

1 to the worker?

2 A But there are two different premises.

3 Q Doctor, if you are exposed to dioxin in an accident, exposed to
4 dioxin in the production of it, you are exposed to the same dioxin, aren't
5 you, sir?

6 A One was a study of chloracne cases.

7 Q Excuse me. One was a study of chloracne?

8 A Yes, sir.

9 Q Which was a study of chloracne, Doctor?

10 A The second sentence says, "One hundred twenty-two workers who
11 developed chloracne were selected for this study. It's just a study of
12 chloracne cases, period."

13 Q This original study is just a study of chloracne cases?

14 A Yes, sir.

15 Q Doctor, it says that it's a study of those workers exposed to
16 it in the accident, doesn't it, sir?

17 A And it limits to the 122 who had chloracne, the second sentence.

18 Q Well, Doctor, whether it limits it to people who have chloracne
19 or not is beside the point. The point is that they were people that were
20 exposed in this accident and they would have had the chloracne that they
21 said could be caused by the accident. The point of the study is whether
22 or not they were exposed.

23 A No, sir.

24 Q Oh, this is a chloracne study?

1 A Yes, sir.

2 Q Doctor, the headline of it, the very title of it tells you, "The
3 Mortality Experience of Workers Exposed to Tetrachlorodibenzodioxin in a
4 Trichlorophenol Process Accident," does it not, sir?

5 A Yes, sir.

6 Q It doesn't say it is a chloracne study, does it, sir?

7 A No, sir.

8 Q Doctor, these 122 people were--

9 (Plaintiff's Exhibit No. 1460 was marked for identification.)

10 Q I hand you now what's been marked Plaintiff's Exhibit 1460 and ask
11 you if you recognize that as the list of the 122 workers that were in this
12 Nitro accident and who were studied in Exhibit 62, that is, the mortality
13 study?

14 A Yes, sir.

15 Q And this document has their respective names, their social security
16 numbers, their workmen's compensation claim number, their race, sex, whether
17 or not they are salaried or wage workers, the date of their birth, and
18 whether they were alive or dead as of December 31, 1978, whether they
19 were alive or dead as of December 31, 1982, correct, sir?

20 A Yes, sir.

21 Q And I'd like to establish the status of certain folk according
22 to this exhibit, if I might. And could you turn to the page that has
23 the name of James Roe on it, please, and confirm for me that James Roe
24 was exposed to dioxin?

1 A Yes, sir.

2 Q And confirm for me that Howard Cochran was exposed to dioxin?

3 A Yes, sir.

4 Q And that Herman Moore was exposed to dioxin?

5 A I can't read it on mine, if there is one, if there is a mark.

6 Q On the third page, Herman C. Moore. Everybody is not
7 alphabetical. Some were added, apparently.

8 A Yes, I've got it.

9 Q And Hugo Tidquist was exposed to dioxin, was he, sir?

10 A Yes.

11 Q And John Workman was exposed to dioxin?

12 A Betty Workman.

13 Q Well, according to one of your employees, it's a John Workman.

14 And for the time being, if he's not listed there, I'll put him here, but
15 we will put a mark by him and I will identify it subsequently. All right,
16 show you that's the one. And Stonewall Farley?

17 A Yes.

18 Q Howard Hubnall?

19 A Yes, sir.

20 Q Ralph Westfall?

21 A Yes, sir.

22 Q Robert Arthur?

23 A Yes, sir.

24 Q Now, all of these people with the exception of the Workman one

1 which we will tie up later. You know they all died of cancer, don't you,
2 sir?

3 A I didn't know them by that name.

4 (Plaintiff's Exhibit 1461 was marked for identification.)

5 Q I hand you now what has been marked as Plaintiff's Exhibit
6 1461, a group of death certificates that were supplied to us by your
7 attorneys.

8 MR. CARR: And I offer that into evidence at this time then.

9 (Plaintiff's Exhibit 1461 was offered into evidence.)

10 THE COURT: Any objections?

11 MR. HEINEMAN: Your Honor, this is 1461?

12 THE COURT: Right.

13 MR. HEINEMAN: Object for hearsay and lack of foundation, your
14 Honor.

15 THE COURT: Overruled. It is admitted.

16 (Plaintiff's Exhibit 1461 was admitted into evidence.)

17 Q Doctor, if you will look at these death certificates which, for
18 the record, your Honor, these were supplied to us under the order of the
19 Court for the support of the Suskind/Gaffey study and the Suskind, Zack,
20 and Gaffey study, and the Suskind morbidity studies all came in the purview
21 of those orders, and that's where we got these death certificates.

22 MR. HEINEMAN: So were Mr. Kemmer's reports from Missouri about
23 a pig dying from a blow to the head.

24 MR. CARR: I'm not concerned whether these documents show truth

1 at this point in time or not, Mr. Heineman. I want to show what Monsanto
2 did with these documents, this being in their possession.

3 Q Now, Doctor, you will see that Robert Arthur died of Hodgkin's
4 Disease, did he not?

5 A Yes, sir.

6 Q That is a form of cancer, is it not?

7 A Yes, sir.

8 Q You will see that Howard Cochran died of lymphatic leukemia,
9 which is a form of cancer, is it not?

10 A Yes, sir.

11 Q You will see that Stonewall Farley died of carcinoma of the
12 left lung and a metastatic carcinoma. They are not cancers, are they not?

13 A Yes.

14 Q You will see that Howard Hudnall died of carcinoma with liver
15 metastases, isn't that correct, sir?

16 A Yes, sir.

17 Q And Herman Moore died of a malignant fibrous hystocytoma of
18 soft tissue origin metastatic?

19 A Yes, sir.

20 Q Do you know whether or not Herman Moore was included in your
21 soft tissue studies?

22 A Yes.

23 Q And James Roe died of bronchio carcinoma, did he not, sir?

24 A Yes, sir.

1 Q And Hugo Tidquist died of acute myelogenous leukemia and
2 refractory anemia, did he not?

3 A Yes, sir.

4 Q That's cancer, is it not, sir?

5 A Yes, sir.

6 Q And John Workman, John Louis Workman died of carcinoma, I can't
7 make that--what is that, what is that, Doctor?

8 A Carcinoma, cancer of the stomach.

9 Q All nine of these people listed here died of cancer and all but
10 one called John Workman you acknowledged were exposed to dioxin, were they
11 not, sir?

12 A I didn't say anything about Workman, did I?

13 Q What you said was that Workman was not identified as John
14 Workman in the list of workers.

15 A I can't evaluate that one.

16 Q Right. But he died of cancer and all, but he was listed in
17 those people who were exposed to dioxin, weren't they, sir?

18 A Yes, sir, they all had chloracne.

19 Q Whether they had chloracne or not is not the point of what I
20 am getting to, Doctor. If you turn to Table 2 of the Exhibit 62, would
21 you do that?

22 A Yes, sir.

23 Q You see there listed a number of workers in that accident who
24 died of cancer deaths on people that were exposed, correct, sir?

1 A Yes, sir.

2 Q And if you will look at the death certificates and the list
3 of people that were in the accident, well, obviously, all of these are
4 included in the deaths from cancer, aren't they, sir, those exposed to
5 dioxin, for instance, Farley is the first one, Hudnall is the second one,
6 Roe is the third one, Westfall is the 1915 worker, Moore is the 1920
7 worker, Arthur is the 1919 worker, Cochran is the 1907 worker, and Tidquist
8 is the 1910 worker. These are the deaths that Zack reported to be from
9 cancer caused in an exposure in the 1949 accident?

10 A Yes, sir.

11 (Plaintiff's Exhibit 1462 was marked for identification.)

12 Q Exhibit 1462 is the Table 2 from the 1980 study and Table 11
13 from the Zack/Gaffey study. Do you recognize those, Doctor? These have
14 previously been admitted into evidence, your Honor, but I'm sure the jury
15 would not have them at this time and I've recopied them for our purposes
16 here.

17 THE COURT: Fine.

18 (Plaintiff's Exhibits 1462A and B were marked for
19 identification.)

20 Q Doctor, I'll also hand you a copy of a document that's been
21 previously marked Plaintiff's Exhibit 81B and I'll repass these to the
22 jury as well, your Honor.

23 THE COURT: Fine.

24 MR. CARR: Your Honor, so that the record might be clear, that

1 which I have marked 1462B at the present time and it now has underlining
2 on it had been previously marked Plaintiff's Exhibit 281A, but at that time,
3 at least this exhibit does not have the underlining on it.

4 THE COURT: Fine.

5 MR. CARR: I'll repass 281B to the jury as well, your Honor.

6 THE COURT: Go right ahead.

7 MR. HEINEMAN: I'm sorry, I do not understand what they did
8 not have underlined about it.

9 MR. CARR: 281B, which is now 1462B, which is also 1462B the
10 original 281, I'm sorry, it is A, did not have the underlining, at least
11 in my present memory.

12 BY MR. CARR:

13 Q Now, Doctor, to get these exhibits in correct order, if you
14 will look at the Table 10 on the Zack/Gaffey study, that is Exhibit 281B
15 that is captioned the deaths due to malignant neoplasms among Nitro plant
16 workers exposed to 2,4,5T, is it not, sir?

17 A Yes, sir.

18 Q And you will note, will you not, sir, that these four deaths,
19 or these nine deaths rather, are not listed in 281B, that is, the deaths
20 that we have established are those people in Table 2, that is in the Jack
21 Suskind report, are not listed in Table 10, are they, sir?

22 A I don't know how to tell.

23 Q Well, you can tell by determining whether or not 1909 was a
24 year of birth, and they have it listed here, and the year of hire, 1943,

1 and the year of death, 1962, and the cause, of cancer. You can determine it
2 by that.

3 A Yes, sir.

4 Q And you will find, I think, Doctor, that the only one listed in
5 Table 10 as a death of those men exposed to the dioxin is the one that
6 my finger is on, that is who was born in 1922 and who was hired in 1945
7 and who died in 1973, do you see that?

8 A Yes, sir.

9 Q And that death is listed in Table 10, isn't it, sir?

10 A Yes, sir.

11 Q Now, that person was exposed in the accident in 1949 according
12 to the Zack/Suskind study, was he not?

13 A Yes.

14 Q And he's listed as dead from cancer being exposed to 2,4,5-T
15 in the later Zack/Gaffey study, does he not, sir?

16 A Yes.

17 Q But not a one of the other nine died from cancer are listed
18 in that table, are they, sir?

19 A That's right.

20 Q And Doctor, Dr. Zack or Miss Zack had to know that these
21 people were indeed exposed to dioxin since they were in the accident.

22 A. Yes, sir.

23 Q And she had listed, then, however, four of those people as
24 having not been exposed, didn't she, sir?

1 A Not exposed to what?

2 Q To dioxin.

3 A No, sir, that isn't what it says.

4 Q What does it say, Doctor?

5 A Not exposed to 2,4,5-T.

6 Q Well, the 2,4,5-T is what they were all exposed to, isn't it,
7 sir?

8 A The trichlorophenol was in 2,4,5-T.

9 Q Doctor, the trichlorophenol was what they were manufacturing,
10 isn't that correct, sir?

11 A Yes, sir.

12 Q And they were making 2,4,5-T from the trichlorophenol, were
13 they not, sir?

14 A Yes.

15 Q And when they say trichlorophenol, they are talking about
16 2,4,5-T, are they not, sir?

17 A I'm not sure.

18 Q You're not sure? That's what they're making when the plant
19 had the accident, isn't it, sir?

20 A I thought they were making trichlorophenol there.

21 Q And trichlorophenol is 2,3,5-T.

22 A Trichlorophenol isn't 2,3,5-T.

23 Q It's what they make before they make 2,4,5-T.

24 A Yes, sir.

1 Q And it's part of the process of making 2,4,5-T isn't it, sir?

2 A But it's not the same as.

3 Q Are you suggesting, Doctor, that these studies were not of
4 people who were exposed to tetrachlorodibenzo-p-dioxin whether in 2,4,5-T
5 or tetrachlorophenol?

6 A There are two studies.

7 Q That's the point I'm trying to make. There are two different
8 studies that I am talking about in each instance, the formation of 2,4,5-T.

9 A The trichlorophenol is not--

10 Q The first one is not--Exhibit 62 is not talking about 2,4,5-T.

11 A No.

12 Q Doctor, do you have Exhibit 62 in front of you?

13 A Yes, sir.

14 Q And are they not discussing the manufacture of 2,4,5-T, Doctor?

15 A Not in this first one.

16 Q Don't they point out that it's 2,4,5-T that the trichlorophenol
17 was being made into, sir?

18 A It's a part of the process. After you made the trichlorophenol
19 you make tetrachloro--you make the phenoxy herbicide of it.

20 Q Yes, and they're talking about the dioxin that's in it at the
21 time it's trichlorophenol and the dioxin that's in it when it's 2,4,5-T.

22 A The first study is the study of people with chloracne only.

23 Q Doctor, again, whether it is or not, they were exposed to the
24 dioxin--

1 A Yes, sir.

2 Q --within the trichlorophenol.

3 A Yes, sir.

4 Q And it's the dioxin that's the important part, isn't that correct,
5 sir?

6 A Yes.

7 Q Not the trichlorophenol, but the tetrachlorodibenzodioxin which
8 they're exposed, whether it's in the 2,4,5-T or whether it's in the
9 tetrachlorodibenzodioxin?

10 A Right.

11 Q This man born in 1922 was listed in both tables, was he not?

12 A Yes, sir.

13 Q But the other four were not listed, were they, sir?

14 A Because they weren't in the 2,4,5-T classification.

15 Q Oh, but they were, Doctor. They are in the trichlorodibenzo-
16 dioxin and they're listed here as not being exposed to 2,4,5-T.

17 A That's right.

18 Q And so for that reason they are not considered as exposed to
19 dioxin.

20 A No, sir, this is a study of 2,4,5-T workers.

21 Q My question is for that reason, are they considered not to be
22 exposed to dioxin?

23 A No, sir.

24 Q No, sir, you know they were exposed to dioxin, and Zack knew

1 they were exposed to dioxin.

2 A Yes, sir.

3 Q And she put those people in, she put those four people in and
4 said they were not exposed to dioxin, didn't she, sir?

5 A No, she said not exposed to 2,4,5-T.

6 Q And because they got cancer from and they did die of cancer
7 from the dioxin in the trichlorophenol before it was turned into 2,4,5-T,
8 she has represented to those that read this document that they were not
9 exposed to dioxin, hasn't she, sir?

10 A No, sir.

11 Q What did she say?

12 A She said they weren't exposed to 2,4,5-T.

13 Q Now, Doctor, doesn't she talk about the potential TCDD
14 exposure throughout the document?

15 A Yes, sir.

16 Q And isn't what she's talking about the dioxin exposure?

17 A Yes, sir.

18 Q And doesn't she say these people are not exposed to dioxin in
19 the table?

20 A No, she says they weren't in the 2,4,5-T unit.

21 Q And does she say they were not exposed to dioxin, sir?

22 A I don't know that. This is a study of 2,4,5-T workers, nothing
23 else.

24 Q Oh, it's not a report on dioxins, sir?

1 A It's a study of 2,4,5-T workers and their exposure to dioxin.

2 Q The only material part is the exposure to dioxin, isn't it, sir?

3 A Yes.

4 Q It's tied directly to the other accident, isn't it, sir? Do
5 not both articles refer to one another?

6 A No, sir.

7 Q They don't?

8 A No.

9 Q Well, if you look at the 1980 study by Zack and Gaffey, she
10 refers to that report, does she not, sir?

11 A Yes, sir.

12 Q And if you look in the 1979 study by Zack/Suskind, doesn't she
13 say that the results of this study is going to be incorporated in a larger
14 study that will include plant workers exposed in the course of 2,4,5-T
15 during the period of '48 to '69?

16 A Yes.

17 Q Then they are tied together, are they not, sir?

18 A Yes.

19 Q And isn't she comparing them, sir, the deaths from cancer as
20 could possibly be caused by the dioxin?

21 A Yes, sir.

22 Q And Doctor, did she not suggest by putting these four people
23 in Table 11, did she not suggest to the reader of it that these people had
24 cancer even though they were not exposed to dioxin?

1 A No, she said not exposed to 2,4,5-T.

2 Q And she meant us to believe that they were exposed to dioxin,
3 where did she tell us that they were exposed to dioxin, Doctor?

4 A Where does she tell us what?

5 Q Where does she tell us that these four people who died of
6 cancer were exposed to dioxin?

7 A I don't think she says it.

8 Q Indeed, she does not say it, does she, sir? She talks about
9 on Page 590 of her 1980 Zack/Gaffey report, the PMR analysis presented
10 here estimated the cause, specific risk associated with 2,4,5-T exposure
11 and "potential TCDD exposure", doesn't she, sir?

12 A Yes.

13 Q Now, these people that she listed as non-exposed had TCDD
14 exposure, did they not, sir?

15 A Yes.

16 Q These four deaths, sir?

17 A Yes.

18 Q And she says that this cannot allow an estimate of the cause,
19 specific risk, even though she left out, she put four people in the unexposed
20 group when she knew that they were exposed to dioxin, didn't she, sir?

21 A Yes.

22 Q And she further went on to say the workers involved in that
23 incident in the TCP accident in 1949 "had presumed TCDD exposure as
24 evidenced by chloracne"?

1 A Yes.

2 Q And so she knew that they were exposed to TCDD, didn't she, sir?

3 A Yes.

4 Q And she listed those, however, as four people who died of cancer
5 and were not exposed to TCDD, didn't she, sir?

6 A No, sir, not exposed to 2,4,5-T.

7 Q Doesn't she tell you in the report here that this analysis
8 estimates the cause, specific risk associated with 2,4,5-T exposure and
9 potential TCDD exposure?

10 A Yes.

11 Q Then she lied, didn't she, Doctor?

12 A No, she did not lie.

13 Q Did she tell the truth, Doctor?

14 A Yes.

15 Q Did not these people listed here have exposure to TCDD?

16 A Yes.

17 Q Does she not say that she's analyzing those that didn't have
18 the exposure to those that did have the exposure?

19 A She's pairing those exposed to 2,4,5-T and those not exposed
20 to 2,4,5-T.

21 Q What she's doing is she's comparing people exposed to dioxin
22 in the trichlorophenol and calling them not exposed and comparing them
23 with people exposed to dioxin in 2,4,5-T, isn't she, sir?

24 A Yes.

1 Q Doctor, you can't get any--you can't draw any conclusions
2 then as to whether dioxin did or did not cause cancers in excess, can you,
3 sir?

4 A There is a limitation by the way they set up that study, correct.

5 Q By the way the set it up they made you believe that there was
6 no excess deaths caused by dioxin, but in fact there were 18 deaths caused
7 by dioxin and they listed only 9, isn't that correct, sir?

8 A That is how many if we add these onto this one.

9 (Plaintiff's Exhibit 1463 was marked for identification.)

10 THE COURT: Before we go into the next document, is this a
11 good point for a short break?

12 MR. CARR: Yes, your Honor.

13 THE COURT: Ladies and gentlemen, we will take a short break
14 at this time. The admonishments that I gave you earlier will apply during
15 this break also. The Court is in recess.

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

17 BY MR. CARR:

18 Q Dr. Rousch, would you take the Zack/Gaffey 1980 report that
19 is marked Plaintiff's Exhibit 281 and turn to the page numbered 576 of
20 that report, if you would, please.

21 A Yes, sir.

22 Q Are you there, sir?

23 A Yes, sir.

24 Q Now, this page is the, actually, the second page of the article

1 itself, is it not, sir?

2 A Yes, sir.

3 Q And it gives the background or introduction to the study and
4 in effect tells along with the other pages what the purpose of this study
5 is, doesn't it, sir?

6 A Yes, sir.

7 Q Would you read to the jury the second paragraph on Page 576?

8 A "The study presented here examines the mortality of Nitro plant
9 workers who were assigned to an area of TCP or 2,4,5-T production with
10 potential for exposure to TCDD. The mortality of these workers is examined
11 in the context of the mortality experience of the total Nitro plant worker
12 population."

13 Q Now, Miss Zack tells you that this is a study of mortality of
14 the people who were assigned to TCP or 2,4,5-T production?

15 A Yes, sir.

16 Q It doesn't just say 2,4,5-T, does it, sir?

17 A No, it does not.

18 Q So these, this study then deals with those people who were
19 exposed to trichlorophenol, doesn't it, sir?

20 A Yes, sir.

21 Q And the dioxin in trichlorophenol?

22 A Yes, sir.

23 Q And it deals with the people who were exposed to dioxin in
24 2,4,5-T, doesn't it, sir?

1 A Yes, sir.

2 Q Now then, with that in mind, she also repeats that statement
3 that it's concerned with trichlorophenol or 2,4,5-T on the next page, doesn't
4 she, sir, on the second paragraph there where she says, "Although several
5 of the chemical compounds produced are used at the Nitro plant over the
6 years have been associated with adverse health effects, no attempt has
7 been made to relate chemical exposure to mortality with the exception of
8 decedents exposed to the TCP or 2,4,5-T operations and potentially exposed
9 to TCDD."

10 A Yes, sir.

11 Q "As a result, the only specific hypothesis that can be tested
12 is whether a relationship exists between potential TCDD exposure and
13 proportional mortality especially for malignant neoplasms," isn't that
14 correct, sir?

15 A Yes, sir.

16 Q So the purpose of this study is to determine whether or not a
17 relationship exists between the TCDD exposure and mortality?

18 A Yes, sir.

19 Q And not just exposure to 2,4,5-T, isn't that correct, sir?

20 A Yes, sir.

21 Q So what you stated prior to the recess was in error, wasn't
22 it, Doctor?

23 A I can read another place--

24 Q What you stated before the recess was in error, wasn't it, Doctor?

1 A No, sir.

2 Q Doesn't she say that it's for the decedents exposed to the TCP
3 or 2,4,5-T operations, Doctor?

4 A Yes, sir.

5 Q Doesn't she clearly include the trichlorophenol in the study?

6 A Yes, sir.

7 Q And you said before the recess that it was not to be included
8 in the study, didn't you, sir?

9 A Yes, sir.

10 Q And you were in error therefore, were you not, sir?

11 A No, sir.

12 Q Let me ask you again, Doctor, doesn't she say that this is
13 for decedents exposed to TCP or 2,4,5-T?

14 A Yes.

15 Q Isn't TCP trichlorophenol?

16 A Yes, sir.

17 Q Isn't this study for the mortality of workers exposed to
18 trichlorophenol?

19 A Yes, sir.

20 Q And you said it was not, didn't you, sir?

21 A Yes, sir.

22 Q Now she is saying something different than what you are saying,
23 isn't she, sir?

24 A In that place?

1 Q Yes. And she is saying it does include trichlorophenol, doesn't
2 she, sir?

3 A Later she doesn't.

4 Q Now, Doctor, she says in two places here that this includes
5 those workers exposed to trichlorophenol, does she not, sir?

6 A Yes, sir.

7 Q When she tells you what the study is for in these two places,
8 doesn't she, sir?

9 A Yes, sir.

10 Q And she intends for you to believe that she is studying the
11 people exposed to trichlorophenol as well as 2,4,5-T, doesn't she, sir?

12 A Yes, sir.

13 Q And it's because of the potential for the TCDD exposure that
14 the trichlorophenol and/or the 2,4,5-T is being studied, isn't that right,
15 sir?

16 A I'm sorry, would you ask the question--

17 Q It's because these things, the trichlorophenol that is the
18 TCP or the 2,4,5-T has a potential for exposure to TCDD that that is the
19 reason she's doing this study as she states on Page 576, isn't that
20 correct, sir?

21 A That's what she states there, yes.

22 Q And Doctor, these workers, all of whom are listed in Table 2
23 in the Zack/Suskind report of 1979 were all exposed or all described as
24 being exposed to the tetrachlorodibenzodioxin in the TCP accident?

1 A Yes, sir.

2 Q And none of those with the exception of one of these nine
3 workers, only one is included in the Table 10 that she prepared for those
4 workers exposed to the 2,4,5-T, Table 10, isn't that correct, sir?

5 A Yes, sir.

6 Q None of the other eight in that table who were exposed were
7 listed, are they, sir?

8 A That's right.

9 Q Now, Doctor, after we in this case in the spring of last year
10 brought out the fact that the four deaths from cancer of those males who
11 were exposed in the accident were included in those people not exposed,
12 you at Monsanto had a toxicologist by the name of Strauss critique the
13 Zack/Gaffey report, did you not, sir, Marcie Strauss?

14 A I don't know.

15 Q Well, Doctor, you've got a copy of her report, didn't you, in
16 August of 1984?

17 A I don't recall.

18 Q I hand you Plaintiff's Exhibit 1465 and ask you if that is not
19 a copy of the Marcie B. Strauss critique of the Zack/Gaffey report?

20 MR. CARR: I read it as 1465, perhaps it is 1463.

21 Q 1463 is by Strauss, and it does involve the Zack/Gaffey report,
22 does it not, sir?

23 A Yes.

24 Q And it discusses the criticisms that we make of the report, and

1 as a matter of fact it says the Plaintiffs' lawyer contests and so forth
2 on the third page of this exhibit, doesn't it?

3 A I don't know where you're reading.

4 Q The third page of the--

5 A Yes, sir.

6 Q --of the exhibit, third line. You see the words "Plaintiffs'
7 lawyer."

8 A At the top of the page?

9 Q Third page, third line.

10 A I see.

11 Q You see that, sir?

12 A Yes.

13 MR. CARR: Offer 1463 into evidence, if it please the Court.

14 (Plaintiff's Exhibit 1463 was offered into evidence.)

15 THE COURT: Any objections?

16 MR. HEINEMAN: Excuse me, your Honor, may counsel approach the
17 bench for a moment?

18 THE COURT: Sure.

19 (The following proceedings were held at the bench.)

20 MR. HEINEMAN: It is my recollection, and I may be incorrect,
21 but it is my recollection that this document was included among the documents
22 that were submitted to the Court for in camera inspection with respect to
23 any privilege or work product or anything like that. I assume, your Honor,
24 that once the Court has already ruled on that respect, it's not necessary

1 for me to make the same objection now.

2 THE COURT: No, it's not.

3 MR. HEINEMAN: But that objection and the Court's ruling thereon
4 would be preserved for the record, and I would not be construed to be
5 waiving it at this time.

6 THE COURT: Absolutely, of course.

7 (The following proceedings were held in open Court.)

8 MR. HEINEMAN: No objection, your Honor.

9 THE COURT: Fine. Admitted without objection. Thank you.

10 (Plaintiff's Exhibit 1463 was admitted into evidence.)

11 BY MR. CARR:

12 Q Doctor, if you would turn to the fourth page from the bottom,
13 fourth from the last page, and you will see it's in something called
14 attachment to--you will see that there is a category there 2,4,5-T
15 exposure category was incorrectly classified in Zack/Gaffey PMR study;
16 A counted as unexposed, should have been exposed, and then John Workman
17 is listed there at number 3, his medical records say he was exposed.

18 A Yes, sir.

19 Q And it is that same John Workman that we previously put an
20 X there?

21 A Probably the same.

22 Q Yes, and well, you'll look at the death certificate, you can
23 see the social security number, indeed, it is the same and the death
24 certificate would show that he died of cancer.

1 MR. HEINEMAN: Excuse me, Mr. Carr, you're not representing
2 that that's all that that says there about John Workman.

3 MR. CARR: All I'm saying is that that record shows that John
4 Workman was exposed according to his medical history as determined by
5 Monsanto employee by the name of Marcie Strauss.

6 (Plaintiff's Exhibit 1464 was marked for identification.)

7 Q Doctor, I'll now hand you Exhibit 1464 and ask you to look at
8 that if you would, please. Exhibit 1464 lists those nine names that I
9 have listed here, does it not, sir?

10 A Yes, sir.

11 Q And those nine persons were all exposed, according to the
12 history, to TCDD, were they not, sir?

13 A Yes, sir.

14 Q And none of these nine were--are included in Table 10 of the
15 Zack/Gaffey report, are they, sir? I think we've established that already.

16 A Yes, sir.

17 Q Now, there are listed here nine deaths of the Nitro plant
18 workers who were exposed to 2,4,5-T, are there not, sir?

19 A Yes.

20 Q And if we add the nine deaths, Roe, Cochran, Moore, Tidquist,
21 Workman, and so forth through Arthur, that would be 18 deaths, wouldn't it,
22 sir, from the TCDD exposure?

23 A The other one is 18. The one from Gaffey.

24 Q I believe it's 9.

1 A Eighteen, yes.

2 MR. CARR: I offer Exhibit 1464 into evidence, if it please
3 the Court.

4 (Plaintiff's Exhibit 1464 was offered into evidence.)

5 MR. HEINEMAN: Your Honor, I object to this document. It's
6 obviously--I gather it's something that's been created by Mr. Carr. There's
7 been no foundation laid for its admission, and I object to it.

8 MR. CARR: I need to clarify one part of it, your Honor, for
9 it to be strictly admissible.

10 THE COURT: Go ahead.

11 Q Doctor, in the Zack/Gaffey report, there is a page or pages
12 that deal with the expectation of death, is there not, sir, something to
13 do with the PMR?

14 A Where are you referring? To what page are you referring?

15 Q Well, throughout the study, Doctor, it's talking about the
16 proportional mortality ratios.

17 A There's two things done in this. One is an SMR and the other
18 is a PMR.

19 Q Yes. And they put out there the number of deaths that would
20 be expected from cancer, don't they, sir?

21 A Yes.

22 Q And in this group, they point out that 10.94 deaths would be
23 expected from this group, don't they, sir?

24 A Where are you reading?

1 Q Doctor, the Table 9, the very first entry, all malignant
2 neoplasms under the proportional mortality ratio, that is PMR, there is
3 10.94 expected. You see that, sir?

4 A Yes.

5 Q Now, what that means, according to Zack/Gaffey's analysis of
6 these workers, is that she analyzed--you would ordinarily expect not quite
7 11 deaths from cancer from all malignant neoplasms, correct, sir?

8 A Yes.

9 Q But in fact there were 18 deaths, weren't there, sir?

10 A Not in 2,4,5-T workers.

11 Q From TCDD there was, wasn't there, sir?

12 A Yes.

13 MR. CARR: I'll now offer the exhibit into evidence, your Honor.

14 (Plaintiff's Exhibit 1464 was offered into evidence.)

15 THE COURT: Any further objection?

16 MR. HEINEMAN: There will be, your Honor. Your Honor, I would
17 object to the question. At first, I object to the exhibit on the grounds
18 that there's been no foundation laid for its admissibility. It's a creation
19 by Mr. Carr. And so we believe that there isn't an adequate foundation,
20 and we think it should not be admitted as an exhibit. I object further for
21 the reason that based upon the testimony which Mr. Carr has elicited, that
22 this death expected number would necessarily be misleading because it is
23 based upon those people who would have worked in 2,4,5-T and not based upon
24 all of the other people that would have had to be included had it been

1 expanded as Mr. Carr suggested it should be expanded, and therefore the
2 document is misleading.

3 MR. CARR: That's not correct, your Honor. The PMR is based
4 upon the total population.

5 Q Is it not, Dr. Rousch?

6 A On the 2,4,5-T population.

7 THE COURT: Objection is overruled. It is admitted over
8 objection.

9 (Plaintiff's Exhibit 1464 was admitted into evidence.)

10 (Plaintiff's Exhibit 1464A was marked for identification.)

11 Q 1464A is a blow-up of 1464, is it not?

12 A Yes, sir.

13 Q Doctor, this report by Zack and Gaffey, Plaintiff's Exhibit 281,
14 has been cited in practically every article that has dealt with whether or
15 not TCDD causes cancer, hasn't it, sir?

16 A I don't--it has been quoted.

17 Q It has been quoted, it has been relied upon by people who
18 have written articles for the EPA, has it not, sir?

19 A I think so.

20 Q It has been reported and relied upon by every responsible
21 investigator in the area of does dioxin cause cancer, hasn't it, sir?

22 A Yes.

23 Q It is one of the very, very few studies that deal with
24 whether or not dioxin causes cancer in human beings based upon real life

1 A Yes.

2 Q When in fact 18 or twice that number died from cancer and she
3 didn't report it, did she, sir?

4 A That was a different study.

5 Q She did not report it, did she, sir?

6 A She couldn't.

7 Q It has not been reported. Doctor, she could, is there any
8 reason she could not have listed these deaths in this study? She had the
9 death certificates, did she not, sir?

10 A If she had, she would have had to change the denominator.

11 Q She had the death certificates, did she not, sir?

12 A Yes.

13 Q And she had the work records, did she not, sir?

14 A Not for those.

15 Q She didn't have the work records for these people?

16 A No.

17 Q They're all Monsanto employees, the Monsanto work records are
18 all there and available to her.

19 A That's right.

20 Q So she had them, did she not, sir?

21 A She didn't use that.

22 Q She didn't use it, indeed, she did not use it. But the point
23 that I am making is she had them and she used the work records in the case
24 of some workers, did she not, sir?

1 A Yes.

2 Q But she did not use the work records for these people, did she,
3 sir? Did she, sir?

4 A No.

5 Q They had all died from cancer at the time she did the study,
6 had they not, sir?

7 A Yes.

8 Q She had the death certificates showing that they had all
9 died from cancer, did she not, sir?

10 A Yes, sir.

11 Q They had all been exposed to dioxin, had they not, sir?

12 A Yes, sir.

13 Q And she could have if she wanted to report, if she wanted to
14 let the people know that there was 18 deaths from dioxin exposure rather
15 than nine, couldn't she, Doctor?

16 A Yes, but then she would have changed the expected--

17 Q Doctor, would there be anything wrong with her changing the
18 expected?

19 A But she couldn't do that because she didn't know those in
20 that first group that did not get chloracne, so the denominator would
21 change if she would have had to add--

22 Q Doctor, her study is not of people that had chloracne.

23 MR. HEINEMAN: Objection. Would Mr. Carr be kind enough to
24 let the witness finish an answer before interrupting? I'd like the witness

1 to have a chance to finish his answer.

2 THE COURT: Go ahead and finish your answer.

3 A That first study was a study of people with chloracne. There
4 were people involved in that TCP accident that did not get chloracne, and
5 if we were to have added that group to this one, we would have had to add
6 those that did not get chloracne and we couldn't define those. Therefore,
7 that population couldn't be added to this one.

8 Q Doctor, but the second study, the study that we're talking about
9 is that Gaffey study, has got nothing to do with chloracne.

10 A That is the first one.

11 Q The Zack/Gaffey, not the Zack/Suskind, we're talking about
12 the Zack/Gaffey report.

13 A We are talking about adding the Zack study to the—

14 Q No, Doctor, what we're talking about is reporting the deaths
15 of the people that have been exposed to TCDD in the Monsanto plant, that's
16 what we're talking about.

17 A And that includes the Zack/Suskind study.

18 Q Well, Doctor, it obviously did not, because she did not include
19 eight deaths that were in the Zack/Suskind study, did she, sir? These
20 people had chloracne.

21 A That's right.

22 Q These people were exposed to dioxin.

23 A Yes, sir.

24 Q These people died from cancer, didn't they?

1 A Yes, sir.

2 Q And she did not include those in the list of people that died
3 from cancer, did she, sir?

4 A No, she couldn't.

5 Q Well, why couldn't she, Doctor?

6 A Because she would have had to include those who did not get
7 chloracne.

8 Q But her study in 1980 had nothing to do with chloracne, Dr. Rousch.
9 Would you look at this, sir?

10 A Yes.

11 Q She did not use as a denominator people who had chloracne,
12 does she, sir?

13 A That's right.

14 Q She uses as the denominator those people that were exposed
15 to TCP or 2,4,5-T with a potential for dioxin exposure, did she not, sir?

16 A That's right.

17 Q Now, these people all were exposed to TCP or 2,4,5-T with a
18 potential for dioxin exposure, weren't they, sir?

19 A The Zack/Suskind studies.

20 Q Would you answer that question that I asked you, Dr. Rousch?
21 I am not talking about the Zack/Suskind study. I'm talking about these
22 nine people listed in 1464 and 1464A. These people were all exposed to
23 either TCP or 2,4,5-T with the potential of TCDD exposure, were they not,
24 sir?

1 A They were not exposed to 2,4,5-T.

2 Q Could you answer the question that I posed, Dr. Rousch?

3 A I'm sorry, I'm trying to.

4 Q No, you're answering a different question, Dr. Rousch.

5 A I'm sorry.

6 MR. CARR: Would you read my question.

7 (The previous question was read back by the reporter.)

8 A That group includes those exposed to TCP, but were not listed
9 as working in TCP.

10 Q Could you answer my question, please, Doctor?

11 MR. HEINEMAN: I'd object, your Honor. I think that's exactly
12 what he asked him.

13 THE COURT: Objection is overruled.

14 A Will you give me the question again?

15 (The same question was read back by the reporter.)

16 A The answer is yes.

17 Q Miss Zack said on Page 576 that the study examined the mortality
18 of Nitro plant workers assigned to an area of TCP or 2,4,5-T production
19 with potential for exposure to TCDD, did she not, sir?

20 A I'm not with you.

21 Q Well, we've read it before a couple of times, Dr. Rousch.

22 A Pardon?

23 Q We've read it a couple of times already.

24 A I understand. Where are you reading now?

1 A Page 576, the second paragraph on that page.

2 A That's what it's to do.

3 Q And these nine people were exposed, were they not, sir?

4 A Yes.

5 Q And they were not included in her Table 10, were they, sir?

6 A No.

7 Q Now, Doctor, does the fact that there are 65 excess deaths
8 from exposure to TCDD than that which is expected, isn't that an important
9 fact to be known by the scientific community, Doctor?

10 A What 65 deaths.

11 Q 65 percent, not deaths, Doctor. These deaths of 18 is 65 percent
12 more than 10.94, aren't they, sir?

13 A No, sir.

14 Q They're not?

15 A No, sir.

16 Q Isn't 18 65 percent, sir?

17 A Yes.

18 Q And of 10.94, 18 is 65 percent greater than 10.94, is it not, sir?

19 A Yes, but that's not--

20 Q Doctor, these deaths that were listed here, nobody outside this
21 courtroom, nobody in the scientific community is aware of the fact that
22 Monsanto had 18 cancer deaths from those workers exposed to dioxin, do
23 they, sir?

24 A Yes.

1 Q Nobody knows that?

2 A Yes.

3 Q Who knows it, sir?

4 A Those who look at the first study and then look at the second
5 study.

6 Q Oh, they know that? Doctor, wherein does it tell them? As a
7 matter of fact, it tells them that four of these people weren't even
8 exposed, doesn't it, sir?

9 A Not exposed to 2,4,5-T.

10 Q And the implication is therefore not exposed to TCDD, isn't
11 that the clear implication of that, Dr. Rousch?

12 A It says in here that--

13 Q Isn't that the clear implication of that, Dr. Rousch, that
14 they therefore were not exposed to TCDD?

15 A No, sir.

16 Q Do you get from that that they were exposed to TCDD?

17 A No, sir, but it states it in the text.

18 Q It states in the text potential for exposure to TCDD, doesn't
19 it, sir?

20 A Included in the nonexposed to 2,4,5-T.

21 Q Doctor, they're talking about--they want to compare--this table
22 is meant to compare those people without potential for exposure to 2,4,5-T
23 to those people with potential for exposure to TCDD, isn't that correct,
24 sir?

1 A Yes, sir.

2 Q Sir?

3 A Yes, sir.

4 Q And the 2,4,5-T of course is the agent that has the dioxin in
5 it, isn't it, sir?

6 A Yes, sir.

7 Q Just as the TCP is the agent that has the dioxin?

8 A Yes, sir.

9 Q Now, do you think that the scientific community at large is
10 interested in knowing whether or not 2,4,5-T absent dioxin causes cancer,
11 or is what they're interested in in knowing whether or not dioxin causes
12 cancer?

13 A Whether dioxin causes cancer.

14 Q And that's the reason Zack wrote this study, isn't it, sir?

15 A No, sir.

16 Q Oh, no? That isn't the reason for the study? She starts out
17 the very first sentence talks about TCDD exposure.

18 A Yes, sir. I'm with you.

19 Q And Doctor, the reliance of the scientific community upon that
20 study has never been challenged or shown by any place outside of this
21 courtroom to your knowledge, isn't that correct, sir?

22 A No.

23 Q It has been challenged?

24 A It has not.

1 Q Sir?

2 A It has not.

3 Q It has not. Now, after you learned in 1984 that we had discovered
4 the fallacy in the Zack/Gaffey report, did you suggest to Miss Zack that
5 she write another article pointing out that she had misled the scientific
6 community?

7 A I don't think she misled the community.

8 Q You don't think she misled--

9 A No, sir.

10 Q All right. And is it your view of what this tells the scientific
11 community that based upon the same philosophy and background as the rest
12 of the testimony that you have given in this case, sir, in behalf of
13 Monsanto?

14 A I don't know what your question is.

15 Q What I am saying, sir, if you believe this does not mislead
16 anyone, this evidence, this report does not mislead the scientific
17 community, I'm asking you is that the same theory upon which the rest of
18 your testimony has been based, the same view of whether it does or does
19 not tell the truth, does or does not mislead?

20 A No.

21 Q Does it stand in a different category then, sir?

22 A Yes.

23 Q Why, Doctor, would this category be different than the rest
24 of your testimony? Why should this Zack/Gaffey report be less reliable

1 or more reliable than the rest of your testimony?

2 A I don't understand your question.

3 Q Doctor, what I have suggested to you is that these nine deaths
4 when added to the nine deaths that she reported shows a significant
5 increase in deaths caused by exposure to TCDD and it does, does it not, sir?

6 A I don't think it does.

7 Q You don't think 18 deaths where 10.94 was expected is a
8 significant increase?

9 A The 10.94 is not the number you should be using.

10 Q What is the number we should be using?

11 A It's larger.

12 Q If I am using a wrong number, please let me know.

13 A That number is based on that population that was in the
14 Zack/Gaffey study.

15 Q What is the population, Doctor, that we're talking about?

16 MR. HEINEMAN: Let me object, your Honor. If he doesn't want
17 the jury to hear what the witness has to say, why doesn't he just tell
18 the jury that instead of cutting the witness off? I object. I'd like
19 to let the jury hear what the witness has to say.

20 THE COURT: Objection is overruled. I don't think the witness
21 was cut off. You may proceed, Mr. Carr.

22 Q What's the population, Doctor? I don't understand.

23 A The population with the observed 10 deaths was the population
24 that included only those exposed to 2,4,5-T. If we include those in the

1 TCP study, the observed is going to be much larger than is present there.
2 You've got to add that population. You just don't add cancer deaths,
3 you don't add a new rate without putting a denominator on it.

4 Q Doctor, indeed you do--would you turn to Table 9, please?

5 A Yes, sir.

6 MR. HEINEMAN: Table 9 in what?

7 MR. CARR: Table 9 in the Zack/Gaffey report on 586.

8 Q Doctor, what they are talking about on the expected is out
9 of the total number of deaths, not on a population. They're talking
10 about the total number of deaths, are they not, sir?

11 A No, sir.

12 Q Doctor, look at Table 9. Do you see 58 deaths there?

13 A Yes, sir.

14 Q And if you would divide the observed deaths, that is 58, by
15 9 or divide 9 by 58, you would get the 10.94, would you not, sir?

16 A Yes, sir.

17 Q And that's how you get the PMR, you're talking about the number
18 of deaths, not about the total population, Doctor.

19 MR. HEINEMAN: Your Honor, I object. He just reversed the
20 question. It was just the opposite. Now he is adopting what Dr. Rousch
21 just testified to. I object to it as misleading.

22 THE COURT: Objection is overruled. It is not at all.

23 Q Doctor, there are 58 deaths that were observed, were there
24 not, sir?

1 A Yes, sir.

2 Q And 58 divided by 10.94 gives you what, sir?

3 A What was that question again? I have to relate it to what,
4 where are you getting these numbers?

5 Q Doctor, the PMR, do you see the PMR, the '82 there, Doctor?

6 A Yes, sir.

7 Q And Doctor, you see the 9 and the 10.94?

8 A Yes.

9 Q You see that, sir?

10 A Yes.

11 Q And if you divided the 9 by 10.94, you get the PMR, do you not,
12 sir?

13 A Yes.

14 Q In '82?

15 A Yes.

16 Q And the 58, sir, is the total number of deaths involved, isn't
17 it, sir?

18 A Yes.

19 Q And they expect of these 58 deaths that 10.94 should be deaths
20 from malignant cancers, don't they, sir?

21 A Yes, sir.

22 Q Now, that is not based upon any figures connected to 2,4,5-T,
23 it's based upon national ratios, isn't it, sir?

24 A Yes, sir.

1 Q It has nothing to do with 2,4,5-T, does it, sir?

2 A That's how you get to the expected, how do you get to the
3 expected without--that has to be based on the population that's under study.

4 Q The population under study is the 58 deaths, Doctor.

5 A Yes, but we're wanting to add some more deaths to it.

6 Q Yes, and that will change the PMR, won't it, sir?

7 A Yes, sir, that's my point.

8 Q Doctor, it doesn't change the PMR to a category that's--well,
9 let's start over again. Add those nine deaths then, Doctor. Add those
10 nine additional deaths to it. You'll get a new, a total then of 67 deaths,
11 won't you, sir?

12 A Yes.

13 Q And if you add those nine deaths, you will then get a PMR of
14 12.--or expected figure of 12.6, will you not, sir?

15 A I'm not sure. But your expected changes it based on the number
16 of deaths, and you just don't count cancer deaths, you have to count all
17 deaths.

18 Q Let's do it on the board so you can see exactly what we're doing
19 and just what Dr. Zack did. The 10.94 divided by 58 will give us the
20 percentage of those deaths from the expected, from the 58, will it not, sir?

21 A Yes.

22 Q And that equals 18.9 percent, do you see that, sir?

23 A No.

24 Q I have previously done it on a calculator.

1 A Yes.

2 Q So Zack expected 18.9 percent of these 58 deaths to be from
3 cancer, did she not, sir, and there were 9?

4 A Yes.

5 Q So 9 divided by 10.94 equals 82, and that's where she got her
6 PMR of 82, isn't that correct, sir?

7 A Yes.

8 Q All right. So now we have shown here how she arrived at her
9 expected and somehow she arrived at her PMR, correct, sir?

10 A Yes.

11 Q Is started out with the total deaths involved from cancer and the
12 total--

13 A That isn't just from cancer.

14 Q The total deaths rather, and the total from cancer, the 58 is
15 the total deaths.

16 A Yes.

17 Q Now, if you will take the 9 additional deaths from cancer and
18 add them to the total deaths, you'll get 67, will you not, sir?

19 A Yeah, but you just don't add cancer deaths.

20 Q Well, for this particular study, you can just add them to the
21 cancer deaths.

22 A How can you do that?

23 Q Simply by taking that figure 9 and adding them, sir.

24 A But you can't do that without changing the whole list on what

1 should be observed.

2 Q Well, right now we're only concerned with the deaths from cancer,
3 Doctor. We'll get to the other deaths in a moment. You take the 67 and
4 multiply it by the 18.9 percent and that's the factor that she would expect,
5 right, sir?

6 A Yes.

7 Q You'll get 12.6 deaths. Now, that's the number of deaths you
8 would expect from cancer if you had a total of 67 deaths and only 67 deaths,
9 isn't that correct?

10 A Yes.

11 Q All right. But instead we have 18 deaths, don't we, sir, the 9 and
12 9 added together is 18.

13 A No, no. The total death is going to be the--

14 Q Doctor, I'm talking about the deaths from cancer. By using the
15 percentage of 18.9 percent that she used in her study, I'm using her figures
16 not what anybody else says, but I'm taking her figures, Doctor, ones that
17 she calculated, ones that you are required to rely upon. Taking her figures
18 and applying it to the deaths that in fact occurred. Would you expect
19 12.6 deaths, and in fact you got 18, nearly 50 percent greater than
20 expected from this calculation, isn't that correct, sir?

21 A Yes.

22 Q Doctor, the same calculations can be done with all the other
23 deaths that she has listed in this exhibit. For instance, if you will
24 turn to this Table 9 again, she has lung cancer, 6 lung cancer deaths, does

1 she not?

2 A Yes.

3 Q And only, what was expected was 3.78 according to her calculations,
4 is that correct, sir?

5 A Well, you're taking total respiratory versus lung.

6 Q Well, either one.

7 A Not the same.

8 Q All right. They're all the same deaths, six deaths in the
9 respiratory system, all six happen to be lung cancer.

10 A Yes.

11 Q And she has listed there lung cancer, she expects 3.57 deaths.
12 In fact, you got six.

13 A Yes, sir.

14 Q That's an excess of 68 percent, isn't it, sir?

15 A Yes, sir.

16 Q As a matter of fact, if you added the four lung cancer deaths
17 that occurred, in fact, that would make 10 lung cancer deaths, wouldn't
18 it, sir?

19 A You're taking that from this study here, from the other study?

20 Q Yes. Westfall, Farley, Hudnall, Jefferson all had--Hudnall had
21 lung cancer and not reported by Miss Zack.

22 A It was reported in the other study.

23 Q Doctor, would you please address your attention to the Zack/Gaffey
24 report?

1 A I am.

2 Q She did not report those four lung cancer deaths from exposure
3 to TCDD, did she, sir?

4 A No.

5 Q If she had reported those four lung cancer deaths, that would
6 have made it a total of 10, wouldn't it, sir?

7 A Yes.

8 Q And that 10 would be not just 68 percent higher, but it would be
9 143 percent higher than expected, wouldn't it, Doctor?

10 A I'm not sure what the expected would be.

11 Q Well, do the same thing that we did here, Doctor. We have the
12 lung cancer of 3.57 divided by 58.

13 A It can't be 58.

14 Q The 58 I'm showing you, Doctor, it is 58 total deaths, right,
15 sir?

16 A Right.

17 Q And that gives 6.1 percent. The 6.1 percent times 67, adding
18 the new deaths to it, the nine new deaths to the 58 equals 4.12. Ten,
19 that's the total lung cancer deaths divided by 4.12 equals 243, does it
20 not, sir? And that 243 is 143 percent in excess of what's expected.

21 A Yes.

22 Q Doctor, on the genitourinary cancers, there were two reported
23 and by her calculations that's 208, the figure 208 PMR, which is 108
24 percent higher than what's to be expected, is it not, sir?

1 A Yes.

2 Q And bladder cancers, there's two bladder cancers, isn't there,
3 sir?

4 A Yes.

5 Q And that's 809 percent higher than what's expected?

6 A Yes, sir.

7 Q Sir?

8 A Yes, sir.

9 Q And lymphatic cancer, there's three lymphatic cancer deaths,
10 aren't there, sir? But they were omitted from the Zack/Gaffey report,
11 and those lymphatic cancers would be Hodgkin's Disease and--

12 A Two leukemias.

13 Q And Cochran, the two leukemias. And that's 92 percent higher
14 than what's expected, is it not, sir? And we do the same calculation,
15 there's 1.35 divided by 58 equals .023, and that's 2.3 percent times 67,
16 the new cancer deaths, new total deaths rather, is 1.56. Three, in fact
17 what occurred divided by 1.56 equals 192, does it not, sir? That's 92
18 percent in excess.

19 A Right.

20 Q And the other cites, there's two deaths, one of which was
21 omitted from the Zack/Gaffey report, and that comes out 26 percent in
22 excess, does it not, sir? I'll do the calculation for you, if you wish.
23 We have 1.38 divided by 58 equals .024. 2.4 percent times 67 equals 1.59.
24 Two divided by 1.59 equals 126, which is 26 percent in excess?

1 A Yes, sir.

2 Q And from heart disease, there were 27 deaths from heart disease,
3 was there not, Doctor?

4 A There were 31--or 27.

5 Q Sir?

6 A Twenty-seven deaths.

7 Q And that's 37 percent higher than expected, is it not, sir?

8 A Yes.

9 (Plaintiff's Exhibit 1465 was marked for identification.)

10 Q Handing you now Plaintiff's Exhibit No. 1465. I'll ask you if
11 that accurately represents the calculations that were performed here as
12 shown by the reports in evidence and by the Zack/Gaffey report.

13 MR. HEINEMAN: Come again? May I have that question read
14 back, your Honor? I'm not sure I heard it right.

15 Q Doctor, this exhibit represents the result in percentages of
16 deaths that we have just shown in these calculations, does it not, sir,
17 based upon the Zack/Gaffey report?

18 A Yes.

19 MR. CARR: I offer that exhibit in evidence if it please the Court.

20 (Plaintiff's Exhibit 1465 was offered into evidence.)

21 THE COURT: Any objections?

22 MR. HEINEMAN: Yes, I object to it, your Honor, on the basis that
23 it's both misleading and that it doesn't incorporate the information that
24 Dr. Rousch has been trying to tell Mr. Carr for the last two hours and

1 needs to be incorporated, and secondly because it is something created by
2 Mr. Carr and no adequate foundation has been laid for its admission.

3 THE COURT: Objection is overruled. It is admitted over
4 objection.

5 (Plaintiff's Exhibit 1465 was admitted into evidence.)

6 (Plaintiff's Exhibit 1465A was marked for identification.)

7 Q Doctor, 1465A is a blow-up of 1465, is it not?

8 A Yes, sir.

9 Q Doctor, of the information that's on 1465, the information relating
10 to the genitourinary cancer relating to the bladder cancer and relating to
11 the heart disease, death from heart disease, is all contained in the
12 Zack/Gaffey report itself, and those percentages are taken specifically from
13 the figures included therein, is it not, sir?

14 A I'm sorry, I'm not with you. Where are you reading?

15 Q 1465, Dr. Rousch.

16 A All right.

17 Q Those deaths not marked with a star, that is genitourinary
18 cancer, bladder cancer, and heart disease are all taken directly from the
19 Zack/Gaffey report, that is, these are figures that she reports on excess
20 deaths from exposure to TCDD, isn't that correct, sir?

21 A I don't think so, no.

22 Q Sir?

23 A No.

24 Q Now Doctor, look at the first one on Exhibit 1465, genitourinary,

1 and look at Table 9 of the Zack/Gaffey report.

2 A Yes, sir.

3 Q She reports the PMR there is 208, does she not, sir?

4 A Yes, sir.

5 Q That's 108 percent, and that's 96 expected, isn't it, sir?

6 A .96.

7 Q Doctor, .96?

8 A Yes.

9 Q You see that, sir?

10 A Yes, sir.

11 Q There were two deaths found from genitourinary cancer?

12 A Yes.

13 Q What was expected was .96, correct, sir?

14 A Yes, sir.

15 Q And that .96 is 108 percent higher than what's expected, isn't
16 it, sir?

17 A Yes.

18 Q And that's exactly what's shown in Exhibit 1465?

19 A Yes, sir.

20 Q Sir?

21 A Yes, sir.

22 Q All right. And the bladder cancer, that's 809 percent higher
23 than what was expected and that's exactly what was shown on 1465, isn't
24 it, sir?

1 A Yes, sir.

2 Q And the heart disease at 27 is 37 percent higher than what's
3 expected, isn't it, sir?

4 A Yes, sir.

5 Q Now, for it to be a higher death rate from heart disease, 37
6 percent higher, Dr. Rousch, wouldn't that lead you to suspect that
7 exposure to dioxin is causing the cardiovascular problems that Doctors
8 Webster and Hryhorczuk and all these other folks said earlier come from
9 dioxin exposure, aren't those two findings consistent, Doctor?

10 A Consistent, yes.

11 Q And the Zack/Gaffey report supports or gives additional
12 foundation to the Webster-Hryhorczuk Northwestern University toxic effect
13 listing, does it not, sir?

14 MR. HEINEMAN: Your Honor, I object. We have been through for
15 an hour the fact that Dr. Rousch says that the Northwestern people are
16 attributing that information to another source.

17 THE COURT: Objection is overruled.

18 Q Isn't that correct, Doctor?

19 A It's consistent with, but it doesn't prove it.

20 Q Doctor, I didn't say it proved it. Proof is what the jury
21 believes is true from the evidence heard from both sides and they haven't
22 heard both sides yet. But proof is that which the jury says is true,
23 that's proof. All I'm asking you, Doctor, is that this supports the
24 statement by Dr. Webster and the group at Northwestern University, does

1 it not, sir?

2 A Yes.

3 MR. HEINEMAN: Object to--well, after your answer. I object to
4 the form of the question, to the speech that Mr. Carr gave, ask that it
5 be stricken. It is not a proper question, ask that it be stricken and
6 ask that the jury be instructed to disregard it.

7 THE COURT: It was a proper question and the remarks were
8 properly prefatory to the question. The objection is overruled.

9 Q And Doctor, of the other deaths listed here in excess of expected
10 shown by the stars, four lung cancer deaths I think you already testified
11 to that were omitted from the Zack/Gaffey report, the three lymphatic
12 cancer deaths were completely omitted from the Zack/Gaffey report, one
13 death from other cites was omitted from the Zack/Gaffey report, and from
14 all cancers, nine that we've already gone through were omitted from the
15 Zack/Gaffey report, isn't that correct?

16 A Yes.

17 MR. CARR: Your Honor, this is an appropriate, convenient place
18 for me at this time.

19 THE COURT: That's fine. Okay, we will break at this point in
20 time. We will resume again at nine o'clock tomorrow morning. I want to
21 admonish you as I do before any overnight break that besides the admonishments
22 that I have given you as to breaks during the trial, I want to remind you
23 that you are not to read, listen to, or watch anything about this case in
24 particular or the subject matter in general in any of the media, print or

1 electronic. Thank you for your attention and cooperation. Court is
2 adjourned for the day.

3 (At this time Court was adjourned for the day.)
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1 STATE OF ILLINOIS)
2) SS.
3 COUNTY OF ST. CLAIR)

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

12 DATED this 11th day of July, 1985.

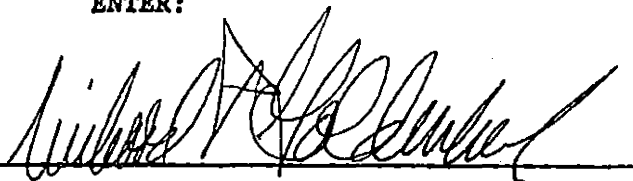
13
14 *Patricia A. Gandy*
15 _____
16 PATRICIA A. GANDY, CSR, RPR
17 Official Court Reporter
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1 STATE OF ILLINOIS)
2) SS.
3 COUNTY OF ST. CLAIR)
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7 I, RICHARD P. GOLDENHERSH, Circuit Judge in and for the
8 Twentieth Judicial Circuit, hereby certify that the above is a true and
9 correct transcript of the proceedings had in the case captioned: FRANCES
10 E. KEMNER, et al., v. MONSANTO COMPANY, Cause No. 80-L-970, heard on
11 July 8, 1985.

12 DATED this 11th day of July, 1985.
13

14 ENTER:

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17 RICHARD P. GOLDENHERSH, Circuit Judge
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1 that's summarized in Table 7?

2 A Yes.

3 Q Is respiratory disorders a toxic effect of 2,3,7,8 TCDD in man
4 that's summarized in Table 7?

5 A Yes.

6 Q And are elevated serum hepatic enzyme levels a toxic effect of
7 2,3,7,8 TCDD in man that's summarized in Table 7?

8 A Yes, sir.

9 Q And are disorders of fat metabolism a toxic effect of 2,3,7,8
10 TCDD in man that's summarized in Table 7?

11 A Yes.

12 Q And is disorders of liver metabolism a toxic effect of 2,3,7,8
13 TCDD in man that's summarized in Table 7?

14 A Yes.

15 Q And is respiratory disorders a toxic effect of 2,3,7,8 TCDD
16 as summarized in Table 7?

17 A Yes, sir.

18 Q And is cardiovascular disorders a toxic effect of 2,3,7,8 TCDD
19 as summarized in Table 7?

20 A Yes.

21 Q And pancreatic disorder is a toxic effect of 2,3,7,8 TCDD in man
22 as summarized in Table 7?

23 A Yes.

24 Q And is polyneuropathies, peripheral neuritis, a toxic effect of

1 2,3,7,8 TCDD in man as summarized in Table 7?

2 A Yes, it is.

3 Q And so is lower extremity weakness?

4 A Yes.

5 Q And so is sensory impediments?

6 A Yes, sir.

7 Q And so is neurasthenic or depressive syndrome?

8 A Yes, sir.

9 Q Now, Doctor, these things that they have here summarized for
10 you, you at Monsanto never did, or did you, did you ever write Doctors
11 Hryhorczuk or Wallace, Webster, and Persky and tell them that you won't
12 adopt or you won't accept, strike that, that you won't accept this report
13 of theirs?

14 A No, sir.

15 Q You in fact have accepted it, haven't you, sir?

16 A Yes, sir.

17 Q And you are relying upon it, aren't you, sir?

18 A Yes, sir.

19 Q Yes. And Doctor, you have no reason to dispute their summary
20 of these effects, do you, sir?

21 A That's not their summary.

22 Q Do you have any reason to dispute that which they say is summarized
23 in Table 7?

24 A Only that they are saying that's what the literature says.

1 that you at Monsanto do not accept these as toxic effects of TCDD exposure
2 in man?

3 A No, sir.

4 Q Then are you saying that you disagree with the statement that
5 these are the toxic effects of 2,3,7,8 TCDD exposure in man only in this
6 case, Dr. Rousch, is this the only place you've said it? Where else have
7 you said it other than in this courtroom through your attorneys and yourself,
8 sir?

9 A No place.

10 Q Doctor, along the way of arriving at opinions as to the effects
11 of dioxin upon human beings and more specifically as to their causing
12 cancer, you at Monsanto have used your own records relating to workers of
13 Monsanto who have been exposed to dioxin in the 1949 accident in the work
14 of Monsanto workers at Nitro in the 2,4,5-T producing department, isn't
15 that correct, sir?

16 A Yes, sir.

17 Q And you had a Dr. Judith Zack, and actually she was not a doctor?

18 A No, sir.

19 Q She had a Master's Degree in--

20 A I think it's epidemiology.

21 Q In public health is what she had, yes, and she was not a medical
22 doctor or any other--she had no M.D.?

23 A No, sir.

24 Q And Judith Zack first started working in this area to make reports

1 of which ultimately became published in various authoritative journals,
2 isn't that correct, sir?

3 A Yes, sir.

4 Q And one of the first things that she did or first reports she
5 made was relating to the workers who were exposed to the 1949 accident,
6 isn't that correct?

7 A Yes, sir.

8 Q And that was an article that she first--she was the principle
9 author, was she not, sir?

10 A Yes, sir.

11 Q As a matter of fact, she wrote the entire article in 1979, didn't
12 she, sir?

13 A With only minor modifications.

14 Q And with these minor modifications, these minor modifications
15 were made by Dr. Suskind, aren't they, sir?

16 A Yes.

17 Q And in point of fact, the article is listed in the publications
18 as being written by Zack and Suskind, but 90 percent or 95 percent of the
19 article was in fact written by the Monsanto employee known as Judith
20 Zack, isn't that correct, sir?

21 A Yes, sir.

22 Q Now, in order to--and that article by the way, we ought to get
23 it out, is Exhibit 62. I think that's a Monsanto Exhibit 62. Your Honor,
24 I have a copy of it.

1 THE COURT: Why don't you use it, if you could.

2 Q Let me give you a copy that I have of Monsanto Exhibit 62, and
3 this is the article published in January of 1980 in the Journal of
4 Occupational Medicine and shows the author to be Zack and Suskird.

5 A Yes, sir.

6 Q Now, Doctor Zack, in order to write this article that she
7 wrote, of necessity had to go into the records to determine who was
8 exposed to dioxin and who was not exposed to dioxin, correct, sir?

9 A This was only on those with chloracne.

10 Q Doctor, this article lists the people, the title of it in fact
11 is "The Mortality Experience of Workers Exposed to Tetrachlorodibenzo-para-
12 chlorophenol Accident."

13 A Yes, sir.

14 Q And she of necessity took those people who were employees who
15 worked in the area of the production or who were involved in the cleanup,
16 isn't that correct, sir?

17 A Yes, sir.

18 Q And she of course could, if she wanted to, ignore some records
19 and not ignore other records, couldn't she, sir?

20 A Yes, sir.

21 Q If she wanted to, if there were in fact 20 people that died of
22 cancer that had been exposed to dioxin in this accident or in the production
23 of TCP, she could have ignored some of those people if she wanted to,
24 couldn't she, sir?

1 A Yes.

2 Q And no one to your knowledge has ever checked Judith Zack's
3 findings to determine whether or not she ignored cancer deaths, have they,
4 sir?

5 A No.

6 Q And subsequent to this Exhibit 62 or subsequent to the publication
7 of this article, Judith Zack did another study, didn't she, sir?

8 A Yes, sir.

9 Q She then studies those people that were exposed to TCP in the
10 ordinary working of it and not just those that were exposed in the
11 accident. She included the production workers in general, whether they
12 were or were not in the accident, didn't she, sir?

13 A Yes.

14 Q Yes. So hers would be a broader study, would it not, sir?

15 A It is a different group.

16 Q Sir?

17 A It is a different group.

18 Q Well, broader, it would include the group that had been exposed
19 to TCDD in the accident, would it not?

20 A Not necessarily.

21 Q Not necessarily?

22 A No.

23 Q Doctor, we'll get to that in a moment, but did she not do the
24 study and state for the purpose of discovery the effects of dioxin exposure