

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF NEW YORK

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HOLLY M. SMITH, Administratrix of the
Estate of William R. Smith, Deceased,
and Individually as the Widow of
William R. Smith and as Parent of and
on behalf of the infant child,
ASHLEY MARIE SMITH,

ORIGINAL

Plaintiff,

vs

CA No. 94-CV-0393 S(H)

THE DOW CHEMICAL COMPANY; PPG INDUSTRIES,
INC, AND SHELL OIL COMPANY

Defendants and Third-Party
Plaintiffs,

vs

THE GOODYEAR TIRE & RUBBER COMPANY,

Third-Party Defendant.

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Tuesday, September 19, 1995

Washington, D. C.

VIDEOTAPE DEPOSITION OF:

MARCUS M. KEY, MD,

called for oral examination by counsel for the
plaintiff, in the offices of James & Hoffman, 1146 19th
Street, Northwest, Washington, D.C. 20036, beginning at
10:15, A.M. on Tuesday, September 19, 1995, before

1 Maureen Donelson, Court Reporter, Notary Public in and
2 for the District of Columbia, when were present on behalf
3 of the respective parties:

4 ON BEHALF OF THE PLAINTIFF:

5 STEVEN H. WODKA, Esquire
6 21 Rossllyn Court,
7 PO Box 66
8 Little Silver, New Jersey 07739

9 ON BEHALF OF THE DEFENDANTS

10 NIXON, HARGRAVE, DEVANS & DOYLE, ESQUIRES
11 BY: SAMUEL GOLDBLATT, Esquire
12 1600 Empire Tower
13 Buffalo, New York 14202

14 ON BEHALF OF THE THIRD-PARTY DEFENDANT

15 VOLGENAU & BOSSE, ESQUIRES
16 DIANE F. BOSSE, ESQUIRE
17 750 Main Seneca Building
18 237 Main Street
19 Buffalo, New York 14203

20 ALSO PRESENT:

21 Shelley Sanders, video specialist

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I N D E X

EXAMINATION ON BEHALF OF:

WITNESS:

PLAINTIFF: DEFENDANTS:
(Mr. Wodka) (Mr. Goldblatt)

MARCUS KEY, MD

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(Ms. Bosse)

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1 occupational standard for worker exposure to vinyl
2 chloride?

3 A. Yes. We had developed a priority system
4 for criteria documents and recommendations to OSHA. We
5 published a request in the Federal Register in January of
6 '73 for potential toxicity information on some 23
7 substances, vinyl chloride among them. It was a high
8 priority substance.

9 Q. Now, in late June, 1973, was NIOSH
10 contacted by a representative of the Manufacturing
11 Chemists Association seeking a meeting regarding vinyl
12 chloride?

13 A. Yes.

14 Q. Generally were you familiar with who was or
15 what was the Manufacturing Chemists Association?

16 A. Yes.

17 Q. Can you tell us briefly what your
18 understanding of the Manufacturing Chemists Association
19 was?

20 A. It was a trade association made up of
21 members, manufacturing members of the chemical industry,
22 known today as CMA.

1 Q. And to your knowledge, would that
2 association include manufacturers of vinyl chloride?

3 A. Yes.

4 Q. Now, sir, as of this time, we're talking
5 about June, 1973, did you have any information to
6 indicate that occupational exposure to vinyl chloride at
7 500 parts per million could cause cancer?

8 A. No.

9 Q. Now, did that meeting take place with
10 representatives of the Manufacturing Chemists
11 Association?

12 A. Yes.

13 Q. When did it take place?

14 A. July 17, 1973.

15 Q. Where did the meeting take place?

16 A. In my office, Park Lawn Building, part of
17 the Public Health Service in Rockville, Maryland, just
18 outside of Washington.

19 Q. Who was present for NIOSH?

20 A. Myself, Keith Jacobson, Frank Mitchell, Don
21 Lassiter, Richard James.

22 Q. Now, these other four gentlemen that you

1 just mentioned, what was their positions with NIOSH?

2 A. They had staff appointments in the criteria
3 development branch of the Office of Research and
4 Standards Development of NIOSH.

5 Q. And regarding the Manufacturing Chemists
6 Association, do you know who was present for them?

7 A. George Best, their managing director, VK
8 Rowe, Dow Chemical, David Duffield, Imperial Chemical
9 Industries, ICI of Great Britain, Rhinehart and -- let's
10 see, Rhinehart was from Ethyl (phonetic), and Union
11 Carbide had a representative there, whose name I can't
12 recall, but will do so shortly.

13 Q. Was his name Ray Wheeler?

14 A. Wheeler, that is correct.

15 Q. Now, you mentioned a VK Rowe. Was he a
16 physician?

17 A. He was a toxicologist.

18 Q. And you told us that he was with the Dow
19 Chemical Company?

20 A. Out of Midland, Michigan.

21 Q. Did you know what his position was with Dow
22 Chemical?

1 A. He was in charge of industrial hygiene for
2 the company.

3 Q. With respect to the other gentlemen,
4 Rhinehart and Wheeler, did you know what their positions
5 were respectively with Ethyl and Union Carbide?

6 A. I may have, but I don't recall now.

7 Q. Who was the spokesman for the group, for
8 the MCA group, I should say?

9 A. VK Rowe was the spokesman.

10 Q. Prior to this meeting, had you ever met Dr.
11 Rowe?

12 A. Yes. I had known him professionally for a
13 number of years in my activities in the Bureau of
14 Occupational Safety and Health, and before that in the
15 Division of Occupational Health.

16 Q. What was your understanding of the purpose
17 of the MCA group of wanting to meet with you?

18 A. To brief NIOSH on European studies on vinyl
19 chloride and on proposed US studies on vinyl chloride.

20 Q. Now, was this information that they wanted
21 to bring to NIOSH's attention?

22 MR. GOLDBLATT: I object to the form.

1 MR. WODKA: Let me rephrase it.

2 BY MR. WODKA: (RESUMED)

3 Q. Did the Manufacturing Chemists Association
4 ask for this meeting?

5 A. Yes.

6 Q. And is it your understanding that they
7 asked for the meeting in order to inform NIOSH of certain
8 things?

9 A. Yes.

10 Q. Now, sir, was there a discussion during
11 this meeting of whether vinyl chloride could cause
12 cancer?

13 A. We were told that it had acted as an animal
14 carcinogen in European studies.

15 Q. And with respect to the European studies,
16 what was your understanding of the exposure levels that
17 were being tested?

18 A. Dr. Duffield was doing this part of the
19 meeting. He said that Professor Viola had been exposing
20 rodents to very high doses of vinyl chloride --

21 Q. Do you know how high the dosage was?

22 A. Thirty thousand parts per million, in order

1 to try to reproduce an unusual disease, acroosteolysis,
2 in the rats.

3 Q. And at 30,000 parts per million of vinyl
4 chloride, had Dr. Viola been successful in producing
5 tumors?

6 MR. GOLDBLATT: I object to the form.

7 MR. WODKA: You can answer.

8 THE WITNESS: Yes, he had. According to
9 Duffield, Viola's initial interpretation had to be
10 changed after tissue specimens were reexamined.

11 Initially Viola thought that tumors of the
12 lung and other organs were being produced; cancer, that
13 is, whereas on reexamination it appeared that the tumors
14 were cancers of the Zymbal gland, a ceruminous gland
15 found in the ear of rats, and that tumors seen elsewhere
16 were metastases from the Zymbal gland tumors.

17 BY MR. WODKA: (RESUMED)

18 Q. Did Dr. Duffield report to you on any new
19 animal testing that was going on in Europe?

20 A. Yes. He said there was a second order
21 study underway at more reasonable levels of exposure,
22 which we took to mean lower levels, that tumors had been

1 seen, which seemed to confirm Viola's original findings,
2 which we took to mean Zymbal gland tumors, that the
3 studies were ongoing, and that NIOSH would be informed as
4 to the results.

5 Q. Now, at this point in time, in July, 1973,
6 you've told us that the permissible exposure limit for
7 vinyl chloride was 500 parts per million; is that
8 correct?

9 A. Yes.

10 Q. And Dr. Viola had been testing and finding
11 tumors at 30,000 parts per million; is that correct?

12 A. Yes.

13 Q. Were you informed during this meeting of
14 what the levels were that the animals were being tested
15 in this new second order study?

16 A. Only that the exposure levels were more
17 reasonable, no numbers.

18 Q. At any time during this meeting with the
19 MCA group, including Dr. Rowe, were you informed that
20 this new European study, this second order study that you
21 referred to, had found tumors of exposures as low as 250
22 parts per million?

1 A. No.

2 Q. At any time during this meeting with the
3 MCA group, including Dr. Rowe, were you informed that
4 tumors in this second order or new study had included
5 angiosarcoma of the liver of exposures as low as 250
6 parts per million?

7 A. No.

8 Q. Now, you've told us that at the time of
9 this meeting, that you had known Dr. Rowe for a number
10 of years in a professional sense, in a professional
11 manner?

12 A. Yes.

13 Q. At the time of this meeting, did you trust
14 Dr. Rowe as a professional colleague?

15 A. Yes.

16 Q. And at the time of this meeting, was it
17 your belief that if Dr. Rowe knew that angiosarcoma of
18 the liver had been produced in test animals as low as 250
19 parts per million, that he would have told you that
20 information?

21 MR. GOLDBLATT: Objection.

22 MR. WODKA: You can answer.

1 THE WITNESS: Yes.

2 BY MR. WODKA: (RESUMED)

3 Q. And, sir, we've been talking about these
4 numbers. We have the 18,000 parts per million producing
5 tumors, which you did know about at the time of July,
6 1973?

7 A. Thirty.

8 MR. GOLDBLATT: Objection.

9 MR. WODKA: I'm sorry. Let me start over.

10 BY MR. WODKA: (RESUMED)

11 Q. You did know about the 30,000 parts per
12 million producing tumors at the time of this meeting?

13 A. Yes.

14 Q. And the occupational exposure limit in the
15 United States at the time was 500 parts per million?

16 A. Yes.

17 Q. If you had been told during this meeting in
18 July, 1973, of effects as low as 250 parts per million --
19 and when I say effects, I'm talking about tumors in test
20 animals -- would that have been significant?

21 MR. GOLDBLATT: Objection to the form.

22 MS. BOSSE: Objection to the form.

1 MR. WODKA: You can answer.

2 THE WITNESS: Yes.

3 BY MR. WODKA: (RESUMED)

4 Q. What would have been the significance of
5 knowing of tumors being produced at 250 parts per
6 million?

7 A. The significance was that vinyl chloride
8 might have to be upgraded from an animal carcinogen to a
9 suspected human carcinogen.

10 Q. And is that a government action that you're
11 referring to?

12 A. It's a toxicologic way of looking at animal
13 studies. It's not a government action per se, but it
14 would usually result in a health standard for the
15 substance.

16 Q. And in your position as director of NIOSH
17 in July, 1973, would the upgrading of its status have
18 triggered any action on your behalf?

19 MR. GOLDBLATT: Objection to the form.

20 MS. BOSSE: Objection to the form.

21 MR. WODKA: Strike that.

22 MR. WODKA: Would the upgrading of the

1 status of vinyl chloride as a result of that information
2 have caused NIOSH to take any action?

3 MR. GOLDBLATT: Objection to the form.

4 MS. BOSSE: Objection to the form.

5 MR. WODKA: You can answer.

6 THE WITNESS: Yes.

7 MR. WODKA: Can you just tell us briefly
8 what action typically would occur when NIOSH would
9 receive that kind of information?

10 MR. GOLDBLATT: Objection to the form.

11 MS. BOSSE: Objection to the form.

12 MR. WODKA: You can answer.

13 THE WITNESS: The action would have been
14 quite similar to that taken in January of the next year
15 where NIOSH learned of the three deaths from angiosarcoma
16 in Louisville and of Maltony's production of angiosarcoma
17 in rodents.

18 MR. WODKA: We'll get on to that.

19 BY MR. WODKA: (RESUMED)

20 Q. At the time of this meeting, again with the
21 MCA group including Dr. Rowe, were you provided with the
22 identity of the researcher in Europe who was performing

1 this new test?

2 A. No.

3 Q. Did you take notes at this meeting?

4 A. I did not, but some of the staff did.

5 Q. And do you know who on your staff took
6 notes?

7 A. Jacobson and Mitchell.

8 Q. And was it your regular practice to have a
9 staff member take notes of discussions in your office
10 with members of the public?

11 A. Usually.

12 Q. And subsequent to this meeting that we're
13 talking about in July, 1973, were those notes reviewed?

14 MR. GOLDBLATT: Objection to the form.

15 MR. WODKA: You can answer.

16 THE WITNESS: I asked Lassiter and Mitchell
17 to review their notes and write me a memo as to what they
18 concluded of the meeting, as to what transpired in the
19 meeting.

20 BY MR. WODKA: (RESUMED)

21 Q. Doctor, I show you what's been marked as
22 Key Exhibit No. 2 and ask you if you can recognize this

1 document?

2 A. Yes, but what happened to Key Exhibit No.
3 1?

4 Q. Key Exhibit No. 1 is just a notice of the
5 deposition. You're keeping track of us.

6 With respect to Key Exhibit No. 2, can you
7 tell us what it is?

8 A. It's a memo to me from Jacobson and
9 Mitchell telling what went on at the meeting with MCA.

10 Q. And is Key Exhibit No. 2 authored by the
11 same Dr. Jacobson and Dr. Mitchell who attended the
12 meeting with you and the MCA representatives?

13 A. Yes.

14 Q. To your knowledge, is Key Exhibit No. 2
15 based on Dr. Jacobson's and Dr. Mitchell's notes of the
16 meeting?

17 A. Yes.

18 MR. GOLDBLATT: Objection to the form.

19 MS. BOSSE: Objection to the form.

20 MR. WODKA: Was Key Exhibit No. 2 kept in
21 the course of regularly conducted business activities of
22 NIOSH?

1 MR. GOLDBLATT: Objection to the form.

2 MR. WODKA: What is your objection?

3 MR. GOLDBLATT: I object to leading.

4 MR. WODKA: Let me repeat it.

5 Was Key Exhibit No. 2 kept in the course of
6 regularly conducted business activity of NIOSH?

7 THE WITNESS: Yes.

8 BY MR. WODKA: (RESUMED)

9 Q. Now, sir, I'd like to refer you to page 2
10 of Key Exhibit No. 2 and to the paragraph at the top. It
11 states, "There was no mention of angiosarcomas."

12 Do you see that, sir?

13 A. Yes.

14 Q. Is that sentence consistent with your
15 recollection of what transpired at the meeting with the
16 MCA representatives?

17 A. Yes.

18 Q. And, sir, looking a little bit further down
19 the page, the next to the last paragraph on page 2 of Key
20 Exhibit No. 2, it states, "A recent conversation with VK
21 Rowe in May, 1974 elicited the comment after he consulted
22 his notes of the meeting that NIOSH had been told that

1 the new Italian study had found tumors at 250 parts per
2 million but not at lower concentrations. NIOSH staff
3 notes and recollection are nonconfirmatory."

4 Do you see that paragraph, sir?

5 A. Yes.

6 Q. Can you tell us what nonconfirmatory means?

7 MR. GOLDBLATT: Objection to the form.

8 MS. BOSSE: Objection to the form.

9 MR. WODKA: You can answer.

10 THE WITNESS: It means that we thought our
11 recollection was correct and VK Rowe's was incorrect.

12 MR. WODKA: Now, sir, at the time of this
13 meeting in July, 1973, did you know that it had been
14 planned for more than two months in advance by the MCA?

15 MR. GOLDBLATT: Objection to the form.

16 MR. WODKA: You can answer.

17 THE WITNESS: No.

18 MR. WODKA: Did you know at the time of
19 this meeting that the MCA representatives had the goal
20 that NIOSH and OSHA "not overreact" on vinyl chloride?

21 MR. GOLDBLATT: Objection to the form.

22 MS. BOSSE: Objection to the form.

1 MR. WODKA: You can answer.

2 THE WITNESS: No.

3 MR. WODKA: At the time of this meeting,
4 did you know it was their intention -- I'm talking about
5 the MCA representatives -- to describe the animal testing
6 results from Europe "in very general terms without
7 leaving any written information?"

8 MR. GOLDBLATT: Objection to the form.

9 MS. BOSSE: Objection to the form.

10 MR. WODKA: You can answer.

11 THE WITNESS: No.

12 BY MR. WODKA: (RESUMED)

13 Q. You met with a Dr. Wheeler. He was a
14 representative from Union Carbide at this meeting.

15 A. I believe it was a Mr. Wheeler.

16 Q. I'm sorry, you're correct, Mr. Wheeler.

17 Did you know at the time of this meeting in
18 July, 1973, that Dr. Wheeler had written five months
19 earlier that Dr. Maltony's results of tumors at 250 parts
20 per million "are probably undeniable?"

21 Did you know that?

22 MR. GOLDBLATT: Objection to the form.