSH, one of the
5 Judges at the St. Clair County Building, 10 Public Square, in
6 the City of Belleville, County of St. Clair, State of
7 Illinois. Whereupon the following proceedings were had:

8 COURT CONVENED:

9
10 RAYMOND SUSKIND

11 (being called as a witness on behalf of the Defendant, having
12 been previously sworn, having resumed the stand, continued to
13 testify as follows)

14 CROSS EXAMINATION

15 BY MR. REX CARR

16 Q. Dr. Suskind, at the break we were discussing
17 whether or not you recalled earlier testimony with regard to
18 the possibility that workers in Building 79 might be exposed
19 to TCDD that was in there, do you recall that, sir?

20 A. Correct.

21 Q. And you've now had the opportunity to refresh your
22 recollection as to whether you agreed that workers might be
23 exposed?

24 A. Yes, at the time that I discussed.

1 Q. My question is, did you check your recollection?
2 A. My recollection about what I said here?
3 Q. Yes, have you had a chance?
4 A. Is that those --
5 Q. Doctor, my question is, have you had an opportunity
6 to refresh your recollection?
7 A. Yes.
8 Q. All right. And did you have an opportunity to read
9 your transcript?
10 A. Oh, no, I don't have a copy of that transcript,
11 sir.
12 Q. Doctor, do you recall now -- do you recall having
13 testified that the workers that were in that Building 79 that
14 had TCDD found in it, that they might be exposed to the TCDD?
15 A. Yes, I recall that.
16 Q. You did so testify, did you not, Doctor?
17 A. I believe that, yes, I did.
18 Q. Now, Doctor, the memo, Plaintiff's Exhibit 1757
19 after the statement that the 2,4,5-T problem had not been
20 solved and remained the outstanding problem, and went onto
21 point out that while it was considerably safer, there were
22 new chloracne cases. You recall we having gone over that,
23 Doctor?
24 A. You are referring to what?

1 Q. Plaintiff's Exhibit 1757, dated December the 7th,
2 1955?

3 A. I have it before me, sir, yes.

4 Q. And you recall in this we have covered this that I
5 already stated to you the maker of this memo or this
6 confidential report says that he's convinced the only
7 solution to the problem is to isolate the chloracne causing
8 material and to remove it, correct, sir, from the process?
9 Do you see that, sir, that second paragraph of that exhibit?

10 A. Yes, I do, sir.

11 Q. And he says that he is at least convinced the only
12 way they are going to solve this problem is to isolate that
13 material that causes it, that is the contaminant, and to
14 remove it from the process, is he not, sir?

15 A. That's what this reads, sir.

16 Q. And what he's saying is that the hygienic measures
17 taken were not sufficient to solve the problem, is he not,
18 sir?

19 A. No, he's not saying that, sir.

20 Q. Doctor, does he describe in the first paragraph
21 that they have made the plant considerably safer than
22 previous operations?

23 A. That's true, sir.

24 Q. Does he also say that chloracne continues to arise?

1 A. That is quite true, sir.

2 Q. Doesn't he say that he is convinced that the only
3 solution to that problem is to remove the chloracne causing
4 material from the --

5 A. That's what he says, sir.

6 Q. All right. He also points out that that solution
7 is one that Dow and Diamond Alkali indicate that the solution
8 is distillation of the chlorophenol, correct, sir, he says
9 that, "Our experience, Dow's experience and Diamond Alkali's
10 experience indicates that distillation of the trichlorophenol
11 can provide this solution to the problem," does he not?

12 A. That's what this memorandum reads, sir.

13 Q. All right. Now, Doctor, that memorandum is dated
14 1955 and the memo that we have been discussing here earlier
15 is dated January the 6th, 1953, is it not, Plaintiff's
16 Exhibit whatever that number is, I don't have the number on
17 mine?

18 A. 1799, sir.

19 Q. 1799, sir. Isn't that correct, sir?

20 A. I'm not sure what the question was. What is
21 correct?

22 Q. The memo that we just read, that is that says the
23 only solution to the problem is to remove, to isolate and to
24 remove the contaminant from the process is dated December

1 1955, isn't it, sir?

2 A. That's correct.

3 Q. Sir, a year and a half -- no, nearly three years
4 before the memo dated January the 6th, 1953, that is
5 Plaintiff's Exhibit 1799, is it not, sir?

6 A. No, I'm a little confused about the time.

7 Q. The December 1955 memo, sir?

8 A. Yeah.

9 Q. Is after January 6th, 1953?

10 A. It is indeed.

11 Q. Is it not, sir?

12 A. Yes, indeed.

13 Q. And it is a period of some nearly three years, just
14 shy of a month of being three years later, is it not, sir?

15 A. From the time of what, sir? From the time of this
16 memorandum?

17 Q. From the time of January the 6th, 1953 memo?

18 A. Yes, that is true, sir.

19 Q. All right. Now, the recommendation in 1953 was
20 that, and shown on page -- beginning at the bottom of Page 4,
21 is that, "a comprehensive chemical, engineering, clinical,
22 and laboratory investigation be made of the operation," isn't
23 that correct, sir?

24 A. That's correct, sir.

1 Q. And on Page 5, part of the recommendation by
2 Birmingham and Denton is that, "Basic research into the
3 actual mechanism and the occurrence of chloracne and the
4 occurrence of the other toxic symptoms from the chlorinated
5 hydrocarbons might well lead to one being able to predict
6 which chlorinated hydrocarbons would be hazardous in any
7 future operations," isn't that correct, sir? Doesn't it say
8 that?

9 A. That's what this letter reads, sir.

10 Q. And, Doctor, you know that orthochlorophenol and
11 Santophen and 2,4-dichlorophenol, these are all --
12 pentachlorophenol, these are all chlorinated hydrocarbons,
13 are they not, sir?

14 A. They are in the family of chlorinated hydrocarbons.

15 Q. And in 1953, Doctors Birmingham and Denton were
16 recommending a basic research that would allow Monsanto or
17 whoever does the research that they say it might well lead to
18 being able to predict whether or not other chlorinated
19 hydrocarbons would be hazardous in future operations, isn't
20 that correct, sir?

21 A. No, sir, it doesn't say that.

22 Q. Doesn't say that?

23 A. Says other toxic symptoms which chlorinated
24 hydrocarbons would be hazardous, they were referring to the

1 2,4,5-T operation and not ortho or para or any of the other
2 things you mentioned, sir, they were just concerned with this
3 operation.

4 Q. Doctor, let's look at that sentence. That sentence
5 says, does it not, in exact quotes, "Basic research into the
6 actual mechanism of the occurrence of chloracne and the
7 occurrence of the other toxic symptoms from the chlorinated
8 hydrocarbons might well lead to one being able to predict
9 which chlorinated hydrocarbons would be hazardous in any
10 future operations?"

11 A. They were correct in that, sir.

12 Q. Doctor, aren't they talking about other chlorinated
13 hydrocarbons when they say they are going to be able to
14 predict which chlorinated hydrocarbons would be hazardous in
15 future operations?

16 A. They were talking about other chlorinated
17 hydrocarbons in this operation, sir, and there were known
18 other hydrocarbons.

19 Q. Are they saying just in this operation?

20 A. No, but that's what they are concerned with.

21 Q. There is only one chlorinated hydrocarbon product,
22 that was 2,4,5-T, was it not, sir?

23 A. No, sir. No, sir. No, sir.

24 Q. What other chlorinated hydrocarbons do they have,

1 sir?

2 A. When they analyze the try --

3 Q. My question is --

4 A. Trichloro -- let me finish.

5 Q. My question is --

6 A. Trichlorophenol was one of them, and the
7 contaminants in trichlorophenol when I got into this program
8 included pentachloro.

9 Q. Excuse me, Doctor.

10 A. Trichloroanisoole, those are chlorinated
11 hydrocarbons.

12 Q. Doctor -- would you please stop talking, Doctor?
13 Trichlorophenol is one chlorinated hydrocarbon, is it not,
14 sir?

15 A. Precisely.

16 Q. What other chlorinated hydrocarbons were involved
17 in the 2,4,5-T process, Doctor?

18 A. Okay. And that's what I have just been telling
19 you, sir. Pentachloroanisoole, trichloroanisoole, and the
20 chemists at Monsanto at that time suspected that there might
21 be a chlorinated diphenyl which was a contaminant, those are
22 the chlorinated hydrocarbons they are talking about, that
23 were the acnegenic and this is why we did our experiments,
24 sir, we took those chlorinated hydrocarbons -- following this

1 recommendation, we took those chlorinated hydrocarbons and
2 attempted to find out whether or not they were acnegenic for
3 animals, they were toxic for animals, and those are in the
4 reports that you have used as an exhibit, sir.

5 Q. Doctor, the phrase which chlorinated hydrocarbons
6 does refer to the entire generic family of chlorinated
7 hydrocarbons, does it not, sir?

8 A. I don't think they are referring to the whole
9 family of chlorinated hydrocarbons.

10 Q. Doctor, they may not be referring to the entire
11 family of chlorinated hydrocarbons, but the phrase
12 chlorinated hydrocarbons includes considerably more than the
13 hydrocarbons that were involved in the 2,4,5-T making
14 process, could it not, sir?

15 A. It could, sir. It could, sir.

16 Q. Doctor, might not basic research into the actual
17 mechanism of the chloracne and other toxic symptoms from the
18 particular chlorinated hydrocarbons that were involved in the
19 Nitro plant, might not that basic research allow one to
20 predict which other chlorinated hydrocarbons might also have
21 the same toxicity?

22 A. Not really, sir.

23 Q. Oh, Doctor, don't you think that's what they are
24 saying?

1 A. No. No.

2 Q. Doctor, aren't they indeed saying that, sir?

3 A. No, I'm not sure they are saying that.

4 Q. Doctor, you may not be sure they are saying that
5 but didn't I say it exactly as they said it, sir, basic
6 research of these toxic symptoms from these chlorinated
7 hydrocarbons might well lead to one being able to predict
8 which chlorinated hydrocarbons would be hazardous in any --

9 A. They are correct, sir.

10 Q. Yes.

11 A. And all the work that was done after that proved
12 how correct they were.

13 Q. Doctor, might not that basic research have allowed
14 Monsanto to have a handle on whether or not making
15 orthochlorophenol or 2,4-dichlorophenol or Santophen, would
16 also be subject to being contaminated with these chloracne
17 causing agents or the agents that caused these other toxic
18 symptoms?

19 A. I have no idea.

20 Q. All right, Doctor. That's fine.

21 A. No idea.

22 Q. That's fine, Doctor. Now, Doctor, you do know that
23 research was conducted, was started by Monsanto at that time
24 as they say they have had a detailed study being made, isn't

1 that correct, sir, their response to that recommendation they
2 are saying that we have got a detailed study being made,
3 haven't we, don't they, sir?

4 A. That's what they state here, sir.

5 Q. And nearly three years later as shown in
6 Plaintiff's Exhibit 1757 they have come up with the answer,
7 haven't they, sir, to the conclusion -- the only solution to
8 the problem through their basic research and study is -- the
9 only solution which can isolate that material and remove it
10 which they say according to their experience, Dow's
11 experience and Diamond Alkali's experience can be done by
12 distillation, isn't that correct, sir?

13 A. That's what it says, sir, in that report.

14 Q. All right. Thank you, Doctor. Now, Doctor, over
15 the years as you became aware, it wasn't just Dow and Diamond
16 Alkali that had discovered methods of eliminating the toxic
17 contaminant from 2,4,5-T, isn't that correct, sir?

18 A. Would you read the question, please?

19 (Court Reporter read the previous question.)

20 A. I really don't know, sir.

21 Q. Doctor, don't you recall we have discussed earlier
22 about the reports that Dr. Adel from BASF?

23 A. If you are talking about Professor VonOertel, yes,
24 I recall that, but you he didn't say they eliminated

1 chloracne nor did Dow or Diamond Shamrock eliminate
2 chloracne.

3 Q. Doctor, Monsanto says the Dow and the Diamond
4 Alkali process is the solution, do they not, sir?

5 A. They said so, yes.

6 Q. And did not Dr. Adel report that their process that
7 he discovered at BASF that they did eliminate formation of
8 chloracne?

9 A. No, they didn't eliminate it from the experience.

10 Q. Doctor, don't you recall that that's what was in
11 the report that we put into evidence?

12 A. If it was, it was incorrect, sir.

13 Q. Excuse me, Doctor, it may be incorrect, you may be
14 absolutely right on all this, but isn't that what BASF said,
15 sir?

16 A. I don't have the memorandum before me, if you want
17 me to look at it, I can confirm it, sir.

18 Q. Doctor, if you don't have any present memory of it,
19 the jury has heard it and I want to pass on to other
20 companies in addition to BASF, sir, and Dow and Diamond
21 Alkali. Would you mark this these? Hand you now what's been
22 marked Plaintiff's Exhibit 1800, ask you if you recognize
23 that as a publication. There is an English interpretation of
24 it, Doctor, written by Doctor Bauer, Schulz, and Spiegelberg

1 whom you have mentioned on earlier occasions. Do you
2 recognize the article, Doctor, as being published in the
3 Archives of Industrial Pathology and so forth?

4 A. Yes, I believe I do.

5 MR. CARR: Your Honor, I'll offer this exhibit into
6 evidence.

7 MR. HEINEMAN: May counsel approach the bench, Your
8 Honor?

9 THE COURT: Sure.

10 MR. CARR: Before we do that, it is authoritative
11 publication, isn't it, sir?

12 THE COURT: Doctor, could you answer the question,
13 please?

14 A. I believe I would consider it authoritative.

15 (The following Side Bar conversation was had outside the
16 hearing of the jury.)

17 MR. HEINEMAN: Your Honor, we would object to the
18 admission of this article on the basis that it's hearsay and
19 no foundation has been laid for its admission into evidence.
20 Establishing by the witness that it is authoritative is a
21 method of cross examining the witness about it, but as Mr.
22 Carr has maintained in the past in this case and the Court
23 has sustained him, that that is not enough to get admitted in
24 evidence. No foundation has been laid for it. It's

1 hearsay.

2 MR. CARR: Your Honor, we have argued this same
3 point thirty times already.

4 THE COURT: It's admitted over objection.

5 (The following proceedings were had in open court.)

6 Q. (by Mr. Carr) Doctor, you have of course read this
7 article before today, have you not?

8 A. Some years ago, sir, yes.

9 Q. --And to help you with it, it reviews three West
10 German or reviews West German operations in making
11 chlorinated phenols, does it not, sir?

12 A. It reviews three shops making chlorinated phenols,
13 whether they are from one company or not, I don't know, or
14 three companies, I'm not sure, sir.

15 Q. And that's --

16 A. Because all it says is shops.

17 Q. Says three West German operations, discusses one as
18 a shop another as a factory?

19 A. No, they are regarded as shops.

20 Q. Well, Doctor, that's not important at all to the
21 question I'm talking about.

22 A. Okay, fine.

23 Q. They called the word shop interchangeably with
24 factory, don't they, sir?

1 A. There are three places where these operations went
2 on, sir.

3 Q. And they use the word shop or factory
4 interchangeably, don't they, sir? In each of these
5 instances, Doctor, they are discussing the industrial
6 processing, manufacturing of chlorinated phenols and making
7 pentachlorophenol and 2,4,5-T trichlorophenol, are they not,
8 sir? And on the second page, Doctor, they point out the
9 third group is 31 workers from the Hamburg operation, this
10 group of patients were employed in trichlorophenol production
11 in a factory in which the herbicide
12 2,4,5-trichlorophenoacetate was being processed, correct,
13 sir?

14 A. Yes, sir.

15 Q. Doctor, without getting into the -- and I don't
16 wish to at this time get into the various symptoms, the part
17 that I'd like to direct your attention to is on Page 10, sir,
18 and in the last paragraph, sir, in this article dealing with
19 the company known as Boehringer, B-o-e-h-r-i-n-g-e-r, they
20 say in that last paragraph on that page, do they not, sir,
21 "In our special case, it was succeeded through a chemical
22 engineering approach to develop a modification of the process
23 to avoid the formation of polychlorinated dibenzo-dioxins and
24 dibenzo-furans. Since then 2,4,5-trichlorophenol has been

1 processed in this factory and continuously used to produce
2 the herbicide 2,4,5-trichlorophenylacetate without there
3 appearing any symptoms of intoxication of any sort in the
4 workers." End of quote. Isn't that what it says, Doctor?

5 A. That's what it says here, sir.

6 Q. And, Doctor, the gentlemen that wrote this article,
7 Bauer and Schulz and Spiegelberg, you have previously
8 identified these gentlemen as reputable scientists in this
9 particular field, are they not, sir?

10 A. I have. I know Schulz better than the others and
11 he was one of the persons who identified TCDD.

12 Q. And, Doctor, they would --

13 A. Years before that.

14 Q. Doctor, they would not say something that was not
15 true, would they, sir?

16 A. I don't know, sir.

17 Q. Doctor, do you think that these doctors, these
18 professors would state something that was a fact if they did
19 not believe it was the truth and the fact?

20 A. Oh, I am not saying that what they are alleging is
21 not in their view true, I'm not saying that.

22 Q. Fine, Doctor, then they would state the truth as
23 they perceive it, would they not, sir?

24 A. As they perceived it, but there are --

1 Q. Doctor, as they have stated it here, it is as they
2 have perceived it, is it not, sir?

3 A. I don't know, sir.

4 Q. Doctor, have they not stated it -- what they saw as
5 a fact, don't you know that this is something they have
6 stated?

7 A. That's in here, sir, yes.

8 Q. And they had stated what they perceive the fact to
9 be, have they not, sir? They are not misrepresenting the
10 facts, are they, sir?

11 A. I don't know, sir.

12 Q. Doctor, aren't these gentlemen honest?

13 A. As honest as Mr. Soden, sir, and he was mistaken.

14 MR. CARR: Your Honor, would you ask the jury to
15 disregard what Dr. Suskind just said?

16 THE COURT: I don't think it was responsive. The
17 jury is ordered to disregard the last remark that the witness
18 stated. Doctor, please confine your answers to answers that
19 respond to the question that has been asked of you. I'm
20 asking you to do that again.

21 Q. Doctor, you now understand that what you have done
22 is made a statement with reference to Mr. Soden which if I
23 were going to devote the time to it we would be diverted from
24 this point and go down the trail of whether or not Mr. Soden

1 was mistaken or not? You see what you've done, don't you,
2 Doctor? Could you confine your answer, please, sir, to the
3 question that I'm asking? Will you do that?

4 A. I will do that, sir.

5 Q. Now, Doctor, my question is, do you believe that
6 these professors and doctors misrepresented the facts as they
7 saw them, sir?

8 A. They could have, sir, yes.

9 Q. Doctor, why would they want to misrepresent the
10 facts?

11 A. Because they didn't have -- may I finish?

12 Q. Why would they want to commit a fraud?

13 A. They wouldn't want to commit a fraud, but they
14 might have not followed the events for a long enough period
15 of time, for a long enough period of time, because I know
16 that in West Germany, they had chloracne in the late sixties.

17 Q. Doctor, my question is why would these reputable
18 scientists that you said are authoritative and reputable
19 scientists, why would they want to misrepresent some facts?

20 A. They are not misrepresenting it but --

21 Q. Doctor, I asked you whether or not you believe they
22 were misrepresenting, you said you believed they were. Now,
23 Doctor, my question --

24 MR. HEINEMAN: Objection, Your Honor.

1 Q. Do you believe they are misrepresenting the facts
2 or not?

3 MR. HEINEMAN: May counsel approach the bench? I
4 don't think you have to shout at the witness, Mr. Carr. May
5 counsel approach the bench?

6 THE COURT: Yes.

7 (The following Side Bar conversation was had outside the
8 hearing of the jury.)

9 MR. HEINEMAN: I believe the answer of the witness
10 was they might be, not that they were misrepresenting, that
11 they might be. The witness has testified that they are
12 stating the facts as they perceive them to be. The witness
13 has also said that they might be mistaken.

14 MR. CARR: No, he said misrepresenting, if they
15 were saying that.

16 MR. HEINEMAN: You want to stand up here and tell
17 the jury that?

18 THE COURT: Calm down, both of you. He answered
19 affirmatively to a question that clearly said
20 misrepresentation, misrepresenting the facts, and he said
21 that they might be.

22 MR. HEINEMAN: They might be.

23 THE COURT: Objection is overruled.
24 Misrepresentation is not equivalent to mistaken. It's not in

1 layman's parlance, it's not in ours. Your objection is
2 overruled. Let's proceed.

3 (The following proceedings were had in open court.)

4 Q. (by Mr. Carr) Doctor, when you said that they
5 might be misrepresenting the facts, did you mean to say that
6 they might be mistaken as to the facts, rather than they
7 might be misrepresenting the facts?

8 A. I believe you are correct, sir.

9 Q. All right. Then you don't believe that they were
10 misrepresenting the facts, do you, sir?

11 A. Not as honest scientists, no.

12 Q. You believe they were honest scientists, correct,
13 sir?

14 A. Yes.

15 Q. So they are stating the facts as they saw the
16 facts, correct, sir?

17 A. Up until the time they wrote this, yes.

18 Q. Doctor, would you please answer my question?

19 A. Yes.

20 Q. They were stating the facts as they saw the facts,
21 were they not, sir?

22 A. As they thought they saw the facts, yes, sir.

23 Q. Would you please answer my question? They were
24 stating the facts as they saw the facts, did they not, sir?

1 MR. HEINEMAN: Objection, Your Honor, it's been
2 asked and answered.

3 THE COURT: Objection is overruled.

4 A. Yes.

5 Q. And, Doctor, these are excellent, competent,
6 reputable scientists, are they not, sir?

7 A. We have established that, sir.

8 Q. Doctor, would you answer that question?

9 A. Yes, we have established that.

10 Q. Doctor, these men are capable -- they are part of a
11 neurologic clinic, the skin clinic, the psychiatric and the
12 nerve clinic of this University Hospital, are they not, sir?

13 A. They are. That's what it reads, sir.

14 Q. And Doctor -- I'm sorry, Doctor, is that a yes to
15 my question? They are from that clinic of the University
16 Hospital, sir?

17 A. That's all I'll say.

18 Q. Is that correct?

19 A. Its reputation I can't vouch for, sir.

20 Q. My question is, are they from that clinic?

21 A. They are, sir, from that clinic.

22 Q. All right. Now, Doctor, do you think that these
23 professors, and they are also professors, are they not, sir?

24 A. Yes, they are.

1 Q. Do you think that these professors and these
2 doctors from this clinic are capable of recognizing a case of
3 chloracne if they see it, sir?

4 A. At least one of them would, sir, yes.

5 Q. Is that a yes to my question, Doctor, that they are
6 capable?

7 A. You said they, and I don't know what they --

8 Q. Doctor, is Dr. Bauer the lead author?

9 A. Yes.

10 Q. And is Dr. Schulz also involved? Is Dr. Schulz the
11 doctor that you know?

12 A. He's a dermatologist, sir, yes.

13 Q. Is he capable of recognizing chloracne, sir?

14 A. I believe so.

15 Q. Is there any question about it in your mind,
16 Doctor?

17 A. No, but I can say I believe so.

18 Q. Doctor, my question, is there any question about it
19 in your mind? He is capable of recognizing chloracne, is he
20 not, sir?

21 A. Yes, sir.

22 Q. Doctor, does he state that he looked at these
23 various -- does the articles state that they looked at these
24 plants, sir, does he talk about, "Our own clinical

1 observations in the Hamburg operation, sir?"

2 A. Where is that, sir?

3 Q. Page 2, headed, our own clinical observations.

4 A. I see that, sir.

5 Q. And, Doctor, he discusses what they saw in there
6 own Hamburg operation over a period of time, did they not,
7 sir?

8 A. Yes.

9 Q. And they discussed they found these 31 workers,
10 they found that five years after removal from the industrial
11 exposure that nine was still under medical treatment for
12 residuals of their acne, an unremitting neuro muscular
13 weakness of the legs, vasovegetative (autonomic), lability
14 and marked psychopathologic disturbances. Do you recall we
15 went over that, Doctor, before, earlier?

16 A. When?

17 Q. Doctor, don't you recall we went over the case of
18 the nine additional workers? If you look at that table at
19 the back that's appended to this. It's an aside issue,
20 assume we didn't go --

21 A. We never did, sir.

22 Q. All right. Very good. We didn't. I may certainly
23 be mistaken.

24 A. Well, I think you are, sir.

1 Q. Fine, Doctor, I'll accept that.

2 A. That's the first time I've seen this in this
3 courtroom.

4 Q. That's fine, Doctor, the point I'm making is they
5 report, don't they, sir, that these nine of the 81, 31 still
6 had these unremitting neuro muscular problems five years
7 after the exposure?

8 A. That's what they report, sir, yes.

9 Q. And, Doctor, they discuss in some length what these
10 workers reported, do they not, sir, what they saw in their
11 observation of these workers -- several pages there, Doctor?

12 A. I am reading, sir.

13 Q. Doctor, I'm not asking you to read word for word,
14 but you can see by just scanning it that they discuss at some
15 length the problems of these workers and others, don't they?

16 A. Well, the largest part of it is spent in the
17 dermatologic --

18 Q. Very fine. I have no quarrel with that. They
19 discuss at some length their findings with respect to these
20 workers, don't they, sir?

21 A. They do.

22 Q. Then on Page 9, sir, they talk about the isolation
23 of a definite compound, they say at first it wasn't possible,
24 don't they, sir?

1 A. They have several paragraphs on chemical isolation,
2 sir, yes.

3 Q. Yes, Doctor, and after these several paragraphs
4 they state on Page 10 we did succeed in isolating the
5 specified tetrachlordibenzo-p-dioxin, do they not, sir, from
6 this phenol process? They called it at this time 2,3,6,7,
7 later on it's been called 2,3,7,8, isn't that correct, sir?

8 A. I don't see where it's 2,3,7,8 but I believe that
9 if Schulz is involved, it's the same thing that Kemmig and
10 Schulz isolated from the Boehringer operation, sir.

11 Q. Yes, they originally call it 2,3,6,7. I think we
12 went into that, you agreed that's what they called it at that
13 time and it's really 2,3,7,8?

14 A. Mr. Carr, you and I didn't discuss this before, I'm
15 sorry.

16 Q. Doctor, we discussed it. We went through your 1957
17 report to the dermatological society or the chemical society
18 in Chicago in which you reported in 1957, sir, that Kemmig
19 and Schulz had isolated 2,3,7,8 and called it 2,3,7,8,
20 correct, sir?

21 A. Yes, sir.

22 Q. That's when we went through it.

23 A. Yes, sir, we did indeed.

24 Q. Now, Doctor, back to this particular study. They

1 then go on to say, do they not, sir, after discussing the
2 various things that they did, how they isolated it, how they
3 discovered it, and they in talking about their observations,
4 sir, they then say, "In our special case it was succeeded
5 through a chemical engineering approach to develop a
6 modification of the process to avoid the formation of
7 polychlorinated dibenzo-dioxins and dibenzo-furans. Since
8 then it's been processed and they use it to produce 2,4,5-T
9 without there appearing any symptoms of intoxication of any
10 sort in the workers," don't they say that, sir?

11 MR. HEINEMAN: Objection, asked and answered.

12 THE COURT: Objection is overruled.

13 A. The quotation that you have read is accurate.

14 Q. Now, Doctor, have they made it clear that they were
15 talking about their observation in their plant, where they
16 start out on -- as I indicated to you, sir, on Page 2, "Our
17 own clinical observations of the Hamburg operation," and then
18 they went on to show what they found, and then they went on
19 to show how they isolated it. They are making it clear they
20 are talking about their plant, aren't they, sir?

21 A. In the Hamburg operation? I'm sorry, sir, but I
22 don't see that.

23 Q. Look on Page 2, Doctor, where they talk about the
24 third group comprising 31 workers from the Hamburg operation

1 and then they say our own clinical observations of these 31
2 workers, and then they go on to describe what the effects in
3 these 31 workers were, the psychovegetative effects and then
4 they go on to describe how they isolated it in that
5 particular plant that was responsible for the phenomena,
6 don't they, sir?

7 A. I would have to say no, sir.

8 Q. Doctor, on Page 8, do they not discuss, "In spite
9 of the discussed phenomenologic relationship, the
10 psychopathologic sequelae of the chlorophenol workers is
11 hardly completely compatible with any of the known clinical
12 patterns," and then they say, "Such reactions were also seen
13 in our cases," don't you see, sir, that they are talking
14 about their cases?

15 A. Their cases, sir, but they didn't do the isolation.

16 Q. Doctor, I didn't suggest that these authors did.

17 A. That's what I thought you were talking about, they
18 didn't do any chemistry.

19 Q. I'm talking about what was done in that plant.

20 A. They examined people.

21 Q. Doctor, what we are talking about, if you'd listen
22 to me, they are talking about what was done in the plant at
23 Hamburg, their observations of what went on at Hamburg, are
24 they not, sir?

1 A. Are you talking about clinical observations? You
2 talking about chemical observations? You talking about
3 chemical engineering operations?

4 Q. I'm talking about their observations of all of
5 these phenomenon, all of these circumstances, Doctor, what
6 they have reported here, as something they had seen and
7 discovered and reported on you, sir -- on them, sir?

8 A. No, sir.

9 Q. Doctor, are they not recording what they say is
10 answered and learned in this process?

11 A. No, sir.

12 Q. Doctor, on Page 10, do they not say, "Furthermore
13 we did succeed in isolating the specified
14 tetrachlorodibenzodioxin from the technical phenol process,"
15 don't they say we did that, sir?

16 A. It says we, sir, but they weren't chemists, sir.

17 Q. Doctor, if you don't mind, would you just listen to
18 my question, sir?

19 A. Yes, I am, sir.

20 Q. Doctor, they are reporting in this document what
21 they observed, are they not, sir, and reporting it with
22 relation to their plant at Hamburg?

23 A. It was -- no, it was a plant.

24 Q. I'm sorry?

1 A. It was a plant.

2 Q. A plant of the Hamburg operation, Doctor?

3 A. It wasn't their operation, sir.

4 Q. All right, Doctor, they --

5 A. Monsanto was not my operation, sir.

6 Q. They say in our special case it was succeeded

7 through a chemical engineering approach, don't they, sir,

8 they say, furthermore we did succeed in isolating the

9 specified TCDD, do they not, sir?

10 A. That's what they say as we -- but they didn't do it

11 themselves, sir.

12 Q. Doctor, whether they did it themselves or not, is

13 not the point, you know it, I don't need to go down that

14 path, Doctor. They are reporting on something that they saw,

15 that they felt capable of reporting on, that you believe

16 they're authoritative on, that you believe they are capable

17 of reporting on, and they are reporting on what they saw take

18 place at the Hamburg operation, are they not, sir?

19 A. Yes, I believe that's what they felt they were

20 doing.

21 Q. Now, Doctor, do they not -- are they not capable of

22 recognizing whether other workers at that plant would get

23 symptoms of intoxication after the chemical engineering

24 approach that was developed, modification took place, are

1 they not capable of observing that, detecting it and
2 reporting it, Doctor?

3 A. I believe they are capable.

4 Q. Yes. Now, Doctor, they say then, these capable
5 scientists, that after it was changed in that operation, they
6 saw that since it had been changed they do it without there
7 appearing any symptoms of intoxication of any sort in the
8 workers, don't they say that, sir?

9 A. Would you read that?

10 (Court Reporter read back the previous question.)

11 A. (no response)

12 Q. Page 10, bottom of the page?

13 A. My question is they say that, don't they, sir?

14 A. They do not, sir. They do not, sir.

15 Q. Doctor, am I reading this exactly? "Since then
16 2,4,5-trichlorophenol has been processed in this factory, and
17 continuously used to produce the herbicide
18 2,4,5-trichlorophenylacetate without there appearing any
19 symptoms of intoxication of any sort in the workers." Did I
20 read that correctly, sir?

21 A. That's an accurate reading of the second sentence,
22 sir.

23 Q. Did they write that sentence, sir?

24 A. They did, a second sentence, sir.

1 Q. Did they precede that sentence with saying that it
2 was succeeded -- "In our special case, it was succeeded
3 through a chemical engineering approach to develop a
4 modification of the process to avoid the formation of
5 polychlorinated dibenzo-dioxins and dibenzo-furans, is that
6 the first --

7 A. That is the first sentence, yes.

8 Q. And so they say after that, since then, since this
9 modification of the process to avoid the formation, sir,
10 since then there have not appeared any symptoms of
11 intoxication of any sort in the workers?

12 A. That's what they report, sir.

13 Q. Yes, Doctor. These scientists are capable of
14 observing whether or not there were symptoms of intoxication
15 of any sort, are they not, sir?

16 A. I believe they are.

17 Q. And they reported that they looked at the workers,
18 did they not, sir?

19 A. No, they don't report they looked at the workers
20 after the process was changed, sir.

21 Q. Doctor, don't they say it's been used continuously
22 without there appearing any symptoms of intoxication of any
23 sort in the workers?

24 A. Yes, but that doesn't mean that they examined them,

1 sir.

2 Q. Doctor, how can they possibly make that statement,
3 sir, without looking at the workers?

4 A. If it was reported to them, sir --

5 Q. Excuse me, Doctor, they didn't say that?

6 A. They didn't say that they did examine them, sir.

7 Q. Now, Doctor, you are saying that these capable
8 scientists are indeed misleading the world?

9 A. No, I'm not, sir.

10 Q. All right. Now, Doctor --

11 A. Don't misinterpret me, sir.

12 Q. Do you accept what they said, sir, as the fact and
13 the truth or not, sir?

14 A. I am accepting what they said as truth, but they
15 don't say they examined after the change.

16 Q. Doctor, whether they specifically say they examined
17 or not, it would be the worse kind of incompetent scientific
18 work to say something as a fact in a scientific article
19 that's going to go around the world if they didn't know the
20 facts to support that statement? That would be the worse
21 kind of thing, wouldn't it, sir?

22 A. It didn't require examination --

23 Q. Doctor, would you answer the question?

24 A. Would you read the question back?

1 (Court Reporter read the previous question.)

2 A. They were reporting the facts.

3 Q. Would you answer my question, please, sir?

4 A. They were reporting the facts as they knew them.

5 Q. Doctor, that's not an answer to my question.

6 Answer the question that I asked you, sir.

7 A. Would you read the question, please?

8 (Court Reporter read back the question.)

9 A. It might be, sir.

10 Q. Doctor, you think it might be for them to say after
11 they changed the process no more symptoms appeared in these
12 workers? Now, a responsible company that wants to make sure
13 that chloracne and these other symptoms doesn't appear, they
14 would read this article, they would say, hey, look, I'll
15 modify our process just like they did because I don't want
16 our workers getting these symptoms any more. I want it to
17 occur as these reputable scientists said it occurred. That's
18 what would take place, wouldn't it, sir?

19 A. They were reporting it as they saw it, sir.

20 Q. Would you answer my question, please, sir?

21 A. Would you read the question, again?

22 (Court Reporter read the previous question.)

23 A. Mr. Carr, I'm sorry, I don't really understand the
24 question. It's a long complicated --

1 Q. I accept that. I'll certainly rephrase the
2 question.

3 A. Please do. I would appreciate it.

4 Q. Doctor, the Boehringer company has -- it's a
5 chemical company, and it among others is in competition in
6 producing TCP and 2,4,5-T for consumption and sale in the
7 world market, are they not, sir?

8 A. They were.

9 Q. They were at that time?

10 A. They were.

11 Q. At that time, correct?

12 A. They were.

13 Q. They would be in competition with Monsanto?

14 A. I assume so, I don't know.

15 Q. Well, if Monsanto is selling 2,4,5-T in the
16 sixties, in the fifties, which they were doing, this company
17 was doing it as well, were they not?

18 A. Whether they were in competition really I can't
19 tell you.

20 Q. Doctor, they were both selling the same product to
21 the customers, weren't they?

22 MR. HEINEMAN: Objection, Your Honor, may counsel
23 approach the bench?

24 THE COURT: Sure.

1 MR. CARR: I will withdraw the question so we can
2 move on and pass on.

3 THE COURT: Fine.

4 MR. HEINEMAN: Fine.

5 A. Thank you.

6 Q. Doctor, the companies throughout the world look for
7 means and methods of making a safer product, don't they, sir?

8 A. They should, yes.

9 Q. Yes, they should.

10 Q. Responsible ones should, shouldn't they?

11 A. They should.

12 Q. And if one company announces we have discovered a
13 way to make the product safer, the other companies should
14 adopt that method as well, if they could, should they not,
15 sir?

16 A. If they believe that it's safer, sir.

17 Q. If they believe that it's safer?

18 A. Yes.

19 Q. Now, if the other companies read this article, sir,
20 they would --, and took it at face value, they would see that
21 according to these scientists, there is a safer method of
22 making 2,4,5-T, wouldn't they, sir?

23 A. I think so, yes, sir.

24 Q. Now, at the time these professors and doctors wrote

1 this article, they knew that others would read it, wouldn't
2 they, sir?

3 A. I assume so, that's why they published it.

4 Q. They would assume that others would believe these
5 factual statements, wouldn't they?

6 A. I have no doubt that that's what they want.

7 Q. That's what they would expect, would they not, sir?

8 A. Sure.

9 Q. These are reputable men, aren't they, sir?

10 A. As far as I know, sure.

11 Q. And they would not deliberately mislead anybody,
12 would they, sir, in an article of this sort?

13 A. This I not misleading, sir.

14 Q. Doctor, would you answer my question?

15 A. No, I don't believe they would deliberately
16 mislead.

17 Q. Doctor, if they made a statement of fact, first of
18 all the statement is one of fact that there was no symptoms
19 of intoxication of any sort appearing in these workers, that
20 is a statement of fact, is it not, sir?

21 A. It would appear to be, sir, yes.

22 Q. And, Doctor, if they made that statement of fact,
23 they would expect others that read it to believe it, would
24 they not, sir?

1 A. I think so.

2 Q. Yes. And, a responsible scientist would not make a
3 statement of fact that he did not believe was so after he
4 discovered that fact to be true, would he, sir?

5 A. I've answered the question, sir, I've answered it
6 three times.

7 Q. Would you answer it again, Dr. Suskind?

8 A. Would you please repeat the question?

9 (Court Reporter read the previous question.)

10 A. Yes.

11 Q. Again, yes. He would not make a statement that he
12 did not believe to be true?

13 A. Yes, he would not make the statement.

14 Q. He wouldn't make the statement of fact without
15 investigation to assert its truth, would he, sir, a
16 responsible scientist?

17 A. I would assume that would be so, yes.

18 Q. Doctor, no question about it, a responsible
19 scientist does not state a fact unless he's sure it's a fact
20 by his own investigator, by the investigation of others, that
21 he has absolute confidence in, isn't that correct, sir?

22 A. The latter is also true, sir, yes.

23 Q. And in this case, Doctor, these responsible
24 scientists have made a statement of fact and they have put

1 their respective scientific reputations on the line for that
2 statement of fact they have made, have they not, sir?

3 A. Mr. Carr, we have answered that question before and
4 I think the answer is no, they would have not made that
5 statement if it were not true.

6 Q. My question is they would be putting their
7 reputations as scientists on the line, would they not, sir,
8 if they made a statement that was not true based upon the
9 facts, isn't that correct, sir?

10 A. Again, I'm answering the question the same way.

11 Q. They would not put their reputations on the line in
12 that circumstance, would they, sir?

13 A. Of course not, for the fifth time, sir.

14 Q. And, Doctor, they made the statement, didn't they,
15 sir?

16 MR. HEINEMAN: Objection, Your Honor, asked and
17 answered.

18 THE COURT: Overruled.

19 A. Sure they made the statement. I don't know what
20 you are driving at, I've answered the question seven times.

21 Q. What I'm driving at -- You said this statement was
22 a mistake, wasn't true?

23 A. I didn't say that, sir.

24 Q. Do you accept it as the truth, Doctor?

1 A. I accept it as the truth, but I said there are
2 certain other considerations.

3 Q. Doctor, do you accept it as fact that these workers
4 that worked with this new process did not get any symptoms of
5 intoxication, do you accept that as fact?

6 A. For as long as they followed these people, sir.

7 Q. Do you accept that as fact, sir?

8 A. I say for as long as they followed these people,
9 yes.

10 Q. And that was up until the time they published this
11 article, it was a fact, that up until that time?

12 A. Up until the time they wrote the article.

13 Q. All right, up until the time they wrote the
14 article?

15 A. Yes, sir.

16 Q. It was a fact that none of the workers at this
17 process in this plant got any of the symptoms of
18 intoxication?

19 A. I never said anything different on this occasion.

20 Q. Excuse me, would you answer that question, please,
21 sir?

22 A. That is true, sir.

23 Q. Thank you, Doctor. Now, Doctor, you do know that
24 it was further published, sir, as a matter of fact it was

1 published in 1957 because you knew of it in 1957 that they
2 had this safer method, didn't you, sir?

3 A. No, I did not, sir.

4 Q. Doctor, do you know that many of Boehringer's
5 competitors adopted the safer method?

6 A. You asked me a question about my 1957 paper, can I
7 answer that?

8 Q. Doctor --

9 A. At the time I wrote that paper --

10 Q. I didn't ask you a question about your 1957 paper
11 at all.

12 A. Yes, you did, you just said that.

13 Q. Doctor, I did not.

14 A. You said I quoted them.

15 Q. Doctor, would you please answer the question that
16 I've asked you.

17 A. Yes.

18 Q. And the answer to the question is that you know
19 that many competitors of Boehringer adopted their safer
20 method?

21 A. I do not know that, sir. I do not know that, not
22 at all.

23 Q. All right, Doctor, that's fine. Doctor, you do
24 know that Monsanto did not adopt the method, don't you, sir?

1 A. I don't know, sir.
2 Q. You don't know that?
3 A. No.
4 Q. Do you have any knowledge on it one way or another,
5 Doctor?
6 A. No, I don't.
7 Q. All right. Handing you now what's been marked
8 Plaintiff's Exhibit 1801, would you recognize that as an
9 authoritative article written by Bo Holmstedt?
10 A. I do not recognize it as an authoritative article,
11 sir.
12 Q. You don't?
13 A. No, I do not, sir.
14 Q. Doctor, do you know Bo Holmstedt?
15 A. I know him very well, sir.
16 Q. And is he considered an authority in the field?
17 A. Is he considered what, sir?
18 Q. An authority?
19 A. Authority on what, sir?
20 Q. On toxicology.
21 A. No, sir.
22 Q. Doctor, are you aware of the fact --
23 MR. HEINEMAN: Objection, Your Honor, counsel
24 approach the bench?

1 THE COURT: Sure.

2 (The following Side Bar conversation was had outside the
3 hearing of the jury.)

4 MR. HEINEMAN: Now, I know what he's going to do
5 here, he's going to ask this Doctor whether he was aware
6 whether or not Monsanto listed that man as a witness.

7 MR. CARR: And as a matter of fact had him testify
8 in Nitro West, Virginia, in the same case he testified in as
9 authority for Monsanto in that case.

10 MR. HEINEMAN: That is irrelevant, has nothing
11 whatsoever to do with the issues in this case or whether or
12 not he recognizes this article as authoritative, or whether
13 or not he considers the man to be an expert in toxicology.
14 The first objective was -- I assumed that Mr. Carr was going
15 to relate the fact that Monsanto had listed him as a witness
16 in this case. That is not proper cross examination of this
17 witness. That's not evidence in the case. That's not
18 something that he can question this witness about or even
19 bring to the attention of the jury, and I object to his
20 mentioning anything about any expert witness which was --
21 which may have been listed in this case and not called, and I
22 object to it.

23 MR. CARR: Your Honor, I have the right to
24 establish that this article is authoritative. This witness

1 has said it's not. The Court is the one that makes the
2 decisions whether or not this article is authoritative.
3 Simply because this witness doesn't say that it is
4 authoritative doesn't mean that I can't establish it. If I
5 establish it to the satisfaction of this Court that this
6 article is authoritative, then the Court will allow me to use
7 it as such, and whether or not I can use any authoritative
8 if it's established in this case that Bo Holmstedt was listed
9 by you. If I establish that he was called by Monsanto and
10 represented to the Court there as an authority in the field
11 and accepted by that Court as an authority in the field, I
12 think the Court can take judicial notice regardless of what
13 this witness says that the man is. Knowledge as an authority
14 in the field -- simply because this witness wouldn't deny
15 doesn't mean that I cannot show it. Once he denies it I have
16 to show it. I have to leave it for the Court to take notice
17 of it.

18 MR. HEINEMAN: The Court can certainly take notice
19 as to what was filed by Monsanto in this case without that
20 being brought to the jury's attention and that's what I
21 object to. He has no right to question this man and have the
22 jury understand which experts have been called and which have
23 not.

24 MR. CARR: Why don't I have the right for that, to

1 establish for this jury to know this witness says he's not
2 authority.

3 MR. HEINEMAN: Right.

4 MR. CARR: Admission by Monsanto that he is
5 authority --, I have the right to show this jury that
6 Monsanto says as fact he is authority. I have every right to
7 show that.

8 THE COURT: I think the preferable way to handle
9 this, I think that you are list -- your listing him as an
10 authority in this case is an admission against interest. I
11 think bringing it to the attention of the jury that someone
12 may have been listed and for other reasons not called,
13 especially when we have had the differences that we have had
14 on the experts and the amount of experts and timing and
15 listing of experts, may have a problem as far as affecting
16 the jury.

17 MR. CARR: He was one of the original five listed.

18 THE COURT: He was one, but he has not been called.

19 MR. CARR: That's correct. They have amended the
20 list.

21 THE COURT: I think the way to handle it as far as
22 that is if you could form a question that you know asks him
23 whether he is aware that he has been listed as an expert in
24 this field by Monsanto without also conveying that he was in

1 such a position that they said at one time they intended to
2 call him.

3 MR. CARR: Sure. Fine.

4 THE COURT: Cut that part out.

5 MR. HEINEMAN: Your Honor --

6 THE COURT: Wait a second. The other part is I
7 think a valid admission against interest, but I think that we
8 may be getting into some problems as far as the jury's
9 perception.

10 MR. HEINEMAN: But --

11 THE COURT: Wait. As far as the jury's perception
12 is concerned, if we start talking about witnesses, then for
13 some reason have not -- and for reasons that may have been
14 established outside the presence of this jury about being
15 called, so if you could tailor your question to that effect.

16 MR. CARR: Sure.

17 THE COURT: I think that would be proper.

18 MR. HEINEMAN: Your Honor, first of all, if it's
19 the opinion of this witness that he's not -- that he's not an
20 expert, then whether or not we admit it has nothing to do
21 with this witness, doesn't make it authoritative.

22 THE COURT: No, it has to do with my determining
23 whether it's authoritative.

24 MR. HEINEMAN: All right, then you know the

1 information --

2 THE COURT: Wait a second. Wait a second. Wait a
3 second. Whether I determine that it's authoritative and
4 should therefore be used and his knowledge as to whether or
5 not this is his opinion, it has been listed by the party that
6 has called him as being authoritative, it is something that
7 counsel could properly go into. Now, the only part of it
8 that I think should not be gone into is the part about
9 potential -- having been a potential witness. I think we are
10 asking for some problems there but I think the designation of
11 his abilities as expert by you is something that can be gone
12 into both as far as my determination and this person's
13 knowledge, as far as the opinion he just expressed.

14 MR. HEINEMAN: Well, Your Honor, to say that we
15 have designated him an expert in this case makes it obvious
16 that he has not been called. You are inviting the very
17 problem you are talking about.

18 THE COURT: No, I'm not.

19 MR. HEINEMAN: You already know that he's been
20 listed. He doesn't have to elicit any testimony from this
21 witness in order to establish knowledge for your information.

22 THE COURT: If I know he's designated, if he can be
23 called, there is a substantial difference there. They have
24 not been given anything in this case that would so education

1 them, and I think that's not so. I think they would state it
2 that way. Your objection in that is overruled. I think if
3 the question is so tailored as to avoid the question, both in
4 the direct and in this examination, then I think the problem
5 is taken care of. You had an objection as far as the Nitro
6 -- all the Nitro --

7 MR. HEINEMAN: No, my point, Your Honor, is that
8 whether or not he testified at Nitro, that's one thing, and
9 if Mr. Carr is going to say that he was designated as an
10 expert by Monsanto that's a far different thing.

11 THE COURT: You are objecting to that?

12 MR. HEINEMAN: I object to it both ways. I think
13 it's a lot worse to have him raise the inference with the
14 jury that he was designated as an expert in this case, and if
15 he doesn't appear the jury knows he's not been called.
16 That's not proper.

17 THE COURT: I don't think that there is any basis
18 for you saying that the jury is going to make this assumption
19 if it's not explicitly explained to them that he was put in
20 the position of a potential witness. There have been a lot
21 of names bandied around here by both sides in examination and
22 cross examination of various source materials that have not
23 been called as witnesses in this case. I don't think that
24 that's so -- so --

1 MR. HEINEMAN: Your Honor, to me it's no different
2 from advising the jury that we have designated Renate
3 Kimbrough as an expert and the Court has refused to let her
4 testify. Why not tell the jury that? What's the
5 difference?

6 THE COURT: No. No. Not at all. Not at all.
7 Your example shows exactly what I mean. Everyone has been
8 saying that she is an expert. No one has said anything about
9 her testifying, and that's the point that I'm trying to make,
10 that is the directive I gave to Mr. Carr.

11 MR. HEINEMAN: If he says that Monsanto has said
12 she is an expert, that's one thing.

13 THE COURT: Right.

14 MR. HEINEMAN: But designated her as an expert
15 indicates -- is a term of art that indicates she is going to
16 be called as a witness.

17 THE COURT: A lay jury doesn't know that that is a
18 term of art that we use in that particular way. It has not
19 been used before during the course of the trial. There is no
20 reason that they would infer that. No one has appeared in
21 front of them in this courtroom. Your objection is
22 overruled. You may proceed, Mr. Carr.

23 Q. (by Mr. Carr) Doctor, how many years have you
24 known Bo Holmstedt or known of him?

1 A. I can't recall that. It was since the incident at
2 Seveso, sir.

3 Q. Doctor, you know that Monsanto engaged him and used
4 him as an expert witness in the Nitro, West Virginia, case,
5 do you not, sir?

6 A. Yes, I do, sir.

7 Q. Because you were there also, testified for Monsanto
8 in that case, did you not, sir?

9 A. Yes, sir.

10 Q. And Monsanto put him forward there, did they not,
11 sir, as an authority in toxicology?

12 A. I don't know what his role was, sir, I really can't
13 tell.

14 Q. You don't know that, sir?

15 A. No.

16 Q. Well, he is -- his profession is that of a
17 toxicologist, is it not, sir?

18 A. If you use the term very broadly, sir, he is a
19 toxicologist of exotic plants, sir, not industrial
20 toxicology. That's his specialty.

21 Q. Doctor, do you know that he had been listed in this
22 case as an expert on the toxicity of dioxin by Monsanto?

23 MR. HEINEMAN: Your Honor, may counsel approach the
24 bench?

1 THE COURT: Yes, you may.

2 (The following Side Bar conversation was had outside the
3 hearing of the jury.)

4 MR. HEINEMAN: Your Honor, now he just directly
5 violated your order as to what should be said.

6 MR. CARR: That's --

7 THE COURT: No, not at all.

8 MR. CARR: Exactly what the Court told me to say.

9 THE COURT: That's exactly what I told him to say.
10 He has not said anything about being called as a witness,
11 considered as a witness, and having been proffered as a
12 witness and refused, he is talking about listing people who
13 have expertise. That is exactly what I allowed him to do on
14 the basis that such listing by you is an admission against
15 interest in this particular matter. Your objection is
16 overruled. Your motion is denied. Let's proceed.

17 (The following proceedings were had in open court.)

18 Q. (by Mr. Carr) Doctor, you recognize the Archives
19 of Toxicology as a journal accepted as an authoritative
20 publication in the field of toxicology, did you not, sir?

21 A. It is one, not the best, but it's one.

22 Q. Doctor, it is one that had been cited by
23 toxicologists. It is a peer reviewed journal, is it not,
24 sir?

1 A. I would assume that for original articles, sir, it
2 would be peer reviewed. This happens to be a review article
3 by a scholar, a scholar, a review article by a scholar would
4 --

5 Q. Doctor, my question is, this journal publishes peer
6 reviewed articles, does it not, sir?

7 A. Original articles are peer reviewed, sir, yes.

8 Q. Doctor, articles other than original articles are
9 also peer reviewed?

10 A. Not necessarily, sir.

11 Q. Not necessarily, Doctor, but they are in all kinds
12 of journals, medical journals, all kind of journals, are they
13 not, sir?

14 A. Might be. Review articles don't have to be, sir.
15 I have written many.

16 Q. And, Doctor, do you know whether or not this
17 article was peer reviewed?

18 A. I have no idea, sir.

19 Q. There are references and there are citations to
20 authorities here, aren't they, sir?

21 A. There should be. This is a scholarly report, yes,
22 sir.

23 Q. And, Doctor, this scholarly report uses, among
24 others things, articles that you have written for authority,

1 doesn't it, sir?

2 A. Yes, sir.

3 Q. Now, Doctor, if you would refer to Page 217 of this
4 article, sir, in the third paragraph from the bottom, sir, it
5 refers to the Kemmig and Schulz report that you discussed
6 earlier, the 1957 report, does it not, sir?

7 A. Yes.

8 MR. HEINEMAN: Your Honor, may counsel approach the
9 bench?

10 THE COURT: Yes, you may.

11 (The following Side Bar conversation was had outside the
12 hearing of the jury.)

13 MR. HEINEMAN: First of all, Your Honor, I would
14 ask that all of this questioning, that Mr. Carr's comment and
15 all of the questioning about Bo Holmstedt be stricken and ask
16 that the jury be instructed to disregard it based upon the
17 same record I made before.

18 THE COURT: I'll incorporate what both of you have
19 argued and that your motion, your request is denied.

20 MR. HEINEMAN: Secondly, he has now begun to
21 question the witness about the articles that the witness
22 denies as being authoritative.

23 THE COURT: I think it's time that I decide whether
24 I consider it authoritative or not. Having listened to

1 what's been brought out in this matter, and after a
2 conference at the bench, I believe that it is authoritative
3 and that it can properly be used, so I so rule this
4 questioning of the matter is proper.

5 MR. HEINEMAN: All right. I object to the witness
6 being questioned about the article without its being admitted
7 into evidence and of course it has not been offered and I
8 would object to its being admitted into evidence. I would
9 object to it being admitted into evidence on the grounds that
10 it's hearsay, that no proper foundation has been laid for its
11 admission into evidence. And if it's not admitted then I
12 object to his being able to question the witness about it.

13 THE COURT: I don't think you offered it.

14 MR. CARR: No, I didn't, Your Honor, and I don't
15 see the necessity to, but if counsel sees fit, I'll be glad
16 to.

17 MR. HEINEMAN: I don't care if you offer it or not,
18 I'm just saying if you don't offer it I object to it being --

19 THE COURT: He just said he'll offer it.

20 MR. HEINEMAN: If you do offer it I'll object to
21 its being admitted.

22 MR. CARR: Counsel, do you recall that there were a
23 long list -- are you through?

24 MR. HEINEMAN: No, I'm not. If you do offer it I

1 object to its being admitted on the grounds that it's hearsay
2 and that no authentication, no identification, no foundation
3 has been laid for its admission.

4 MR. CARR: Your Honor, I'll withdraw my offer to
5 admit it because I don't think it's necessary to do so.
6 Counsel has cross examined Dr. Silbergeld and Carnow about
7 many many articles that were never offered into evidence, and
8 I intend to use this article in the same fashion that you
9 used many many articles in cross examination of Dr. Carnow
10 and Dr. Silbergeld, Dr. Blonsky, without ever having offered
11 all those articles having been admitted into evidence.

12 MR. HEINEMAN: Well, many of them have been
13 admitted.

14 MR. CARR: No, they were admitted at my request and
15 my using it in the examination of your witnesses.

16 MR. HEINEMAN: No, you may recall in chambers we
17 had asked the admission as Defendant's Exhibit many of these
18 articles, and they were admitted.

19 MR. CARR: If they were, it was without my
20 objection, counsel.

21 MR. HEINEMAN: They were admitted on the basis they
22 were found to be authoritative.

23 MR. CARR: The point is that you used and cited
24 from articles the contents of articles, many many articles,

1 in the cross examination of my expert witnesses. You had
2 them identified, you had them established as authoritative.
3 Once they are established as authoritative the Court allowed
4 you to use them to cross examine my witnesses. The Court has
5 here established this, has taken judicial notice that it is
6 authoritative and I'm now asking leave to cross examine this
7 witness without it being in evidence.

8 THE COURT: If I remember correctly, those
9 admissions were without objection and they were after the
10 use. I think that it would be proper to allow you since I
11 have found that this is authoritative to use this article as
12 the basis for cross examination without having to have it
13 admitted. If you later move for admission, we will deal with
14 that when the time comes. You may proceed.

15 MR. CARR: All right.

16 (The following proceedings were had in open court.)

17 Q. (by Mr. Carr) Doctor, have you had an opportunity
18 to look at Page 217 and discover the area that I want to ask
19 you about?

20 A. What area, sir?

21 Q. It states there that the second -- you discovered
22 that it does discuss the same article that Kemmig and Schulz
23 of 1957 article that you earlier discussed in your 1957
24 article, your 1960 appearance, I think, in Chicago. Do you

1 recall that, sir?

2 A. Yes, sir.

3 THE COURT: Okay. Mr. Carr, before you get into
4 it, is this a good point for a short break?

5 MR. CARR: Yes, Your Honor.

6 THE COURT: We will take a short recess and then
7 resume testimony. The admonishments that I gave you earlier
8 will apply during this break also. Court is in recess.
9 (Following a recess, these proceedings were had in open
10 court.)

11 Q. (by Mr. Carr) Doctor, directing your attention
12 once again to the bottom of Page 217 of Plaintiff's Exhibit
13 1801, the article by Mr. Bo Holmstedt, it says there, does it
14 not, sir, that, "Sorge understood the temperature dependence
15 of the formation of TCDD in the process, and developed a low
16 temperature procedure for the synthesis and production in
17 closed system. Thus, Boehringer's product became more
18 expensive but the manufacture less dangerous?"

19 A. Yes, I see that, sir.

20 Q. Doctor, over on the next page, 218, it states, does
21 it not, also there, "After the occurrence of the cases of
22 chloracne at Boehringer (FRG) and the introduction of the low
23 temperature procedure, there had been reportedly occurred no
24 cases of chloracne." Do you see that, sir?

1 A. "There have reportedly occurred," yes, sir.

2 Q. And that, of course, is consistent with what
3 Professors Bauer, Schulz and Spiegelburg reported in
4 Plaintiff's Exhibit Page 1800, the exhibit we just went
5 through, is it not, sir?

6 A. Yes. Seems to be similar, yes.

7 Q. And this report of Mr. Holmstedt is dated 1980, is
8 it not, sir?

9 A. I believe it was published in 1980, sir, yes.

10 Q. That's the date that's on it, is it not?

11 A. Yes, sir.

12 Q. And, Doctor, the article goes on to say, "It is
13 quite remarkable that some of the accidents could happen
14 subsequently, in spite of all the warnings. In 1957 the
15 Boehringer Company (FRG) informed other procedures using the
16 high temperature method for the manufacture of TCP about the
17 risks and how they could be successfully avoided." Do you see
18 that, sir?

19 A. I see that, sir, yes.

20 Q. And, you of course knew in 1957 what Kemmig and
21 Schulz had reported because you adopted it in your report in
22 1957 to the -- what was that group you appeared?

23 A. The American Academy of Dermatology meeting in
24 Chicago, sir, yes.

1 Q. And you reported that to them, didn't you, sir?

2 A. Reported what, sir?

3 Q. That TCDD was the contaminant -- yes, that TCDD was
4 the contaminant in the 2,4,5-T, that it had been isolated?

5 A. Yes.

6 Q. Yes. And, Kemmig and -- not Kemmig, Schulz, Bauer
7 and Spiegelburg reported the method by which TCDD could be
8 eliminated. They reported that Boehringer had such a method,
9 did they not, sir, in the 1961 article?

10 A. They reported that a company had such a method,
11 whether it was Boehringer, sir, the article did not say, sir.

12 Q. Well, this article identifies it as a Boehringer
13 Company, doesn't it, sir?

14 A. This review article does, sir, yes.

15 Q. And, Dr. Holmstedt comments that it's quite
16 remarkable that even after the company informed these other
17 companies these accidents continued to occur even though
18 there was a method known whereby it could be avoided, isn't
19 that correct, sir?

20 A. Could you read the question, back?

21 (Court Reporter read the previous question.)

22 A. I really don't know, sir.

23 Q. Isn't that what the article reports, Doctor,
24 whether you know it to be a fact or not, that's what --

1 A. The reason I say that is I'm uncertain --

2 Q. Excuse me, Doctor, I didn't ask you for the
3 reason. What I asked you for, sir, this is what is reported
4 in this article, is it not, sir, on Page 218?

5 A. That's how it's reported, sir.

6 Q. Yes. And, Doctor, over on Page 225, if you would
7 turn there, sir, beginning at the second paragraph from the
8 bottom, it points out, does it not, sir, that, "Although some
9 toxicologists took careful notice of Schulz's 1957 paper, the
10 problem was that no consequences were drawn and no effective
11 distribution of the message was organized." Isn't that
12 correct, sir?

13 A. I don't understand that sentence, sir.

14 Q. Doctor, the sentence refers to the Kemmig and
15 Schulz paper of 1957 which you had knowledge, correct, sir?

16 A. That's correct, sir.

17 Q. And, Doctor, they described how they, among other
18 things, how toxic the substance was, how it acted upon
19 animals and how they were to successfully -- how they
20 successfully isolated 2,3,7,8, did they not, sir? It's
21 clearly pointed out in 1957 by Schulz, wasn't it, sir?

22 A. It was pointed out, sir, yes.

23 Q. It was clearly pointed out, the high animal
24 toxicity and general properties of TCDD were clearly pointed

1 out by Schulz in 1957, wasn't it?

2 A. As clearly as they could at that time, sir.

3 Q. And, Doctor, this article goes on to state, "As
4 will be apparent from this review, the communication between
5 the chemical companies with regard to the risks of TCDD
6 contamination has been much better. The Boehringer Company
7 (FRG) already in 1957 informed its competitors about a safer
8 procedure for the production of TCP which was subsequently
9 adopted by many of them," isn't that correct, sir?

10 A. If you are quoting from this paper, that's what
11 this paper says, sir.

12 Q. Yes, thank you, Doctor. Now, Doctor, the
13 subsequent manufacture, however, by Monsanto continued to
14 have high levels of TCDD in their 2,4,5-T, did it not, sir?

15 A. I do not know, sir.

16 Q. Could you give the witness Plaintiff's Exhibit
17 1488. Your Honor, I don't know whether you have -- that's
18 been some time back. You have one, counsel?

19 MR. HEINEMAN: Which is it?

20 MR. CARR: 1488. If not, I think we have got one
21 for you. They have been passed to the jury once before but
22 I'm sure the jury has not got that exhibit with them and I'd
23 like to pass it again.

24 THE COURT: You may do so.

1 (Exhibit passed to the jury.)

2 MR. CARR: Mr. Heineman, could you give us that one
3 back. I didn't make another one for you.

4 Q. Doctor, Plaintiff's Exhibit 1488 has been in
5 evidence some time back, the top of the page there is a
6 sentence, admittedly it's from context from the entire
7 article, it's discussing changes that have been put into
8 evidence which were judged to have no effect on reducing
9 worker exposure, but greatly helped in improving the
10 production rate of about 5 million pounds per year by the end
11 of 1965 with indications of approaching 7 million pounds per
12 year in the near future if necessary. Correctly read, sir?
13 Is that correctly read, Doctor?

14 A. Yes, sir.

15 Q. Doctor, the next sentence states that, "By 1965 the
16 cause of chloracne was traced to TCDD." As a matter of fact,
17 we know that you knew it in 1957, didn't you, sir?

18 A. That's correct, sir.

19 Q. And it had been published by Dr. Feltz in 1957 some
20 eight years before this document says it was known, correct,
21 sir? Is that correct, sir?

22 A. No, sir, not really.

23 Q. It wasn't eight years before this, before 1965,
24 Doctor? It was known in 1957. That's eight years prior to

1 1965, isn't it, sir?

2 A. Right, but it says in 1965 the cause of chloracne
3 was traced. It was known in 1965 and known before that.

4 Q. Doctor, it was known in 1957, the cause of
5 chloracne was traced to TCDD, wasn't it, sir?

6 A. Yes, sir.

7 Q. Yes. So this is incorrect when they say by 1965
8 the cause was traced to TCDD because a correct statement
9 would be by 1957 the cause of chloracne was traced to TCDD,
10 isn't that correct, sir?

11 A. No, I'm not sure how this author is using the word
12 "by", sir.

13 Q. Doctor, the correct statement of fact is that by
14 1957 the cause of chloracne was traced to TCDD, isn't that
15 correct, sir?

16 A. That's correct, sir.

17 Q. All right. And, Doctor, this article -- this page
18 of this article goes on to point out that the TCDD was
19 discovered to be, "formed entirely during the TCB addition
20 and the hold period on the autoclave reaction," correct,
21 sir? Do you see that in the middle of that paragraph?

22 A. That's part of the sentence, sir, yes.

23 Q. It goes on to say, "and extending the hold period
24 increased TCDD formation," doesn't it, sir?

1 A. That's what it says, sir.

2 Q. Doctor, then at the bottom of the page there is
3 analysis for TCDD for the years 1958 through 1965, aren't
4 there, sir?

5 A. Yes, sir.

6 Q. And it shows the levels ranging from 5 parts per
7 million to as high as 55 parts per million, isn't that
8 correct, sir?

9 A. That's true, sir.

10 Q. And, Doctor, this is notwithstanding that as
11 pointed out in these other articles that the German
12 manufacturers had a method whereby the TCDD was, the
13 chloracne causing agent was eliminated by their engineering
14 modifications, correct, sir? We just went through the
15 articles, 1800 and 1801, Doctor, did we not, sir -- Doctor,
16 are you listening to me, sir?

17 A. I am, sir.

18 Q. Would you answer the question, please, sir?

19 A. No, sir.

20 Q. Why won't you answer the question?

21 A. No. No. I'm not referring to the -- I'm answering
22 your question as no, sir.

23 Q. Didn't we just -- are you saying we did not just go
24 through the article about Boehringer?

1 A. Yes, we did, sir.

2 Q. Reporting that their modification caused the
3 2,4,5-T to have the contaminant eliminated? Didn't we just
4 do that, sir?

5 A. My answer to that is no, sir, because the language
6 is very different, sir.

7 Q. The language we read several times in 1800 is that
8 they say it was succeeded through a chemical engineering
9 approach to avoid the formation of these dibenzo-dioxins and
10 dibenzo-furans, isn't that correct, sir?

11 A. That's what this says, sir.

12 Q. Yeah, and that's what I asked you, isn't that what
13 we just went through in article 1800?

14 A. No, it doesn't eliminate -- didn't say it
15 eliminates it, sir.

16 Q. Doctor, doesn't it say to avoid the formation,
17 Doctor?

18 A. I think that is --

19 Q. Excuse me. Doesn't it say to avoid the formation?

20 A. That's what this reads, sir.

21 Q. Doctor, if you avoid the formation, that means you
22 are not forming it, isn't it, sir?

23 A. Not necessarily, sir.

24 Q. Doctor, if you say that you have avoided a bill

1 collector that means he didn't get you, isn't that right,
2 sir, you eliminated any being got by the bill collector? You
3 avoided an accident, Doctor, that means you didn't have the
4 accident, isn't that correct, sir?

5 A. No.

6 Q. Doctor, if I say by my brilliant driving at 120
7 miles an hour and great maneuvering I avoided this accident,
8 haven't I said that I eliminated the occurrence of an
9 accident?

10 A. Not necessarily, sir.

11 Q. Doctor, do you really sit there and mean to say --

12 A. Yes.

13 Q. That when I say I avoided something that I'm not
14 saying that I eliminated that accident?

15 A. Not necessarily.

16 Q. What am I saying, Doctor?

17 A. You may have decreased the possibility.

18 Q. No, Doctor, I said I avoided. Doctor, I said I
19 avoided the accident. I didn't say I had an accident, did I,
20 sir?

21 MR. HEINEMAN: Objection, interrupted the answer.

22 THE COURT: Objection is overruled.

23 Q. (by Mr. Carr) Doctor, when I say I avoided the
24 accident, I'm telling you that I didn't have an accident,

1 aren't I, sir?

2 A. That's correct, sir.

3 Q. And when they tell you they avoid the formation of
4 dibenzo-dioxins and furans, they are telling you they didn't
5 have dioxins and furans in the process, aren't they?

6 A. Not necessarily, sir.

7 Q. Doctor, if they are avoiding the formation of it,
8 is it being formed?

9 A. It might be, sir.

10 Q. Then they have to be lying or mistaken?

11 A. No, sir.

12 Q. All right, Doctor.

13 A. It's the language they use, sir.

14 Q. If they say the formation of dioxins are being
15 avoided, aren't they telling you they are not making dioxins?

16 A. No, sir, not these people, sir.

17 Q. Doctor, whether these people are have got nothing
18 to do with the use of the language avoid?

19 A. Yes, it does, sir.

20 Q. If you tell me that you avoided an accident, you
21 are telling me that you didn't have an accident, aren't you?

22 A. Logically that would be so, but not for these
23 doctors.

24 Q. If you tell me you avoided a bill collector, you

1 are telling me that the bill collector didn't get you, isn't
2 that right, sir?

3 A. That might be so, sir.

4 Q. If I say I avoided having physical exhaustion or
5 mental collapse in this courtroom, I'm telling you that I
6 didn't have physical exhaustion and mental collapse, although
7 I doubt that right now.

8 A. I would have to answer, sir, I'm not sure, sir.

9 Q. I'm not sure either, so I can't use the word avoid,
10 but I have nearly avoided it, didn't I, Doctor? Now, if I
11 say very nearly avoided it, that means that I didn't avoid
12 it, that I had it, doesn't it, sir, isn't that right, Doctor?

13 A. Not necessarily so.

14 Q. If I say --

15 A. In this instance.

16 Q. If I say I nearly avoided it, aren't I telling you
17 that I did not avoid it and that I did have it in fact?

18 A. Not necessarily.

19 Q. What am I saying, Doctor?

20 A. I don't know what you are saying, sir, honestly, I
21 don't.

22 Q. I'm asking you what I'm saying.

23 A. But I know what this means.

24 Q. Doctor, I'm asking you what I'm saying, with the

1 use of the English language, if one says he avoided
2 something, that means it does not happen, it did not happen,
3 doesn't it, sir?

4 A. That's what -- ordinarily it would mean that, sir.

5 Q. Yes, Doctor, and that is what this statement would
6 -- if you interpret it ordinarily would mean, wouldn't it,
7 sir?

8 A. No, sir.

9 Q. Doctor, interpret this in the ordinary fashion, if
10 you will, sir?

11 A. These are --

12 Q. Doctor, I'm asking you to do something -- Your
13 Honor, would you direct the witness?

14 A. Ordinarily --

15 THE COURT: Doctor, please listen to the question
16 and answer the question that's been asked of you, please.

17 MR. HEINEMAN: Excuse me, may counsel approach the
18 bench?

19 (The following Side Bar conversation was had outside the
20 hearing of the jury.)

21 MR. HEINEMAN: The man got out two words. The man
22 got out two words before he objected and you instructed him
23 to answer the question.

24 THE COURT: Two or three, right.

1 MR. HEINEMAN: There is no way that you can tell
2 that that was not responsive.

3 THE COURT: Sure, I could.

4 MR. HEINEMAN: Or anything else.

5 THE COURT: Sure, I could.

6 MR. HEINEMAN: The man's answers are continually
7 being interrupted.

8 THE COURT: When they are not responsive, they are,
9 and properly so. And unfortunately an awful lot of this
10 witness' answers are not responsive, and are properly
11 interrupted. And, a non-responsive answer deserves to be
12 interrupted, his as well as others.

13 MR. HEINEMAN: For the record, Your Honor, I think
14 it will be clear in the record that his answer -- it was
15 impossible to tell whether his answer was responsive or not
16 because he didn't get more than about two syllables out
17 before he was interrupted by Mr. Carr. I object to the
18 interruption. I object to the Court's instruction of the
19 witness.

20 THE COURT: Objection as to both are overruled.
21 (The following proceedings were had in open court.)

22 Q. (by Mr. Carr) Doctor, I'd like for you to use the
23 ordinary meaning of the word avoid when you interpret this
24 sentence, sir.

1 A. Are you instructing me to use the ordinary use of
2 the --

3 Q. I'm asking -- the Court has instructed you so to
4 do, sir.

5 A. Has the Court instructed me?

6 THE COURT: Yes, you have been so instructed.

7 A. If one is using the ordinary meaning of the word,
8 the absolute meaning of the word, absolute as it might be
9 used by a chemist, it would mean not having it present, sir.

10 Q. Thank you, Doctor. Now, Doctor, in interpreting
11 this sentence in the absolute sense, like a chemist would,
12 they are telling us that it wasn't present, aren't they, sir?

13 A. In you interpret it as a chemist would, it would
14 not be present.

15 Q. Thank you, Doctor. And that's what they have said
16 to the world their process causes, haven't they, sir?

17 A. No, they have not, sir, since they are not
18 chemists, sir. They are physicians who could mean that there
19 was a decrease in the amount of TCDD or dibenzo-furans and
20 that's what I am trying to get at.

21 Q. Doctor, I know that, Doctor, but that's not what --

22 A. So avoid might mean something else here.

23 Q. Doctor, that's not what it says. They didn't use
24 the word decreased. Do you think that these doctors don't

1 know the meaning of the word decrease?

2 A. I think they do, sir.

3 Q. Yes, and if they meant to tell us that the
4 formation of dibenzo-dioxins and dibenzo-furans were
5 decreased, they would have said this process decreased the
6 formation of dioxins and furans, wouldn't they, sir?

7 A. No, sir, they might or they might not, not knowing
8 what the level was, and there is no indication in here that
9 the level was zero, which is what you are saying. And these
10 men don't say that the level was zero, all they say is -- all
11 they make is a description of that the dibenzo-furans and the
12 chlorinated dioxins were avoided.

13 Q. Yes, they didn't find them in the process, did
14 they, Doctor?

15 A. I don't know, sir.

16 Q. Doctor, when they say it was avoided, they don't
17 mean decreased, do they, sir?

18 A. I don't know, sir.

19 Q. Doctor, you don't know when one uses the word avoid
20 that they don't mean decrease?

21 A. They could very well mean that, sir.

22 Q. Doctor, if you meant to say an amount was
23 decreased, what word would you use, avoid or the word
24 decrease?

1 A. I would also -- I might even use the word avoid.

2 Q. Sir?

3 A. I might even use the word avoid.

4 Q. All right.

5 A. Not accurately, but I would use it.

6 Q. Doctor, these scientists are certainly capable of
7 accurately using the words, aren't they, sir? Maybe you are
8 not, but perhaps they are.

9 A. I don't know, sir.

10 Q. Doctor, you do know, you've told us that these are
11 reputable scientists, capable scientists that are certainly
12 competent to make these observations and to write this report
13 which is a peer reviewed article, and they meant to say
14 decrease, they would have used decrease?

15 A. No, sir.

16 Q. Oh no, Doctor?

17 A. No, they are not chemical engineers, sir.

18 Q. Doctor, when you say avoid the use of alcohol, do
19 you mean to say decrease it? When somebody tells you to
20 avoid the use of Tylenol because it might be laced with
21 cyanide, do you mean to say to that person decrease your use
22 of Tylenol, or do you mean to say to that person don't use
23 capsule Tylenol?

24 A. In that instance, sir, it's absolute.

1 Q. Yes, Doctor, and in this --

2 A. In that instance.

3 Q. Sir, these doctors certainly are capable of
4 determining whether or not they are using the word in an
5 absolute sense or in a sense meaning decrease, isn't that
6 right, sir?

7 A. No, sir.

8 Q. Have you ever seen the word avoid defined as
9 meaning decreased, Dr. Suskind?

10 A. I haven't seen it defined accurately that way.

11 Q. Have you ever seen, Doctor, the word --

12 A. I have seen it used that way.

13 Q. Have you ever seen the word avoid defined as
14 decreased?

15 A. Not dictionarywise, sir.

16 Q. Doctor, they also go on to say not only did it
17 avoid the formation of these dioxins, but that the workers
18 thereafter didn't get any symptoms of intoxication of any
19 sort, didn't they, sir?

20 A. That's what they stated, sir.

21 Q. And, Doctor, we have the 1965 letter of Dr. Kelly
22 in which he cynically says in 1965 are there any workers in
23 our department that don't have chloracne, didn't he, sir?

24 A. We have been through that, sir, yes.

1 Q. Yes, and Doctor, we also have this report that in
2 1965 they had in the parts per million of TCDD in the
3 Monsanto process, don't we, sir?

4 A. We have been through those levels, yes, sir.

5 Q. And, Doctor, we know that whatever the process
6 Monsanto was using did not avoid the formation of dioxins,
7 don't we, sir?

8 A. If we are going up to 1965 in those analyses and
9 they only record one, I don't know if this is an average of a
10 thousand or just one, but I see it as just one. They still
11 have TCDD in their 2,4,5-T.

12 Q. In the levels of parts per million, don't they,
13 sir?

14 A. As it is reported here, sir, yes, sir.

15 Q. They didn't avoid it, did they, sir?

16 A. They didn't get it out, if that's what you are
17 saying, no.

18 Q. Doctor, they didn't avoid it?

19 A. They didn't get it out.

20 Q. My question is, they didn't avoid it?

21 A. That's the same thing.

22 Q. Would you answer my question, please, sir?

23 A. Yes, sir.

24 Q. They did not avoid it, did they, sir?

1 A. They did not avoid it.

2 Q. Doctor, as a matter of fact, they didn't even
3 decrease it, did they, sir? The 1965 levels are all higher
4 than the levels of the preceding years, aren't they, sir?

5 A. According to this report, sir. Now, whether this
6 is accurate, I don't know.

7 Q. Doctor, it has been the records from the Monsanto
8 plant, it's been in evidence, it has been accepted by the
9 Court, it's not been contradicted by Monsanto, why would you
10 not say, sir, that this document is accurate, sir?

11 A. Well, I would be curious to know how this was done
12 and I have --

13 Q. Doctor, did you ever bother to read how it was
14 done?

15 A. First of all in 1958 --

16 Q. Excuse me, Doctor. Did you ever bother to read how
17 it was done?

18 A. I know how it was done, sir.

19 Q. Then, Doctor, you know it was done with a gas
20 liquid chromatograph, don't you, sir?

21 A. Well, it could be done that way.

22 Q. If you read it --

23 A. Yes, sir.

24 Q. Doctor, if this document is correct, they didn't

1 decrease the amount of TCDD, did they, sir?

2 A. I can't tell you, sir.

3 Q. Doctor, my question to you, if this document is
4 correct, by 1965 they did not decrease the levels of TCDD
5 contamination, did they, sir?

6 A. I can't tell you that, sir.

7 Q. Are you assuming this document is correct, sir?

8 A. No, I'm not.

9 Q. Doctor, I'm asking you to assume that this document
10 is correct?

11 A. I am assuming it is correct and even if it is
12 correct, at this point in time, there was no way to determine
13 specifically 2,3,7,8-TCDD accurately, so this is
14 non-specific.

15 Q. Doctor --

16 A. For TCDD.

17 Q. I didn't ask you --

18 A. Well, it's a terribly important issue.

19 Q. Doctor, I didn't ask you about this point in time,
20 did I, sir?

21 A. You did not.

22 Q. Doctor, for your information, this is a 1984
23 analysis of the reserve samples that were produced at that
24 time, sir.

1 A. All right.

2 Q. It was used for the Agent Orange case, sir. Now,
3 this shows that they did not decrease the level of the TCDD
4 contamination by their process changes, isn't that correct,
5 sir?

6 A. It shows that they still had TCDD in it, yes, sir.

7 Q. Is that a yes to my question as I gave it to you,
8 sir?

9 A. Yes, sir.

10 Q. Thank you. And, Doctor, in addition to the
11 Boehringer process, there was another process, the Dow and
12 Diamond Alkali process, which we have gone through before and
13 you've had that exhibit I think in front of you, have you
14 not, 1757?

15 A. Is this it, sir?

16 MR. CARR: I don't think this has been passed to
17 the jury recently, Your Honor. I'd like to pass this exhibit
18 to the jury.

19 THE COURT: Fine.

20 MR. HEINEMAN: What's the number?

21 MR. CARR: 1757.

22 (Exhibit passed to the jury)

23 MR. CARR: What, I have you too many?

24 JUROR: We already have it.

1 MR. CARR: The jury has it already, Your Honor, I
2 made unnecessary copies.

3 THE COURT: Oh, okay.

4 Q. (by Mr. Carr) Doctor, just quickly on this point,
5 it shows at this point in time that the Dow and Diamond
6 Alkali had a method of solving the problem of chloracne
7 causing material, even though they couldn't put a name on it
8 at that time, isn't that correct, sir?

9 A. According to this Mr. Soden's memorandum, sir.

10 Q. Now, Doctor, with regard to passing to another
11 subject at this time, you recall the colloquy that you had
12 with Mr. Heineman or the questions that he asked you about
13 Dr. Carnow's testimony relative to the health effects of
14 these workers at Nitro?

15 A. I can't recall specifically what these questions
16 were, that was about almost two months ago, sir.

17 Q. Let me help you, sir, and this counsel is on
18 February the 13th of '86 when you were asking Dr. Suskind
19 questions he told you that --

20 MR. HEINEMAN: Excuse me, Mr. Carr, do you have a
21 page number?

22 Q. Page 70. He told you that Dr. Carnow had testified
23 in this case relating to your mortality, the Zack-Suskind
24 study Exhibit 62, he told you that the -- Dr. Carnow

1 testified that the fault to be found with this study that you
2 just had been discussing was that it makes it appear that
3 exposure to dioxin improves health and mortality, and you
4 were asked do you agree with that statement, and you said at
5 that time -- Doctor, are you listening to me?

6 A. Yes, I am, sir. I'm just --

7 Q. Would you need a moment to get something?

8 A. Trying to get the mortality study out of my bag,
9 sir.

10 Q. You won't need it, Doctor.

11 A. Okay.

12 Q. He asked you whether or not the study makes it
13 appear that exposure to dioxin includes health and mortality
14 and asks you do you agree with that statement. Now do you
15 recall him asking you that question about Dr. Carnow?

16 A. I believe I do.

17 Q. And your response to that was that I wasn't aware
18 that he said that but I think it's a palpably ridiculous
19 statement. Do you recall making that statement?

20 A. I probably said that, sir.

21 Q. Doctor, I know you said it. I'm not asking you --
22 I'm asking whether or not you recall saying it, sir?

23 A. I now recall that I said that, sir.

24 Q. All right, and Doctor, you said that, sir, because

1 there were according to your study you got 32 deaths against
2 an expectation of 46 deaths, do you recall that, sir?

3 A. That's true, sir.

4 Q. I'm sorry?

5 A. Yes, that's true, sir.

6 Q. Doctor, do you still want to get the study?

7 A. Yes, I do.

8 Q. All right, go ahead, I'll wait for a moment.

9 A. I have it, sir.

10 Q. Doctor, you said that was a palpably ridiculous
11 statement because it would appear that the true -- that the
12 health of workers would be getting better and this is really
13 a healthy worker effect, do you recall that, sir?

14 A. We assumed that this is a healthy worker effect,
15 sir, yes.

16 Q. And that's the reason you said his statement would
17 be a palpably ridiculous statement, isn't that right, sir?

18 A. I believe so.

19 Q. And, Doctor, did Mr. Heineman tell you at that time
20 that Dr. Carnow was taking that article -- that statement if
21 you take it at face value that you would lead to that
22 conclusion?

23 A. If you take what at face value, sir?

24 Q. This statement that he attributed to Dr. Carnow, he

1 told you that the study would make it appear that exposure to
2 dioxin improves health and mortality, that's what Mr.
3 Heineman told you Dr. Carnow said.

4 A. Okay.

5 Q. Now, but -- he didn't tell you, did he, sir -- did
6 you read what Mr. Heineman pointed out, Dr. Carnow's
7 testimony?

8 A. I haven't seen Dr. Carnow's testimony, sir.

9 Q. Let me ask it a different way, Doctor. If you took
10 the statement that 46 deaths were expected in the Nitro
11 cohort, the accident, and you only got 32, if you took that
12 statement at face value, sir, it would appear that exposure
13 to whatever was in that accident would increase longevity or
14 increase health, would it not, sir?

15 A. No, sir, absolutely not.

16 Q. At face value, sir?

17 A. Even at face value. All we are doing here is --

18 Q. Excuse me, Doctor, I know what you are doing there,
19 but my question to you, sir, if you expect 46 deaths, and
20 these men that were exposed to dioxin, you only got 32 deaths
21 out of that group, at face value, without looking behind that
22 statement, without looking to the reasons why that occurred,
23 without looking at the healthy worker effect, or without
24 looking at anything else, at face value, it would appear,

1 would it not, sir?

2 A. It would not, sir, not even at face value.

3 Q. Doctor --

4 A. What you mean by face value is the following --

5 Q. Doctor, my question --

6 A. That TCDD is the cause of all of these, and we are
7 not saying that. That's not the purpose of an epidemiologic
8 study, sir, and perhaps you should be informed as to what a
9 true and honest epidemiologic study is all about, and what
10 I'm saying here is that you can't take it at face value and I
11 don't even know what you mean by face value. What do you
12 mean by face value?

13 Q. Are you through, Doctor?

14 A. I am.

15 Q. Doctor, my question to you, if you don't know what
16 is meant by face value, how can you say, sir, that taking
17 this at face value it doesn't mean that dioxin is a good
18 thing?

19 A. Absolutely. Absolutely. You cannot say that just
20 because there is a decrease in the number of deaths, which
21 happens to be the only significant figure in this whole table
22 for all causes of death, there is an SMR of .69 or 69 if you
23 wish if you have a hundred as the normal for the Monson
24 tables, this doesn't indicate that the reason for it is TCDD

1 by no stretch of the imagination.

2 Q. Doctor, I suggest to you that you are completely
3 misinterpreting the meaning of my question to you, sir.

4 Doctor, would you say that increased life expand --
5 expectations are better or better health or less mortality
6 would be a long-term effect of dioxin exposure to a heavily
7 exposed population?

8 A. No, sir, no.

9 Q. You wouldn't say that, would you?

10 A. Long-term health --

11 Q. Health effect?

12 A. No.

13 Q. Simply because you expected 46 deaths and got 32,
14 would you, sir?

15 A. You are asking me whether I have -- I could relate
16 that to dioxin?

17 Q. No, what I'm asking you is you would not list
18 longevity or increased life expectancy or reduced rates of
19 mortality as a long-term health effect from exposure to
20 dioxin, would you?

21 A. Of course I wouldn't.

22 Q. Of course you would not, would you?

23 A. I would not.

24 Q. And you wouldn't even try to do it under any

1 circumstances, would you, sir?

2 A. Certainly I wouldn't do it.

3 Q. And, Doctor, it would be -- it would be nonsensical
4 for you to do that, if I asked you to do it, you wouldn't do
5 it, would you, sir?

6 A. Well, I wouldn't consider as a scientist that it
7 was appropriate to do it, sir.

8 Q. All right. And, there is no question but what you
9 or Dr. Carnow and anybody else that looked at that study,
10 could possibly say that a long-term health effect of being
11 exposed to dioxin is a decreased mortality rate or an
12 increased life expectancy, isn't that correct, sir?

13 A. I would not do it, sir.

14 Q. And no other reputable scientist --

15 A. No other reputable scientist, right, sir.

16 Q. Isn't that correct?

17 A. Yes.

18 Q. You wouldn't do it in court or out of court and no
19 other reputable scientist would do it in court or out of
20 court?

21 A. I believe that's true.

22 Q. Isn't that correct, sir?

23 A. Yes.

24 Q. Well, Doctor, if you, however, took the fact 46

1 expected to die, and looked at the fact that 32 died, at face
2 value -- you know what face value means? You know how I'm
3 using the words face value?

4 A. I'm not altogether sure. It may be different from
5 mine, sir. Why don't you tell me?

6 Q. Take that bare fact alone, don't look beneath it,
7 don't look for any reasons why 32 die out of 46, the healthy
8 worker effect, nothing else, eliminate anything else, just
9 take that statistic at face value, sir. Now that's what I
10 mean by face value. Are we together on that? Do you
11 understand what I mean and what is meant by the words face
12 value, Dr. Suskind?

13 A. I believe I do, and there is nothing about looking
14 underneath --

15 Q. Doctor --

16 A. You know this whole business of --

17 MR. CARR: Your Honor, would you direct --

18 THE COURT: Doctor --

19 A. Yes. Okay.

20 THE COURT: You answer the question. Please don't
21 go beyond it. Please wait for the next question to be asked
22 of you.

23 Q. (by Mr. Carr) So by what is meant face value is
24 you look at the surface of it and do not try to explain away

1 any underlying reasons, isn't that correct, sir?

2 A. No, sir.

3 Q. What do you mean -- what would you mean by face
4 value if you used the term?

5 A. The face value would be to accept the fact, simply
6 accept the fact at face value that in this population of 121
7 persons, 121 persons who happen to be at one time or another
8 exposed to TCDD -- happen to be. What the reasons for that
9 difference in observed versus expected, and I would simply
10 say that here we have a group of 121 people, males, and when
11 you look at the tables, the mortality tables for all causes
12 of death, taking into consideration the ages of these people
13 when they died, what they died from, all causes of death,
14 that this group showed a smaller number of observed as
15 compared with expected, and that's the face value of it. It
16 has nothing to do with what else happened to them. That's
17 face value to me.

18 Q. Doctor, now I've asked you to define face value for
19 me, sir.

20 A. Take it just as it is.

21 Q. Yes.

22 A. 121 people --

23 Q. Without looking for any other reasons behind it.
24 Face value you take it as that fact and you don't try to

1 explain why it got that way?

2 A. We are not trying to explain, right.

3 Q. Doctor --

4 A. What you are doing, sir, is to say that TCDD is the
5 reason, and I say that's not face value.

6 Q. Doctor --

7 A. You are looking for causes, not me.

8 Q. You have no idea what I'm trying to say. All I'm
9 trying --

10 A. You've already said that.

11 Q. All I'm -- what -- that TCDD causes --

12 A. You have already said that if you take it at face
13 value, it's the TCDD which must be responsible for it, which
14 is palpable nonsense.

15 Q. Doctor, if you take it at face value -- what does
16 face value mean?

17 A. Take it just as it is without considering any other
18 factor.

19 Q. Yes. All right. Now, Doctor, taking that fact
20 just as it is, that you expected 46 deaths and got 32 --

21 A. Right.

22 Q. What would that mean to you as far as the effects
23 of dioxin exposure?

24 A. Wouldn't mean a damn thing, sir.

1 Q. Doctor, wouldn't it mean to you that somehow or
2 another there are fewer deaths than expected from exposure to
3 TCDD?

4 A. Face value, sir, is to take it as it is. That it
5 might be -- you are saying that it might be due to TCDD.

6 Q. Doctor, I am --

7 A. And if you do that, then you have to consider --

8 Q. Doctor, I'm not --

9 A. -- healthy worker effect.

10 Q. Doctor, I'm not saying anything. I'm trying to lay
11 a basis, Dr. Suskind, to ask you a question.

12 A. Well, please do, sir.

13 Q. You keep going into what I'm -- I'm trying to ask
14 you, sir, if you take something at face value the meaning is
15 that it has to be something good, dioxin, just that simple
16 fact?

17 A. No, sir.

18 Q. Does it mean there is something bad about dioxin?

19 A. No, it --

20 Q. What does it mean?

21 A. Doesn't mean good or bad. Face value would mean
22 you accept these statistics as they are, and you don't look
23 for reasons.

24 Q. You don't look for reasons?

1 A. No, you are looking for reasons, and I say you
2 can't look for reasons.

3 Q. What value do statistics have to do?

4 A. If it's face value there is no reason.

5 Q. Let me ask the question, would you please?

6 A. Yes, sir, please ask it.

7 Q. If you take the values at face value -- you take
8 the facts at face value, Doctor, you assign a meaning to them
9 without going to the underlying causes, do you not? Isn't
10 that what face value means?

11 A. You don't take -- you don't establish a meaning,
12 you just take it at face value. Face value simply means I
13 accept the fact and you accept the fact.

14 Q. And you apply --

15 A. Let me finish.

16 Q. No, Doctor. You apply that fact to what, sir?

17 A. Nothing. That's face value. You attach it to
18 nothing.

19 Q. You give no value to it at all then?

20 A. No, you give it a value. You say in this
21 particular --

22 Q. What value do you give it, sir?

23 A. In this particular group there were 46 who were
24 expected to die on the basis of the Monson tables, which are

1 terribly important as compared to the 32 who died, and that's
2 it. That's face value. You don't look for explanations.
3 Now you are looking for explanations for a face value
4 judgment, and that is an error.

5 Q. Doctor, I'm -- all I'm trying to do is ask you a
6 question. If you would confine yourself, please, to
7 answering my question, I might be able to move on.

8 A. Okay.

9 Q. Doctor, Dr. Carnow testified in this case that if
10 you took the facts at face value, that there were only 32
11 deaths and 46 expected, that it would appear -- the
12 conclusion would be that dioxin is beneficial?

13 A. That is an error, sir.

14 Q. If you take something at face value, sir?

15 A. Face value, you don't connect it to anything.

16 Q. Is that right, Doctor?

17 A. Yes, sir.

18 Q. Doctor, if I were to tell you that lo and behold I
19 ate this pill and I could run for hours every day by just
20 taking this pill, and didn't tell you anything else, and you
21 didn't ask any more questions, it would appear that that pill
22 was causing me to be able to run hours every day, wouldn't
23 it, sir?

24 A. That's a different situation, sir.

1 Q. I know it's a different situation.

2 A. It's not analogous, sir.

3 Q. Doctor, if you took my statement at face value, it
4 would appear as if that pill had a beneficial effect upon me,
5 wouldn't it, sir?

6 A. It would appear so, but it's a different situation.

7 Q. Yes, Doctor. My question --

8 A. These are causes of death, sir.

9 Q. If you took that statement at face value, it would
10 appear as if the pill had a beneficial effect, would it not?

11 A. It would appear, sir.

12 Q. Thank you. Doctor, if you took the statement that
13 we thought 46 people were going to die in this group, but
14 they took the pill of dioxin, they got dioxin absorbed into
15 their body and only 32 died, at face value that would appear
16 that dioxin miraculously had some kind of beneficial effect,
17 just like that pill on me, wouldn't it, sir?

18 A. Nonsense.

19 Q. All right. Doctor, you don't think the two
20 statements are equivalent, is that right, sir?

21 A. No, they are not, completely --

22 Q. Do you think it's also nonsense to add then that
23 taking dioxin would have a beneficial long-term health effect
24 like adding life expectancy?

1 A. I think it would be ridiculous.

2 Q. It would, wouldn't it, Doctor? You happen to
3 done that in Nitro in the Nitro case in Charleston, West
4 Virginia, on March 12th, 1985. Would you -- Doctor, the
5 questions were asked you at that time talking about the
6 Zack-Gaffey, the Zack-Suskind studies. Do you recall that,
7 sir?

8 A. No, I do not, sir.

9 Q. You do recall testifying, don't you, sir?

10 A. Oh, yes, I do.

11 Q. You do recall testifying about the 32 deaths and
12 expected 46, don't you, sir?

13 A. I assume that I did testify about that.

14 Q. Doctor, I'll ask you whether or not you recall this
15 question being asked you by Mr. Caldwell at Page 28381,
16 Counsel. The statement by -- the Court said put your
17 question again and let's see if there is any objection about
18 it, and Mr. Caldwell said, "I just asked the doctor, I
19 believe, if he wanted to include arteriosclerotic heart
20 disease as a long-term effect from exposure to dioxin." Your
21 answer at that time was, "No, I do not, but I would include
22 something that I thought you said, and should I include the
23 statement from the Zack-Suskind study about the overall death
24 rate, the overall death rate which is statistically

1 significant, when you compare those people who are heavily
2 exposed to dioxin as compared to the general population, and
3 you are asking me about heavy exposure, and I'm responding,
4 and in the Zack-Suskind study the only real statistically
5 significant information was the difference in the deaths
6 between that which we found and that which we could have --
7 we could have -- we would have expected. We found 32 deaths
8 and we should have expected 46. There was a 14 -- there was
9 a difference of 14 in that. That was statistically
10 significant at below 0.05 level. I would love to add that to
11 that long-term effect and you have asked me to do it. I
12 will." Period. End of quote. Wasn't that your answer at
13 that time?

14 A. That probably was, sir.

15 Q. And you would love to add the long-term health
16 effect on that statistic, didn't you?

17 A. No, sir, no.

18 Q. Isn't that what you said was there?

19 A. No.

20 Q. Didn't I just read to you exactly what you said,
21 Dr. Suskind?

22 A. That is what I said, but the interpretation is
23 something else, sir. The interpretation, sir, is that --

24 Q. I'm not asking you now to reinterpret what --

1 A. I'm not reinterpreting.

2 Q. -- What you interpreted in the Nitro case.

3 A. I'm not reinterpreting.

4 Q. You said we found 32 deaths, should have expected
5 46, I would love to add that to that long-term effect and you
6 have asked me to do it and I will. That was your answer
7 then, wasn't it, sir?

8 A. That was my answer, sir.

9 Q. That was a ridiculous statement, wasn't it, sir?

10 A. No.

11 Q. Didn't you just describe it earlier, Doctor, when I
12 asked you if that was a long-term health effect and you said
13 that would be ridiculous, absurd to do that?

14 A. No, I said if you took it at face value.

15 Q. We weren't talking about face value then, Doctor.
16 Didn't you just say that when I asked you the questions,
17 Doctor?

18 A. I did.

19 Q. Yes. And you did something in Nitro that you call
20 here absurd and ridiculous, did you not, Doctor?

21 A. No.

22 Q. Didn't you testify this way under oath in 19 --

23 A. Yes, sir.

24 Q. Yes. And, Doctor, are you aware of the fact that

1 here Dr. Carnow testified not just the way Mr. Heineman
2 suggested to you -- this is on the pages you cited, Mr.
3 Heineman on the 18th of June, '84. "Now, Professor, while
4 the death rate in exhibit 278" -- excuse me, start a little
5 earlier. Middle of the Page. "Doctor Zack and Suskind
6 observed 32 deaths out of 121 males." Did you not answer,
7 "That's correct?" "They also put in there the number of
8 deaths as expected, that is 46.41, is that correct?
9 Answer: That's correct. Question: Now, Professor, while
10 the death rate in Exhibit 278 is somewhat greater than the
11 death rate in 277, that's the Dow Chemical workers?
12 Answer: Yes. Question: The death rate is nevertheless very
13 greatly below the expected death rate, is it not, some 75
14 percent of the expected death rate? Answer: That is
15 correct. Question: Now, Professor, is there any explanation
16 offered by Zack and Suskind on behalf of Monsanto or by
17 Doctors at -- in behalf of Dow Chemical as to why dioxin
18 would have the beneficial effect of cutting the death rate
19 down by 50 percent in the case of the Dow workers and by only
20 to 75 percent of the expected in the Monsanto workers?" And
21 his answer was, "Answer: No, I don't think if you took this
22 at face value you would have to come to the conclusion that
23 dioxin is beneficial, and that if you have dioxin absorbed
24 into your body you will be healthy and live longer.

1 Question: And that is indicated by the only 11 deaths in Dow
2 where 20 were expected? Answer: That is correct.

3 Question: And only 32 deaths in Monsanto where 46 were
4 expected? Answer: That is correct, and of course this is
5 contrary to everything that is known about human exposure and
6 animal data."

7 Now, Doctor, that was what Dr. Carnow in fact
8 testified, sir, and also over on Page 41, "Professor, if the
9 conclusions that are drawn by looking at these two tables and
10 by the articles, would it be desireable then that we should
11 all be exposed to dioxin at face value? Answer: That is
12 apparently what this study, the conclusions of these studies
13 would lead one to believe."

14 Now, Doctor, that is his answer at that time, sir.
15 And, your response to that, sir, is that it should be added
16 to the long-term health effect, is it not, sir?

17 A. It is not, sir.

18 Q. It was your answer in Charleston, West Virginia,
19 wasn't it, sir?

20 A. No, that is a misinterpretation of my statement.

21 Q. Doctor, I read you what you said.

22 A. Yes, sir. And I read it, too.

23 Q. That was your answer in Charleston, West Virginia,
24 wasn't it, sir?

1 A. You have read my answer, but that is not what it
2 says, sir.

3 Q. Doctor, isn't that exactly what it says, sir?

4 A. All it says, sir, is that --

5 Q. Isn't what I read to you exactly what it says
6 there, sir?

7 A. Okay. I hear it.

8 Q. Sir?

9 A. I said I hear it.

10 Q. My question to you, sir, isn't that exactly what
11 you said there, sir?

12 A. If you'll let me see it I will confirm that.

13 Q. Doctor, you just confirmed it earlier that you did
14 say it there, that is what you said there?

15 A. You read it to me and I said I did.

16 Q. Thank you, Doctor.

17 Q. Now, Doctor, you were also asked by Mr. Heineman
18 about some things that Dr. Silbergeld testified here to, do
19 you recall that, sir?

20 A. No, I do not.

21 Q. With relation to doses required to cause chloracne?

22 A. Yes, sir.

23 Q. This is on page -- starts at Page 84, Counsel, but
24 the questions that you asked Dr. Suskind on February the

1 10th, 1986, appears on Page 87. He advised you that she
2 testified on April 12th in Page 125 that high dose is
3 required to produce chloracne, and chloracne is not a
4 reliable indicator of exposure, do you agree with that
5 statement, and your answer was -- what was your answer, sir?

6 A. I believe I said no, sir. I don't know.

7 Q. You don't know?

8 A. What did I say?

9 Q. Well, Doctor --

10 A. Why don't you let me see it so I can confirm it,
11 sir, don't keep me guessing.

12 THE COURT: Doctor, please just answer the
13 questions that are asked of you by counsel.

14 Q. (by Mr. Carr) Doctor, Mr. Heineman asked you this
15 question, sir. "Dr. Ellen Silbergeld has testified in this
16 courtroom," and you said you are aware that she had, then he
17 says, "and she testified, sir -- I'd like you to assume if
18 you would that she testified that high dose is required to
19 produce chloracne and chloracne is not a reliable indicator
20 of exposure." Do you agree with that statement? Do you
21 agree with that?

22 A. I do not agree with that statement.

23 Q. All right, and Doctor, you said at the time, that
24 "Absolutely not," didn't you, sir?

1 A. I probably did.

2 Q. And you said you disagreed with her completely and
3 there is no scientific basis for what she says, did you not,
4 sir?

5 A. That's correct, sir.

6 Q. All right. Now, Doctor, what Dr. Silbergeld
7 actually said is not as counsel has suggested to you, sir,
8 but what she actually said on that page that you cited, sir,
9 what she actually said is in addition -- "In addition, we
10 haven't talked about chloracne which is a very characteristic
11 reaction of dermal cells to exposure to 2,3,7,8-TCDD. And
12 indeed was one of the earlier effects described under
13 conditions of very high-dose exposure in the occupational
14 setting primarily." Now, thus far, do you agree with that
15 statement, Doctor, what she actually said?

16 A. Well, she is accurate about when it was first seen
17 with TCDD.

18 Q. Is she accurate about --

19 A. That is in runaway reactions, which we assume are
20 higher doses than those exposed to the ordinary process of
21 making 2,4,5-T.

22 Q. That's where I take it you agree with what she said
23 thus far?

24 A. If that's what she said, sir.

1 Q. And, Doctor, then she went on to say the human
2 evidence certainly suggests that it took a rather high acute
3 dose of 2,3,7,8 to produce, do you agree with that statement?

4 A. No, I don't.

5 Q. You don't agree with that statement?

6 A. No, I don't.

7 Q. I take it you disagree then where it says it takes
8 a rather high acute dose to produce chloracne?

9 A. No, those two situations which you have quoted are
10 different situations, one is a high dose admittedly.

11 Q. Doctor, I understand that, sir, I'm asking you, you
12 don't agree with the statement that it takes a rather high
13 acute dose to produce chloracne?

14 A. Absolutely not.

15 Q. Do you agree that it's not a reliable indicator of
16 exposure?

17 A. I believe it is a reliable indicator of absorption,
18 not exposure, absorption.

19 Q. All right, Doctor, so it's not a reliable indicator
20 of exposure, sir?

21 A. Well, you can't -- there is no indicator of
22 exposure, there is only an indicator of absorption via an
23 exposure.

24 Q. Doctor, I won't quarrel with that. Then what she

1 said is true? Chloracne is not a reliable indicator of
2 exposure, is it, sir?

3 A. Indirectly it is, yes, sir.

4 Q. Doctor, you just got through saying that it's an
5 indicator of absorption not an indicator at all of exposure,
6 didn't you?

7 A. Well, absorption follows exposure.

8 Q. Excuse me, didn't you just say that, sir?

9 A. I said that -- if you will let me finish, Mr. Carr.

10 Q. Doctor, the question was didn't you just say a
11 moment ago that chloracne is not an indicator of exposure,
12 it's an indicator of absorption? Didn't you just say that,
13 sir?

14 A. It's a direct indicator of absorption, sir.

15 Q. My question is, didn't you just say that, sir?

16 A. I did with an explanation.

17 Q. Yes, Doctor, you did. Now, it's certainly not an
18 indicator of low exposure, is it, sir?

19 A. I don't know, sir.

20 Q. You don't know whether chloracne is an indicator of
21 low exposure?

22 A. I do not know, sir.

23 Q. Do you know whether or not it's an indicator of
24 chronic exposure?

1 A. I do not know.

2 Q. Doctor, if you don't know that then, you can't very
3 well say that what Dr. Silbergeld say said is ridiculous?

4 A. I can indeed because what she is doing is saying
5 that it is so, and there is no --

6 Q. No, what she is saying, Doctor, is that it's not a
7 reliable indicator of low exposure or chronic exposure. You
8 agree with that, don't you, sir?

9 A. It is not an indicator of low exposure?

10 Q. Yes. Yes.

11 A. It could be. I don't know what the low -- I don't
12 know what the dose-response level is in humans, nobody knows,
13 sir. Dr. Silbergeld has actually said that. One doesn't
14 know what the dose-response level is.

15 Q. You had said that as well, so how can you say, sir,
16 that if no one knows what it takes to cause chloracne, how
17 can you differentiate high dose, low dose or in between dose,
18 if you do not know?

19 A. We don't know from experimental work but we do no
20 from clinical information, that is our best --

21 Q. Either you know it -- I thought you said you didn't
22 know it?

23 A. From clinical information, but we don't have dose
24 levels, sir.

1 Q. Doctor, isn't --

2 A. So we don't know -- we don't know how low a dose is
3 which will induce anything. We don't --

4 Q. Doctor, isn't it a fact --

5 A. -- in humans. Sorry.

6 Q. Sir?

7 A. In humans.

8 Q. Isn't it a fact in the people that you know the
9 most about, the exposed people at Monsanto, sir, isn't it a
10 fact that you have not been able to identify or to quantitate
11 the actual levels of exposure?

12 A. They weren't available, sir.

13 Q. Isn't that a fact, sir?

14 A. That is a fact.

15 Q. You don't know how much or how little of dioxin
16 these people were exposed to, isn't that what you are saying?

17 A. We know what the biological effects were.

18 Q. Doctor, my question is you do not know how much
19 dioxin any one of these individuals was exposed to, do you,
20 sir?

21 A. That's correct, sir.

22 Q. Now, Doctor, one of the individuals might be
23 exposed thereupon with a large dose of dioxin and another
24 individual could be exposed to a low dose of dioxin, if you

1 do not know, if you cannot quantitate, if you don't know the
2 amount, isn't that correct, sir?

3 A. That might be so, sir.

4 Q. Well then, Doctor, you have no way of indicating
5 whether it takes a high dose to cause chloracne or a low dose
6 to cause chloracne, if you don't know the amount of dose
7 involved with the subject that you know about, isn't that
8 correct, sir?

9 A. Measurable doses we don't know, sir.

10 Q. Isn't that correct, sir, as I stated it, sir?

11 A. That is correct.

12 Q. So, Doctor, it might be that with one individual it
13 takes a low level of dioxin, and with another individual it
14 takes a high level of dioxin, and with another individual
15 exposed to the same amount, a high amount, he won't get
16 chloracne at all, isn't that correct, sir?

17 A. I don't know, sir, I don't have the answer to that.

18 Q. You know a number of people that were working at
19 Nitro, West Virginia, that were exposed in the heavily
20 exposed group and never did get chloracne, you know that,
21 don't you, sir?

22 A. I don't, sir.

23 Q. You don't know that?

24 A. No. No.

1 Q. Did you read the Moses-Selikoff study, sir?
2 A. They had no idea --
3 Q. Excuse me?
4 A. I did, yes, sir.
5 Q. My question is didn't you read the Moses-Selikoff
6 study?
7 A. I did.
8 Q. There was a large group of heavily exposed workers
9 who never did get chloracne, isn't that correct, sir,
10 according to that study?
11 A. There wasn't a large group of workers heavily
12 exposed who didn't get chloracne, sir.
13 Q. Doctor, did you listen to my question? According
14 to --
15 A. I did. That's what you asked me.
16 Q. According to that study, Doctor?
17 A. According to that study.
18 Q. There was a large group of people that were heavily
19 exposed that did not get chloracne, isn't that --
20 A. No, sir, I don't recall that and they had no way of
21 judging what the dose was.
22 Q. Doctor, you've gone beyond my question again.
23 A. Go ahead, sir.
24 Q. Don't you recall the table, sir -- we will get it

1 to show it to you if you don't recall it. Don't you recall
2 the table, sir, in the Moses-Selikoff -- it's been passed to
3 the jury, where I think it was only 48 percent of the heavily
4 exposed group got chloracne? Can't recall the exact
5 figures.

6 A. You haven't produced it for me, sir, so I can't.

7 Q. Excuse me, my --

8 A. You haven't asked me any questions about Moses and
9 about that table.

10 Q. Doctor, do I have to ask you questions for you to
11 have your memory of the Moses-Selikoff study, sir?

12 A. I believe I would like to have the Moses-Selikoff
13 study exhibit in order for me to answer your questions, sir.

14 Q. Doctor, I first want to ask you about your
15 recollection. Do you not recall that in that study, sir,
16 there were a large groups of workers who were reported to be
17 heavily exposed that did not get --

18 A. It is not my recollection that that is true, sir.

19 Q. Would you say that it is untrue?

20 A. I said it's not my recollection that that is true,
21 and please don't twist my words, sir.

22 Q. I know you said that, Doctor, now I'm asking you
23 would you say that that is untrue, sir?

24 A. I don't know. Let me see it and I can tell you.

1 Q. Doctor, do you understand my question? I want to
2 know --

3 A. I am trying to understand your question and you
4 don't allow me to do it, sir.

5 THE COURT: Doctor, please don't interrupt counsel
6 when he's asking you a question. You just did. Mr. Carr,
7 ask -- please ask it again.

8 Q. (by Mr. Carr) Doctor, I'm asking you whether or
9 not you believe it to be a fact that large groups of workers
10 who were heavily exposed to dioxin according to the
11 Moses-Selikoff tables and studies and did not get chloracne?

12 A. I don't recall that that is so, sir.

13 Q. Doctor, I'm not asking you now about your
14 recollection, I'm asking you --

15 A. If you'll allow me to get it, I will get it. I
16 have with it with me.

17 Q. I'm asking you about your belief, sir.

18 A. What did you say, I should believe you?

19 Q. No, Doctor, I'm asking you about your belief, sir,
20 as to what the Moses-Selikoff study showed.

21 A. It is my recollection that that is not so, sir.

22 Q. All right, you want to get the study, Doctor?

23 A. I don't know if I even have it. I would prefer if
24 you produce the exhibit since you are questioning me about

1 it.

2 Q. Well, Doctor, we can produce the exhibit but that's
3 not the question right now, sir.

4 A. It is indeed, sir.

5 Q. Doctor --

6 THE COURT: Doctor, please listen to the questions
7 and answer the questions that are asked of you, not something
8 else. Just listen to the questions and answer it.

9 Q. Doctor, we will give you the Moses-Selikoff study.
10 I don't have it immediately at my hand right now, I think
11 it's 925, I believe. Do you have it, Jerry? Monsanto's 925,
12 our 1524, I think.

13 MR. SEIGFREID: 08?

14 MR. CARR: 908 or 909, one of the two. 908 would
15 do it. Monsanto's 908. Would you give that to the witness,
16 please?

17 Q. (by Mr. Carr) It would be figure number 2, Doctor,
18 in Monsanto's 908. You see the table, Doctor?

19 A. I do, sir.

20 Q. And do you see the column under heavily exposed
21 workers?

22 A. I see a set of bars.

23 Q. And, Doctor --

24 A. And what they regarded as heavily exposed.

1 Q. That's what I'm asking you about, what they
2 reported, Moses-Selikoff study, what percentage of people who
3 were in the heavily exposed group did not get chloracne,
4 Doctor? According to that table?

5 A. According to this table, which doesn't have numbers
6 of people, sir, numbers of people --

7 MR. CARR: Your Honor, would you direct the witness
8 to answer my question?

9 A. It says 24 percent.

10 THE COURT: Doctor --

11 A. I'm sorry. 24 percent.

12 Q. So, Doctor, according to the table, 24 percent of
13 those workers who were reported to be heavily exposed did not
14 get chloracne, is that correct, sir?

15 A. That's what this table purportedly indicates, sir.

16 Q. Doctor, what percentage of people who were
17 moderately exposed to it did not get chloracne?

18 A. According to this, 49 percent.

19 Q. All right. Now, Doctor, would that -- if that is
20 true, sir, would that indicate to you, sir, that there --
21 that the -- you cannot tell from the dioxin whether or not a
22 person by their chloracne -- whether or not a person was
23 heavily exposed to dioxin?

24 A. No, sir, that doesn't tell me a thing, sir.

1 Q. Doctor, what it tells you is that of a group of
2 people, quarter of them who were in the same class of people
3 exposed to the same kind of dosage according to the record,
4 they didn't get chloracne, isn't that what it tells you?

5 A. According to what record, sir?

6 Q. The record that you have in front of you, sir.

7 A. That's not a record, that's a -- that's a statement
8 about --

9 Q. All right, Doctor, according to the statement in
10 front of you, sir, 24 percent of the people did not get
11 chloracne, isn't that right, sir?

12 A. That's what this purportedly says, sir.

13 Q. And, Doctor, you do agree, don't you, sir, that you
14 have been unable to quantitate the levels of dioxin in these
15 accidents?

16 A. I have been unable to quantitate levels, sir, yes.

17 Q. So you've got no way of knowing whether the group
18 of people that had chloracne were heavily exposed or not
19 heavily exposed, do you, sir?

20 A. We know that they were clearly exposed or not
21 exposed.

22 Q. Excuse me, sir, I'm asking you about heavily
23 exposed or not heavily exposed?

24 A. No, sir, we did not.

1 Q. So you don't know whether any of these people had
2 heavy exposure that got chloracne, do you, sir?

3 A. We don't know what the dose level was, that's quite
4 true.

5 Q. My question is you don't know whether they had a
6 heavy dose or a light dose?

7 A. Yes, we do, except for the people involved --

8 Q. Doctor, what dose did they get?

9 A. In the trichlorophenol accident.

10 Q. Doctor, what dose did they get?

11 A. I have no idea, but it was much heavier.

12 Q. My question is you don't have any idea as to the
13 dose, as to the level of the dose, whether it was a high dose
14 or a low dose, do you, sir?

15 A. Neither does Selikoff.

16 Q. Excuse me, Doctor -- Your Honor, would you ask the
17 -- instruct the jury to disregard the last statement?

18 THE COURT: Jury is so instructed, it was not
19 responsive. Jury is ordered to disregard the last statement
20 of the witness.

21 Q. (by Mr. Carr) Doctor, my question to you, sir, is
22 you have no idea whether or not these people had a high dose
23 or a low dose, isn't that correct, sir?

24 A. If you are saying I have an accurate idea --

1 Q. No, I said no idea. You haven't been able to
2 quantitate the level, you have no idea, do you, sir?

3 A. I don't honestly have an idea which is quantitated,
4 that's right.

5 Q. So that is saying that you have no idea, isn't that
6 right, sir?

7 A. I don't know what the quantity was, sir.

8 Q. Is that saying you have no idea, sir, what the
9 levels of exposure is?

10 A. That is quite true, sir.

11 Q. So it could be a very high dose, could be a very
12 low dose, couldn't it, sir?

13 A. I don't know what the dose is.

14 Q. Doctor, it, -- if you don't know what the dose is,
15 it could be a very high dose or could be a very low dose,
16 couldn't it, sir?

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

18 Q. Doctor, if you don't know what the dose is, it
19 could be a very high dose or could be a very low dose,
20 couldn't it, sir?

21 A. No, sir, that's not my answer.

22 Q. Well then which was it, sir?

23 A. I don't know, sir.

24 Q. Doctor, haven't you testified -- well, Doctor, you

1 recognize this little book, Dioxins in the Environment that
2 you were a part of, you were author of a chapter, you took a
3 part in it, you recognize that, sir?

4 A. Yes, sir.

5 Q. All right. Doctor, there was a panel -- this you
6 said is authoritative, have you not, sir?

7 A. Well, I think most of the things in there are
8 authoritative.

9 Q. Doctor, this book, I think you testified earlier
10 that it's authoritative, the authorities in the field came
11 and delivered papers and discussed things and did all that,
12 isn't that right, sir?

13 A. Some of them were authorities, yes, sir.

14 Q. Doctor, I'd like for you to read the names of the
15 people that participated and tell me which ones were not
16 authorities in your judgment.

17 A. I wouldn't regard W. W. Lawrence of Rockefeller as
18 being an authority, sir.

19 Q. All right, go ahead, Doctor.

20 A. Um, although an excellent pathologist, I wouldn't
21 judge my good friend Dr. Schmuckler to be an authority on
22 dioxin.

23 Q. Well, he's a good pathologist?

24 A. He's a good pathologist.

1 Q. He's an authority in his field, is he not, sir?

2 A. Yes, sir.

3 Q. That's what he came to be an authority in his
4 field, correct, sir?

5 A. He came there to talk about certain aspects.

6 Q. All right. He is an authority in his field, isn't
7 he, sir?

8 A. Correct. And I wouldn't regard my own graduate
9 student, Dr. -- Mr. Merlow as being an authority in the field
10 of TCDD. He knows a good deal about the Seveso episode, and
11 he's done a good deal of the statistical analysis of it, but
12 I don't regard him as an authority, sir.

13 Q. Doctor, he was accepted as authority by this group,
14 wasn't he?

15 A. He was accepted as somebody who could tell them the
16 story accurately.

17 Q. Well, that's what an authority is expected to do,
18 isn't it, sir?

19 A. Not necessarily, not an authority on TCDD.

20 Q. Did he tell the story accurately?

21 A. I believe he did, very accurately.

22 Q. Sir?

23 A. Very accurately.

24 Q. All right. Fine. That's all that really counts is

1 whether or not he told the story accurately, correct, sir,
2 within the --

3 A. He told the story accurately, sir.

4 Q. All right. Now, Doctor, there was a panel
5 discussion, wasn't there, sir? Wasn't there, sir?

6 A. Yes, there was.

7 MR. CARR: Offer this exhibit into evidence, please
8 the Court.

9 THE COURT: What number is it?

10 MR. CARR: 1802, I believe, Your Honor.

11 THE COURT: Any objections?

12 MR. HEINEMAN: One moment, Your Honor. Counsel
13 approach the bench, Your Honor?

14 THE COURT: Yes, you may.

15 (The following Side Bar conversation was had outside the
16 hearing of the jury.)

17 MR. HEINEMAN: First of all, Your Honor, he has not
18 established with the witness the witness regards this panel
19 discussion as authoritative. Secondly, obviously the
20 witness' comments we would have no objection to, but we would
21 object to the rest of it, other than Dr. Suskind's comments,
22 as being hearsay and no foundation laid for its admission
23 into evidence. It hasn't been authenticated, hasn't been
24 identified, the other speakers are not present for cross

1 examination, and therefore it's clearly hearsay. The witness
2 has not said it's authoritative. I have no objection to the
3 witness' statements that are set forth here as long as he
4 identifies that they are accurate. If he doesn't identify
5 them as being accurate then I would object to them.

6 MR. CARR: Let me ask an additional question.

7 (The following proceedings were had in open court.)

8 Q. (by Mr. Carr) Dr. Suskind, this panel discussion,
9 you consider this an authoritative discussion, don't you,
10 sir?

11 A. I really don't know what you mean by
12 authoritative. This was a group of people who got together
13 to talk about something, critical issues that may have
14 arisen.

15 Q. Doctor, this was a group of authorities that got
16 together to discuss a group of critical issues and you were
17 prominent amongst them, were you not, sir?

18 A. I was there, sir, yes.

19 Q. And this was a group of authorities, all these
20 people that were listed here in this panel discussion, they
21 were all authorities on the topics that they were discussing,
22 were they not, sir?

23 A. Yes, some of them were toxicologists, --

24 Q. Doctor, that's good enough.

1 A. -- Were the only physicians there, sir.

2 MR. CARR: Your Honor, now I'd like to offer it in
3 evidence.

4 MR. HEINEMAN: I've made my record, Your Honor.

5 THE COURT: Fine, it's admitted over objection.

6 MR. CARR: Doctor -- I'd like to pass it to the
7 jury as well.

8 THE COURT: Yes, you may.

9 (Exhibit passed to the jury.)

10 Q. Doctor, while that's being passed, you were there
11 during this entire panel discussion described there, weren't
12 you, sir?

13 A. Yes, I believe --

14 Q. This particular one?

15 A. I had to leave before it was over, sir.

16 Q. Before the entire --

17 A. Yeah, before the entire panel discussions were
18 over, yes.

19 Q. Doctor, the -- you participated in the discussion
20 there shown on Page 1 and 2, did you not, sir? On 267 and
21 268?

22 A. Yes.

23 Q. Doctor, and are you accurately quoted there, sir?

24 A. You mean is this what I said?

1 A. Yes.

2 A. I believe so, yes, sir.

3 Q. And, Doctor, if you turn to Page 268, what you said
4 there about the levels of dioxin was, sir, was it not, "What
5 I am saying is that in this group, in which we have not been
6 able to identify or quantitate actual levels of exposure, we
7 do not know how much dioxin any one of these individuals was
8 exposed to." Isn't that right, sir?

9 A. That's what it reads, sir. That's what I said.

10 Q. That was the truth, isn't it, sir?

11 A. Well, as far as I know, sir.

12 Q. Yes, as far as you know it's the truth?

13 A. From my experience, sir, that is the fact. Those
14 are the facts.

15 Q. Doctor, what you are saying there then is again as
16 I've suggested to you, you don't know whether or not these
17 workers had a high dose or a low dose, isn't that right, sir?

18 A. That's quite true, sir, a high total dose, dose
19 concentration times time, and based upon differences in
20 absorption which is another factor, but we didn't know
21 clearly how much was being absorbed, sir, that's true.

22 Q. Doctor, do you know whether or not this group of
23 workers were heavily exposed or were not?

24 A. Yes, I believe we do.

1 Q. What did you know about that?

2 A. Well, I believe that in the runaway reaction, which
3 has been shown, runaway reaction materials have been analyzed
4 post TCDD -- post TCDD emergence and runaway reaction kettles
5 have a much higher concentration --

6 Q. Excuse me, Doctor?

7 A. -- TCDD than the ordinary process.

8 Q. Did anybody ever analyze the TCDD in the product
9 that was spilled out in the Nitro plant?

10 A. No, not in the Nitro plant, sir.

11 Q. Doctor, you have no idea of the level of the TCDD
12 contamination that those workers were exposed to, isn't that
13 correct, sir?

14 A. That is true, but they were measured in other
15 instances.

16 Q. That's exactly what you said there and that is
17 exactly the truth, that you have no idea as to what their
18 exposure was, whether it was heavy exposure or light
19 exposure?

20 A. Yes, I think we do, sir.

21 Q. Well, what was -- how much TCDD were they exposed
22 to, what levels?

23 A. We use biological marker not a chemical marker.

24 Q. The biological marker you use simply whether they

1 did or did not get chloracne?

2 A. That is correct.

3 Q. That's begging the question.

4 A. No, it's not.

5 Q. The question is, sir, how much TCDD does it take to
6 cause chloracne? You don't know. Some of those workers were
7 just in there for a short while and got chloracne, some of
8 those workers were in there for weeks and did not get
9 chloracne.

10 A. That is not so. We have never seen that to be so,
11 sir.

12 Q. You didn't see that --

13 A. Let me finish. The other --

14 Q. You didn't say that all of those workers that
15 worked in there got chloracne.

16 MR. HEINEMAN: Objection, interrupted the answer.

17 THE COURT: Objection is overruled.

18 A. All of the workers that worked in that runaway
19 reaction area for any length of time got chloracne.

20 Q. Where is the facts on that, Doctor? What is your
21 record to support that statement, sir?

22 A. A group of 121 in the mortality study.

23 Q. Doctor, your group of 121, every single one of
24 those people had chloracne?

1 A. Yes, they did indeed, and every one of them got
2 chloracne.

3 Q. Doctor, how many people do you know were in there
4 that did not get chloracne?

5 A. We don't know of any, sir, who were in there who
6 did not get chloracne.

7 Q. What persons do you know that were in there? The
8 only people that you have identified were people that came
9 forward for treatment?

10 A. That was the only way we could identify them, sir.

11 Q. Yes, Doctor. Now, if they don't get chloracne, if
12 they are working in the building and they don't get
13 chloracne, they are not going to come to you for treatment,
14 are they, sir?

15 A. But --

16 Q. Could you answer that question, sir?

17 A. That's not so.

18 Q. Doctor, if they are working in the building and
19 don't get chloracne, they are not going to come to you for
20 treatment, are they, sir?

21 A. First of all, I didn't treat them, sir.

22 Q. Excuse me. Would you answer that question, please,
23 sir?

24 A. If you are talking about the Medical Department --

1 are you talking about the Medical Department?

2 Q. Yes, Doctor.

3 A. Yes, but the Medical Department --

4 Q. Or you as a dermatologist.

5 A. The Medical Department had other records, sir, of
6 people who were working in those areas.

7 Q. Do you mean to say that everybody that was in that
8 building after that accident took place got chloracne?

9 A. All those who could be identified, sir, yes.

10 Q. Doctor, are you saying they all got chloracne?

11 A. Yes, I am.

12 Q. And where is the basis for that statement, sir?

13 A. The basis is the fact that we had -- that we
14 accumulate on 121 people not only from their medical records
15 and their workman's compensation records, but also their
16 safety records. The safety records would indicate who worked
17 there and how long they worked there.

18 Q. Doctor, you are naming people, sir, all of whom got
19 chloracne. I'm asking you to name --

20 A. That's true. Everyone did. Everyone who worked in
21 that --

22 Q. Nobody but those 122 people worked in that building
23 or were exposed to that environment, sir, is that what you
24 are saying?

1 A. We assembled --

2 Q. Doctor, is that what you are saying?

3 A. In retrospect, I believe that's so.

4 Q. Doctor, the only record that you had when you got
5 into your morbidity study, you didn't go past but 1955, other
6 than the chloracne claims or this group of 122. All those
7 records where disposed of. You didn't go into those records
8 when you did your '79 morbidity study. Don't you recall
9 that?

10 A. I don't know what you are talking about, Mr. Carr.

11 Q. You don't?

12 A. I do not know what we are talking about.

13 Q. We will establish it tomorrow.

14 A. I hope we can, and I can do it for you.

15 THE COURT: Ladies and gentlemen, we will break at
16 this time. We will resume again tomorrow morning at 9:30. I
17 remind you that you are not to read, listen to, or watch
18 anything about this case in particular or subject matter in
19 general in any of the media. We will see you in the
20 morning. Court is adjourned.

21 COURT ADJOURNED:

22

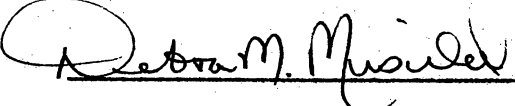
23

24

1 STATE OF ILLINOIS)
2 TWENTIETH JUDICIAL CIRCUIT) SS
3 COUNTY OF ST. CLAIR)
4

5 I, DEBRA M. MUSIELAK, certify the foregoing to be a
6 true and accurate transcript of the testimony and proceedings
7 in the above-entitled cause.

8 Dated this 27 day of March, 1986.
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24



1 STATE OF ILLINOIS)
2 TWENTIETH JUDICIAL CIRCUIT) SS
3 COUNTY OF ST. CLAIR)
4

5 I, RICHARD P. GOLDENHERSH, one of the Judges in and
6 for the Twentieth Judicial Circuit, do hereby certify that I
7 have examined the aforesaid transcript of proceedings, and
8 certify the foregoing to be a true and accurate transcript of
9 the testimony and proceedings in the above-styled cause.

10 Dated this ____ day of March, 1986.

11

12

13

14

15

16

HON. RICHARD P. GOLDENHERSH

17

18

19

20

21

22

23

24