

IN THE UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON, WEST VIRGINIA

JAMES M. ADKINS, Administrator)
of the Estate of Ralph E. Adkins,)
Deceased, et al,)

Plaintiffs,)

vs.)

No. 81-2098

MONSANTO COMPANY, a Delaware)
Corporation,)

Defendant.)

Deposition of
LEE A. MILLER
taken on behalf of the
Plaintiffs.

Reporter: M. Joy Springer

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APPEARANCES:

Messrs. Calwell, McCormick &
Peyton,

by W. Stuart Calwell, Jr., Esq.,

and

John H. Skaggs, Esq.,

For Plaintiffs,

Messrs. Bowles, McDavid, Graff &
Love,

by P. Michael Pleska, Esq.,

and

John Woods, Esq.

For Defendant.

IT IS STIPULATED AND AGREED by and between
counsel for the plaintiffs and counsel for the defendant
that the deposition of LEE A. MILLER may be taken pursuant
to Rule 26(a) of the Federal Rules of Civil Procedure,
on July 18, 1983, at the Radisson Hotel, Room 215, 9th
Street and Convention Plaza, St. Louis, Missouri, before

1 M. JOY SPRINGER, a Notary Public within and for the
2 County of Madison, State of Illinois; that the issuance
3 of notice and dedimus is waived, and that this deposition
4 may be taken with the same force and effect as if all
5 Federal rules and statutory requirements had been complied
6 with.

7 IT IS FURTHER STIPULATED AND AGREED that any
8 and all objections to all or any part of this deposition,
9 except objections as to form of the questions asked or
10 answers given, are hereby reserved and may be raised on
11 the trial of this cause; and that the signature of the
12 deponent is not waived.

13 * * * * *

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16
17
18 LEE A. MILLER

19 produced, sworn and examined on behalf of the plaintiffs,
20 deposes and says as follows:

21 EXAMINATION

22 BY MR. CALWELL:

23 (Whereupon the reporter marked Plain-
24 tiffs' Deposition Exhibit #355 (Monsanto
25 #236180 and #236181) consisting of 2 pages;

1 Q What is your position there?

2 A I'm a General Manager of the Nutritional

3 Chemicals Division.

4 Q Would you tell us what your education is.

5 A I got my Bachelor's in Chemistry from

6 Augustana College in Rock Island, Illinois. I have a

7 Ph. D. in Organic Chemistry from the University of Illinois.

8 Q When did you get your Ph. D?

9 A 1955.

10 Q And after getting that did you go to

11 work?

12 A I joined Monsanto directly out of

13 school, and I have been with them 28 years now. Started

14 in research, worked into the business end of the corpo-

15 ration.

16 Q You say you started in research in

17 1955?

18 A Yes.

19 Q What was your job then?

20 A I was research chemist in Dayton,

21 Ohio, in the then Central Research Laboratories.

22 Q Is that now Monsanto Research Corpora-

23 tion?

24 A Yes, it is.

25 Q And how long were you in that position?

1 A For six years. During 1961. I had
2 a few promotions, but I didn't really reach a management
3 level from the R and D area.

4 Q And were you doing laboratory tests,
5 is that what you were doing?

6 A Really laboratory research. Attempt-
7 ing to develop new products that might be useful to the
8 corporation.

9 Q During your stint there in Dayton did
10 you work with any chlorophenols?

11 A Yes. I worked with both 2,4-di-
12 chlorophenol and 2,4,5-trichlorophenol along with penta-
13 chlorophenol. These products were used in helping new
14 compounds that might have potential herbicide activity.

15 Q So you worked with dichlorophenol,
16 pentachlorophenol and trichlorophenol?

17 A Trichlorophenol.

18 Q Did you do any work in connection
19 with a product that was manufactured at the Nitro Plant
20 called 2,4,5-T?

21 A No.

22 Q Was your work with trichlorophenol
23 in any way related to 2,4,5-T?

24 A Only in the sense that particular
25 moiety was included in 2,4,5-T, but other than that it

1 was quite separate.

2 Q Did you rely on what Monsanto knew
3 about the production of 2,4,5-T and the use of trichloro-
4 phenol in that process in the work that you were doing
5 with trichlorophenol?

6 A No, no. Quite different chemistry.

7 Q But you didn't refer to any materials
8 that the company may have had related to that process?

9 A No. I consulted only the published
10 literature that was available during that time.

11 Q During this six-year period were
12 you generally aware of a family of substances called
13 dioxins?

14 A Not really. That was before they be-
15 came well known.

16 Q Well, were they known then?

17 A To my knowledge, they were not.

18 Q And this would have been in the 1955
19 to '61 period?

20 A '55 to '61.

21 Q To your knowledge, during your work
22 with dichlorophenol, pentachlorophenol and trichloro-
23 phenol, you did not consider a dioxin in the work that
24 you were doing there, is that right?

25 A No. That's correct.

1 Q Now, after 1961 what did you do?

2 A In '61 I came to St. Louis as a
3 Project Manager in the Commercial Development Department
4 of the Organic Chemicals Division of Monsanto, and I held
5 that job until May of '65 when I became a Section Manager
6 in that same department.

7 Q Now, what did your job entail? Is
8 that the same substances or was that a different area
9 all together?

10 A No. This was a business oriented
11 operation that didn't involve laboratory work at all,
12 and from that date forward, from the '61 date forward,
13 I have not been involved in laboratory experimentation.

14 Q So '61 was the last time that you were
15 down in the labs, right?

16 A Right.

17 Q What did you do in this new position,
18 '61 to '65?

19 A What we were trying to do is bring
20 on a major new food ingredient section for Monsanto,
21 and I was in charge of introducing the food ingredients,
22 among them being fumaric acid, cold water soluble fumaric
23 acid, and adipic acid.

24 Q This was an entirely different area all
25 together?

1 A I stayed with that job until February
2 of 1968, and at that time I transferred to New York City
3 to serve as the president of a new Monsanto acquisition,
4 Monsanto Flavor Essence Company, which was a company
5 involved in flavor and fragrance ingredients.

6 Q And that surely had nothing to do
7 with the flavor of 2,4,5-T and trichlorophenol?

8 A Right.

9 Q And, again, that sounds like a business
10 oriented kind of job?

11 A Very much so.

12 Q And how long were you in New York?

13 A I was in New York through July of
14 '74. Came back to St. Louis as the Director of Results
15 Management of Monsanto. This is what I'd describe as
16 a personnel oriented function.

17 Q Now, in that function did you work with
18 Mr. Harbison?

19 A Yes. Mr. Harbison was the leader
20 at that time of that results management function.

21 Q And was that the brainchild of John
22 Hanley?

23 A Yes.

24 Q And was Hanley President at that time?

25 A Yes. I think he may have been President

1 and Chairman at that time. I'd need to consult some
2 notes on that, but it's readily available.

3 Q Is that a corporate staff position
4 that you went to?

5 A Yes. It was in effect an operating
6 company staff position. I worked for Monsanto Industrial
7 Chemicals, one of five operating units at that time.

8 Q And Harbison was not assigned to an
9 operating division like MIC? He was up in the company
10 level staff, is that right?

11 A That's correct.

12 Q Were you a notch below him in terms of --

13 A Yes. He worked for the Director of
14 Personnel at that time, Bob Vara (phonetic), and I reported to a
15 Managing Director, Harold Biebel.

16 Q So you were charged with implementing
17 this Management By Results Program in MIC, I suppose?

18 A Correct.

19 Q And Harbison was charged with im-
20 plementing Management By Results in all the companies?

21 A Correct.

22 Q O.K. How long were you in that slot?

23 A I was in that slot until November 1st
24 of 1975. At that time I became General Manager of the
25 Process Chemicals Division in MIC.

1 Q Now, when you became associated with
2 MIC, I guess, in 1974, the Nitro Plant was in that
3 operating division?

4 A Yes. Actually, the Organic Division
5 became a part of MIC when it was formed in 1971, so in
6 that sense I was associated throughout that period with
7 MIC.

8 Q All right. Now, when you became
9 associated with MIC, were you made aware at any time
10 of a problem that Nitro had with a chloracne related
11 to the 2,4,5-T process?

12 A Not at this time. In November of 1976
13 I became General Manager of the Specialty Chemicals
14 Division, and my recollection is that I became aware
15 of this concern about dioxin somewhere in the following
16 Spring, the Spring of '77.

17 Q That's the first time you really run
18 across this substance?

19 A The first time I ran across it in
20 the Monsanto context. Now, the Seveso incident was
21 probably around 1975 and, of course, that was widely
22 reported in the public and technical press; so I was
23 certainly aware of it at that time, but, as I recall,
24 that was my first awareness of the dioxin issue.

25 Q When you became a General Manager of

1 Specialty Chemicals Division, is that still part of MIC?

2 A It's gone through several transforma-
3 tions since and no longer is a division that directly
4 corresponds to that operation, but one of the responsi-
5 bilities was the Nitro Plant.

6 Q In '76?

7 A In '76, right.

8 Q And was that because whatever sub-
9 stances the special chemicals were were also manufactured
10 there at Nitro?

11 A Basically it was because Specialty
12 Chemicals had the bulk of the plants there at Nitro
13 Plant except for the phosphate plants, so we didn't
14 have that many more chemicals at Nitro but we had the
15 responsibility for that plant.

16 Q How long did your job as General
17 Manager of Specialty Chemicals Division last?

18 A Through the end of the year 1969.

19 Q What happened then?

20 A I became General Manager of Nutritional
21 Chemicals as of January 1, 1980.

22 Q You still have an association with the
23 Nitro Plant in '79?

24 A Through 1979 I did have, yes.

25 Q Was that in connection with your

1 General Managership of the Nutritional Chemicals --

2 A Specialty Chemicals ended in '79.

3 Q Then you went on to General Manager
4 of Nutritional Chemicals, and that had nothing to do --

5 A Only indirectly. Two of our products
6 are made at Nitro.

7 Q What are those?

8 A Product called MHA, which is an
9 acronym for methionine hydroxy-analog. That's a syn-
10 thetic amino acid used in animal feeds, poultry feed.
11 The second product called Santoquin, S-a-n-t-o-q-u-i-n,
12 Monsanto trade name for antioxidant also used to pre-
13 serve feed stuffs.

14 Q Does the Santoquin process involve
15 the chlorination of a benzene ring?

16 A No. Neither of those processes do.
17 A raw material for Santoquin is a product called para-
18 nitrobenzene going back all the way to the beginning.
19 That in turn comes from chlorobenzene. So in that sense
20 it does, but it's about five or six steps before we get
21 down to our part of the process.

22 Q Does that entire process take place
23 at Nitro?

24 A No. It takes place, it starts life
25 at Krummrich, that's our east side plant, goes to Queeny

1 for a process, back to Krummrich and then to Nitro again,
2 so it's essentially a four-department operation.

3 Q So the chlorinated part of that process
4 takes place some place other than Nitro?

5 A At Krummrich.

6 Q All right. When you had your jobs
7 with MIC, did you have direct line communication to the
8 Medical Department, was that part of your function?

9 A On an as-required basis. No direct
10 lines in the reporting sense.

11 Q Your name appears on some documents
12 that relate to a thing called the Nitro Task Force or
13 Nitro Health Study Task Force. Do you recall that?

14 A Yes. The Chairman of that Task Force,
15 I think, was Fred Holzapfel, who was my Director of
16 Manufacturing reporting to me.

17 Q All right. Why were you on that
18 Ad Hoc Committee or that Task Force?

19 A My recollection, I was not on the
20 Task Force but rather Holzapfel, who's my immediate sub-
21 ordinate, chaired it and assembled the appropriate group
22 of people to run that operation.

23 Q And you were merely copied with the
24 paper that was generated?

25 A Yes.

1 Q Did you have any direct involvement
2 with the Nitro Health Study Task Force?

3 A I'd say indirect involvement rather
4 than direct. I certainly was supportive of the Task Force,
5 was aware of what was going on but didn't participate
6 in the routine meetings.

7 Q Mr. Harbison referred to the Nitro
8 Task Force and the Nitro problem as a material problem
9 and said that in keeping with the Monsanto Management by
10 Rewards Program that that material problem would have
11 stopped short of him except in an informational sense
12 with you.

13 A Uh huh (yes).

14 Q Would that be true?

15 A I think that's a fair description,
16 yes. I was certainly apprised of the major things that
17 were going on but not day-in, day-out.

18 Q In keeping with the Management by
19 Rewards system, then, were you kind of the --did you have
20 the say over this Mr. Holzapfel who was chairing the thing?

21 A He reported to me and obviously had a
22 great deal of influence, surely.

23 Q In that sense did you have some res-
24 sponsibility for that Nitro Task Force?

25 A Yes.

1 Q And in keeping with that part of your
2 job, did you have to become familiar with the history
3 of the Nitro problem and all that?

4 A In an overview way, yes.

5 Q You didn't undertake any individual
6 or specific investigation of that?

7 A No, not personally.

8 Q And at the end of 1979 you moved on
9 to some other unit, some other job?

10 A Yes.

11 Q Did your association with the Nitro
12 problem end at that point in time?

13 A Yes.

14 Q And since that time have you had any
15 involvement in the ongoing health studies?

16 A None at all.

17 Q You just left that in the dust, right?

18 A Moved on.

19 Q When you were at least in name respon-
20 sible for the Nitro Task Force, did you have occasion to
21 become familiar with any work done by Mr. Udell in the
22 analysis of substances for dioxin or anything like that?

23 A No.

24 Q Didn't review any studies that Monsanto
25 had made in years past that involved testing of various

1 products for dioxin?

2 A I was aware at the time of that 1949
3 incident a Professor Suskind was called in and did a
4 near-term study which was viewed as journey positive,
5 and I was a part of the decision to agree to have him
6 come back in again. This would have been back in about
7 probably Fall of '78, I guess, to initiate another study.

8 Q All right, sir. I want to hand you
9 what's been marked Plaintiffs' Exhibit #355 (Monsanto
10 #236180 and #236181), which is a January 24, 1979, Mon-
11 santo memo, I think, authored by Fred Holzapfel, is
12 that correct?

13 A Correct.

14 Q And you're shown on the distribution
15 list?

16 A Right. Actually, I'm shown on a
17 direct copy basis.

18 Q You have read that document, have you
19 not?

20 A Yes.

21 Q And there is no reason to believe you
22 didn't get it, right?

23 A No.

24 Q In about the second or third paragraph
25 reference is made to the 2,4,5-T process as described

1 by Mr. Holzapfel as, "Ours was a dirty process." Do
2 you know what that means?

3 A My interpretation of that would mean
4 there were numerous byproducts. There wasn't 100% yield
5 2,4,5-T.

6 Q Would that include dioxin?

7 A In retrospect, yes.

8 Q So is "dirty" in that context maybe
9 a term of art, perhaps, in the chemical industry?

10 A I think so. A descriptive thing.
11 You call a clean process something that would give a
12 very high yield of the product you're after. Dirty
13 process is one that gives an array of material and you
14 select out the material.

15 Q I think that same paragraph of that
16 exhibit Holzapfel observes, "We were plagued with chlor-
17 acne problems." Did you know what he was talking about
18 there when you read that?

19 A I certainly understand the sentence.
20 I didn't have any personal exposure to that. My recol-
21 lection is we were in the process of going out of that
22 2,4,5-T business somewhere along about 1973, so my
23 personal experience during that time was a pretty minimal
24 overlap.

25 Q You didn't make any inquiry yourself

1 about this chloracne problem?

2 A No, I did not.

3 Q Fair to say you just accepted Holz-
4 apfel's observation as true?

5 A Right.

6 Q I want to hand you what's been marked
7 Exhibit #356 (Monsanto #8322238, #8322244 and #8322245),
8 which looks like a memorandum on Monsanto letterhead
9 dated February 5, 1979, authored by Lee A. Miller, and
10 it encloses a two-page memorandum of sorts. Ask you
11 to take a look at that.

12 A O.K.

13 Q Dr. Miller, the two-page memorandum
14 attached to the letter, that was written by you, the letter?

15 A The letter was written by me, and my
16 recollection was the two-page attachment was something
17 I collaborated on with Holzapfel.

18 Q How did you determine in 1957 that the
19 causative agent for chloracne was identified as being
20 a dioxin?

21 A I can't respond directly to that.
22 To my knowledge, that was a retroactive conclusion, but
23 that might be in error. I'm not aware of that.

24 Q Would a time line be a fair way to
25 describe that two-page document?

1 A Yes, it was.

2 Q What was the purpose of developing that?

3 A Well, he was to try to put into total
4 context the history of how we got to that then current
5 situation which led Suskind to request an opportunity
6 to come back in and do an audit which led the Steel-
7 workers to request the opportunity to send Selikoff or
8 his team in to do an audit.

9 Q And information contained in that time
10 line, as far as you know, was fairly accurate?

11 A Best of our ability to put it together
12 at that time, yes.

13 Q Let me hand you what's been marked
14 Exhibit #357 (Monsanto #8322313).

15 A O.K.

16 Q Would you briefly describe that for the
17 record, please.

18 A This is a letter from Fred Holzapfel
19 to me as of March 21, 1979, basically highlighting the
20 need for better communication to our employees in terms
21 of our overall safety programs, particularly as they
22 relate to chemical exposures.

23 Q You know if any action was taken
24 after the suggestion there in '57 about improving the
25 communication about health and safety?

1 A I really can't recall. I would
2 assume that it was.

3 Q I'm going to hand you #358 (Monsanto
4 #233577 and #233578). As you read it, you'll notice it
5 makes reference to some kind of confrontation course.
6 I see that in a number of documents. I'm just curious,
7 did you take the confrontation course?

8 A No, I did not. This course was basic-
9 ally a course designed to help the Plant Manager and the
10 staff perform more effectively in confrontational situa-
11 tions, such as being interviewed by the press, so on
12 and so forth.

13 Q Is that something new that Monsanto
14 is undertaking?

15 A I think this was probably the second
16 one of its kind. The first for the Nitro Plant.

17 Q Would you just briefly describe that
18 for the record.

19 A This is a memo from Jim McKee, who
20 at the time was Director of Public Relations in Monsanto,
21 to Joe Nolan and Montie Throdahl. Nolan was the head
22 of all public relations, public affairs. Throdahl, of
23 course, is the key Senior Vice President in charge of
24 the environmental safety issue.

25 Q O.K. I'm going to hand you what's

1 been marked Plaintiffs' Exhibit #359 (Monsanto #8322875),
2 and specifically direct your attention to the second
3 paragraph on that letter which appears to have been
4 written by you, Lee A. Miller, dated May 10, 1979.

5 While you're looking at that, let me go ahead and hand
6 you Exhibit #360 (Monsanto #8322918), and ask you to
7 look at the first paragraph of that. That exhibit is
8 a letter from Montie Throdahl addressed to you, dated
9 June 1, 1979.

10 A O.K.

11 Q In Exhibit #359 in the second para-
12 graph you make mention of some risky situation and
13 then in the first paragraph of 360, I believe, you talk
14 about the many interrelated and difficult situations
15 at the Nitro Plant. Now, what are you talking about there?

16 A There's two different people writing
17 those letters. I wrote 359 and Montie Throdahl wrote
18 360. I can speak for my letter.

19 Q O.K.

20 A And my concern, as I indicated in
21 the letter, was the timing on the Selikoff and Suskind
22 studies. My recollection is they were both commissioned
23 almost simultaneously in the Fall of 1978, and yet,
24 Selikoff got off the ground much more quickly than
25 Suskind did. My letter is expressing some concern about

1 our inability to get Dr. Suskind on the move to do the
2 study and the concern that clearly if the Selikoff data
3 should be negative and should come out prior to Suskind
4 beginning his work, we would have been very vulnerable
5 indeed. Throdahl's letter, I'm not sure exactly what
6 he's talking about. I suspect he might be talking not
7 only about the dioxin issue but possibly the old PAB
8 problem that goes back many years.

9 Q So in the one you wrote, you just
10 wanted to be sure we got Suskind out there first, right?

11 A Right. I wanted to be able to say
12 in the Selikoff data, if it appeared, I wanted to at
13 least be able to say we had Suskind underway and not
14 make it look as if we were doing a reactive thing.

15 Q Let me hand you what's been marked
16 Plaintiffs' Exhibit #361 (Monsanto #8323075 through
17 #8323079), and it's a letter from William J. McCarville
18 on Monsanto letterhead, dated June 25, 1979, to Montie
19 Throdahl and you're shown as a copyee on this one, and
20 it also encloses a memorandum of some four pages. Why
21 don't you glance through it. The thing I'm interested
22 in is on the first page of the attachment under Major
23 Issues there are four major issues identified there,
24 so take a look through that.

25 A O.K.

1 Q Down in the four major issues, would
2 you read those to the jury.

3 A First issue, "Is the Nitro Plant a
4 safe place?" Number two, "Are alleged health effects
5 from trichlorophenol, 2,4,5-T and PAB different from
6 earlier findings?" Third is, "Are allegations from
7 employees and others about earlier secretive dumpings/
8 disposal of contaminated trichlorophenol on Nitro
9 property valid? If so, is that of material concern
10 today?" Four, "Is there a continuing exposure of sig-
11 nificance to dioxins or other compounds in the Nitro
12 Plant today? In the community today?"

13 Q During the time that you were assoc-
14 iated with this Task Force and, I guess, until the end
15 of fiscal -- or was that year end?

16 A Year end, 1979.

17 Q Do you know if those issues were
18 answered?

19 A I don't recall they were answered
20 quite as definitively as this would suggest they were
21 going to be, but I would say the impression I left
22 the division with in '79 was that the issue was pri-
23 marily an historical one and that the Suskind study
24 appeared to be very promising, although, at that time
25 we didn't have the final data.

1 Q Aside from the Suskind studies, was
2 there anything else you relied on to make the conclusions
3 that you just did?

4 A I guess in part, Holzapfel's opinion,
5 the opinion of our medical people, including Dr. Roush,
6 who is much more knowledgeable about the data than we
7 had ourselves and that Suskind had been gathering.

8 Q Now, Mr. Harbison said if there were
9 two people he could go to to find out answers about this
10 situation, it would be you and Dr. Roush. Are you say-
11 ing that Roush is the guy that really had the handle on
12 this?

13 A I would say he could give you more
14 detailed information than I could, but I would certainly
15 say at the end of '79 my qualitative judgment was posi-
16 tive in all the four points.

17 Q And that was primarily based on your
18 conversations with Roush, Holzapfel and some knowledge that
19 you had about Suskind's work?

20 A The preliminary perspective work from
21 Suskind's work.

22 Q Did you see any written reports or
23 information from Suskind?

24 A No. That was one of our great frus-
25 trations. We were pushing very hard for the Suskind data.

1 I don't have any occasion to see it today, so it may
2 have well been issued.

3 Q Do you know how it is that you had
4 information that Suskind's work was very promising?

5 A It came back through the Medical
6 Department, certainly Roush himself, Throdahl and,
7 I believe, George Levinskas who worked for Roush, were
8 all making contacts with Suskind on an informal basis.

9 Q Was this something that he just would
10 have told you?

11 A Yes. We had been talking about,
12 "When's the Suskind study going to be published, written
13 up? Well, we don't have any hard data yet but his
14 general feeling is it looks promising." It would be
15 that kind of a comment.

16 Q I want to hand you what's been marked
17 Exhibit #362 (Monsanto #8323203 through #8323205), and
18 it's a memo from Fred Holzapfel dated July 9, 1979, and
19 you're shown as having been present at a meeting that
20 the memo records. What I'm really interested in is
21 reference is made to a mortality experience or study
22 related to the 1949 incident, and I think it's in the
23 first paragraph, but you go ahead and look at it.

24 A Let me correct one thing. The copies
25 show as those present plus and it goes down Carpenter,

1 Miller, et cetera. So I wasn't at that meeting but I
2 got a copy of this.

3 Q On that mortality study, is that the
4 Suskind-Zack mortality study that's referenced there?

5 A I can't say for certain on that.
6 I have the impression that it was one that was done in
7 part within Monsanto. That may have been Zack and part
8 by Suskind. I do recall the results of that study were
9 encouraging to us at that time.

10 Q In your connection with this Nitro
11 Task Force episode, did you learn how the mortality
12 study was to be conducted or who was to be included
13 in it or anything like that?

14 A Not in detail. To my knowledge, the
15 plan was to resurrect all medical records covering deaths
16 of people that were in the Nitro population, compare those
17 to deaths in the population at large and reach conclusions
18 as to relative risk.

19 Q Who had direct supervisory respon-
20 sibility for that study insofar as Zack was connected
21 to it, if you know?

22 A My recollection is that Ferd Meyer
23 was the person managing that study within the Medical
24 Department.

25 Q And would he have been under Roush?

1 A He would have been working for Roush.

2 Q And was Roush in that position on
3 the date of that study?

4 A Yes, he was.

5 Q So in terms of exactly how the dead
6 population was defined, I could probably ask Dr. Roush,
7 right?

8 A I think that's right.

9 Q O.K. Let me hand you 363 (Monsanto
10 #8323318 through #8323320), and it's another memo from
11 Fred Holzapfel, and it's dated August 24, 1979, and
12 looks like you got a copy of it. I think item number
13 6 on page 2 there is some reference made to examining
14 some Nitro employees who were hired after 1973. That's
15 what I'm primarily interested in.

16 A Uh huh (yes).

17 Q Do you know if that study was actually
18 done?

19 A I don't know.

20 Q If you don't know whether it was done,
21 you obviously don't know the results, right?

22 A No.

23 Q I want to hand you 364 (Monsanto
24 #236245 and #236246), which is another memo from Fred
25 Holzapfel, and it's dated October 15, 1979, and, I guess,

1 you're a copyee on that. What I'm curious about, refer-
2 ence is made in the second paragraph on page 1 to some
3 wipe samples and water samples. Take a look at that.

4 A Uh huh (yes).

5 Q With reference to the wipe samples,
6 aside from the ones referred to there, do you know if
7 any other wipe samples were taken at Nitro to test for
8 dioxin?

9 A I'm simply not that close to it.

10 Q If you were going to ask somebody
11 about that, who would you ask?

12 A I would think I'd ask probably Royce
13 Scott, who was the Plant Manager at that time, or
14 George Ross could get the records. He might not have
15 been personally involved.

16 Q O.K. I want to hand you yet another
17 memo from Fred Holzapfel dated October 29, 1979, on
18 which you're shown as a copyee, and on the third page,
19 paragraph 9 there is reference to dioxin content of
20 chloracne cysts. This subject appears several times
21 in the minutes of the Nitro Health Study Task Force,
22 so take a look at that and see if you recognize that
23 little issue.

24 A I do have a vague recollection of that.

25 Q O.K. Did they ever get around to doing

1 this, testing this for dioxin?

2 A I don't really know that.

3 Q You don't ever remember anything
4 other than they were planning to do it, right?

5 A Right. See, the problem here is that
6 this is now two months before year end, and if they
7 had done it, I probably would not have known it.

8 Q Again, would Roush be the guy to ask?

9 A I think so. My other recollection
10 is that the second half of '79 the pace of meetings of
11 the Nitro Task Force were slowing down against the
12 perception we thought things were coming into place
13 reasonably well, that is, the data were not as concerning
14 as we once feared they might be.

15 Q Did you come to understand why there
16 was this fear that the data might not be as flattering
17 as you hoped it would be?

18 A Well, I think the public press at
19 that time on dioxin was more negative than it is today,
20 Seveso incident and so on.

21 Q I want to hand you 354 (Monsanto
22 #004800 through #004847), ask you if you've ever seen
23 that before.

24 A No, I've never seen that. I simply
25 haven't seen it before. It's an Ag Company report,

1 obviously, on the 2,4,5-T process. This is the kind
2 of thing that would not normally find its way in to
3 plant management hands. It would find its way to the
4 operating level of the plant.

5 MR. CALWELL: O.K., Doctor. Thanks
6 a lot.

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10 Lee A. Miller
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1 STATE OF ILLINOIS)
2) SS.
3 COUNTY OF MADISON)
4

5 I, M. JOY SPRINGER, a Notary Public,
6 duly commissioned and qualified in and for the
7 County of Madison, State of Illinois, do hereby
8 certify that pursuant to notice came before me on
9 the 18th day of July, 1983, at the Radisson Hotel,
10 Room 215, 9th Street and Convention Plaza, St.
11 Louis, Missouri, LEO A. MILLER, who was by me duly
12 sworn to testify to the truth and nothing but the
13 truth of his knowledge touching and concerning the
14 matters in controversy in this case; that he was
15 thereupon carefully examined upon oath, and his
16 examination reduced to writing under my supervision;
17 that the deposition is a true record of the testimony
18 given by the witness; and signature of the witness
19 was not waived.

20 I FURTHER CERTIFY that I am neither
21 attorney nor counsel for nor related to nor em-
22 ployed by and of the parties to the action in which
23 this deposition is taken; and further, that I am not
24 a relative or employee of any attorney or counsel
25 employed by the parties hereto, or financially in-
terested in the action.

1 IN WITNESS WHEREOF, I have hereunto set
2 my hand and affixed my notarial seal on this _____
3 day of July, 1983.
4
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6
7

8 _____
9 Notary Public within and for the
10 County of Madison, State of Illinois.
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